**ECN 330 Economic Integration and Multilateral Trade Liberalization**

**ECN330, Dec 2014 exam**

**Part 1.** Explain whether the following statements are true, false or whether it depends. If depends is your answer, be sure to explain upon what it depends. (25 points)

1.1 WTO rules express a preference for ad valorem tariffs over specific tariffs because market access is facilitated over time and consumers/users of an imported good would be better off in all cases.

1.2 As a policy response to pressures from increased imports, WTO member states would be more likely to apply a safeguard measure than an anti-dumping or countervailing measure.

1.3 It makes sense that WTO rules on export restrictions are weaker than on export subsidies because the spillover effects (to the rest of the world) of the subsidy are more negative than that of the restriction, particularly when the country is large.

1.4 If a blue box-type income support program has the equivalent of a market-access restriction when applied to an agricultural good of a net importing country, then a blue box-type income support applied to an agricultural good of a net exporting country will have an export subsidy equivalent.

1.5 A domestic monopoly protected by an import quota would be free to exploit fully its market power even if the quota volume had to be filled 100%.

**Part 2.** Briefly answer the following questions or provide the requested information. Relate your answers to concepts discussed in class and avoid unnecessary information. (45 points)

2.1 Unlike the WTO TRIPS Agreement, which provides protection of intellectual property, there is no specific WTO agreement for environmental protection. However, the WTO SPS Agreement does address trade-related environmental issues and GATT Article XX allows trade restrictions in exceptional cases. Keep in mind the WTO's emphasis on facilitating trade when answering the following:

2.1.1 What is the WTO justification for its position on not having a specific agreement for environmental protection? Is the SPS Agreement consistent with that position? (5 pt)
2.1.2 How is the argument different in the case of intellectual property protection? (10 pts)

2.2 Much was made of including agriculture under the rules-based multilateral trading system. The WTO Agreement on Agriculture requires disciplines across three policy pillars: import market access, domestic support and export subsidies. Some argue that the disciplines were a useful first step, but that the rules/obligations need strengthening. Keep in mind the relevance of economic theory when answering the following:

2.2.1 *List* some of the general requirements countries had to undertake in agriculture under market access, domestic support and export subsidies. (5 points)
2.2.2 From your list in 2.2.1, are there any criticisms or limitations of the agricultural disciplines, rules or requirements under the WTO? Be specific. (10 points)

2.3 As the WTO has been unable to reach a comprehensive multilateral trade deal under the Doha Round, negotiations on bilateral or regional trade agreements among some of the WTO's bigger member states were initiated. Consider the meaning of globalization in an economic context and its treatment under the WTO and under bilateral/regional trade agreements when answering the following:

2.3.1 Outline a framework (i.e., *list some criteria*) by which one can evaluate or assess the relative difficulty of concluding negotiations of: (a) a bilateral US-EU trade deal (whose combined economy amounts to 60% of world GDP); or (b) a regional US-Asia-Pacific trade deal (including Japan, Australia, New Zealand, Malaysia, Canada, Chile, Peru and five others accounting for 40% of world GDP). (7 points)

2.3.2 Using the framework in 2.3.1, which agreement would you argue is more difficult to conclude? Would a multilateral WTO trade deal be more difficult to conclude than either the bilateral or regional trade deals? Explain. (8 points)

**Part 3.** Answer the questions related to the regulatory situation described below. Be specific and explain your answers to the best of your ability. Label your graph(s) clearly and explain them. Define concepts you think will support your answer. (30 points)

The awarding of the 2010 Nobel Peace Prize to a Chinese dissident initiated diplomatic tensions between China and Norway. In response, it is said that China has imposed economic sanctions in the form of two regulatory border measures affecting Norwegian exports of fresh whole salmon: (1) stricter food safety/sanitation testing and veterinary inspections on imports of salmon; and (2) the requirement of an import license to import seafood. China is aware that its regulatory actions must conform to WTO rules and principles.

The regulation on sanitation testing and veterinary inspection applies specifically to salmon and that shipments from all countries are to be tested/inspected at random. However, traders claim that shipments of Norwegian salmon are selected disproportionally for testing and inspection at the border. The delay at the border results in a fee related to cold storage, and the cost of testing/inspection is borne by the trader.

The import license is an application for the permission to import a specified volume of seafood and is required of all imports regardless of country of origin and species of seafood. The stated purpose is for keeping statistical records and ensuring that only qualified persons are involved in the seafood trade. The approval and awarding of a license is generally automatic. However, importers claim that only applications with no more than 30 tons of Norwegian salmon are approved. Before the diplomatic tensions, traders noted that shipments of 300 tons of fresh whole Norwegian salmon were common. Traders can apply for additional licenses, but only after the previously approved volume has cleared customs.

3.1 Can China's regulation calling for stricter food safety/sanitation tests and veterinary inspections on salmon imports conform to WTO rules and principles? Explain. (5 pts)

3.2 Can China's regulation calling for an import license for imports of seafood conform to WTO rules and principles? Explain. (5 pts)

3.3 Think about the trade and economic effects that the two regulatory border measures have on the Norway-China salmon trade as reported by traders.

3.3.1 What trade policy equivalence might the testing and inspection have? (5 points)

3.3.2 What trade policy equivalence might the import license have? (5 points)

3.3.3 Model the combined trade effects of the regulatory measures. Assume that it takes one month from the time a license application is submitted and approved until the time the fish is ordered, sent by air cargo, and passes testing/inspection to clear customs. Make whatever other assumptions you need to make explicit. (10 points)

---

**Summary solutions ECN330 2014**

1.1

F/D. WTO rules do express a preference for ad valorem tariffs because they are more consistent with MFN (more neutral in terms of relative prices) which facilitates market access, but consumers or end users would not always be better off. In the case of an increase in world prices, ad valorem tariffs would magnify the price of the increase. In cases where the importer always has a comparative disadvantage and world prices are stable, ad valorem tariffs are superior to specific tariffs.

1.2

F/D. All three measures are policy responses against imports resulting from the demonstrated injury to a domestic industry. A (non-ag) SG measure is temporary protection that requires compensation. A countervailing measure is a response against the existence of a gov't subsidy which is a violation of WTO rules (in non-ag products). An anti-dumping duty is a policy response to an unfair trade practice by a foreign firm. This is the hardest to prove because cost info is either unavailable or because pricing practices can reflect normal business practices. AD is used the most used because its condition is least precisely defined and does not require compensation.

1.3

F. The WTO rules and commitments on export restrictions are weaker than those on export subsidies; however, it is not clear that this is because an export subsidy is more trade distorting and has more negative spillover effects. Export restrictions can have quite negative effects, especially in thinly traded international markets and export subsidies can have positive spillover effects (R+D support that results in more efficient production of an exportable good).

1.4

T. A blue box-type income support program is DS that required a reduction in production relative to a base level. If applied to an import good, Y-support can be considered an alternative to P-support (that would require market access protection), but it is less trade distorting if the Y-support is not accompanied by market access protection. Blue box-type income support for an exportable good will encourage increased production over that under free trade and the world (export) price will be lower than the income support per unit. This would be equivalent to an export subsidy.

1.5

T. A domestic monopoly with full control over imports and sales on the domestic market will be able to exploit its market power over the domestic market even if the quota volume is filled 100%. Import competition is not possible to challenge the monopoly price on the domestic market. A tariff would not allow the domestic monopoly to limit production to raise domestic prices to abuse its market power.

2.1

2.1.1

Environmental pollution is an externality (a negative spillover effect). If the externality is the result of production, then the appropriate policy response should be a production-related policy that targets the pollution and is not an international trade matter. In general, environmental regs should not be harmonized because there are differences in demand (for environmental goods/services) and the supply-side (how to deal with the production).
Environmental regs require a bilateral/regional solution if there is a cross-border externality (the exception being global warming or climate change), but even then regs should not be harmonized
Harmonizing environmental regs can lead to regulatory failure because WTP in one

| |
|---|
| country might be higher than $P_W$ and lower that $P_W$ in another. |

2.1.2

| |
|---|
| IP protection (patent, trademarks, copyright, geographical indications, etc) under TRIPs requires min harmonization of the length of time of protection of an IP and enforcement procedures (e.g., steps taken at the borders and trade ban on countries found in violation of TRIPs). The issue is that pirated goods are rival goods to the genuine and that failure to crack down on piracy will lead to displace trade in the genuine product. There is a trade distortion, investment distortion and an externality – too little R&D, new product development, new ideas, innovation, etc. The failure to crack down on piracy and enforcement of TRIPS would be a cross-border externality and could be corrected for by a ban on trade of the pirated produced good. |

2.2

2.2.1 2.2.2

| WTO obligations on agriculture: | Weaknesses/limitations in the disciplines |
|---|---|
| MA:<br>1. Tariffication + tariff ceilings<br>2. Tariff quotas (min access) | MA:<br>Tariff ceilings negotiated too high<br>Tariff escalation on LDC goods<br>Tariff-quotas (high in-quota rates, low fill rates, low quota volume) |
| DS:<br>1. Amber box bindings<br>2. AMS bindings | DS:<br>1. Bindings exceed actual rates in most cases<br>2. DS treated as if independent of other pillars<br>3. MPS is not appropriately defined<br>4. Blue box not subject to bindings<br>5. Income support should not be allowed with MA restrictions<br>6. Subsidies defined by degree of trade distortion rather than on it policy objective (welfare effect) |
| ES:<br>1. Bound total value and volume<br>2. Bound product-specific value and volume | ES:<br>1. Rules generally are acceptable apart from being the inappropriate to meet specific policy objectives<br>2. ES treated as if independent of other pillars |

2.3 2.3.1

| |
|---|
| 1. Agenda for the negotiations, "globalization"<br>1.1 Trade in goods<br>1.1.1 Import market access<br>A. Trade policy (tariff ceilings and elimination of tariffs, no quotas)<br>B. Dom regulations: SPS, TBT, other regs (labor, environment, etc)<br>1.1.2 Subsidies and domestic support<br>A. Subsidies in manufacturing (by sector, by type of program)<br>B. Domestic support in agriculture (by sub-sector, program type)<br>1.1.3 Export restrictions and promotion<br>A. Issues related to restricting exports (food security, environment, etc)<br>B. Issues related to facilitating exports (subsidies, promotion, credit)<br>1.2 Trade in services<br>1.2.1 Sectoral issues (similar level of economic development<br>1.2.2 Domestic regulations applicable to services<br>1.3 Treatment of labor movement (types of labor, labor by sector)<br>1.4 Treatment of capital movement and foreign investment<br>1.4.1 Type of capital and related regulations<br>1.4.2 Participation of foreign capital by sub-sector<br>1.4.3 Harmonization of regs on common sectors (telecom, financial services, |

banking, etc)
2. Negotiation-related factors
2.1 Number of countries and size of economies
2.2 Stage of economic development (GDP; GDP/cap; K, L and K/L ratio)
2.3 Profile of the economy (Manu/ag/services share of GDP; trade composition)
2.4 Starting point in terms of trade policy and domestic regulation

