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Tariffication in Services

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TARIFFICATION IN SERVICES

Alan V. Deardorff

I. Introduction

The negotiators of the Uruguay Round are to be congratulated for bringing services into the multilateral framework of international trade-policy discipline. This framework, embodied in the WTO, includes trade in services within the General Agreement on Trade in Services (GATS). However, with the benefit of hindsight, it seems to me that they made a serious mistake in the way they designed that framework. Knowing full well that the countries who are members of the WTO would be unwilling to open all services markets fully and immediately, they left it up to the member countries to decide which categories of services would become subject to the discipline of the GATS. But once a country has selected a category of services, the GATS then requires that trade in those services satisfy the requirement of "National Treatment."

The result has been that even the most trade-liberal members of the WTO have accepted this discipline in only a limited number of sectors and modes of supply. Quite naturally, as documented by Hoekman (1996), all countries elected to liberalize only in those service activities where they knew that it would make little difference. These tend to be sectors in which either there is no domestic industry to protect, or in which domestic producers are so clearly dominant that they have no fear of competition from foreign firms. Nor has there been meaningful progress in the years since the WTO went into effect in getting countries to add new service activities to their lists. I will argue (and have argued before—see Deardorff (1994)) that this result was in retrospect inevitable due to the requirement of National Treatment, and that what the GATS should have required instead was only Most Favored Nation (MFN) treatment. To make this meaningful and workable, GATS should have permitted—indeed encouraged—countries to erect new barriers to imports of services that would approximate as closely as possible the tariffs that they continue to have in abundance on imports of goods.

I will call this process the same name "tariffication" that has been used for what was done in the Uruguay Round for trade in agricultural products. There, starting with a plethora of mechanisms to protect domestic farmers that included tariffs as only one among many policies, countries were persuaded to convert all other barriers to tariffs. The object was to find tariffs that would be no higher than previous trade barriers in the levels of protection that they provided and/or their effects on trade. But in fact, this requirement of tariffication equivalence was hardly honored, and the resulting tariffs protected many sectors far more than the previous arrangements. Nonetheless, tariffication in agriculture can be viewed as a success, for the reason that it turned nontariff barriers into a form of policy that could more easily be understood, quantified, and compared across products and countries. The resulting tariffs can now provide a more useful starting point for future negotiations to bring them down. This is the outcome that I am recommending for trade in services.

My specific proposal is as follows:

Proposal: The terms of the GATS should be re-negotiated to permit countries to comply if they provide MFN treatment of all foreign service providers, not necessarily National Treatment. That is, they would be free to levy taxes on foreign service providers that are different from, and higher than, any taxes that they apply to domestic providers. These taxes must be nondiscriminatory among foreign service providers, being no higher against providers from one WTO member country than from any other. The taxes may be introduced or increased as an explicit part of the process of bringing a designated service sector under GATS discipline. They may be levied on the entire sales of a foreign service provider within a country, and they may be different for different service products so long as the product definitions themselves do not discriminate among national providers. In cases where "sales" is not an appropriate measure of

service imports, the taxes can be defined on some other basis, so long as, again, that basis does not implicitly discriminate.

That is the full extent of my proposal. However, the real motivation is not mentioned in it, which is to facilitate the reduction of service barriers over time. Once enough countries have followed this procedure, it should become natural for future rounds of trade negotiation to deal with these taxes on foreign service providers—which I will henceforth call "service tariffs" for simplicity—along with their negotiations on reductions of tariffs on goods. I would therefore hope and expect that this change would lead not only to a considerable increase in the number of service sectors brought under the discipline of the GATS, but also that the barriers themselves would then shrink over time, just as tariffs on goods have been negotiated downwards over the past half century.

In the remainder of this chapter, I will elaborate on this proposal in several ways. In section II, I will extend the arguments in its favor a bit beyond what I have said so far. Then in section III, I will examine what it would mean in economic terms for countries to use taxes on foreign service providers. Since services encompass a diverse set of activities, this will require more than one model. I will first examine a model of services that are produced entirely from inputs that originate outside the importing country—what I will call "remote services." Markets for these, it turns out, behave exactly like goods. Second, I will look at what I will call "on site" services, which are ones that require that some inputs be purchased domestically within the importing country.

