

Research Digest of Paper: Does Digital Trade Change the Purpose of a Trade Agreement?

By, Robert Staiger

Digital Trade Can Be Regulated Using WTO Frameworks

In the paper *Does Digital Trade Change the Purpose of a Trade Agreement?*, author Robert Staiger develops the first theoretical framework to study the economics of trade agreements when countries carry out digital transactions. The paper proposes that the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS) provide the tools to regulate trade in digital goods and services, and it shows how this regulation should happen. This Research Digest outlines the paper's arguments.

THE ROLE OF TRADE AGREEMENTS FOR TRADE IN GOODS (PRE DIGITAL)

According to the Terms of Trade theory of trade agreements, a trade agreement provides coordination among countries so that they can mutually benefit from tariff reductions. The logic behind this result starts by noticing that each individual country has an incentive to impose tariffs on foreign-produced goods, in order to improve its terms of trade. However, this creates a Prisoners' Dilemma situation and, if all countries do the same, then all countries end up in a worse situation. A trade agreement allows countries to coordinate tariff reductions so that all countries end up in a better situation (equilibrium).

What about non-tariff measures, such as domestic policies on labor and environmental standards? In a separate paper, Professor Staiger and his co-author, Professor Bagwell, show that countries can choose these standards, and it continues to be the case that the goal of a trade agreement is to provide a coordination mechanism for mutually beneficial tariff reductions. To implement this logic in this case, a trade agreement should focus on lowering tariffs in order to expand trade volumes, while putting in place "non-violation clauses" to prevent the introduction of non-tariff measures that undo the gains from the tariff reductions. This is, indeed, the design of the General Agreement on Tariffs and Trade (GATT).

ENTER DIGITAL TRADE

The paper defines a digital transaction to be one in which the search for the product or service, the ordering of or payment for the product or service, or the delivery of the product or service is carried out digitally. In the digital world, it may be difficult to define what is a "good," and what a "service" is. The author proposes that the relevant distinction is whether it is possible to impose a tariff on a digital transaction. If it is, then it can be labelled a "good" and treated under the GATT framework, otherwise it can be labelled a "service" and treated under the GATS framework.

Governments can choose how strictly to regulate digital transactions, for instance, how free the internet is. When doing so, they face a trade-off. On one hand, fewer regulations lead to more efficiency in digital transactions (lower transaction costs). However, an unregulated internet creates a cost that is borne by the whole society, and one that is not priced by any market, i.e., a non-pecuniary externality. This cost can manifest itself in multiple ways. For instance, a less regulated internet may allow the proliferation of malware. Also, it may allow firms to predict users' preferences from data on other users. Thus, even users that do not share their information may be affected by others' decision to share their information.

THE ROLE OF TRADE AGREEMENTS FOR TRADE IN DIGITAL AND NONDIGITAL GOODS

Does the fact that now countries can trade digital goods, and governments can choose how strictly to regulate digital transactions, change the economics of a trade agreement? The paper concludes that the answer to this question is *Only Slightly*. It is still the case that countries will find themselves in a Prisoners' Dilemma situation, charging high tariffs on each other's products if there is no coordination. However, an agreement to lower tariffs will lead countries to use internet regulation in order to manipulate the countries' terms of trade. Thus, a trade agreement in this context should coordinate on these two fronts.

The paper proposes the following implementation approach to go around the need to coordinate on two dimensions and, in particular, to avoid the need to coordinate on the behind-the-border issue of internet regulation. First, starting from countries' pre-existing tariffs and internet regulations, the agreement should coordinate mutually beneficial tariff reductions. Second, the agreement puts in place "non-violation clauses" to prevent changes to internet regulation from undoing the gains obtained from tariff reductions. From this point on, if a country wants to increase (tighten) internet regulations, it must further reduce tariffs in order to comply with the non-violation clauses. This maintains a shallow integration approach, even in the presence of digitally traded goods.

