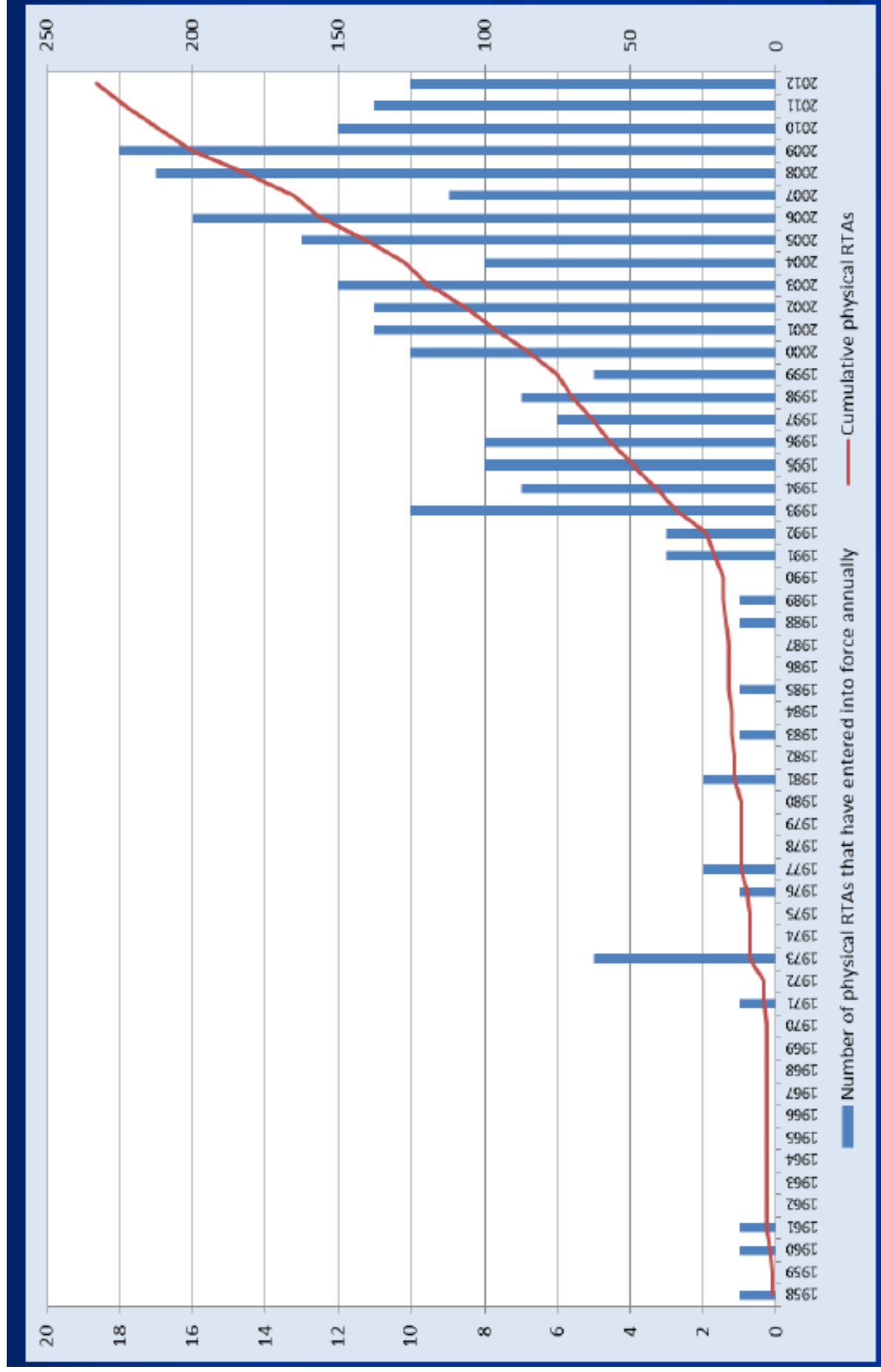


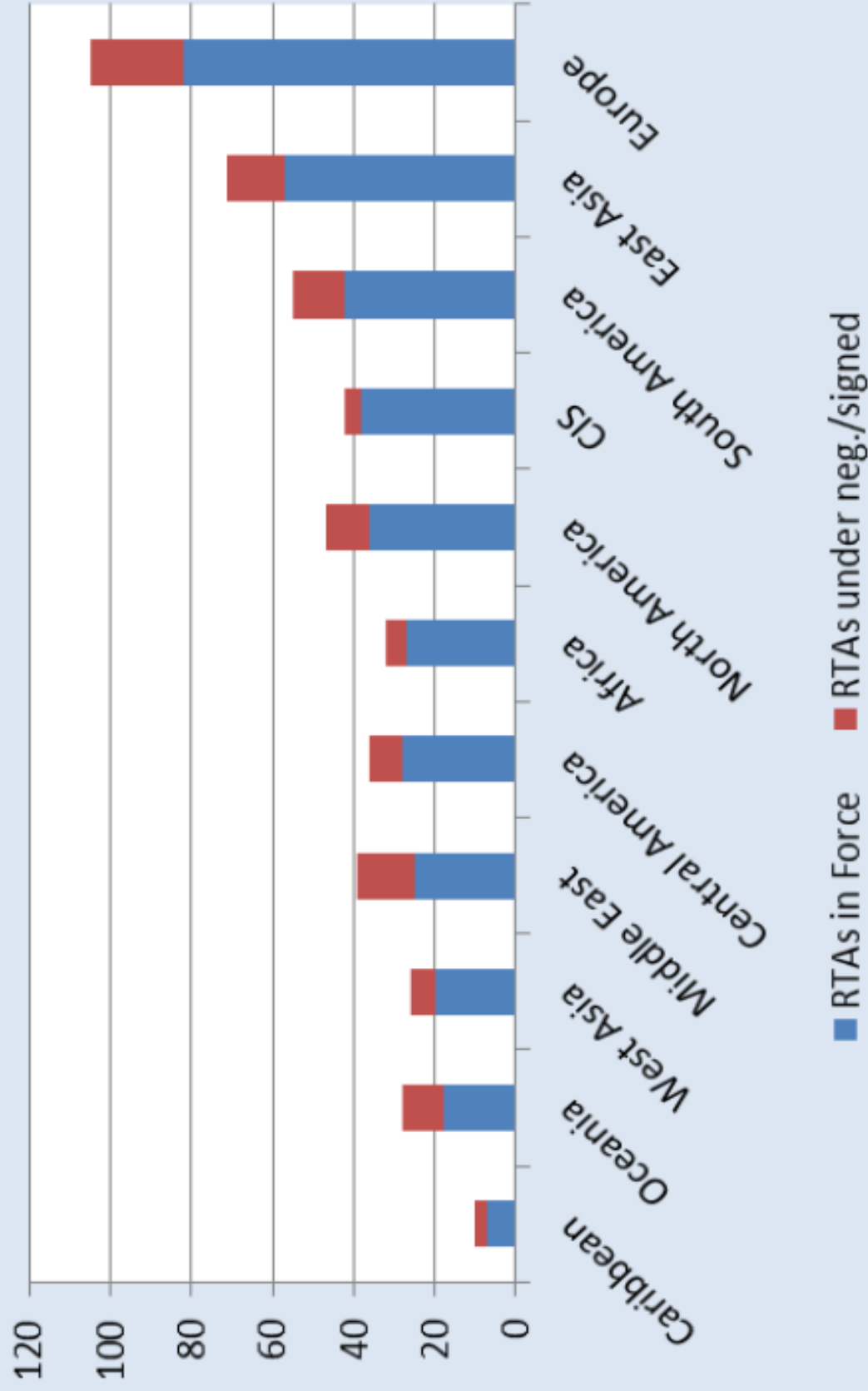
PREFERENTIAL TRADE AREAS

- **Preferential trade area (PTA) refers to union between two or more countries in which lower tariffs are imposed on goods produced by member countries**
- **Trade liberalization on discriminatory basis, i.e., concessions only made between parties to agreement**
- **In conflict with principle of non-discrimination in GATT/WTO Article 1, but allowed under Article 24 if tariffs are reduced for “substantially all trade” between parties**
- **Two key types of trading arrangement:**
 - i. **Free trade area (FTA) where tariffs are eliminated on goods produced by members**
 - ii. **Customs Union (CU) which is an FTA where a common external tariff is imposed on a given good**