The concerns in both cases are: (1) is it really feasible to tax foreign service providers; (2) will the effects of such taxation be analogous to the effects of tariffs; and (3) is it true for services, as it is for goods, that limited trade is better than no trade at all for the importing country? The last of these questions is not as critical as it may sound to the case for my proposal, since the real objective is not just to achieve limited trade in services. Rather, even if it were the case (although we shall see that it is not) that restricted trade in services may be worse than no trade at all, I would still favor permitting it to occur. For I believe that having some trade in place, even if severely limited and even if it is welfare worsening, is desirable from the standpoint of ultimately reducing the barriers to trade.

II. Arguments for Tariffication of Services

Much of the case for tariffication of services, like the case for liberalizing trade in services at all, arises from analogy with trade in goods. After all, we have had long experience, under the GATT, with trade in goods and the effects of reducing tariffs. Much of the theoretical case for doing so has been understood since the time of Ricardo. But the practical case has surely been strengthened by the last half century of trade liberalization in developed countries and, eventually, developing countries as well. As economists we have always known that cutting trade barriers was a positive sum game, but also that it was a game with clear losers. We could not know in advance whether the losers from trade liberalization would have their losses accumulate and their opposition grow as liberalization proceeded, ultimately bringing the process to a halt. Indeed, at several times during the last fifty years, it has looked like that might be happening, most obviously in the early 1980s when the strains of trade were exacerbated by recession, debt crises, and exchange appreciation in the United States, and again in recent months as concerns about "globalization" have attracted whole new groups of opponents of free trade. Nonetheless, the overall lesson of these last fifty years seems clearly to be that an ever-larger portion of the world has come to accept that it is better off with freer trade in goods than without, and the GATT-sponsored process for moving in that direction has been broadly successful. Therefore, a premise of much that I will say below is that the GATS should try to achieve, for services, the same sorts of liberalization that the GATT has achieved for goods.

National Treatment

From that perspective, it is immediately peculiar that the drafters of the GATS should have enshrined National Treatment, not just as the ultimate goal towards which negotiations should be directed, but as the immediate criterion for compliance. After all, in the context of trade in goods,

National Treatment must mean perfectly free trade. That is, if we treat foreign sellers of goods the same as we treat national sellers, then we will not tax imports at all. And yet, the GATT has *never* required that tariffs be zero on any category of trade, except for trade within a preferential trading arrangement that is actually an exception to the GATT rules, rather than a prototype for them.

Of course, free trade is indeed the goal toward which the entire GATT is presumably dedicated, and the purpose of its tariff bindings, together with the requirement that any tariff reductions be done on an MFN basis, was exactly to ratchet the world economy in the direction of free trade. But no one ever suggested, to my knowledge, that the world move immediately to free trade in goods. Why anyone would then think that free trade in services would be achievable in one step is therefore a mystery to me.

I have heard it suggested that my interpretation of National Treatment here is too restrictive. Perhaps National Treatment was never intended to apply at the border, but only to sellers once they were inside a country. The question would then be, once sellers have brought into a country whatever they need for a transaction, do you from then on treat them the same as all "national" sellers regardless of where they came from? By that definition, imported cars are accorded national treatment, even though they bear a tariff, as long as local dealers are treated the same, and bear equally any additional taxes such as sales taxes, independently of where they or their products originated. By that definition I agree that the GATT did require immediate national treatment for domestic sales (but not imports) of goods in the same way that the GATS now requires it for services.

But that, to me, is beside the point. What is important is that the GATT did permit domestic producers some form of continuing protection from competition with foreign-based producers, and this protection, in the form of tariffs, could be very high. The GATS does not provide for any continuing protection at all, and therefore it is hardly surprising that countries have been reluctant to sign on.

