

**BEAT BY BIT:  
ON MEASURING TRADE  
IN VALUE ADDED  
IN THE CREATIVE ECONOMY  
OF SOUTHEAST ASIA**

By Patrick Kabanda

## Abstract

*Trade in cultural goods and services is one of the least understood areas in commerce. Yet another hugely important but under-scrutinized area is that of Trade in Value Added. Indeed, as former World Trade Organization Director-General Pascal Lamy said, such statements as “Made in China” do not tell us much. Why? Because what is labeled as “Made in China” usually comprises inputs from many different parts of the world. This discussion considers the concept of Trade in Value Added and postulates scenarios in which nations of Southeast Asia may contribute to regional and global cultural trade in value added. Since statistics on this topic are likely to be minimal or non-existent, the paper goes on to propose ways Southeast Asian nations might consider to start collecting data on their creative economy Trade in Value Added.*

If the term “less is more” aptly captures the notion that fewer words or aesthetic expressions are more effective in rendering beauty or describing the subject at hand, then the concept of Trade in Value Added perhaps suggests the opposite: “less is not more” when it comes to what is captured in statistical analyses of trade flows. (See Annex 1 for an example of traditional versus value added measurement.) From Brunei to Cambodia, Myanmar to the Philippines, and Thailand to Vietnam, many goods and services we consume come from different parts of the world. But although such labels as “Made in China” are used in tabulating trade data, they normally do not tell as much, as Pascal Lamy, former Director-General of the World Trade Organization has argued. Indeed, as Andreas Maurer and Christophe Degain also said of globalization and trade flows, “What you see is not what you get.”<sup>1</sup> This is because “Made in China” may simply mean “Assembled in China.” For goods such as iPhones made in China often comprise components from different parts of the world.<sup>2</sup> This is the case even in cultural statistics. Pianos made in China, for one, may very well be comprised of materials from Vietnam, Malaysia, Indonesia, or elsewhere. The concept of Trade in Value Added was invented as an attempt to capture the origins of inputs that make up goods and services we enjoy all over the world. Since statistics on this topic are minimal, or even non-existent in the cultural sector, this paper proposes ways the nations of Southeast Asia might consider to start collecting data on Trade in Value Added rendered by their creative sector.

The rest of the paper is organized as follows: The next section defines the term Trade in Value Added and then provides a brief literature review. The discussion focuses on policy options before terminating with a concluding remark. With respect to methodology, the research primarily draws from literature on value added from the conference proceedings of the Commission des Finances du Sénat, the Organisation for Economic Co-operation and Development, and the World Trade Organization.

### **What is Trade in Value Added?**

“Trade in Value Added (TiVA) is a statistical method used to estimate the sources of value added when producing goods and services for export and import,” according to Investopedia. “TiVA traces the value added by each industry and country in the production chain to the final export, and allocates the value added to these source industries and countries. TiVA recognizes that exports in today’s globalized economy rely on global value chains (GVCs), which use intermediate items imported from various industries in a number of countries.”<sup>3</sup>

In the context of cultural trade in Southeast Asia, the TiVa approach would recognize intermediate creative goods and services from the region, which go into local products used at home or abroad. More immediately,

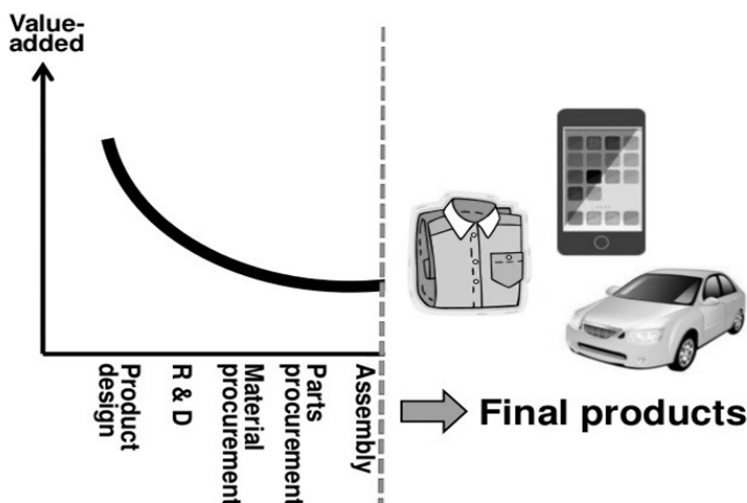
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<sup>1</sup> Maurer, A. and Degain C. (2010). 1. See also OECD-WTO. (2012). 1.