- PTAs have mushroomed since 1990 – the GATT/WTO probably never envisioned this many coming into force
- As of 2102, total number of PTAs in force was 233, with many more in negotiation
- Are more PTAs actually good? Significant debate among economists:
 - i. Jagdish Bhagwati (Columbia) – “...do trade blocs serve as ‘building blocks’ or ‘stumbling blocks for worldwide freeing of trade?’”
 - ii. Larry Summers (Harvard) – “...I like all the ‘isms’, unilateralism, regionalism and multilateralism...”
- Traditional analysis suggests benefits of PTAs (*trade creation*) may be outweighed by costs (*trade diversion*)
 - i. Trade creation results from removal of tariffs between members of PTA
 - ii. Trade diversion results from non-members facing discriminatory tariffs on their goods



Source: WTO



Source: WTO

■ Standard analysis of PTAs due to Viner (1953), and Meade (1955)

■ In Figure 1, assume demand in country A for a good is vertical line $D_A D_A$, firms in countries A, B and C supplying at constant prices $P_A > P_B > P_C$, which under competition are their constant average and marginal costs

■ B and C do not trade with each other, and initially A imposes a non-discriminatory per unit tariff t , such that $P_A > P_C + t > P_B$, such that quantity demanded OQ_0 is entirely sourced from C at a price $P_C + t$, $(e+f)$ being the tariff revenue collected by country A

■ Suppose A eliminates tariff on B, but retains it on C, so that it imports from B rather than C at price P_B . As no new trade is created, trade agreement is *trade-diverting* as A substitutes less efficient imports from B for imports from C

Country A loses tariff revenue $(e+f)$, e being the loss due to higher production costs in B, while f is a gain in consumer surplus in A, global net loss being e

■ Now suppose non-discriminatory tariff in A is t' , such that $P_A < P_C + t' < P_B + t'$, entire demand OQ_0 satisfied internally