Phase-In

One could accept the need to avoid the shock of moving instantly to free trade without accepting the need for erecting a special set of barriers to imports of services, as I am recommending here. After all, negotiated reductions in trade barriers are routinely implemented not all at once but over a gradual phase-in period. Most of the barriers in NAFTA, for example, were scheduled to be eliminated over periods of from five to ten years, and a few were permitted to continue for fifteen. Therefore one might argue that the aims of my proposal could be better achieved by simply permitting the move to National Treatment in services to be accomplished gradually.

There are at least two problems with this, however. First, how do you phase in National Treatment? If foreign service providers are currently simply excluded from the domestic market, how do you permit them to enter while at the same time damping their competitive effects? Entry could be delayed, but that does not make it much less disruptive when it finally happens. Entry could be rationed across firms, allowing in, say, only one per year for a period of time. But selection of the entrants would create discrimination across trading partners, and it would also introduce its own economic distortions across service providers. Finally, entry could be slowed down in a nondiscriminatory way by providing some sort of tax barrier, as I suggest here, and then reducing that tax gradually over time. But that, of course, is just a variant of my own proposal.

The other problem is that any such solution to the phase-in problem retains free trade as the objective that has to be agreed upon to be achieved within a specified time. But as we have seen in goods markets for a great many products, negotiators have not yet accepted any timetable for achieving free trade. While lip service has been given in groups like the forum for Asia Pacific Economic Cooperation (APEC) to achieving free trade within a couple of decades, I doubt that anyone really believes that it will happen. So far, virtually all countries have reserved positive tariffs on many products, and high ones on some, that they have been unwilling to schedule removal of, ever. It seems implausible to me that they would be more forthcoming in markets for services than they have proven themselves to be in markets for goods.

Policy Flexibility

One major advantage of service tariffication, then, is that it will provide a policy tool that can be used to cushion the disruptive effects of trade liberalization, both when sectors are newly liberalized and also at other times when a surge of competition from foreign providers causes damage domestically. Article XIX of the GATT, the Safeguards Clause, already provides for such a cushion for trade in goods, permitting countries to raise tariffs temporarily when a surge of imports causes injury to domestic firms or workers. To provide such protection in services under the existing rules of GATS would be difficult, since foreign providers operate domestically on an all-or-nothing national-treatment basis. It is hard to see how a surge in sales by a group of suppliers could be responded to, except perhaps by limiting any new ones from establishing or, hardly likely, insisting that some existing ones temporarily shut down.

Tariffication, however, provides a ready-made policy for this purpose. The taxes on foreign service providers can in principle be varied as necessary to achieve a limited amount of protection for domestic sellers. Admittedly, this will be hard on the foreign providers, and even the potential for such variation in the taxes will increase their expected costs and put them at a disadvantage. But this problem is familiar from goods markets, and it is surely less extreme than removing their permission to operate at all.[1]

I therefore recommend, as a corollary to my proposal, that the GATS be amended to include something analogous to Article XIX, once the concept of service tariffs has been put in place to make it feasible.

Currency for Negotiations

The hope underlying the GATS today is that, even though few service sectors have been scheduled for coverage by the participants, future negotiations will expand the coverage to additional sectors. This is possible, and perhaps even likely. But the negotiations to bring this about will, under current rules, have to be quite different from the negotiations over goods trade in which the GATT has had a half century of experience. There, negotiations typically have involved reducing (bindings on) existing tariffs. Countries could trade off increased openness of particular domestic markets for increased access to particular foreign markets that were of interest to them, in both cases by reducing tariffs. And even though it has never made all that much economic sense, they could balance their own "concessions" by noting the sizes of the tariff reductions themselves and the amounts of trade that were covered by them. Thus the tariff reductions, weighted by amounts of trade, provided a ready measure of what was exchanged in the negotiation, a currency for negotiations serving as a unit of account.

In services under GATS, we do not now have any such tool. Countries are forced to exchange concessions in a very lumpy form, either opening a category of services completely or not. It is therefore going to be very difficult to secure any kind of balance of concessions, without which the negotiations themselves will be cumbersome.

