The 'new' economics of trade agreements

Tariffs have been reduced in the post-war period. Gene Grossman, Phillip McCalman and Robert Staiger analyse the increase in non-tariff barriers and the affect on global trade

While tariffs have significantly been reduced in the last decades, other barriers to trade, such as differing regulations across countries, continue to pose obstacles. This column presents a new framework to analyse how different forms of trade agreements can address these non-tariff barriers. For various economic environments, it discusses whether and how these treaties can achieve global efficiency.

Negotiations at the multilateral, regional and bilateral levels have been remarkably successful at reducing traditional barriers to international trade in the post-war period (Bown and Crowley 2016). With this success, the trade community has shifted its attention to various non-tariff barriers that leave world markets still far from integrated.

Among the non-tariff barriers that receive the most scrutiny are impediments to trade that arise from differences in domestic regulations, or what Sykes (1999a, 1999b) has termed 'regulatory heterogeneity'.

The trade community has long recognised that governments can use their regulatory authority to pursue mercantilist objectives. Moreover, if governments do not cooperate in setting their national policies, and if they neglect the interests of consumers and firms that are not part of their constituencies, then the resulting externalities can cause global inefficiencies even in the absence of any protectionist intent.

The changing landscape for trade negotiations

Lamy (2015, 2016) highlights a particular form of international externality arising from regulatory heterogeneity. When firms must satisfy different regulations for each destination market, they end up producing different versions of their product, at potentially high cost in the form of foregone economies of scale. This leads to a new challenge.

In this case, the precautionary motive for trade regulation designed to protect consumers' health, safety and values displaces the protectionist motive to insulate producers from competition. The levelling of the trade playing field will therefore become less about eliminating protective barriers and more about reducing differences between policies that have legitimate aims.

Lamy views the current period as a watershed moment for trade agreements in terms of this evolution, as crystallised in the distinction between the recently concluded Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP) negotiations between the United States and Europe:

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"What trade media tell us is that today's trade theater is about two big shows, TPP and TTIP. What they do not tell you is that TPP is in many ways the last show of the old world of trade, and that TTIP is the first show of the new world of trade. TPP is mostly, though not only, about classical protection related market access issues ... TTIP is mostly, though not only, about precaution relating to regulatory convergence." (Lamy 2015)

This new landscape for trade negotiations emphasises harmonisation, or at least convergence, in regulatory measures. Yet, as Sykes (1999a, 1999b, 2000) argues, international differences in incomes, cultures, risk preferences and tastes generally justify regulatory heterogeneity, even with the extra cost of satisfying a multitude of different rules.

So, what is the appropriate trade-off in international trade agreements between heterogeneous tastes across international borders and the cost burdens imposed by disparate regulations?

Different countries, different values

To address this question, in Grossman *et al*. (2019) we consider an environment in which individuals residing in different countries hold different valuations of the characteristics of goods and services, reflecting idiosyncratic local conditions, histories and cultures, or what Lamy (2016) refers to as 'collective preferences'.

In order to speak to issues of North-North regulatory convergence that arise in the context of the Transatlantic Trade and Investment Partnership and other regional negotiations, we consider horizontal product standards.

These standards for product attributes are objectively neither better nor worse, but just different, and those different attributes are valued differently across countries.

Horizontal product standards reflect the types of issues that are at the heart of the Transatlantic Trade and Investment Partnership negotiations, such as the harmonisation of standards for bumper energy absorbers and windshield wiper/defogging systems in the automobile sector, for prohibited farm animal drugs and additives in the processed food sector, and for data privacy, to name a few[1].

To analyse these forces, we extend the Venables (1987) model of intra-industry trade. Whereas Venables considered a single dimension of product differentiation that generates a 'love of variety', we add a second dimension of differentiation along which the residents of different countries have different ideals. An individual pays a utility cost when consuming any good that differs from her ideal along this dimension.

Firms can tailor their brands to the alternative destination markets, either to cater to consumer tastes and thereby stimulate demand, or to satisfy standards imposed by the local regulatory authority. However, firms bear a cost of design adaptation to deliver different versions of their brand, as emphasised by Lamy.

To broaden the scope for efficiency-enhancing product regulation, we also entertain the possibility that consumption externalities arise, but in our first pass below we abstract from such considerations. The model incorporates shipping costs that generate home-market effects.

As a consequence, firms sell relatively more in their local market than in their export market. This affects their optimal design decisions, as profit-maximising firms cater especially to local tastes due to the relative importance of this market to their bottom line. And given the extra costs of designing second products that differ from the core products sold domestically, it is both profitable and efficient for firms to sell products in their export market that are further from the offshore ideal than the products offered there by local firms.

While local governments may not care about the profits of foreign producers, they do care about the prices and variety of goods available to their constituents. Accordingly, the model features an economic rationale for regulatory heterogeneity and even for 'discriminatory' treatment of goods from different origins. We thus capture Sykes' concerns about the inefficiencies of complete harmonisation.

Trade agreements: new or old?

We consider a 'new trade agreement' that achieves global efficiency by stipulating not only the cooperative trade taxes that formed the heart of an 'old trade agreement', but also by setting out how governments should optimally set their standards. Net trade taxes should be set to zero, as usual, and consumption subsidies are needed to offset market power, as is standard.