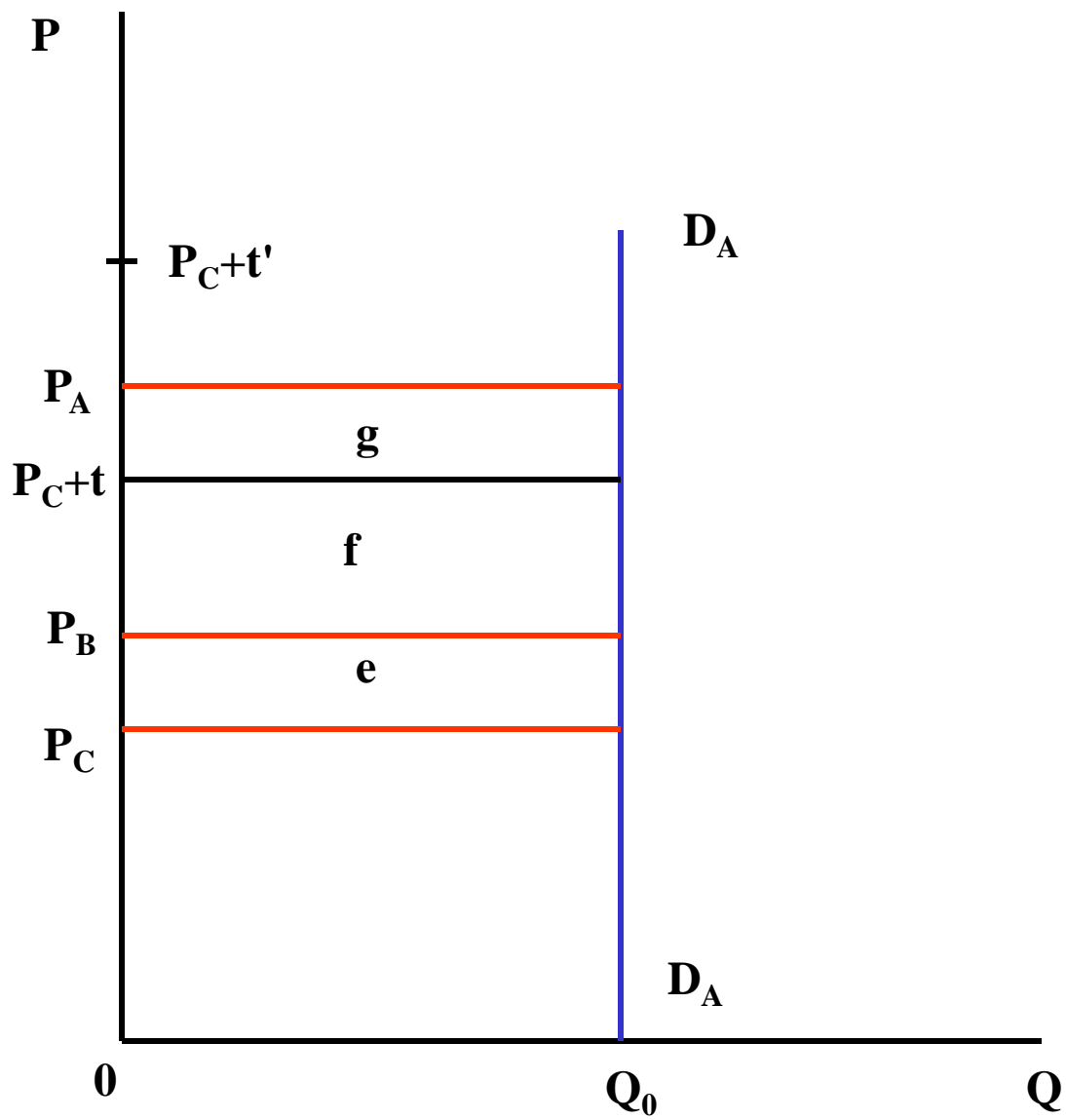


Figure 1: Trade Creation and Trade Diversion

■ Suppose A removes tariff on B, but not C, supply now coming from B not A. Price in A drops from P_A to P_B , yielding a gain in consumer surplus of $(f+g)$

■ As PTA creates new trade between A and B, and is associated with a switch from high-cost suppliers in A to lower cost in B, it is *trade creating*, welfare of A and the world rising by $(f+g)$, while that of B and C is unchanged

■ As PTA is trade creating in some goods, and trade diverting in others, in general cannot unambiguously predict welfare effects – answer depends on relative magnitudes of trade creation and diversion (Viner)

■ Lipsey (1957) has shown though that a wholly trade-diverting PTA might still result in a net increase in welfare. In Figure 2, let demand curve be $D_A D_A$, the initial non-discriminatory tariff being t , with A importing OQ_0 from C

■ Removal of tariff on B but not C, prices out the least-cost producer C, but allows an expansion of imports by A to OQ_1

■ $(e+f)$ is lost tariff revenue, f being redistributed to consumers in A, while h is the gain on new imports. In principle, h could exceed e