2.3.2

Answer depends on the framework devised
TIG:
Market access (trade policy and dom regs with trade policy equivalents)
US and EU have very low avg tariffs in manu
Ag sectors while sensitive account for small share of total trade
Both countries have high enforcement of dom regs (stds, tech requirements, SPS and TBT – could imply addressing harmonization or recognition of tech requirement
Little room for trading off MA commitments
Regulatory differences are the issue
Subsidies: not a big issue in terms of trade; disallowed in manu and commitments under WTO; in sectors where there are disputes (civil aircraft production) could be an understanding if sectoral level allowable supports in sectors (e.g., high-tech)
TIS: driven by dom regs; services is a dominant domestic activity; harmonization in or regs in commercial services activity could result in greater cross-border trade, movement of skilled labor and international capital with competition at comparable levels of development
L+K and K/L ratios are similar which should help to reduce regulatory issues and trade-related disputes

The EU and US are of similar size, stage of economic development, profile and starting point in terms of trade policy and domestic regulation. They of equal strength and capacity to negotiate. The big difference is in regulations with trade policy equivalence, rather than trade policy as tariffs or subsidies. Regulations cut across all four avenues of "globalization", TIG, TIS, int'al L and int'al K. The difficulty will be whether to pursue harmonization or approximation of domestic regulations and the political horse-trading that goes on with such complex negotiations (e.g., for exceptions or sectoral exclusion).

3.1

A regulation calling for strict(er) food safety/sanitation testing and veterinary inspections on imports falls under the category of SPS. This would be an allowable form of domestic regulation when/if it is applied in a manner consistent with MFN and nat'al treatment, predictability and transparency. In this case, salmon is specifically identified as a product to test and inspect. There would have to be a scientific justification by which to single out salmon rather than seafood more broadly.

3.2

An import licensing system is a specific type of domestic regulation allowable under WTO rules (WTO Import Licensing Agreement). It is possible for a gov't to require an application for the permission to import a specified volume of a product applied in a manner consistent with WTO principles: non-discrimination, predictability and transparency. It cannot be applied as a means restricting market access (acting as a quantitative restriction on the volume imported).

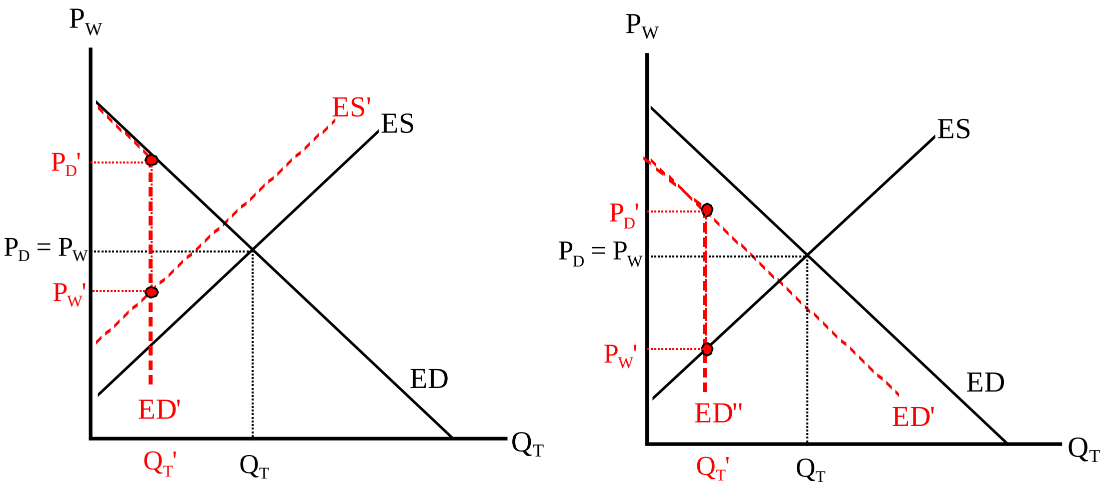
3.3

3.3.1 The testing and inspection regime has a specific trade tax equivalent
3.3.2 The import license regime has an import quota equivalent

3.3.3

In the left-hand panel, the cost of the delay in storage fees and the costs of testing/inspection is on the exports. It is shown as an increased per unit average cost,

shifting ES to the left, ES'. The licensing regime restricting import volume to 30 tons per license restricts overall imports in a calendar year to a max of about 360 tons. This would have the effect of an import quota causing ED to kink to ED'.
The right-hand panel shows both the cost in fees and testing/inspection as a cost to import and the licensing system as an import quota. The left-hand graph is argued to be more accurate.



ECN330, Dec 2013 exam

**Part 1.** Explain whether the following statements are true, false or whether it depends. If depends is your answer, be sure to explain upon what it depends. (25 points)

1.1. A trans-Atlantic trade deal between the US and the European Union (EU) would not likely imply big economic or welfare implications because tariffs between the two sides are already quite low (on average between 3 and 5%), capital-labor ratios are similar, and the levels of technology are nearly the same.

1.2. In 2014, Scotland will hold a referendum on its independence from the United Kingdom, but independence does not imply leaving the European Union. Thus, independence would have no consequence for Scotland at the WTO if its trade policy is part of the EU's.

1.3. In theory, income support is more economically efficient than a price-support equivalent, but as practiced under WTO rules and by members, the blue box's efficiency gain has been related to limits on production rather than on reductions in the value of support.

1.4. Under the General Agreement on Trade in Services, the WTO definition of subsidy has the same meaning as for goods because the value of the subsidy can be determined as the ad valorem value of the government transfer as a share of the total value of the service.

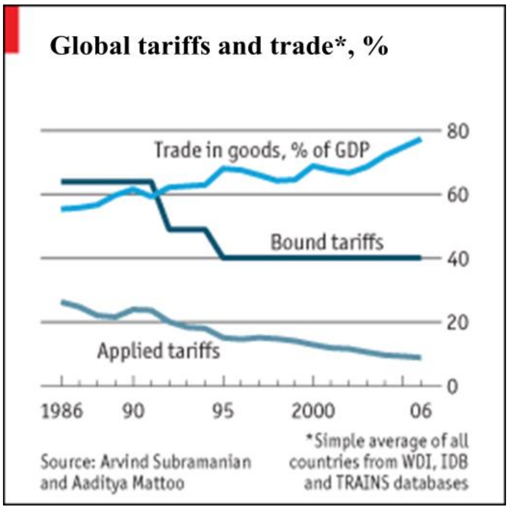
1.5. Under situations where there is imperfect competition in the domestic economy, market access restrictions, such as a tariff or a quota, would tend to be more equivalent in their trade-distorting effect (relative to competitive market situations).

**Part 2.** Briefly answer the following questions or provide the requested information. Relate your answers to concepts discussed in class and avoid unnecessary information. (45 points)

2.1 Study the chart showing trends in global tariffs and trade (*Economist*, "Beyond Doha", 11 Oct 2008, p. 30). Think about what globalization might mean in an international business and economics context and what is implied by market access under WTO rules when answering the following:

2.1.1 How do the bound and applied tariffs relate in practice to the WTO's principles? (10 points)

2.1.2 Does your answer in 2.1.1 suggest that WTO commitments are important for trade or other decisions business leaders take regarding their firm's global strategy? Explain. (5 pts)




2.2 Suppose an importing country prohibited imports of an alcoholic beverage on the grounds that its alcohol content was too low. That is, the domestic regulation states that any drink with an alcohol-content between 15% and 25% is prevented from sale regardless of the country of origin. The regulatory argument is that drinks in this strength encourage alcoholism (spirits have an alcohol-content greater than 25% and wines are below 15%).

2.2.1 Would a trade dispute resulting from this regulation be resolved in the same way if the two countries were EU members or just WTO members? Explain. (10 pts)

2.2.2 Could a higher tariff or excise tax have been applied to discourage consumption of this category of alcoholic beverage even if it affected trade? Explain. (5 pts)

2.3 The framework for the WTO principles, rules and disciplines that apply to agricultural trade are supported by three pillars: market access (MA), domestic support (DS) and export subsidies (ES). Think about how the WTO defines these pillars, the commitments that were required, and the potential inter-play (i.e., the economic equivalence or complementarity) of policies across pillars when answering the following:

2.3.1 Consider how market price support for wheat producers, a form of DS, and a tariff on wheat, a MA restriction, might have equivalence in an economic sense. What information do WTO DS and MA notifications provide, and why would notifications on both the DS commitment (for the price support) and the MA commitment (for the tariff) be required? (10 points)

2.3.2 Consider your answer in 2.3.1. Is what an economist would actually be interested in measuring in terms of the policy effect on producers what is actually notified in the schedules? Explain. (5 points)

**Part 3.** Answer the questions related to the trade policy situation described below. Be specific and explain your answers to the best of your ability. Label your graph(s) clearly and explain them. Define concepts you think will support your answer. (30 points)

The theory of the second best argues that the competitive free trade equilibrium price is not efficient when a market failure exists. Thus, a case can be made for policy or regulatory intervention of some sort. Model and discuss the implications of the market situations (e.g., economic, trade and welfare effects) from the perspective of the *domestic* market only.

3.1. Suppose the market failure is a consumption-based externality for an agro-food product that has different qualities depending on where/how it is produced, but consumers cannot distinguish between the quality of the domestic and foreign good. Compare and contrast the market situations for the *domestic* market from your trade models under three trade regimes: (1) the government imposes a prohibitive standard on the foreign good, i.e., the cost of compliance with the standard prevents imports of the foreign good; (2) a free trade regime with no regulatory standard; and (3) free trade under a mandatory labeling requirement. Be specific about what the equilibrium means under each regime and make your assumptions explicit. (20 points)

3.2 How might the WTO's dispute settlement mechanism handle a trade-related issue under regulatory scenarios (1) and (3)? Explain. (5 points)

3.3 Suppose the mandatory labeling regime was an example of a geographic indication, a type of intellectual property. How might such a regulation rate in terms of the following criteria, that is, could a geographical indication be put into practice in a manner that is not: (1) arbitrary or inconsistent; (2) discriminatory in favor of specific producers or suppliers; (3) trade-distorting; (4) likely to result in monopoly profits or rent-seeking; and (5) likely to raise legal issues (e.g. complicate the dispute settlement process)? (5 points)

**Summary solutions 2013**

1.1

F/D. The deal between them will have to (and does) involve more than just reciprocity on trade policy (tariffs). Trade between countries with similar K/L ratios and tech simply means that trans-Atlantic trade is characterized more by intra-industry trade in goods and trade in services. Hence, the deal would have to involve regulations with trade policy equivalents (standards, technical regulations, gov't procurement) and more detail on trade in services. As a result, it would have to address issues related to capital (and perhaps to a much lesser extent movement of workers).