However, provided that consumption subsidies are subject to national treatment (similar subsidies for local and imported goods), there is no need to stipulate the levels of such subsidies in a trade agreement. Under national treatment, governments unilaterally set the subsidy needed to offset market power[2].

Additionally, a consummate new trade agreement could detail the characteristics of goods from all sources in all markets. But in the absence of consumption externalities, the products that firms would design and sell to maximise profits in a world without regulation have exactly the characteristics that are globally efficient. Therefore, a new trade agreement need not formalise detailed rules for product standards. It is enough that it stipulates that governments refrain from regulation.

Is a new trade agreement needed to achieve global efficiency? Or can an old trade agreement be modified to do the trick, perhaps with what Sykes (1999a) terms 'policed decentralisation', ie. provisions such as national treatment that constrain broad aspects of governments' regulatory choices?

As a benchmark, consider a free-trade agreement that constrains tariffs to zero and that requires national treatment for consumption subsidies but otherwise leaves governments completely free to choose their domestic policies[3].

We find that this setting creates a strong incentive for regulatory protectionism. Each government leaves its local firms free from regulation but imposes onerous burdens on import goods in an attempt to 'delocate' firms from the foreign to the domestic market. This confirms Sykes' (1999b) intuition that regulatory cooperation may be needed when governments are constrained in the use of their preferred protectionist instruments[4].

The delocation that motivates onerous standards suggests that discrimination may be the primary cause of the inefficiencies associated with old trade agreements. Is extending national treatment to standards the solution? When each government sets a single standard, the outcome is never first best.

However, allowing governments to set multiple standards subject to the national treatment requirement also fails to secure the globally efficient outcome. Governments have no incentive to offer a standard that is efficient for foreign firms. The resulting Nash equilibrium of a free-trade agreement with multiple standards set according to national treatment provides an example of Sykes' (1999b) 'facially neutral regulatory protectionism'.

An alternative to negotiating rules about regulatory cooperation is a provision for mutual recognition. When each government sets a single standard and commits to mutual recognition, the outcome again is not first best.

However, when governments can designate multiple standards, an old trade agreement that includes a provision for mutual recognition can achieve efficiency. In equilibrium, each government announces (at least) two standards, one that maximises profits for its firms in their local sales and the other that maximises profits for its firms in their export sales.

When the importing government is bound to accept goods with these characteristics, the outcome is the same as emerges with no regulation whatsoever, which we have argued is first best in a Venables world without consumption externalities.

An implication is that, in an environment where consumption externalities are absent, but tastes are heterogeneous across international borders and disparate regulations impose cost burdens on firms, an old trade agreement can perform as well as a new trade agreement provided that the old trade agreement includes a mutual recognition clause for standards and a national treatment requirement for fiscal (ie. tax/subsidy) measures.

Interestingly, an old trade agreement with only a national treatment requirement for both fiscal and regulatory measures (along the lines of the WTO) cannot achieve this level of performance, suggesting that in this environment mutual recognition may be preferred to national treatment as a method for 'policed decentralisation' of governments' regulatory choices.

Consumption externalities

When (negative) consumption externalities are considered, the optimal new trade agreement has positive net tariffs, and a consumption subsidy that offsets both the externality and monopoly distortions. Additionally, optimal standards are no longer the same as those that profit-maximising firms would design on their own.

Without regulation, firms in both countries have insufficient incentive to differentiate the local and export versions of their brands. The optimal new trade agreement calls for standards that induce all firms to design products closer to the ideal in the destination markets compared to what they would choose if unconstrained to maximise profits.

Interestingly, the efficient standards are *more lenient* for imports than for local products, reflecting the differential costs that the different firms face in meeting strict regulations.

Moreover, an old trade agreement with mutual recognition no longer replicates the efficient outcome of a new trade agreement. Therefore, even if consumption externalities are entirely local in geographic scope, where such externalities are important, a new trade agreement with detailed rules about countries' national regulations can outperform an old trade agreement that relies either on a national treatment requirement or a mutual recognition clause to police the regulatory choices of its member governments. ■

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Endnotes

1. Thus, our analysis does not have much to say about regulatory differences concerning pollution emissions or violations of labour rights, for which most would agree that less is better, but countries differ in their marginal valuations, perhaps due to their different stages of development. Of course, we consider these issues to be important as well, and their treatment in trade agreements will be a topic for our future research.

2. We assume as well that the new trade agreement prohibits employment subsidies. The reason is that, as we show in Grossman et al. (2019), either a consumption subsidy or an employment subsidy could be used to offset market power, but employment subsidies do not have the same desirable property as the consumption subsidies. That is, even under national treatment, the governments would not unilaterally set such subsidies at their globally optimal levels without *a provision in the agreement requiring as much. A simple new trade agreement could prohibit the use of employment subsidies and then leave the countries free to choose their optimal consumption subsidies.*

3. As in the new trade agreement described above, we assume as well that employment subsidies are prohibited (see note 2).

4. We also show that a 'smart' old trade agreement that maintains zero net trade taxes but with positive import tariffs offset by equal export subsidies can improve upon the outcome of a free-trade agreement, by introducing a tariff-revenue concern that mitigates the delocation motive for standard setting. But no old trade agreement that allows governments complete sovereignty in setting standards can achieve the first best.

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