In goods trade, since every country is likely to have comparative advantage in something and therefore is likely to be an exporter of a number of products, all countries typically have something to gain from negotiations to reduce tariffs. That is, each has a group of export sectors where they want improved market access abroad, and they are willing to give up some import barriers to acquire that. However, because the range of service products is much narrower and the technologies for providing them are less diverse, some countries may perceive that they have no comparative advantage at all in any service sectors. If service negotiations are separated from those in goods, such countries may think they have nothing to gain by liberalizing in services. And if liberalization can only take the extreme form of national treatment, then such separation seems likely.

However, with tariffication, the negotiations in services can more easily be conducted alongside, and in conjunction with, negotiations in goods, exchanging service liberalization for goods liberalization and vice versa. This too should make it that much easier to achieve meaningful liberalization, once the service tariffs are initially put in place. Also, the negotiators themselves will be able to quantify what they have accomplished. They will point first to the sizable reductions in service tariffs that are likely to be possible at the start, when tariffication has

placed them at prohibitively high levels. Then later they will point to the further reductions in service tariffs weighted by the volumes of service trade, once a meaningful amount of that is underway.

Identifying Foreign Providers

One objection that I have heard to this proposal is that it will be difficult for countries to distinguish foreign service providers from domestic ones in order to know which should be subject to the service tariff. This is not a problem that arises at all for much of trade in goods, since one does not really need to know the national identity of the producer. It is enough that a good crosses a national border in order for it to be subject to a tariff. Of course, in free trade areas like the NAFTA even goods trade is not so simple, and the complications and dangers of rules of origin are not something that one would like to see replicated for trade in services.

However, I do not see that this is a serious problem. Under current rules, those countries that do restrict access to foreign service providers presumably have some way of knowing whom they are keeping out and whom they are letting in. They should be able to apply service tariffs to those previously excluded providers as easily as they can now keep them out of the domestic market.

I would think that it could be left up to the countries themselves to construct their own definitions of foreignness for this purpose, requiring only that their definitions not discriminate across foreign countries and that they not add unnecessarily to the cost of providing the service. As just an example, a foreign service provider might be one whose ownership by domestic residents is less than, say, some set percentage, and this percentage would have to be the same regardless of the foreign nationality, with obvious exceptions for membership in a free trade area or a customs union. National identity for this purpose should *not* depend upon a fraction of domestically sourced inputs, including labor, since doing that would distort input choices in a way that a service tariff is intended to avoid.

III. Analysis of Service Tariffs

Is it really possible to levy tariffs on services? And if so, what effects will they have? Definitive answers to these questions will have to wait for countries actually to attempt to implement such policies, once given the idea and the opportunity. I have little doubt that if governments are permitted to tax a category of foreign firms they will find a way to do it, so my problem is really only to anticipate what might be done and its effects.

For that purpose I will work theoretically through two types of internationally traded services to examine in conceptual terms how these services might be taxed and what effects these taxes might have. In each case, I will not address the problem alluded to above of defining which providers are foreign and which domestic, assuming that this has already been solved.

Standard Remote Services

I start with what I think is the simplest form of internationally traded service, what I will call "remote" services. These are services produced by a foreign firm that uses only foreign inputs (presumably located or based in its home country, although that is not important for the analysis) to provide a product that is purchased by domestic residents (or firms). Being a service, the output takes the form of effecting some sort of change in the purchaser or in their property or environs, and it does not take a physical form that can necessarily be observed crossing the border into the importing country. Effecting the service internationally surely requires the use of some international medium of communication or transportation, just as trade in goods must require transportation, but I will ignore that complication just as we often ignore transportation in analyzing trade in goods.

Several examples of this type of service come to mind. Close to home, a professional consultant may provide services for clients in another country, conveying advice by mail, telephone, or internet. Or they may travel in person to the buying country for a brief visit during which they present their work, as many are doing at this conference. Professionals in all sorts of

fields could market their expertise abroad in this way, including medical services, legal services, accounting services, architectural services, and so forth.

Insurance services could equally well be provided in this way, with only the small complication that additional international communication may be necessary to verify a claim and provide benefits. But here too, it may be unnecessary for the insurance company to employ any inputs in the importing country, although it may wish to do so in order to provide better service or to help it find customers. In the latter case, it would fit into my next category of "on-site" services below.