1.2

F/D. If Scotland agreed to maintain its commitments to the EU under free movement of goods, then Scotland's MA commitments under trade in goods would be unproblematic. However, because the EU does not have harmonized trade in services (each country negotiates specific regs on services separately) each country has to negotiate as an individual state (and provide MFN exemptions where necessary). If Scotland kept its regulatory system of services the same as the UK, then its membership to the WTO would likely be less problematic.

1.3

T. Income support is more efficient than P-support equivalent because the level of support to the producer is the same, but consumers would not be affected (to the same degree) and the DWL in consumption would be smaller (zero if fully decoupled). The blue box, however, only limited the production level that qualified for the support (relative to the base period), did not require any reduction commitments in value of support, and did not stop market access restrictions from applying to the product. So, payments could have increased over time even if production levels were maintained at the limit. Basically, it was about the same as amber box without value limits and a small output limit.

1.4

F. Subsidies are only defined for trade in goods and not for services. They are illegal for industrial goods (except for green box support) and specifically defined as domestic support for agricultural goods. WTO services commitments specify the regs that limit MA and NT, regardless of the type of regulation. The nature of services (non-physical, non-storable, etc.), the need for access of some services to the public, and the public sector nature of many services sub-sectors makes setting disciplines on subsidies on services more difficult. This is why they are not defined under WTO rules.

1.5

F. Imperfect competition by domestic firms on the domestic mkt do have implications for MA, and MA restrictions can affect how domestic firms behave and compete. Tariffs and quotas do have non-equivalence in imperfectly competitive domestic mkt situations, based on the particular policy objectives, e.g., price, production and volume trade.

2.1

2.1.1 WTO principles:

* MFN – non-discrimination. The bound and applied rates are both consistent with the MFN principle in that tariffs are applied at the same rate to all trading partners.

* Predictability. For economists, predictability implies some understanding about what the binding constraint is from trade policy that is applied. If the bound rates exceed the applied rates, then importing country's gov't can increase tariffs at will in response to a change in mkt situation. This happened in trade between Denmark and Norway on trade in flowers recently.

* Transparency. For economists, transparency in this context can imply something about what the value of (Pd – Pw) is as a result of the trade policy. Given that the bound rate is not a binding constraint, one will have less clarity over what the degree of protection really is over time.

* Reciprocity. Given that bound rates are the negotiated ceilings, it raises the issue about whether future negotiations should start from the applied rates rather than the bound rate.
* Safeguards and exemptions

Given that countries negotiated more protection than they are actually using, it means tariffs can be raised without having to use the safeguards rules that were built in to help countries in situations where import volume increased too fast or when domestic price fell to low.

2.1.2 WTO commitments for trade and global strategy

The chart shows that trade in goods in steadily increasing regardless of the bound rates (the WTO commitment). Nevertheless because the applied rates are still subject to MFN consistency, one could argue that WTO rules do facilitate trade because as applied rates have fallen, trade in goods has increased. This has occurred despite WTO reduction commitments not having been required since 2000 on developed countries. In addition to trade, a firm's global strategy, involves foreign investment and the regulatory environment for its good. While not shown specifically in this data, WTO rules and commitments might still have had a lot to do with the current trends in trade in goods as a % of GDP.

2.2

2.2.1 The regulation is essentially a ban or a quantitative restriction of zero units over a specific product sub-category, e.g., non-uniform trade policy. The issue resembles an SPS-related reg, but one that is probably weak on scientific merit. In the EU such a regulation would affect intra-EU trade and be considered inconsistent with the single market and free trade in goods. SPS regs in the EU tend to be harmonized precisely to avoid nat'al regs restricting trade. Under WTO rules, SPS regs need to be based on science and international organizations such as the WHO would likely be the body that set int'al stds related to the concerns associated with alcoholic drinks and alcoholism. If such evidence existed, then there would be an int'al std and it would not be a WTO issue. For the WTO the trade dispute would involve problems associated with nat'al stds that exceed or differed from an int'al std and the country would be found to be in violation of the SPS Agreement.

2.2.2 Higher tariffs or differentiated excise taxes could be used but again the dispute would involve whether there is merit to the regulatory argument that the 15-25% alcohol content is related to higher incidence of alcoholism. Differential tariff rates while probably justifiable would be harder to negotiate than differentials in the excise tax rates. Differentiated taxes would be possible even if they did distort trade. Progressively higher taxes based on higher alcohol content are permitted on the general acceptance that higher alcohol consumption has increasing consequences for consumers' health.

2.3

2.3.1 DS (mkt P-support) and MA (tariff)

In economic theory, mkt P-support and an applied tariff would have exactly the same economic, trade and welfare implications. In the left-hand-panel, the effect of a MA tariff is shown as the applied rate with the possibility of the bound rate able to exceed the applied rate. It is only the applied rate that measures the degree of trade distortion of binding trade policy, i.e., $[(P_D - P_B)/P_B] \times 100\% = [\tau_{MFN}]_{applied}$, which measures the actual difference between the domestic and border prices, the box encasing 1234. However, what is reported in WTO notifications is the MFN bound rate, the bigger box encased in blue.

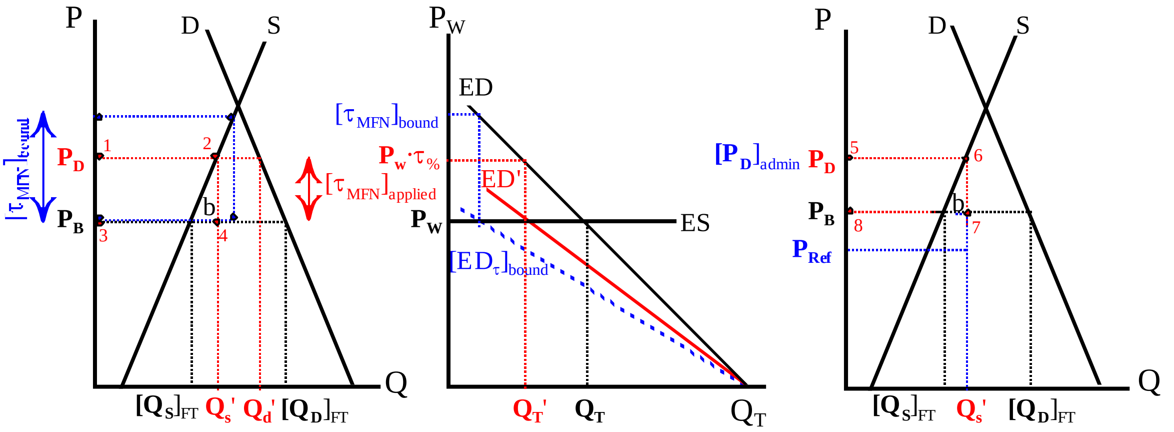
In the right-hand-panel, the effect of mkt P-support is shown. The DS notifications are intended to report the value of support of a particular program. The problem is that market P support is a value to producers that is paid by consumers not taxpayers (or the gov't) which does not "technically" make it a subsidy under the WTO definition. To do so, the rules require the notification of an administrative P, a price backed by gov't policy/programs, and notification of a reference price, a price reflecting the cost of a like good at the border. Thus, the AMS computation of mkt P support in DS notifications is: $[P_{admin} - P_{ref}] \times Q_{eligible}$. The actual value of the support is the box encased by 5678 is equivalent to that box encasing 1234 (but only if the admin P is the same as $P_D$). However, mkt P support as computed under WTO rules might not have any bearing on the bound or even the applied tariff protection. Hence, if the MFN bound tariff rate (the commitment) is not a binding constraint, then the support equivalent that the bound rate implies would not be reflective of the support to producers. So, the maximum MA protection is not necessarily the same as the value of support equivalent implied by the administered price.

2.3.2 Support equivalent measure

The WTO producer support equivalent measures the actual prodn level times the difference between the administrative price and the reference price, i.e., (Pd – Pw) Qs. Even if (Pd – Pw) was the actual domestic price and the border price, and Qs was the actual level of production the AMS would still overvalue the true support to producers (PS) by the value of the DWL in production. In other words, the area 1234 overvalues the support by the DWL triangle (b)

Mkt access restriction

Mkt price support

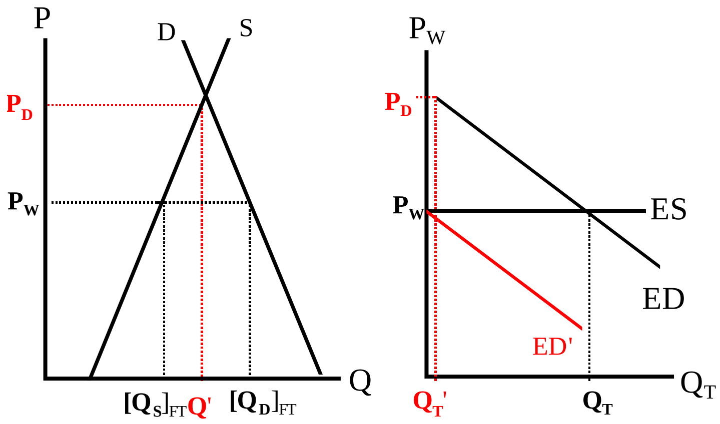



3.1. Mkt failure from a consumption-based externality involves the inability of the mkt to separate the two goods, high-quality good and low-quality good. So, instead of two mkts determining two separate prices (Phq/Plq), the mkt is setting one price, Pd = Pw. This would mean that the domestic producers would not be rewarded for producing a high-quality product and the Pd is too low and production would be too low. Consumers lose out because they are willing to pay (WTP) more for the higher quality product. The graphs are provided for a small country case.

Mkt scenarios:

(1) prohibitive standard on foreign good (autarky situation)
Those who are less WTP for the high-quality good are pushed out of the mkt, i.e., the avg mkt price is too high. Dom prodn increases, imports are too low, and total consumption is too low.
(2) Free trade regime without any standards
Those who are more WTP for the high-quality good are pushed out of the mkt, i.e., the avg mkt price is too low. Dom prodn decreases, imports are too high, and total consumption (of the foreign good) is too high.