<sup>2</sup> Lamy. (2011). See also Kabanda. (2018) esp. Chapter 9, “Creative Data Collection.”

<sup>3</sup> Investopedia. (n.d.).

Figure 1: Example of Value Added Goods and Services



Source: Inomata (2014).

however, the method would also account for creative inputs which come from Southeast Asia and go into products made elsewhere, say, in Australia, Brazil, China, Denmark, or Egypt. See Figure 1 for examples of value added goods and services.

## Review of Literature

Trade in Value Added is not a panacea for the shortcomings of global trade statistics.<sup>1</sup> Most literature here, however, is for the most part in consensus that accounting for value added helps us to understand the contribution of global value chains. This is especially critical in an age where misunderstandings about trade and so-called trade wars (or rather trade tirades) are taking center stage, even as trade is a crucial part of global economic welfare. Whatever the case, the defenders of *trade for all*,<sup>2</sup> from Adam Smith to Peter Bauer, have much to elucidate here. For their work is lucid “on the constructive role of *shared* opportunities in vastly broadening the domain of fruitful trade.”<sup>3</sup> That trade is sought by people from all walks of life, including artisans, designers, musicians, and others in the domain of

<sup>1</sup> See Sturgeon. (2015). Certainly, it is not difficult to see that processes of production often involve what may be called “fragmentation within fragmentation.” That is, even intermediate inputs may bear intermediate inputs sourced from elsewhere, directly and indirectly, between and within firms. So “measuring flows of value-added reflects only part of the ‘global trade story.’” Thus, even painstaking measures of value added are unlikely to render a full picture concerning trade’s importance to an economy. Increasingly, what matters, moreover, is this question: Where does the value added end up? “In this context,” according to the Organisation for Economic Co-operation and Development and the World Trade Organization, “it is important to recognize that the delineation of intellectual property products into those that are referred to as ‘produced’ (for example, software) and those that are referred to as ‘non-produced’ (for example, trademarks) makes a significant difference.” For more on this, see OECD-WTO. (2012) esp. 3-4; see also Kabanda (2018).

<sup>2</sup> See *Trade for All: Towards a More Responsible Trade and Investment Policy*. European Union. (2014, 2015).

<sup>3</sup> Sen (2005). 459.

creative work. But their value added barely shows up in statistical analyses and economic debates that often inform international trade policy.

In the agenda to improve trade policy, the work of the Organisation for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) has made considerable strides. For example, a joint OECD-WTO initiative on Trade in Value Added has sought to tabulate “the value added by each country in the production of goods and services that are consumed worldwide.” Trade in Value Added “indicators are designed to better inform policy makers by providing new insights into the commercial relations between nations.”<sup>1</sup>

As many studies point out, trade flows are generally measured in gross terms. The trouble with this approach is that multiple counting is often the order of the day—this is typically the case when it comes to measuring the value of products that encounter further processing as they do nothing but cross borders day in, day out. Nevertheless, as the OECD and the WTO point out, the recording of gross trade flows is not necessarily a terrible thing. In fact, when the focus is to show, for example, how interconnected the global production chain has become, this approach is essential. “But it can be misleading, as is often the case, when one crudely relates gross flows of exports, say, with domestic value-added and national income, or its components such as profits or wages, and by extension, employment.”<sup>2</sup>

The inquiry into the workings of global supply chains has no doubt gained traction in recent years. Nonetheless, “reflections about the global nature of production date from much earlier times. A first intent to formalize it is attributed to [Wassily] Leontief in the 1960s”; Leontief did important work on the Input-Output analysis. Other scholars, including Sanyal, Jones, Miroudot, Hayakawa, Hummels, Koopman, Duadin, Escaith, Johnson, Noguera,<sup>3</sup> and Sturgeon, have also made considerable contributions. Thanks to the work of such scholars we now have better knowledge on such concepts as “vertical trade,” “intermediary products,” and “trade in value added.” But it remains to be seen if creative trade in value added will gain a prominent place in cultural statistics, national accounts, not to mention international trade policy.

## Policy Options

### *Measure Trade in Value Added in ASEAN*

The Association of Southeast Asian Nations (ASEAN), including Thailand, Indonesia, Vietnam, Malaysia, Singapore, the Philippines, Myanmar, Cambodia, Laos, and Brunei Darussalam, is one of the world’s most important regional organizations. The idea of promoting the so-called regionalism has its own drawbacks. Nonetheless, among other things, ASEAN seeks to promote intergovernmental cooperation as well as economic and socio-cultural integration amongst its members and beyond.