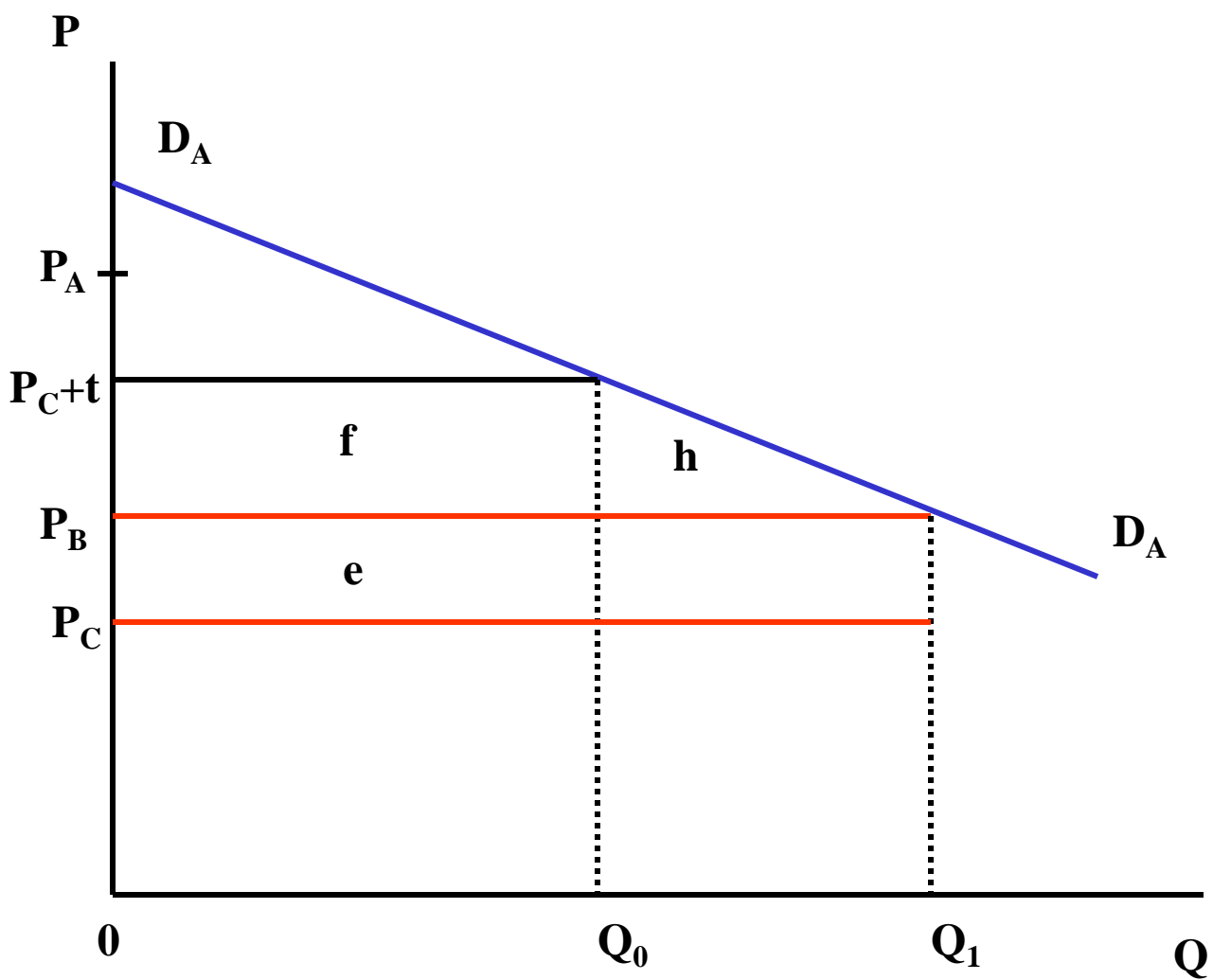


Figure 2: Welfare Gain under Trade Diversion

■ Previous model still unrealistic as it implies all of A's imports come from either B or C, but not both. In Figure 3, suppose A is still an importer of good, with import demand of $M_A M_A$, while B is an exporter with export supply of $E_B E_B$, and C's infinitely elastic supply is $P_C P_C$

■ Initially, A imposes a tariff of t on both B and C, shifting their export supply curves to $E_B^t E_B^t$ and $P_C^t P_C^t$. Internal price in A is P_C^t , with imports from B of $0M_1$, and imports from C of $M_1 M_3$. A's gains from trade relative to autarky are KGS (net surplus) and GSNH (tariff revenue)

■ How a PTA between A and B affects equilibrium depends on level of external tariff in B on imports in the post-PTA equilibrium

■ Suppose B's external tariff on the good coincides with A's, i.e., a common external tariff. Results in a common internal price of $P_C^t = P_C + t$, B's supply curve now being $E_B E_B$, with some imports, $M_2 M_3$, continuing to come from C at price P_C^t , the internal price

■ There is pure trade diversion from C to B of $M_1 M_2$, and no new trade is created