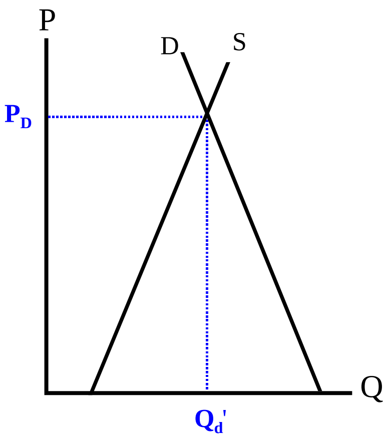
Unregulated free trade and prohibited standard



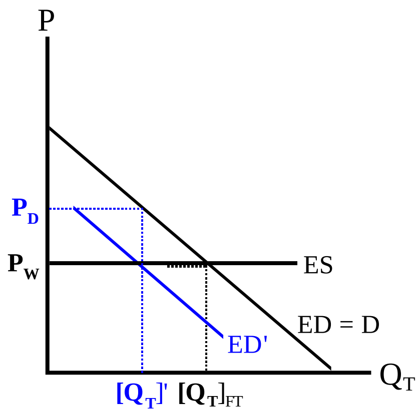

(1) Prohibitive std has a tariff equivalent of $P_D - P_W$. The lack of competition allows dom producers to charge higher P, but the good is of higher quality. Unconcerned consumers buy "too much quality"; the price is too high with no imports, and consumption is too low. The eqlbm is not efficient.
(2) Free trade implies foreign competition and imports of $Q_T$ units. Price is lower because of competition. Producers lose out to foreign competition, there is too much "lower quality" product on the mkt, and lack of product differentiation and concerned consumers lose from lack of info. Unconcerned consumers pay a lower average price, but there is lower avg quality on mkt. The eqlbm is inefficient.

(3) Free trade under a mandatory labeling requirement
This essentially separates out the high-quality and low-quality product into two distinguishable markets determining two separate prices (Phq/Plq) under which consumers can choose between the goods based on their WTP for the difference. This is a more efficient price based on quality: a higher price for quality and a lower price for lower quality. Dom producers can be rewarded for producing higher quality and consumers who are not prepared to pay more can still import the foreign-produced good.

Domestic good - high quality




Differentiated product



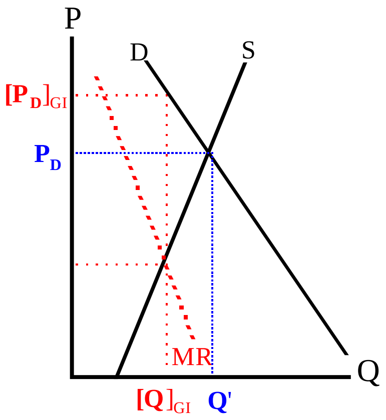

(3) Goods and demands are differentiated; there are two eqlbm prices. Each consumer can consume preferred product. Consumers benefit from ability to choose based on relative prices. Domestic producers still rewarded for higher quality.
The issue is who must pay for labeling and certification. In the right-hand-panel the cost of compliance has been put on the imported good with a cost equal to $P_D - P_W$), but the label has a cost that is not prohibitive.

3.2 This is a TBT issue as it does not imply a food safety matter. The means to improve the efficiency of the mkt is related to the ability of consumers to distinguish between products and the marketing system can test and assess the difference between the qualities. If such were the situation, then the WTO would have no major issue in handling such a case if both sides agreed to the labeling regime. The primary issue would be related to which of the product(s) would bear the cost of compliance. It could be that both products require labeling.

3.3Geographical indications (GIs) are a type of intellectual property based on country of origin of a product and special characteristics of the good in the country/region where it is produced (Feta cheese, Champagne, etc.), and that quality is reflected in the name of the

product. Without GI there would be mkt confusion, particularly on the part of the consumer. With GI producers have monopoly power over price and can charge higher prices. The equilibrium in (3) could have been shown as domestic producers able to charge a monopoly price.
(1) Arbitrary and consistency. Yes, the mandatory label could be done in such a manner to distinguish between goods from different countries/regions. Works reasonably well for sparkling wine and champagne.
(2) Discrimination. It does discriminate, but that is the intention because the mkt failure is that in the absence of the GI too much of the lower quality stuff would be on the mkt.
(3) Trade distortion. It is argued that there is less trade distortion with the GI because consumers can better distinguish between the goods and base their decisions based on relative prices.
(4) Imperfectly competitive behavior. The GI gives monopoly control over a name which could give more control over price to those producers protected by the exclusive use of the name. The intention of the mandatory label could have been rent seeking.
(5) DSM. GIs have caused tensions between member states on account of the protection and support it affords to producers who have exclusive use of the name, but once a GI is agreed it should reduce trade distorting, discrimination, misinformation and disputes.

GI mkt




If consumers who had concerns with quality had a strong WTP, then domestic producers could have charged monopoly prices while reducing quantities (relative to case 1). The product is differentiable and the relative ratio of prices is $[P_D]_{GI}$ / $[P_D]_{differ}$.

**ECN330, Dec 2012 exam**

**Part 1.** Explain whether the following statements are true, false or whether it depends. If depends is your answer, be sure to explain upon what it depends. (25 points)

1.2. It is possible for a preferential market access agreement to be both trade diverting and trade creating at the same time.

1.2. If the different modes of services are close substitutes, then it is easier to predict whether a country's comparative advantage is the result of trade, or international flows of either capital or labor.

1.3. Consider the relevance of the WTO Sanitary and Phytosanitary (SPS) Agreement for economic entities interested in setting their own private SPS standards, e.g., retail firms, producers, certifiers and non-government organizations. It would be WTO-inconsistent to allow a private standard on a product such as bananas by a supermarket chain.

1.4. The economic logic behind the blue box support under the Agreement on Agriculture is that a blue box measure is less trade distorting than its amber box equivalent on a per unit basis because less trade protection is afforded on products receiving blue box support.

1.5. If a lack of intellectual property protection in an international trade context resulted in a cross-border externality, then a trade sanction can correct the problem and improve welfare.

**Part 2.** Briefly answer the following questions or provide the requested information. Relate your answers to concepts discussed in class and avoid unnecessary information. (45 points)

2.1. The Uruguay Round of GATT established: the WTO definition of a subsidy; categorized agricultural support into a green, blue or an amber box; and required members to estimate the value of their product-specific and total farm support under the computation of the Aggregate Measure of Support (AMS). The Organization for Economic Co-operation and Development (OECD), a research institute, also has indicators of agricultural support defined in six categories of support: (A) support based on commodity output; (B) payments based on input use; (C) payments based on current area/ animal numbers/ receipts or income (A/An/R/I); (D) payments based on non-current A/An/R/I (i.e., fixed on a base rate in terms of area, livestock numbers, or farm value) where production is required; (E) payments based on non-current A/An/R/I where production is not required; and (F) payments based on non-commodity criteria. Keep in mind the WTO definitions and structure your answers according to the table below: (15 points)

2.1.1 How do the OECD's categories relate to the WTO support boxes? Explain. (10 pts)

| OECD category | WTO box category | Explanation |
|---|---|---|
| A | | |
| B | | |
| C | | |
| D | | |
| E | | |
| F | | |

2.1.2 Is the OECD's approach an improvement over the WTO's methodology? (5 pts)

2.2. When Spain and Portugal joined the European Community (EC) in 1986, the United States was a net exporter of agricultural goods to the two countries. The US threatened to place heavy duties on imports of selected products (e.g. wine, Scotch whisky and other luxury-type goods) unless the EC permitted greater access to US goods. Think about the implications of a common market and the state of multilateral trade rules on agriculture before the creation of the WTO when answering the following: (15 points)

2.2.1 What could have been the motivation behind the US policy action? Carefully explain (the line of argumentation is important not the specifics). (10 points)
2.2.2 Could the action have been a justified response to EC enlargement? Explain. (5 pts)

2.3. Trade policy for goods has mostly been characterized by tariffs, but successive rounds of GATT negotiations successfully reduced barriers via across-the-board cuts in trade taxes. Non-tariff barriers (NTBs), however, are more complex. Think about differences in the policy objectives between tariffs and NTBs when answering the following: (15 points)

2.3.1 Provide a *list* of NTBs and explain what the policy objectives might be. (10 pts)

| List of NTBs | Likely policy objectives |
|---|---|
| | |
| | |

2.3.2 Using the info provided in 2.3.1 explain why trade in services might be more oriented toward NTBs. (5 points)

**Part 3.** Answer the questions related to the trade policy scenario described in the paragraph below. Be specific and explain your answers to the best of your ability. Label your graph(s) clearly and explain them. Define concepts you think will support your answer. (30 points)

3. For most of the 2000s, coinciding with China's accession to the WTO, China had a most favored nation (MFN) rate of tariff on imports of new cars of 25% and 10% on imports of car parts. However, China imposed a special 25% domestic tax on car parts when/if foreign parts made up more than half of the value of a vehicle. In 2008, China introduced a domestic "green tax" on cars that was differentiated based on the size of its engine: engine capacities larger than 4.1 litres had a 40% sales tax applied; engines between 3 and 4.1 litres had a tax of 25%; and the smallest cars with engines less than 1 litre had a tax of 1%. The idea is that the bigger the engine size, the more fuel it consumes and more pollution it emits. Consider China's WTO market access commitments and the likely policy objectives of the tariffs and the domestic tax on new car imports and car parts when answering the following: (30 points)

3.1. Discuss the WTO consistency of the MFN rates on new cars and car parts, and the special domestic tax on car parts. Focus on likely motives of the policies and make explicit your assumptions. What is the trade policy equivalent of the special domestic tax? (10 points)
3.2. Model and analyze the economic and trade effects (*from China's perspective*) of the differentiated "green tax" by defining two types of cars on the Chinese market: those having a large engine and those with a small engine. Suppose that new car imports were disproportionately on cars with larger engines and that China's car production was mostly of those with smaller engines. Make your other assumptions explicit. (10 points)
3.3 Using your results in 3.2 explain whether the "green tax" is consistent with WTO rules. Be very specific in your reasoning and explanation of WTO rules and agreements. (5 pts)
3.4 Would an increase in the petrol tax be an improvement over the green tax if the policy intention in trade and the social policy objectives were the same? Be specific. (5 pts)

**Summary solutions**

1.1

T. It would be a case where a low cost producer is excluded from the trade block. There would be increased intra-block trade at the expense of extra-block trade.

1.2

F. The provision of services across the modes of services can be the result of different advantages: cross-border provision of services can be the result of trade-related advantages, economies of scale (banking and insurance services), communications or transportation infrastructure; services provided through consumption abroad can be the result of specific endowments (natural or historical in the case of tourism) or specific investments made in education and medical facilities (in the case of related services); commercial presence could be the result of the previous endowment of capital stock coupled with other advantages from early entrance into a sector; and presence of a natural person could be the result of the previous endowment of skilled labor coupled with other advantages from provision of services or related goods production. Hence, it should be more difficult to determine the source of comparative advantage.

1.3

F. SPS only says that regs should be proportional to the objective and that the measure be based on science. There is no requirement that an international standard be met. Hence price stds are permissible if/when they are justified and can be implemented in such a way as to not be more trade distortive and comply with the WTO principles of non-discrimination (MFN and nat'al treatment), predictability and transparency.