Of the services that I will consider in this paper, remote services differ the least from traded goods. Since the inputs to their production come entirely from outside the importing country, it is just as though they were produced in a factory abroad and transported in. And while it may not be possible to monitor their entry into the country, their value and quantity as an import are likely to be well defined, and comparatively easy to tax. Thus a service tariff in this case is just a tax on the quantity of the service sold. It could even be a specific tariff, since the unit of output of the service is likely to be well defined as well, but it could also be *ad valorem*. That is, the service tariff may collect for the importing country government some set percentage of the market value of the service, and therefore of the revenue from selling it in the domestic market.

Being so similar to a tariff, it is not surprising that the effects of such a tax on a remote service will be identical to the effects of a tariff as well. It seems unnecessary to go through all possible analytics here, but the reader can easily picture the usual cases of supply and demand for a traded service that is either homogeneous or differentiated, and that is imported into a country that is either small or large. The usual results obtain for the tariff compared to free trade: The service tariff will increase the price of the service in the domestic market, both imported and domestically produced, benefiting domestic suppliers, hurting domestic demanders, and lowering the world price if the importing country is large. If the tariff is large enough, it may eliminate imports of the remote service entirely, especially if the service is homogeneous. The net welfare effects are also the usual: A small importing country suffers a net loss of welfare from a tariff, its demanders losing more than its suppliers and its government together gain, but a large country may gain from the terms-of-trade effects of a tariff, and a large country must gain if the tariff is not too large.

More to the point here, however, is another standard result from partial equilibrium tariff analysis: that if any trade occurs in the presence of a tariff, then the importing country is better off (net) than if it did not import at all. This result—that some trade is better than no trade—seems particularly important here, since I am arguing in favor of tariffs on services, not as an alternative to free trade which I regard as unattainable, but as an alternative to the current GATS under which the alternative is often no trade at all. Therefore I illustrate the move from no trade (or a prohibitive tariff) to tariff-encumbered trade in figure 1.

The case shown is a remote service that is differentiated from the domestically produced service of the same industry, with supplies of both services to domestic buyers being upward sloping. The panel on the left shows supply and demand for the domestically produced service, with demand depending on both its own price, p_D, and the price of the imported service, p_M, the level of which is fixed at some p_M^0 for the initial position (the solid curve) of the demand curve. The panel on the right shows the market for the imported service, with price p_M and quantity q_M. Demand for it too depends on both prices, with the position of the demand curve dependent on the intial price of the domestically produced service, p_D^0. Both the demand curve and the supply curve for the imported service are shown with finite vertical intercepts, at $\tilde{p}_M$ and p_M^W respectively, so that imports can be eliminated without their shadow price becoming infinite. The intercept of the supply curve, as the notation suggests, can be thought of as being determined in the world market, and if the importing country is small relative to that, the supply curve could be horizontal at p_M^W. However, I allow for the more general case of a large importing country, which must pay a higher price the more it imports.

The initial equilibrium, with solid lines in both panels, reflects exactly such a no-trade situation, perhaps because imports of the service are simply prohibited or perhaps because a tariff on the imported service already exists at a rate higher than the difference between $\tilde{p}_M$ and p_M^W.

Therefore the shadow price of the imported service is $p_M^0 = \tilde{p}_M$, which determines the position of the demand curve in the market for the domestically produced service. That, together with its supply curve, determines its equilibrium price as p_D^0, and this then determines the position of the demand curve for the imported service. Clearly, the two equilibria must be simultaneously determined, and the figure merely illustrates what is the solution to a system of simultaneous equations.

Now suppose that imports are permitted, with a positive tariff, or tax, that is too small to eliminate them entirely. The resulting equilibrium is shown by the dashed lines in figure 1, which are again the outcome of a simultaneous system. By lowering the tariff below $\tilde{p}_M - p_M^W$, the price of the imported service is reduced ultimately to p_M^1. That fall in price shifts the demand curve for the domestically produced service down to $D_D(p_D, p_M^1)$ which reduces the equilibrium price of the domestically produced service to p_D^1. That fall in price likewise causes the demand curve for the imported service also to shift downward, to $D_M(p_M, p_D^1)$. The size of the tariff itself that will cause all this to happen is shown as *t*, the vertical distance of p_M^1 above the supply curve, with the quantity of the imported service equaling q_M^1.

