Our Trade Vulnerability Index Explained: Why, What, How and What's Next?

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"Vulnerability" in the post COVID-19 world has become almost a hackneyed word. In a previous submission to Afronomicslaw, we explored how COVID-19 was bringing new dimensions to our study of vulnerability, and how the global health pandemic gives credibility to – and ultimately validates – the relationship we have explored between vulnerability and trade using our Trade Vulnerability Index (TVI) we developed last year. That work had the aim of providing the quantitative tools for detecting, measuring and ultimately quantifying the degree of trade vulnerability of countries in aid of achieving greater trade negotiating outcomes for the most vulnerable countries and sectors at the World Trade Organization (WTO).

COVID-19 generated a new buzz around our work and renewed interest in the

study of vulnerability. Since then, we have reappraised our initial piece, with the intention of moving beyond its conceptual foundations toward a more practical and concrete application of the work. We realized however, that for many, there is curiosity around the TVI project, and ultimately what we are trying to achieve through it. In this reflective piece, we present briefly the TVI in a nutshell – its aims, methodology and conceptual premises – and then provide initial thoughts on the way forward under our TVI project.

Why?

The work on the TVI emanated as a response to a proposal made by at the WTO by the United States to introduce an "objective" and binary approach to the question of eligibility for special and differential treatment (S&DT). In a Communication published in January 2019 entitled "An Undifferentiated WTO: Self-Declared Development Status Risks Institutional Relevance", the US declared that the current S&DT model based on self-declaration as a "developing country" was no longer feasible and was to blame for the current deadlock in the WTO's negotiation function. The US followed its Communication with a concrete proposal tabled for the WTO's General Council's consideration in February 2019. It proposed to exclude – in current and future WTO negotiations – from the developing country category any country that satisfies any one of the four criteria, including that a developing country that is classified as "high income" by World Bank would not qualify. This caused some consternation from the ranks of developing countries, including those in the Caribbean, some of which qualify as high-income based on GNI-per capita measurements of development.

In response, we proposed a TVI to steer the discussion away from GNI- or GDP-per capita as a basis for differentiation. While we did not take issue with an "objective-criteria" approach per se, we did object to the particular choice of criteria which in our view do not speak to the trade-related reasons why some countries have a greater claim to S&DT at the WTO than others.

In the past, small states at the WTO sought to create negotiating space around "vulnerability" by proposing a grouping of "Small Vulnerable Economies" (SVEs) to articulate and promote their negotiating positions in different negotiating

fora. Caribbean and other small countries encountered pushback from other WTO members who objected to the creation of a new sub-category of developing countries at the WTO. The result was limited traction in pursuing SVE interests in the context of ongoing negotiations at the WTO. **What?** Our work sought to build on the SVE effort by developing the empirical basis for vulnerability and applying it to the WTO context. In sum, the TVI seeks to quantify the vulnerability of countries and, on that basis, propose S&DT that is responsive to those needs.

Building on empirical work done already by the Caribbean Development Bank on a Multi-Dimensional Vulnerability Index, we first set out to establish the conceptual basis for a TVI, pointing out that detailed empirical work would be reserved for future study. We set out to distinguish our work from previous efforts by explaining that the TVI could be used to measure a country's or sector's vulnerability based on a methodology that uses select "trade proxy indicators" to develop a "scoring" or index that is linked to S&DT provisions. Based on that "scoring", the TVI could be used as a guide for determining which countries and/or sectors could benefit from S&DT without creating a sub-category of developing countries. While it was contemplated that the majority of countries or sectors determined to be "vulnerable" would be those of small economies, there was no a priori exclusion of larger economies whose sectors might also qualify depending on which proxy was being tested or measured.

How?

We adopted a methodological approach to the development of the TVI involving four simple steps: step 1 involves determining the causes of trade vulnerability; step 2 selects and compiles proxy indicators; step 3 applies normalization methodology to data; and step 4 compute sub-indices and aggregates the index.

The paper identified the causes of trade vulnerability and suggested possible proxy indicators but did not progress to steps 3 and 4 which involve the computation of the index. Under steps 1 and 2, we scoured the existing literature on vulnerability and proceeded to identify the following indicative "categories" of vulnerability – or "proxies" – upon which the TVI would be

constructed, namely: export concentration, export destination, trade shock, trade openness, dependence on strategic imports, reliance on external finance, market share of global trade, remoteness, instability of agricultural production, economic diversification, small size, susceptibility of natural disasters, climate change (and now health pandemics), market flexibility, and political, social and environmental governance. Within each of these broad categories we went further to identify proxy indicators. We anticipate that once these proxies are compiled, a composite index would be a simple arithmetic average of the sub-indices. The assessment of country or sector vulnerability using the TVI is determined on the composite index score relative to a threshold.

The paper also engaged in a preliminary mapping exercise that sought to establish connections between the trade proxy indicators and the types of S&DT provisions that might be best suited to address the vulnerabilities identified. This is important because it makes the TVI a practical tool for use as part of an evidence-based approach to guide eligibility for S&DT.

What's Next?

In terms of next steps, our work will proceed on two main fronts: buttressing its empirical underpinnings and improving the prospects for its practical application and utilisation.

On the empirical front, work will commence under steps 3 and 4 outlined above. This will involve: greater specificity in the selection of proxy indicators, selection of the countries that will be used in the analysis, compiling of the proxy indicators for the time horizon of the analysis, aggregating the index and evaluating the results with other available information to assess its reliability. Our previous work identified options for proxy indicators for each of the categories of vulnerability in the TVI. The next step is to assess these options to determine the most suitable proxy indicator. The selection of the proxy indicator can be guided by criteria such as: suitability to the category of vulnerability that is being measured, simplicity of the proxy indicator and availability of data. To remove the perceived subjectivity in the selection of appropriate indicators it is also possible to utilize statistical methods such as Principal Component Analysis.

Determining the country coverage of the TVI is another important step in the construction of the TVI. It would be important to include in the research countries at various stages of development such as developed and developing. Furthermore, consideration should be given to countries with differing demographic characteristics such as Small Island Developing States and countries in different geographic regions, e.g. Caribbean, Asia-Pacific, Africa, Indian Ocean, Mediterranean and South China Sea (AIMS). This would enable improved comparability of results and enable the research to make stronger conclusions.

Compiling the index relates to the mechanics of translating the data into meaningful information. This would involve technical steps including normalization of the data to facilitate direct comparison, weighting the sub-indices and aggregating the index. The final stage will be evaluating the results of the TVI. This will involve sensitivity analysis to gauge the robustness of the results and analysing the results at the aggregate and dis-aggregated levels.

The hardest part in completing the work under the TVI is not technical, but rather putting it into action as a tool for policymakers and trade negotiators and avoiding the pitfalls that stymied success in the past. Beyond the instructive value of the TVI in quantifying and measuring the degrees of vulnerability, the authors' aim is for it to be used to justify claims for S&DT in specific negotiating contexts, and equally as a guide for separating out those vulnerabilities that can be overcome through trade rules – and therefore permit graduation by states – and those which are permanent features over which the international community can coalesce and galvanise resources both inside and outside trade negotiating arenas.

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