1.4

F. Blue box support only requires that a coupled income support payment (to prodn) be based on some fixed amount of the prodn that existed in the base period. Amber box support also include coupled income support but did not require prodn limitations, but rather that a ceiling in the value of support not be surpassed. Blue box support per unit of output is no different than amber box support if/when it is accompanied by price support through MA restrictions.

1.5

T. Suppose the externality is because trade in pirated goods is rival to trade in the genuine product. If the pirated good, which is cheaper, substitutes for the genuine product, then there is no reason for one to buy the genuine product. There would be no incentive to develop a genuine product, which would reduce expenditures on R+D and fewer new products would be developed because one could not recover the costs of R+D. A trade sanction can correct the problem because member states would ban trade in pirated goods from the country that was producing these products and trading only in the genuine product. This would reduce demand for the pirated good and discourage investment in such production and trade.

**Part 2**

2.1.1

| OECD category | WTO box category | Explanation |
|---|---|---|
| A | Amber | Product-specific support that directly affects Q (P, Y-support that is directly tied to Q without conditions to ↓ or limit Q) |
| B | Amber | Product-specific support through subsidized use of input, which affects Q directly (rightward shift of supply) |
| C | Amber | Product-specific non-exempt coupled income support targeting some level of Q |
| D | Blue | Coupled income support based on some fixed area or Q |
| E | Green | Fully decoupled income support that is not based on Q |
| F | Amber/green | Non-product-specific support that can have some equivalent effect; if it is non-specific and is neutral w.r.t. P, Q, T, and C then it could be green (extension services) |

2.1.2

| |
|---|
| The OECD methodology is more specific w.r.t. how payments are related to Q and on the relation of the support to the base rate of production. Support based on commodity output could include P-support thru MA protection as well. This is something the WTO rules do not address properly. The blue box support of the WTO does not really have specific economic meaning (in terms of distortion) given that market price support can still be applied to products receiving blue box income support payments. The meaning of blue box is essentially that there is a constraint on the level of production that can receive the income support. AMS calculations in the WTO exclude blue box and blue box support was not subject to reduction commitments. |

2.2.1

| |
|---|
| Discuss the features of a common mkt (FTA; harmonized external trade policy, CET and customs harmonization; L and K mobility; some harmonizing of dom regs). The US was concerned with trade diversion as a result of Spain and Portugal entering the EC. The CET of the EC would have meant Spain and Portugal would have to bring their trade policy vis-à-vis non-members in line with the EC and to provide duty-free market access to all intra-EC trade. This would likely have required Spain and Portugal to have to raise tariffs on US goods to the higher EC rates. In addition, the common market would imply that EC goods traded with Spain and Portugal would have entered duty-free, displacing US products that were once exported there. Recall two things: (1) there was an absence of multilateral trade rules before the WTO in 1995, and (2) the CAP of the EC provided agricultural producers high levels of support and protection. The US concerns would be that membership would reduce US MA to Spain and Portugal. |

2.2.2

| |
|---|
| One could make the case the US was justified because Spain and Portugal's entry into the EC would result in trade diversion (increased trade for intra-EC trade but at the expense of US-Iberian trade). In addition, GATT/WTO rules require (in theory perhaps but not in law) that the CET should make trade more liberal rather than more restrictive. In Spain and Portugal's case they would be required to adopt the CET. The accession was not a negotiation of rates under the CET and so Spain and Portugal could not negotiate lower tariff lines for sectors in which they were more liberal. On the other hand, Spain and Portugal broke no rules because there were no bound rates on agriculture goods and Spain and Portugal would be within their right to raise tariffs on US products. |

2.3.1

| List of NTBs | Likely policy objectives |
|---|---|
| | Effects of a tariff: $\downarrow Q_{import}$, $\uparrow P_D$, $\uparrow Qs$, tax revenue, $\downarrow P_W$ (large county) |
| X, M quotas; licensing requirements | Full control of domestic mkt, Pd, trade, Qs, % of domestic mkt share, BOT and BOP (in addition of possible Pw or TOT effects). Strict limits on MA. Administrative requirements limit foreign MA; violate NT. |
| Subsidies | Support for local input use, capital utilization, return on K, encourage investment, indirect means of reducing MA; discriminate against foreign participation |
| SPS/TBT regs | Stds related to plant, animal and human health/safety and environment; and technical requirements on production, processing, assembly, storage or transport of goods/provision of services. Have a purpose that is different from a trade objective. Intended to facilitate trade rather than restrict MA or promote X through subsidies. |
| Gov't procurement | Limits foreign participation in gov't purchases of goods and services. Regs in the name of protecting culture and sectors deemed in the national interest or strategic sectors. |
| Competition policy / state | Regs that affect competition in general and limit competition from foreigners to provide space for local firm(s) to control domestic market. |

| | |
|---|---|
| trading | |
| TRIMS | Measures that affect investment (diversion of investment through restriction or promotion of foreign capital); diversion of investment can affect trade having tariff, quota and/or subsidy equivalents. |
| IP protection | Protection of intellectual properties to give a return to inventors or holders of the IP; can temporarily reduce competition to give holder monopoly status. |

2.3.2

Trade in services is not easily taxed because of the characteristics of a service (intangible; non-tradable; non-storable; non-separable; non-homogeneous). Regs are more necessary in services because of these characteristics and the interrelated problems that can arise: internalities from asymmetric information, problems with mkt power of service providers, and externality (from network effects). Because of the experiential nature of the service, regs ensure quality, competence, safety, and set some minimum standards where industry standards might not exist.

Regs can be aimed at provision, production, provider or consumption. Regs are specified by the modes of its provision: (1) cross-border trade would be the most logical to tax as a tariff but the intangible aspect of TIS makes it difficult to do so (especially with services provided through the internet rather than regular postal services); (2) consumption abroad, while involving international transactions, is difficult for the Home country to tax its citizens for services consumed abroad (which violates the principle for taking at the point of consumption); (3) commercial presence would have no logic in applying a trade tax a foreign company which produces and provides a service in the Home mkt in a manner similar to a local firm; and (4) presence of natural persons would not have any logic in applying a trade tax on foreign labor that is temporarily hired for skilled labor contracted in the Home market. If the concern was about foreign competition and the right to foreign labor, then the issue is about visa requirements and not a tax of "imports" of foreign labor.

Part 3.

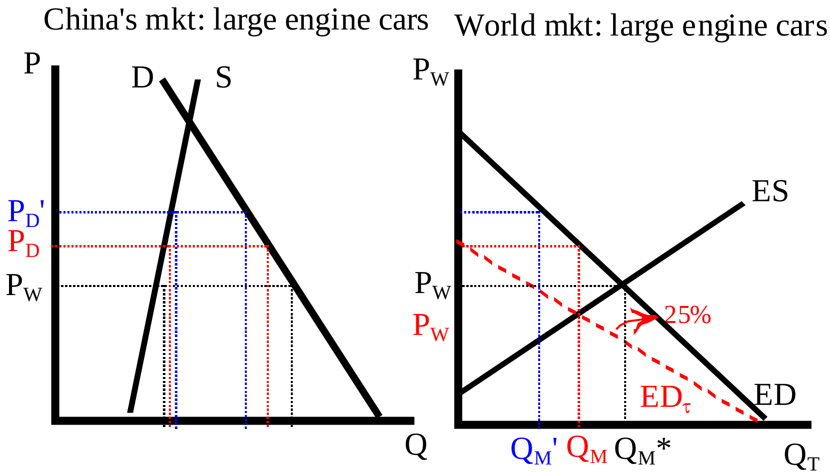
3.1

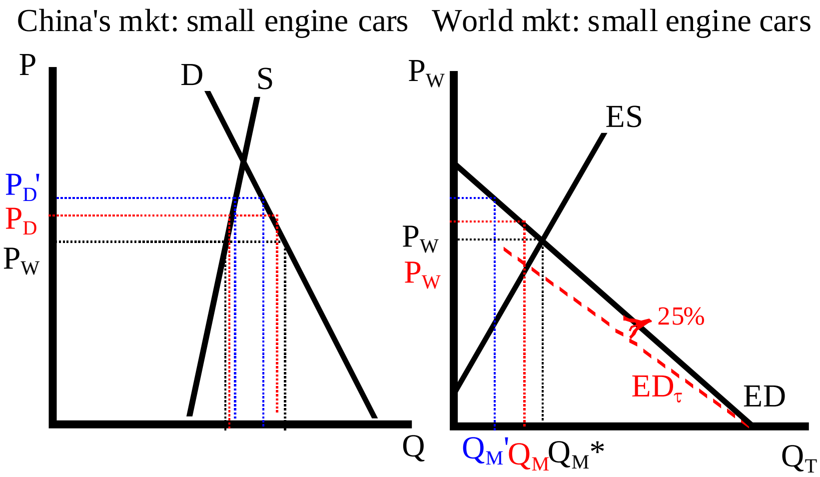
The higher MFN tariff rates on cars r.t. car parts is an example of tariff escalation, a problem that is seen in general among member states. The motivation is to encourage increased value-added productive activity (manufacture, assembly and production of a final good, e.g., car) rather than lower-valued activity (production of parts for export). While tariff escalation under WTO rules is not a violation, there are efforts underway to reduce the incidence of tariff escalation, primarily in production sectors that favor developing countries. The lower tariff on car parts could encourage imports of car parts that are then assembled into "Chinese" cars made from foreign parts.

The special domestic tax is a violation of WTO rules because it is essentially a local content requirement, serving as a proportional quota and affecting MA. This has the effect of raising MFN rates on parts from 15% to 25% on some range of car part inputs (up to 50% of the value of a vehicle). The motivation for this tax could have been because the rate of tariff on parts was too low and that too many cars produced in China where merely assembled in China. The policy intention then was to restrict final products and ensure that domestically produced cars met the 50% value target.

3.2

Partial eqlbm model of large- and small-engine cars. Assume that China is a net importer of both but imports more large-engine cars. The cars are substitutes to some extent, MFN tariff rates are the same, but the domestic tax rate is higher on large-engine cars. If the large-engine car has a higher Pw, then an ad valorem tariff will increase the Pd on large cars by more than the small car (more protection where it is needed). The higher domestic tax will ensure that the P of a large-engine car increases relative to the small-engine car. Imports of large cars fall by more than for small cars, but China's relative comparative disadvantage is lower on small cars. The political objective would be clear (more self sufficiency).