The welfare effects of this service trade, compared to its prohibition, can be read from the usual producer and consumer surplus areas on the two panels. Domestic service suppliers lose area *a+b* from the drop in price, while domestic service demanders gain *a+b+c*. In the market for the imported service, these same demanders, when they substitute toward the cheaper imported service, gain area *d*, while their government collects tariff revenue of *e*.[2] Thus the importing country as a whole benefits by the combined amounts *c+d+e*.

In this case of an upward sloping foreign supply of imported services, there is also a gain to the foreign suppliers, area *f*. This would of course be zero if the home country were too small to affect the price of its imports. Note that while the size of the country may mean that a reduction in a nonprohibitive tariff may lower national welfare, this terms of trade effect cannot hurt the country if it is starting from no trade at all. That is why some trade is better than no trade even for a large country.

Standard On-Site Services

My second category of services is one in which it is necessary for the service provider to have an ongoing presence on or near the site where the service will be provided, so that at least some inputs must be purchased within the importing country's market.[3] The significance of this is twofold. First, by taxing the sales of the imported service with our so-called service tariff, we are no longer really taxing only imported value added. Therefore, the analogy with a goods tariff breaks down slightly, and a distinct analysis is required.

Second, since production of the imported service requires domestic inputs from within the importing country, anything that changes trade, including the service tariff, will affect the domestic market for those inputs. This too could alter the analytical implications of the tariff.

Before proceeding with the analysis, note that this kind of service is much more common than the remote service examined above. Indeed, most international service providers will require some sort of establishment within the importing country from which to operate. In most cases this establishment will make use of at least some domestic labor, in addition to local land and perhaps local capital. Of course, being an imported service will mean that at least some of the inputs also come from abroad, even if only the technology or the brand identity, but also there is often some "headquarter services" as well, provided by the home office. And many imported services use imported intermediate physical inputs as well.

Thus we may think of on-site services as including restaurant and hotel chains such as McDonalds and Hilton, retailers such as Toys R Us and Walmart, and international construction firms such as Bechtel. Many financial firms also fit this mold, as do transportation companies, at least if they are primarily providing transportation within the importing country.

Turning to the analysis, figure 2 extends figure 1 to include interaction with an input market in the domestic (importing) country. This could be any input, but I call it labor, with its price being a wage, w. The top two panels show the same markets for domestically produced and imported services as before, except that the supply curve for the imported service now depends also on the wage in the input market. The figure also includes a lower panel showing the market for labor, with a supply of labor and a demand that depend on the quantity of the imported service being provided, q_M. The initial position of the labor demand curve corresponds to zero imported service supply, since we start as before with no trade in the service. When imports of the service are then permitted, the price of the service falls as before, shifting demand for the domestically produced service downward, and the quantity of the imported service rises, shifting up the demand for labor. The resulting fall in the price of the domestically produced service then shifts the demand for the imported service down as before, and now also the resulting rise in the wage shifts up the supply of the imported service, so that both curves shift in the imported service market to the dashed positions shown.

The effects of tariff-encumbered imports of services are then the same as before, with the addition of an effect on the domestic input market, in this case labor. The price of the input rises, expanding its supply and benefiting its suppliers. The welfare effects are also the same as before, with the addition of the benefit to input suppliers that appears as area $g+h$ in the input market, and a loss to other demanders of the same input given by area g. Since these two net to a benefit h, we can be sure once again that the move from no trade in the service to tariff-encumbered trade is beneficial for the domestic economy as a whole.

IV. Conclusion

In this chapter, I have laid out the case, as I see it, for tariffication of services. I argue that the prospects for achieving significant liberalization of the international provision of services will be greatly improved if something like this proposal is followed. By amending the GATS to permit countries to tax foreign providers of services in a manner that is roughly analogous to tariffs on imported goods, countries will be encouraged to bring most categories of services under GATS discipline. Of course, that discipline will be much weakened by doing this, since the taxes may be set so high that little if any trade will occur. However, once this is done, it will become possible for countries to negotiate reductions in these service tariffs in exactly the same way that they have done for goods over the last fifty years. Considering the amount of time that it has taken to achieve significant liberalization of trade in goods, we should not expect to achieve it in services any time soon. However, by starting the process with tariffication, we place services upon the same well-traveled road that has been followed before, and we can be more confident that the future negotiating process will take us where we want to go, even if we cannot know how soon we will get there.