ONE COMPLICATION: WHEN THE EFFECTS OF UNREGULATED INTERNET CROSS BORDERERS

If an externality created by unregulated internet in one country creates costs to individuals in other countries, then the design of a trade agreement should deal with this issue as well, and the approach described in the previous section is not enough. Note, however, that this is not a new thing. It happens, for instance, when unregulated economic activity causes pollution or environmental damage that affects consumers in other countries. In cases like these, a trade agreement should first coordinate on the aspect of the internet regulation that causes the externality that crosses borders. Then, it should proceed as described in the previous section.

THE ROLE OF TRADE AGREEMENTS FOR TRADE IN SERVICES (PRE DIGITAL)

Are things any different if the digital transaction involves a service rather than a good? To answer this question, the author focuses on mode 3 services trade, the one in which a foreign corporation establishes a commercial presence in the importing country. This is the case, for example, of a foreign construction company that builds roads in the domestic country, or a foreign education institution that has a campus in the domestic country.

The key difference, in this case, is that it is prohibitively expensive to impose tariffs on the exported services, since the traded services do not cross the country's borders. Because of this, the paper shows that countries will tend to use domestic regulations to try to influence the countries' terms of trade. In particular, the government will tend to under-regulate domestic providers and over-regulate foreign providers, and it will tend to create larger regulatory compliance costs for foreign providers. In this case, a trade agreement must allow for the negotiation of behind-the-border regulatory measures and, indeed, this is the design of the General Agreement on Trade in Services (GATS).

However, the paper proposes the following implementation approach to limit the scope of behind-the-border negotiations. Note that these negotiations tend to be more difficult as they can easily touch on sovereignty issues. Thus, the goal is to make a trade agreement in services as much as possible like the shallow integration approach used for trade agreements in goods. First, governments should agree to the following blanket rules:

- a) The national treatment rule, which prohibits domestic regulatory and tax policies that discriminate against foreign trade;
- b) The agreement on technical barriers to trade, which prohibits unnecessary trade-restrictive regulatory choices;
- c) The non-violation clause, which protects the value of market access concessions from erosion due to subsequent changes in non-contracted policies.

These rules close many of the options countries have to affect their terms of trade. As a result, governments will have to do it via a narrow set of fiscal policies or a single regulatory measure (equally affecting domestic and foreign providers).

Second, the agreement should now facilitate negotiations aimed at reducing the barriers imposed on fiscal policies or on regulatory measures.

ENTER DIGITAL TRADE IN SERVICES

Imagine that now countries can trade digital services as well, and must choose how to regulate digital transactions. The author shows that, in this case, the design of the General Agreement on Trade in Services (GATS) continues to work, and the implementation approach discussed in the previous section continues to reach the optimal outcome. In particular, a trade

agreement that includes digital services should impose National Treatment, the agreement on Technical Barriers to Trade, and the Non-Violation Clause. Of course, these should apply to the regulation of digital transactions as well. Then the agreement should facilitate the exchange of concessions on remaining fiscal and regulatory measures, including on internet regulation. Like with the case of trade in digital goods, if the externality caused by unregulated digital transactions affect foreign individuals, then countries will deal with this by coordinating on this specific regulation.

FINAL CONSIDERATIONS

Professor Staiger makes two final relevant considerations. First, he points out that his framework suggests that the current moratorium on customs duties on electronic transmissions of digital goods and services may actually be making it more difficult for countries to regulate digital trade. The reason is that, as discussed before, if countries cannot use tariffs to regulate digital trade, then they will use non-tariff measures to achieve the same goals. As discussed, behind-the-border measures are more difficult to deal with for a variety of reasons.

Second, Professor Staiger provides a concrete example of an externality that digital transactions can create, and discusses how countries can deal with it in a trade agreement. The externality in question is proposed in a recent paper by professors Acemoglu, Makhdoumi, Malekian, and Ozdaglar. The argument is that digital corporations are able to under pay for consumers' data because consumers tend to be digitally linked to people with similar characteristics. As a result, once a digital corporation has the data of one of my connections, it already has information on me and thus it has no incentive to pay for my data. The domestic solution to this issue is that consumer data are anonymized enough so that corporations cannot identify consumers that are connected to each other. In an international setting, countries could agree to such anonymization process before the data cross the border.

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