3.3

The green tax can be consistent with WTO rules and agreements, SPS in particular. Countries can apply different tax rates on products so long as there is scientific justification for the non-uniform rates of taxation (even if they result in trade distortion) because the intention is to achieve some other social policy objective (reduce pollution) rather than to distort trade. In this case, it is a straightforward proposition to argue that large engines are more energy consuming and contribute to more pollution than smaller engines. So, while trade distortion might occur, foreigners can still export small cars rather than large cars in the Chinese market (even though it appears China might have a comparative advantage in their prodn rather than large engine cars).

3.4

A petrol tax would affect the cost of how much one drives of either car. The green tax intends to distort the consumption of the type of car, but does not affect how much one drives the car. The policy intention is really about total emission of pollutants. The issue really is about determining how much drivers will drive, either big or small engine cars. Encouraging consumption of smaller-engine cars might result in more driving and more pollutants than discouraging large-engine car purchases.

**Dec 2011 Exam**

**Part 1.** Explain whether the following statements are true, false or whether it depends. If depends is your answer, be sure to explain upon what it depends. (25 points)

1.1 One argument in favor of regional trade blocs (over multilateral trade liberalization) is that preferential deals reduce tariffs faster which then reduce distortions in trade patterns associated with rules of origin requirements.

1.2 Suppose industrialized countries become increasingly similar in their level of technology and the productivity of their capital and labor. Trade disputes between such countries at the WTO are more likely to be the result of differing policies or regulations that affect capital rather than labor.

1.3 Consider the two WTO principles of non-discrimination, national treatment and most favored nation (MFN) status. Applying the least-trade distorting criteria is relevant for national treatment because it involves domestic regulation but not for MFN because it involves trade policy.

1.4 A domestic value-added tax (i.e., a consumption tax) that is not applied on domestically-produced goods which are exported does not violate the principle of national treatment.

1.5 An argument by opponents of the WTO TRIPs (Trade-related intellectual properties) Agreement is that protection of intellectual property amounts to an income transfer from developing country consumers and firms to foreign, mostly industrial-country firms.

**Part 2.** Briefly answer the following questions or provide the requested information. Relate your answers to concepts discussed in class and avoid unnecessary information. (45 points)

2.1 The degree of globalization is often measured as the value and volume of international trade in goods and services. However, an increasingly important factor supporting trade in goods and services is greater mobility of labor and capital across borders. Think about how the WTO legal texts related to trade in goods (the General Agreement on Tariffs and Trade, GATT) and services (the General Agreement on Trade in Services, GATS) address the rules that affect the international mobility of labor and capital when answering the questions that follow. Use the table below to structure your answers. (15 points)

2.1.1 How do WTO rules under the GATT and GATS treat international capital mobility? (8 points)

2.1.2 How do WTO rules under GATT and GATS treat international labor mobility? Does the multilateral process under the WTO treat international labor mobility differently than an economic integration process such as the European Union? Explain. (7 points)

| | GATT, trade in goods | GATS, trade in services |
|---|---|---|
| 2.1.1 Capital mobility | | |
| 2.1.2 Labor mobility | | |
| | Regional economic integration process | |
| Labor mobility in EU | | |

2.2 Trade policy has the effect of creating a difference in price for a good on the domestic market and at the border. Imperfect competition by a firm that can price discriminate in different markets could also create a similar situation. Keep in mind the WTO definitions and the differences in economic behavior behind cross-subsidization, dumping and export subsidization in the context of the following questions (15 points):

2.2.1 Consider a net exporting country with a domestic state-trading monopoly, which has complete control over the country's domestic sales and its exports *but not* over world trade in the good. That is, one firm exports the country's exportable surplus, but that firm must compete on the world market. What market situation could result in a price difference on the domestic market relative to the world market such that other countries would claim the state-trading firm is trading unfairly? Explain. (10 points)

2.2.2 Could you argue that the price difference is the result of a normal business practice? Would the market situation described in 2.2.1 require a particular trade policy regime? Explain. (5 points)

2.3 The multilateral system for trade liberalization under the WTO has basic principles that are intended to facilitate trade through a rules-based orientation and with commitments that are enforceable. Keep in mind the economic theory behind trade liberalization when considering the basic principles in the questions below (15 points):

2.3.1 *List* the basic principles upon which WTO rules and agreements are founded. Which one of these principles is most likely to be argued by a neo-classical economist to be misguided for measuring the benefits versus costs of trade? Explain. (10 pts)

2.3.2 Would the principle you identified in 2.3.1 as the most misguided from a neo-classical economist's perspective be inconsistent with the negotiation of bilateral trade agreements between developed and developing countries? Explain. (5 points)

**Part 3.** Answer the questions related to the trade policy scenario described in the paragraphs below. Be specific and explain your answers to the best of your ability. Label your graph(s) clearly and explain them. Define concepts you think will support your answer. (30 points)

3. Some policymakers argue that consumers can shape trade policy directly in the marketplace through their socially-conscious purchasing decisions (e.g., by choosing to buy products that are consistent with their views on environmental sustainability, human rights or animal welfare). Think about the trade and economic implications of such consumer-driven purchasing behavior when addressing the following scenario: (30 points)

Initially there is a free trade situation where preferences are the same across countries and the goods are considered *like* products. (Assume a two-country world.)

3.1 Model (from the importing country's perspective) the economic and trade outcome of a scenario where some consumers in the importing country make socially-conscious purchasing decisions. Assume some producers in the importing market respond to the change in local demand by changing their production practices, but no regulatory or trade policy action is taken. Discuss your results and assumptions. (10 pts)

3.2 Policymakers in the importing country concerned with the absence of market regulation for the situation in 3.1 pass a law requiring a higher standard on all domestic production to meet the demands of the socially-conscious consumers. In addition, two alternative policy actions are being considered: (a) a requirement that imported goods meets the higher domestic regulatory production standard, or (b) that an ad valorem import tariff is applied on imports equal to the cost-equivalent of the domestic regulation. As the head of a commission that must advice the government you must model or descriptively analyze the effects of the policy options in terms of their domestic market and trade effects and determine whether either could be WTO-compliant. (10 pts)

3.3 What is a technical barrier to trade (TBT) under WTO rules and how does a TBT measure relate to this trade scenario? Could a TBT measure facilitate trade in the context of this scenario? Explain and be specific. (10 points)

---

**Summary solutions ECN330 exam Autumn 2011**

## Part 1.

1.1

F/D. ROO requirements are non-trade barriers that define the % local content a product must contain to be considered as good made in the bloc. This amounts to a quota on imported inputs into local production. Even a duty-free tariff will not necessarily resolve the quota-equivalent effect of different local content requirements. Product standards and technical regulations must be removed too, something which the proliferation of regional blocs has yet been able to do.

1.2

T/D. Countries with similar technology and K/L ratios are more likely to have similar prodn fcns and trade patterns less based on factor endowments (i.e., patterns more likely based more on intra-industry trade and differentiated products). Disputes are more likely to be about subsidies or dumping, unfair firm behavior, gov't support of R&D, intellectual property protection/enforcement, or enforcement of competition regs than of low wages or unenforced labor standards. The labor used with greater amounts of sophistical capital is considered high-wage, skilled "human capital" which typically is not targeted by unions and for which immigration law is more relaxed.

1.3

F. For two reasons: (1) Applying the least-trade distorting criteria is necessary for both national treatment and MFN. In the context of MFN, an ad valorem tariff is less-trade distorting relative to an equivalent specific tariff, particularly if the net importing country has a long-run comparative disadvantage. (2) MFN in trade in services involves domestic regulations. However, at present, the commitments under GATS can be inconsistent with MFN and not be considered violation of WTO rules (e.g., a restriction on the number of foreign firms that can participate in the provision of some service in some sub-sector).

1.4

T. It is considered more economically efficient to tax at the point of consumption and not at the point of production. National treatment in this context means that a value-added (consumption) tax must be applied equally to a locally produced good and a *like* foreign-produced imported good. An ad valorem tax would not distort production or trade. Because an exported good is not consumed in the home market, the tax should not be applied in the home market, which would tax production and discourage exports / distort trade.

1.5

T/D. This depends on which type of country is most prevalent in the creation of patents, trademarks and copyrights. Intellectual property protection is essentially short-term monopoly power to the holder of the intellectual property. If industrial countries are the more likely holders of intellectual property, then the monopoly power afforded to its firms, the owners of IP, will imply higher prices and rents for those firms as a means of recovering the cost of producing the intellectual property. Developing country importers of goods produced under IP protection would have to pay the higher prices.

## Part 2.

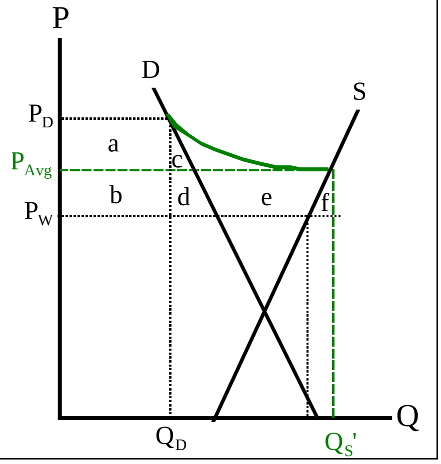
2.1.1
2.1.2

| | GATT, trade in goods | GATS, trade in services |
|---|---|---|
| 2.1.1 Capital mobility | Int'al K related to the prodn of a good is covered under the TRIMs | Int'al K mobility is covered under all service sectors under mode 3, |

| | | |
|---|---|---|
| | agreement. A trade-related investment measure is one that results in investment and or trade distortion. Foreign capital in the production of a good should be consistent with the basic principles of the WTO, particularly non-discrimination, and the other rules (treatment of quotas, subsidies, etc) | "commercial presence" or for financial services commitments. These fall under country-specific commitments and countries specify how regs will affect how foreign services and/or service providers will be treated in terms of market access and national treatment. |
| 2.1.2 Labor mobility | GATT says nothing about labor mobility in the context of production of goods and there are no commitments on foreign labor used in domestic production. A country's labor laws and immigration policy define the constraints upon int'al labor mobility. | Int-al L mobility is covered under all service sectors under mode 4 (and under the horizontal commitments). The conditions upon which foreign labor can participate in the country are spelled out in the horizontal commitments and can be as restrictive as the county's labor laws and immigration policy allow. |
| | Regional economic integration process | |
| Labor mobility in EU | Unlike the WTO, which does not intend as a goal to facilitate labor mobility (either in goods or services production), the EU has the freedom of movement of persons as one of the four freedoms that are granted under its treaties. Thus, the single market includes a single labor market in the sense that EU workers can participate in other EU markets, but the mobility is limited in that each country has its own labor laws and regulations, but the regs confer national treatment on foreign workers (regardless of whether the labor works in goods or services sectors). | |

2.2.1

The monopoly status on the domestic market could allow a price discrimination situation whereby the domestic monopoly charges a higher price in the domestic market and a lower price on the world market. This results in a cross-subsidization situation whereby domestic consumers, who pay a higher price for the good, finance the exports of the good at a lower price on the world market. This "dumping" could be argued by foreign exporters to be an unfair trade situation that is supported through the lack of proper enforcement of competition rules (i.e., allowing a state-trading monopoly to exist).