Notes

[1] A case for safeguards protection is provided in Deardorff (1987).

[2] These effects on demanders can best be seen by breaking the changes into two parts, first reducing p_D while holding p_M constant, and then reducing p_M while holding p_D constant. In the first step, demanders gain $a+b+c$, while the demand curve for imports shifts down without affecting welfare there. In the second step, demanders gain consumer surplus d from the fall in price along the new demand curve for imports, while the demand curve in the domestic market shifts down without any further change in welfare there.

[3] Actually, it is the use of local inputs, not the ongoing presence, that is distinctive here, but I could not think of a term to describe this case that emphasized only that.

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Figure 1. From No Trade to a "Tariff" on a Remote Service

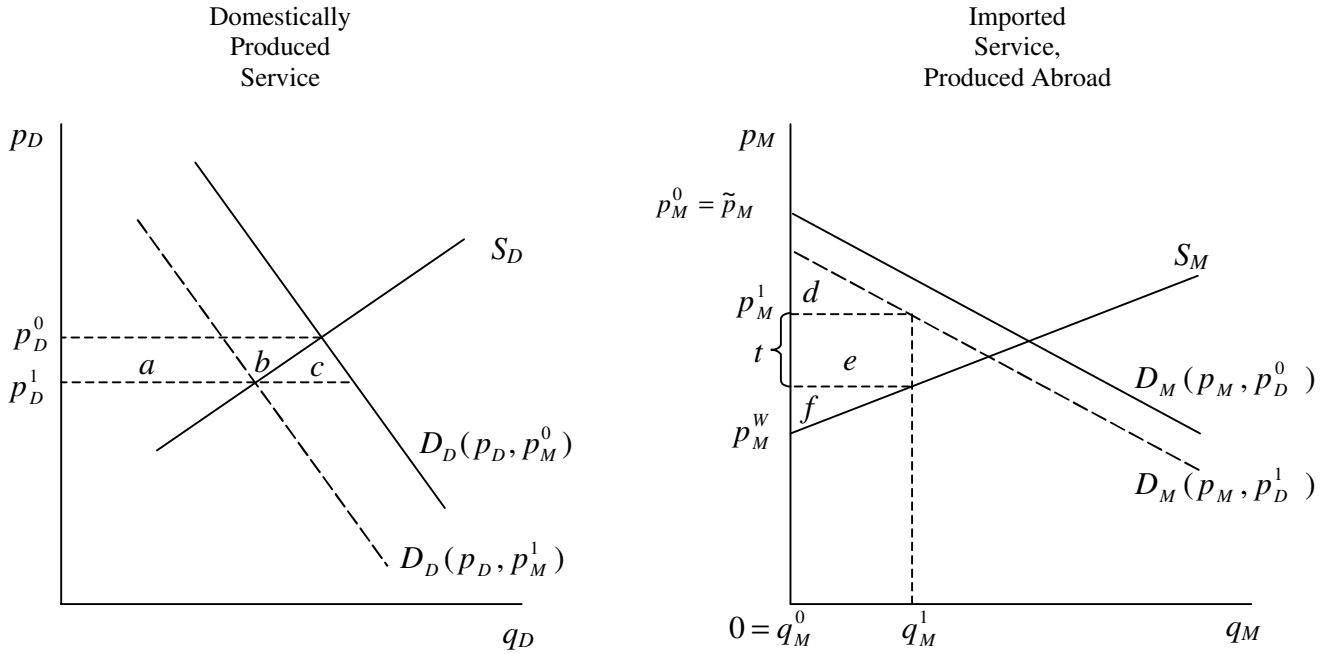


Figure 2. From No Trade to a "Tariff" on an On-Site Service