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<sup>1</sup> OECD. (n.d.).

<sup>2</sup> OECD-WTO. (2012). 1

<sup>3</sup> OECD-WTO. (2012). See esp. 19-20.

Therefore, there is a compelling need to consider how the organization might approach Trade in Value Added measurements as a group. This is the case even as these nations consider bilateral arrangements between and beyond ASEAN. Although competition between and within countries is a factor—and it will always be a factor—there is a great need to also consider cooperation. This is especially critical on matters concerning such intricate subjects as measuring value added and harmonizing domestic and international cultural statistics.

Under this proposal, creative inputs, say, from Vietnam or Thailand, may simply be counted as value added by (or from) ASEAN. Moreover, broadly speaking, this concept could be adapted for other items far removed from the creative sector. In any case, it must be noted that, like families, even countries with close socioeconomic ties often have sharp differences. These differences can run from maritime disputes to taxes and trade. Whilst differences are undeniable, again, there is a compelling need to move beyond competition—although competition can be a good thing, especially when it is healthy—and move toward cooperation. Here, ASEAN’s motto, “One Vision, One Identity, One Community,” sums up the terms that may be the guiding light for meaningful policy action.

The first policy may simply involve investigating and negotiating how measuring creative trade in value added can be approached in Southeast Asia. This is all the more compelling if one realizes, for example, that “ASEAN as a whole represents the European Union’s third largest trading partner outside Europe (after the United States and China), with more than €227.3 billion of trade in goods and services in 2017.”<sup>1</sup> Such a policy should not of course replace the need for each country to pursue its own vision, a vision on how to account for creative value added in cultural statistics. Nevertheless, it deserves serious consideration.

### *Account for Circular Creative Trade*

As has been argued, the production process in international trade is highly fragmented, as it resolves in a circular way. Think of linkages in a complex ecosystem. Inputs from Myanmar for instance, can be shipped abroad for processing, and then returned to Myanmar for further processing or for completion. In creative work, this may not be as straightforward (especially in services) as in other areas. All the same, a song may be composed in Laos and then sent to Japan for production before being returned to Laos for completion and marketing. Or timber for making a piano may be shipped from China to Cambodia for treatment, and then returned to China for completing the piano. Or panels for construction in Germany could be sent to Singapore for designing and then sent back to Germany for completion and export to other countries (even including Singapore). These, of course, are imaginary scenarios. And they can be vice-versa and even involve third countries. Still, circular trade is important not only in North America and

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<sup>1</sup>European Commission. (2018).

<sup>2</sup>OECD-WTO. (2012). 1

Figure 2: Example of a Basic Input-Output Table  
 Here “each country is assumed to have only one sector, ‘called industry.’”

		Intermediate use		Final demand		Gross output
		Country A Industry	Country B Industry	Country A Industry	Country B Industry	
Country A	Industry	Intermediate use of domestic output ⊕	Intermediate use by B of exports from A ⊕	Final use of domestic output	Final use by B of exports from A	$X_A$
Country B	Industry	Intermediate use by A of exports from B ⊕	Intermediate use of domestic output ⊕	Final use by A of exports from B	Final use of domestic output	$X_B$
<b>Value added</b>		⊕ $V_A$	⊕ $V_B$			
<b>Gross input</b>		⊖ $X_A$	⊖ $X_B$			

Exports from A to B of intermediates (arrow from Country A Intermediate use by B to Country B Intermediate use by A)

Exports from A to B of final products (arrow from Country A Final use by B to Country B Final use of domestic output)

Curved arrow from Country B Gross output to Country B Gross input

Source: Aslam, A., Novta, N., and Rodrigues-Bastos, F. (2017) 6.

Europe in particular; it is also important in East Asia<sup>1</sup> where trade ecosystems interact with their neighbors in Southeast Asia.

Conventional statistics certainly “do not provide a measure of domestic and foreign value-added in bilateral trade flows,” as a joint note by the Organisation for Economic Co-operation and Development and the WTO has argued. “Therefore, researchers often ‘harmonize’ Input-Output (I-O) tables from different countries and link them with bilateral trade data in order to estimate the share of domestic value-added both in exported and imported goods and services.”<sup>2</sup> Such research is a thankless task. Nonetheless, we should not be surprised that, concerning creative work, this method may show little or nothing at all, if it considers the cultural sector’s value added in the first place. At any rate, whilst the need to create an international Input-Output table which accounts for all bilateral exchanges of goods and services has been recognized,<sup>3</sup> the nations of Southeast Asia could do this: They could create a set of inter-country Input-Output tables that focus on accounting for “bilateral exchanges of intermediate goods and services” in the creative sector. Such tables may be for individual countries. But they could also represent the entire Southeast Asian region, and thus be called The ASEAN Cultural Trade Input-Output Tables. (See Figure 2 for a basic Input-Output table.)