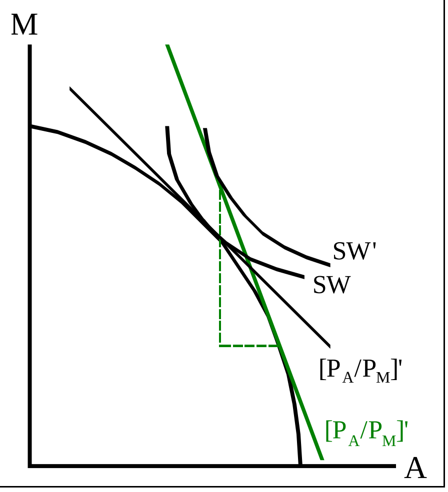

2.2.2

Depends. Price discrimination can be a normal business practice able to occur because of differences in price elasticity of demand in the two markets. In this case, there are two other factors to consider: (1) what trade policy exists by this country and (2) there is a monopoly situation whereby there is a lack of enforcement of competition policy. If the price discrimination is not also supported by trade policy restrictions, then one could argue that the price difference is based on different preferences, but then one must address the possibility of some abuse of  mkt power by the monopolistic position of the firm. If there were no market access restriction (a tariff or a quota or the prevention by the firm of control over imports), then the price discrimination would be a market-based, demand-side difference. However, it is more likely that the price differential would require tariff protection to help support a higher price internally. If area [a+b] > area [d+e+f], then domestic consumers finance the loss on exports and domestic support and/or export subsidies are not required. The firm's behavior allows domestic producers to have a higher average price than under a competitive free trade equilibrium.

2.3.1

Basic principles:
1. MFN
2. National treatment
3. Predictability
4. Transparency
5. Reciprocity
6. Safeguards/flexibility.

Reciprocity is a political bargaining tool that exchanges market access. Reciprocity goes counter to the logic for trade liberalization because a country can unilaterally liberalize trade and improve its welfare.



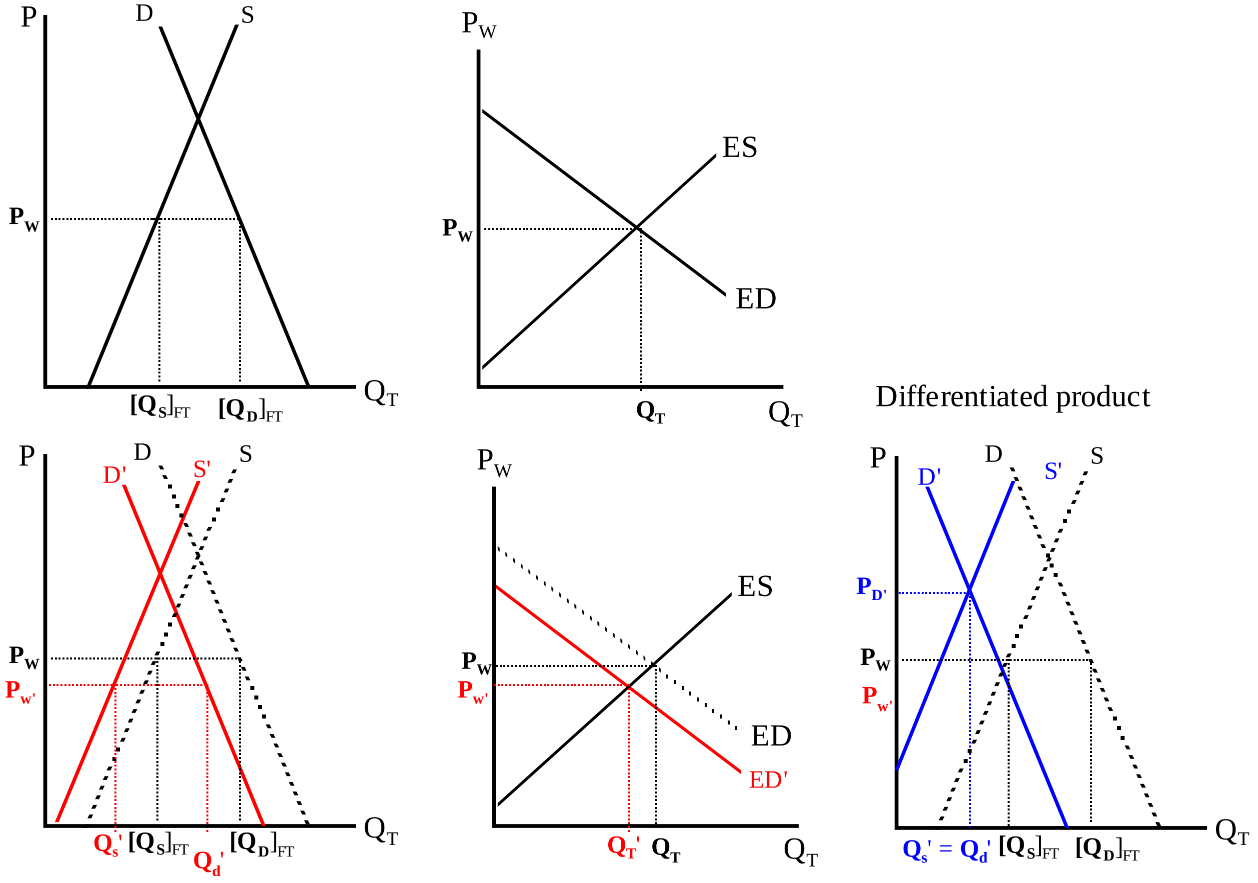

2.3.2

Depends on the type of bilateral trade arrangement that is negotiated. Preferential bilateral deals between developed and developing countries do not require reciprocal arrangements. The developed country applies conditions and terms for the MA that is afforded to the developing country (and which can usually be unilateral revoked). Reciprocity would be inconsistent with preferential trade because the liberalization is based on preferences which by definition discriminate. These bilateral agreements produce a margin of protection/support different from that under the multilateral system, which would/could make negotiations more difficult at the WTO.

**Part 3.**

3.1

The top graph shows the initial free trade situation with the local and foreign good treated as a like good (identical). The graphs directly below show a ↓ S (some producers change prodn practices to meet differentiated product stds) and a ↓ D (shift toward socially conscious good) relative to the initial situation (dotted line). The relative magnitudes of the ↓ D and S (solid red lines) are not known. Trade in the undifferentiated good still occurs. If ED is smaller, then both **$Q_T$' and $P_W$'** ↓. There are now two separate product markets, one that is produced under the conditions meeting the demands of socially-conscious consumers (and is not traded), and the other good that does not meet those demands (which is still traded). It is not clear what the production and trade implications are, but some of the market will be captured by the domestic producers of the good with the higher standard (autarky situation), and the decrease in production of the other good could be met by decrease in demand for it. Assume that the production costs are higher to meet the higher standard. Domestic producers that produce at the higher std could be at a disadvantage if there is no regulatory control. The price difference between **$P_D$'** and **$P_W$'** would be incentive to cheat. But it will depend on how substitutable the products are and how differentiable they are and the relative change in S, D of the unchanged good.




3.2

Option (a) would imply one good in the importing country, the differentiated good. All production and imported good in the domestic market would meet the higher standard. Using the differentiated market from 3.1, the S and D shifts to the right but probably not back to the original S, D curve because its production has a higher cost and demand cannot be assumed to be the same. It is not clear whether the foreign country can produce the differentiated good at the same cost margin. If the cost of the standard is 10% higher in the importing country, but higher in the exporting country, then the ES would be reduced relative to the initial free trade situation and trade would be lower.

Option (b) requires the cost-equivalent of the higher production standard. If the additional cost were 10%, then the ad valorem tariff is 10%. This would appear to remove the trade distorting nature of the higher production standard by bringing relative prices of the two goods more into line. Obviously, there is some trade distortion, but more important could/would be the confusion on the domestic market. There are still two products, the differentiated which is the locally produced good, and the imported good which likely be the non-differentiated at a higher cost. A regulatory regime to distinguish the two goods is necessary.

WTO compliance: option (a) would be consistent with national treatment but would violate mutual recognition – forcing another country's producers to meet a higher std than is int'ally recognized (the non-differentiated product is not necessarily less safe). Option (b) could be consistent if the 10% tariff is below the bound rate of tariff.

3.3

TBT deals with production standards. This is a case whereby one country is forcing another country's producers to meet a higher std than an established international std. Domestic standards can differ from international standards but cannot be used to distort trade. A means of introducing TBT measure could be a labeling regime that states the product was produced according to another standard (as a means of marketing to consumers with different preferences and willingness to pay). The labeling regime would improve the market functioning without the need to distort trade (forcing foreign producers to meet the standard or to impose a tariff equal to the cost of the higher standard).

## Dec 2010 Exam - Summary solutions

**Part 1.** Explain whether the following statements are true, false or whether it depends.

1.1 *Ad valorem* tariffs are the preferred import restriction under WTO rules because they are more price neutral and price stabilizing on the domestic market even in a dynamic market context (i.e., changes in international supply/demand) relative to other import restrictions.

F. It is correct that ad valorem tariffs are more neutral w.r.t. relative prices and consistent with non-discrimination, but tariffs are not price stabilizing in a dynamic market context. A change in the world mkt situation that ↑ $P_W$ would have a magnified effect on $P_D$ with an ad valorem tariff. A quota, which is inconsistent with MFN, can be more P-stabilizing for the domestic market.

1.2 Discrimination whereby domestic firms are charged a domestic tax of 33% but where foreign firms are charged only 15% violates WTO rules. This violation could not be challenged at the WTO because the government of this country would not take up the case against itself.

F. Domestic taxes, a national regulation, that discriminate in favor of foreign firms could be intended as a subsidy to encourage foreign firms to set up locally, resulting in investment (and possibly trade) diversion. A 3rd-country government can challenge the violation of national treatment as a TRIMs or a subsidy violation that discriminates against their exporting firms.

1.3 It is argued that regional trade blocs achieve greater trade liberalization than the multilateral process. However, one case against regional trade agreements is that differing rules of origin across trade agreements limit trade in a manner that a multilateral agreement would not.

T/D. Regional trade blocs can achieve greater liberalization than the multilateral trade process through preferential tariffs that are lower than MFN rates, and through coverage of liberalization across trade in services, and conditions on foreign investment and labor. However, preferential market access can create situations that require measures to prevent trade diversion. For example, an imported log by one member of the regional bloc that originates from a non-member country can then re-export the log (or a wood product that used the imported log as an input) to other member countries at the preferential rate. Hence, members of the regional bloc might require a definition of what % content a product requires to be originating from the regional bloc.