### Measure the Creative Sector’s Value Added to Other Products

As we see in Figure 1, value added is not realized only by adding goods such as parts and materials; it is also realized by adding research and

<sup>1</sup> OECD-WTO. (2012). 4.

<sup>2</sup> OECD-WTO. (2012). 4.

<sup>3</sup> OECD-WTO. (2012). 4.

development, assembly and product design, for instance, not to mention marketing and branding.<sup>1</sup> Recognizing this brings up the fact that value added can also involve intellectual renditions of creative work. The question then becomes, How can countries, such as those in Southeast Asia, start to measure “creative value added” that goes into making products that may not be “creative” as such, but are enriched by creative work? Product design is a perfect example. If car design is considered creative work, for instance, then this suggests that a car assembled in country Y and uses designs from country X has benefitted from country X’s creative work.

One way to start measuring this is to survey the industries in question (both the importers and exporters) and create a statistical database that shows the value added of creative work. Here, it must be noted that since supplying services is not just about sending, say, architectural services from country X to country Y via mail or telecommunications (This is known as cross-border supply in the nomenclature of the WTO).<sup>2</sup> Rigorous analysis needs to be considered when it comes to accounting for value added by individuals who cross borders to provide a service.

In what the WTO calls “Presence of Natural Persons”—this is where persons from one territory enter another to supply a service<sup>3</sup>—we see that trade in services via such a mode is not theory far removed from reality. Indeed, to name a few professions, it is not unusual for accountants, doctors, and teachers to cross borders to supply a service. This is the case even with household workers. In the cultural sector, moreover, a country like the Philippines has a well-known supply of musicians who work abroad as entertainers.<sup>4</sup> Even so, is there sufficient information when it comes to accounting for the “presence of artistic natural persons”? How should value added here be approached?

The Southeast Asian region could create a database of “creative natives” who travel from their home country to supply services in other countries. Consider a designer from Thailand who travels or lives in Japan to work as a car designer, or a musician from Vietnam who travels to Korea to record ringtones for a Korean cell phone company, or an artisan who travels from Brunei to France to consultant for a French clothing company.

### *Start a Convention on Value Added in Southeast Asia*

Talking of France, in 2010 the French Sénat organized a meeting called “Measuring international trade in value added for a clearer view of globalization.” The purpose of the meeting “was to reflect on ‘the right statistical bridges between the different national accounting systems,’” as Pascal Lamy put it. This was “in order to provide a clearer view of the reality of globalization and promote sound decision making by politicians.” The Conference was organized in two parts. The first part was about how “a value-added approach to trade can reestablish the truth

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<sup>1</sup>For more on this see Thompson. (2013); Kabanda. (2018). 93.

<sup>2</sup>WTO. (n.d.)

<sup>3</sup>WTO. (n.d.)

<sup>4</sup>For example, see “Powering the Philippine Economy with Elvis and Zeppelin.” Whaley (2013).

about the globalization of trade and production, and the description of methodological advances already made or still required in this area.” The second part, meanwhile, considered how “a value-added approach is useful for understanding a broad range of economic issues,” concluding with a round table, which, among other things, examined the challenges of this approach for countries.<sup>1</sup>

Conferences have their shortcomings, and there is a grain of truth in the saying, if you want to kill an idea, start a committee. That said, there is much reason to consider starting a conference in Southeast Asia (like the French meeting discussed above), which would focus on collecting and improving cultural statistics of trade in value added. The conference could meet, say, every two or five years, because such recurrence is likely to be better than a one-off event. The agenda would involve discussing challenges and opportunities of the value-added approach in measuring creative output, shading light on the direct and indirect contribution of the cultural sector to the economy. The Conference would focus on the following point:

### *Develop cultural trade in value added statistics*

“The conduct of an effective government policy on international trade requires specific knowledge of where value is located,” as the WTO and the French Sénat realized. In our context, measuring creative trade in value added is likely to enable decision-makers, political or otherwise, to make informed decisions about the role of culture in development in Southeast Asia. This may augment advocacy for the arts, increase cultural funding, and even fuel the impetus to consider recognizing the contribution of the informal creative sector in national accounts. It could also confirm the “growing interdependence of countries and sectors in a globalized economy,” elevate the need to invest in the creative sector, and augment the need to develop frameworks for cultural statistics. Moreover, generally speaking, the exercise would render protectionism “useless and costly,” and demand “greater global economic and market access stability.”<sup>2</sup>

It is difficult to talk about trade in value added without considering vertical trade,<sup>3</sup> for the former is complementary to the latter. To avoid double counting, the value added of imported inputs must surely be subtracted from the value added any exported products contain.<sup>4</sup> This requires commitment in enforcing rules, adapting to the ever-changing realities of global trade, and learning from what works and what does not.

A recurring conference in which Southeast Asian nations would come together to share experiences, debate the so-called “best practices,” and

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<sup>1</sup>WTO and Commission des Finances du Sénat (2011). 2.

<sup>2</sup>WTO and Commission des Finances du Sénat (2011). 3.

<sup>3</sup>According to the Organisation for Economic Co-operation and Development, “trade in ‘vertically differentiated’ products is distinguished by quality and price (for example, exports of high-quality clothing and imports of lower-quality clothing).” Meanwhile, trade in products, which are similar but “with differentiated varieties (for example, cars of a similar class and price range)” is called “horizontal trade.” OECD. (2007).

<sup>4</sup>WTO and Commission des Finances du Sénat (2011). 3.

improve methodological approaches might go a long way in accounting for the creative sector's value-added statistics. For this may accelerate the need to adapt, learn, and even unlearn fruitless policies. And here it must be noted that invitees need not just come from cultural ministries or statistical offices across Southeast Asia; they could also come from the private sector, representing various sectors in Asia and beyond. This is particularly important because the analytical work needed to build sound statistical data and lucid indicators badly needs multi- or interdisciplinary approaches.<sup>1</sup> It is also important because what is often labeled as "Made in Country X" is often "Made in the World," with inputs from various industries and various countries.<sup>2</sup>

## Conclusion

In his 1742 book *On the Balance of Trade*, David Hume, the Scottish philosopher, who also happened to be an economist, essayist, and a historian, wrote: "It is easy to observe, that all calculations concerning the balance of trade are founded on very uncertain facts and suppositions."<sup>3</sup> In Hume's world, terms like "Trade in Value Added" were probably not floating around in discussions about international trade. Yet his observations ring true even today. Moreover, whilst measuring trade in value added in traditional goods and services has a long way to go, capturing creative value added has even a longer way to go.

Although there is no doubt that the cultural sector's contribution to economic developing is becoming more and more recognized, the reality is this: The sector has yet to gain a prominent place in development policy. One of the setbacks is cultural statistics. By investing in measuring the creative sector's value added, Southeast Asia will be leading the way, helping not only itself, but also the rest of the world in realizing that the creative sector's contribution to trade and development is "not less but more." Its diverse value just needs to be recognized and promoted. After all, "beauty in things exists in the mind which contemplates them." Hume, who made that statement, would perhaps also have said: "Value in things exists in the mind which contemplates them." If that maxim is considered in measuring creative trade in value added, the time may come when what we see is what we get.

## Acronyms

ASEAN	Association of Southeast Asian Nations
IMF	International Monetary Fund
GVCs	Global Value Chains
OECD	The Organisation for Economic Co-operation and Development
TiVA	Trade in Value Added
WTO	World Trade Organization

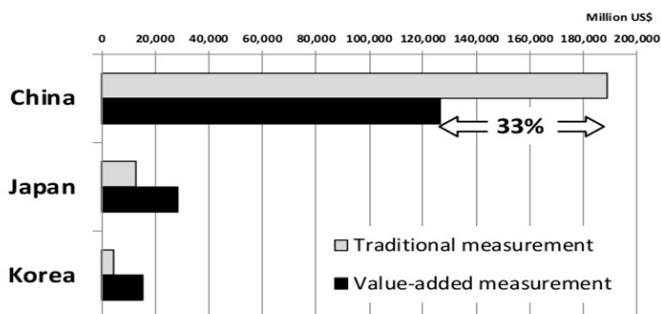
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<sup>1</sup> For the many reasons why this is important see *Poor Numbers* by Jerven (2013), for example.

<sup>2</sup> OECD-WTO. (2012). 1.

<sup>3</sup> OECD-WTO. (2012). 7.

## The US trade deficits: Traditional vs value-added measurement



Source: Inomata (2014).

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