1.4 A tariff-rate quota is a means of restricting the volume of imports in a manner that is most-favored-nation (MFN) consistent because quota overfill (imports greater than market access quota) is possible and are charged the MFN tariff rate.

F/D. A TRQ is a quota and generally cannot be applied in a manner that is consistent with MFN. There are methods of administration that are less discriminating relative to other methods, ie., an auction of import licenses or by historical allocation where import shares are stable over time. For imports beyond the quota, the statement could be correct, but imports at the in-quota rate (where the MA quota is filled) will likely discriminate.

1.5 Consider the provision of a service under modes 3 and 4. The provision of a service in the home market by a foreign provider under mode 4, i.e. the temporary movement of a natural person, requires the establishment of a commercial presence in the meaning of mode 3.

F. A foreign service provider who enters the home market as a temporary natural person does not need to be an employee of a foreign service-providing firm that is located in the home market through foreign direct investment. A specialized technical good that was exported to the home market that requires repair or upgrading could be serviced by a foreigner who must cross the border to service the good (if and when a local is not trained to do so).

**Part 2.** Briefly answer the following questions or provide the requested information. Relate your answers to concepts discussed in class and avoid unnecessary information. (45 points)

2.1 The economic integration process pursued by European nations is argued to have been guided by two ideas: the creation of a customs union and product market integration. Consider the political and institutional implications of these two economic concepts when answering the following questions:

2.1.1 *List* the necessary trade policy and regulatory steps needed to take to create a customs union. (5 points)

| |
|---|
| Customs union:<br>* Harmonization of trade policy<br>- duty-free, quota-free trade among member - common external tariff<br>* Harmonization of customs procedures and customs revenue-sharing (common customs) |

2.1.2 Is there any inconsistency between the goal of creating a customs union and pursuing product market integration? Explain. (10 points)

| Customs union: | Product market integration: |
|---|---|
| * Harmonization of trade policy<br><br>* Harmonization of customs procedures | * Requires creation of a customs union<br>* Harmonization or approx of regs with equivalent effect as trade policy (SPS, TBT, gov't procurement)<br>* Common institutions (courts, competition, authorities, regulators, certification bodies) |
| There is an inconsistency between the two driving principles. The GATT only defines the minimum conditions for a FTA and a CU because these deal exclusively with the degree of "convergence" of trade policy. Product market integration goes much further than a CU and the convergence of trade policy because the objective of market integration requires more equal treatment of the good (foreign and domestic) but also of the firm (foreign and domestic). For competition to be level, the regulations and institutions on how business is conducted affect standards, technical barriers, government procurement, subsidies, etc. (all other non-trade barriers) must be harmonized or approximated. The process of harmonization or approximating regs will itself requires more common institutions such as courts (to interpret what is fair competition), regulatory agencies, accreditation bodies, etc. | |

2.2. The term subsidy is widely used in economics, but rarely defined. Despite the WTO definition, rules on subsidies are complicated because the economics of a subsidy depend on the policy objective, the form of the payment (or transfer) to the beneficiary, and the broader welfare implications of the program. Consider the definition of a subsidy under WTO rules when answering the following questions:

2.2.1 Is the WTO definition of subsidy limited by its focus on a transfer from the government in the context of trade policy? Explain with examples of trade policy. (10 points)

| Export subsidy | Import tariff | Import quota |
|---|---|---|
| * Transfer is by the gov't<br>* Payment is made based on export performance<br>* benefit is quantifiable through the value/volume of the export subsidy | * There is no gov't transfer and so it is not a subsidy by WTO rules (but is recognized as such by an economist)<br>* Support is provided by consumers of the imported good<br>* Benefit is determined on the basis of: $P_D = P_W$ + tariff rate | * There is no transfer from the gov't to producers<br>* Support to producers is the result of lower competition and the ability of domestic producers to use/abuse market power such that consumers pay higher prices. |

2.2.2 The WTO definition of a subsidy does not consider social welfare; instead a subsidy is classified by its production and trade effects. Is there an inconsistency between the economics of a subsidy and ignoring welfare effects in the WTO definition? Does the classification of subsidies into boxes make up for this? Explain. [Hint: compare a green box subsidy with a yellow box (agriculture) or red box (industrial good) subsidy in terms of its trade and welfare implications.] (5 points)

Social welfare is important in terms of determining the economic "goodness or badness " of a subsidy program. For example, an export subsidy is generally regarded as a poor subsidy program because it reduces SW of the country using this policy and distorts trade and injures the foreign industries that do have a comparative advantage in the production of the good in question. This is clearly not a green box program. A subsidy program that involves correcting for a market failure (e.g., agricultural production that is linked to greater provision of some public good) could actually be welfare improving. So, even if the subsidy program increased production and distorted trade (↑ export or ↓ imports) it should not be considered trade distorting because it is in fact welfare improving. By ignoring welfare, WTO rules avoid having to tackle trade disputes that are based on complex econometric analysis of welfare. Nevertheless, there are serious issues about whether the WTO's green box can effectively deal with welfare-improving production programs that affect production and trade. This would violate the neutrality (or the non-specificity) effect of a green box subsidy, but an economist could argue that a welfare-improving subsidy that affects trade is not a distortion.

2.3. The case for a market failure occurring in trade in services is stronger than in the case of trade in goods. Keep in mind the characteristics of a service and the market failure problems that can arise when answering the following. Structure your answer according to the table below.

2.3.1 *List* three broad types of market failures that are common in trade in services. (6 points)
2.3.2 Describe factors and/or list the characteristics of a service that can result in a market failure. Identify a service sub-sector that is subject to market failure. (9 points)

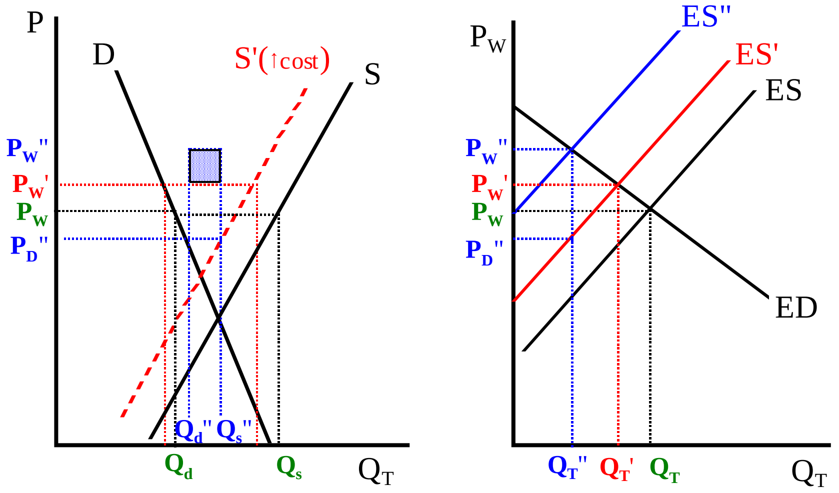
| 2.3.1 Type of market failure | List specific characteristics of services or factors resulting in the market failure | Service sub-sector that is subject to market failure |
|---|---|---|
| Internalities | * Intangibility<br>* Asymmetric info<br>- moral hazard<br>- asymmetric info | Insurance services<br>Taxi services<br>Medical/dental services<br>Professional services |
| Imperfect competition | * Heterogeneity * Non-storability<br>* Non-separability * Intangibility<br>* EOS | Air transport; telecoms; utilities |
| Externalities | * Network effects<br>* EOS | Air transport; telecomm |

**Part 3.** Answer the questions related to the trade policy scenario described in the paragraphs below. Label your graph(s) clearly and explain them. Define concepts. (30 points)

Morocco is a net exporter of tomatoes, whose comparative advantage is based on cheap labor, climatic conditions that allow year-round production, historical links to some European countries and the closeness to the large net importing European Union (EU) market. Conditions in Morocco are such that the use of pesticides is effective for production, but some of the pesticides are not used in EU production and therefore not registered there. EU regulations require that all pesticides used for products intended for human consumption must be registered in the EU (i.e., certified by EU authorities that the product is safe). These pesticides have been approved by international certification bodies, but the Moroccan authorities have not enforced mechanisms to ensure that its producers meet the "best safety practices" that are required to be certified.

EU-Moroccan trade in tomatoes is affected by EU regulations. Tomatoes produced with pesticides can enter the EU, but only if EU certifiers can inspect the product before it leaves Morocco. The cost of the certification is paid by the exporter, which is a fixed cost. About 30% of the tomatoes available for export, on average, cannot be inspected in time and therefore cannot be exported to the EU. Instead, that product is sold on the domestic market. Not using the pesticides results in substantially reduced yields and is not the preferred option.

3.1 Develop a partial equilibrium trade model to analyze the effect of the regulation on Morocco's tomato market and the trade implications relative to a free trade situation without the regulation or certification system. ***Do not*** model the EU market. [Hint: Differentiate the effect of the cost of the certification scheme on production from the effect of the inspection system on exports.] (15 points)




S and ES shifts to the left (to S' and ES') as a result of the fixed transaction cost associated with the inspection of production of tomatoes. ES" occurs as a result of the loss of 30% of the exportable surplus. The reduction in exports, assuming Morocco a large country, results in higher prices in the EU ($P_W$") which is value earned by exporters as a transfer from the EU market. The domestic market price in Morocco falls and overall production is lower. The lower domestic price increases consumption and the trade volume is lower, $Q_T$".

3.2. Is the EU regulation a measure that has a trade policy equivalence? Explain and be specific.

The EU regulation has the effect of restricting import volume and raising the domestic price in the EU. It can be argued that the regulation (apart from the fixed transactions cost) has a tariff equivalent effect equal to $P_W$" – $P_D$" or an import quota of volume $Q_T$", whereby the exporter collects the rents.

3.3. Think about the domestic market situation in the EU market and the resulting trade situation. What sort of an unfair trade complaint could the Moroccan authorities initiate against the EU as a result of the trade situation described in the scenario above? Which WTO rules could Morocco claim the EU is violating? Explain what a WTO dispute settlement panel would likely have to consider in this case. (10 points)

The regulatory regime is could be motivated by an SPS objective, but the certification involves both a TBT and SPS. The regime could also be protectionist. Focus on issues related to pesticide approval by EU and international certification bodies and the lack of a Moroccan mechanism by which authorities can ensure safety. The strongest case against the EU is that it should not have the right to impose its certification process upon Morocco. The weakest case is that if pesticide residues are found too high in the EU from Moroccan tomatoes, then all exports can be restricted until a measure is in place to ensure tomatoes are safe. The EU can only have higher safety stds than the international community only if it can prove through science that it is justified.