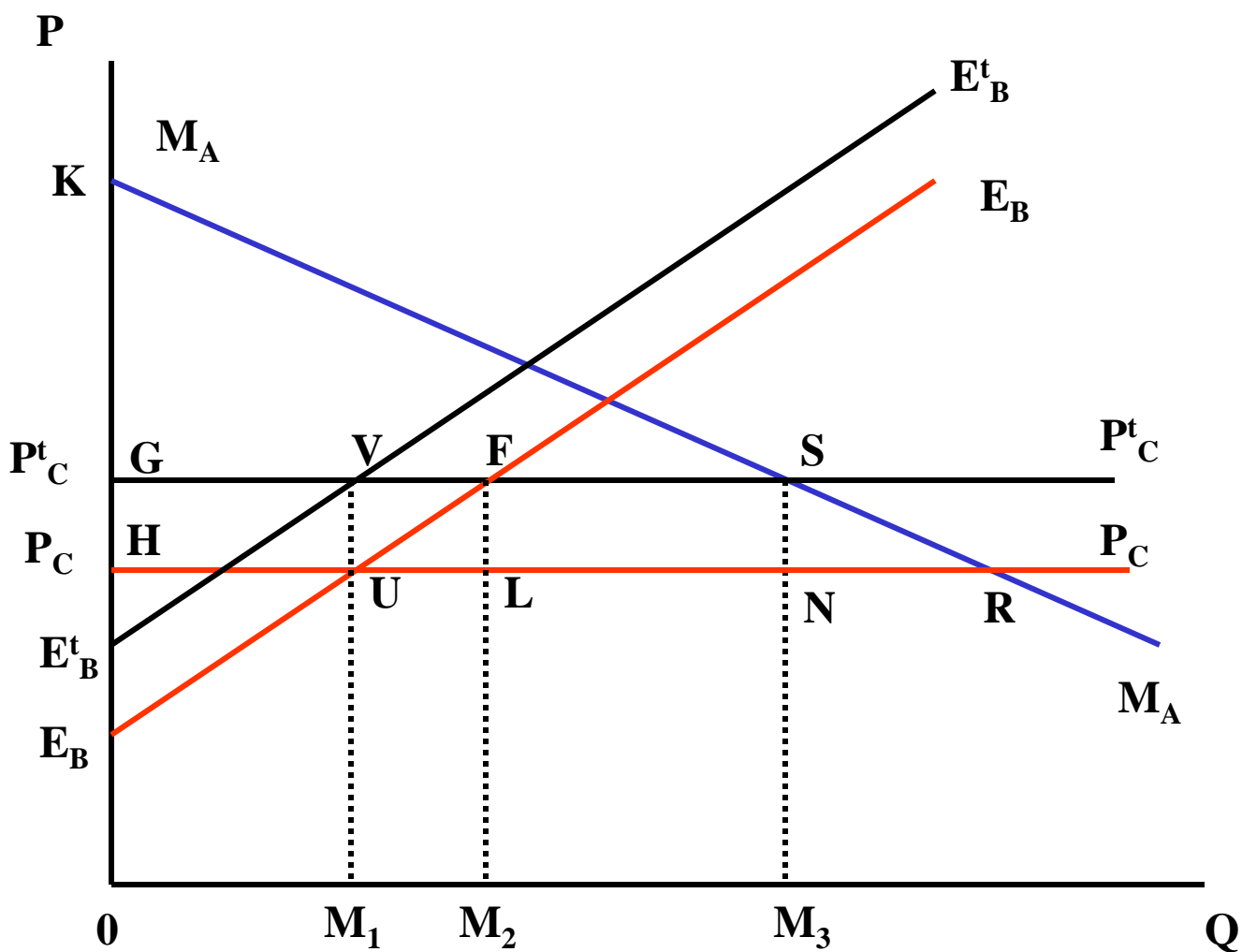


Figure 3: Preferential Removal of Tariff in CU

- Intra-PTA terms of trade shift in favor of B, tariff revenue of GFLH being given up by A, GFUH being the gain by B, and FLU is the deadweight loss of the imports M_1M_2 from B replacing those previously from C
- Analysis can be extended to case where A and B are in an FTA – suppose tariff in A is set at t_A , while tariff in B is set at t_B , where $t_A > t_B$
- B is a net exporter, the pre-FTA price coinciding with world price – in Figure 4, $E_B^t E_B^t$ is B's export supply curve inclusive of A's tariff, where imports come partially from B and partially from C
- Suppose A and B now form FTA, with tariffs set at t_A and t_B – there are three cases based on total supply of A and B relative to demand in A in post-FTA equilibrium
- Case 1: Supply by A and B less than demand in A

Consider simple case where $t_B = 0$, which is plausible as B is an exporter, and A will have to import from C at price $P_C + t_A$

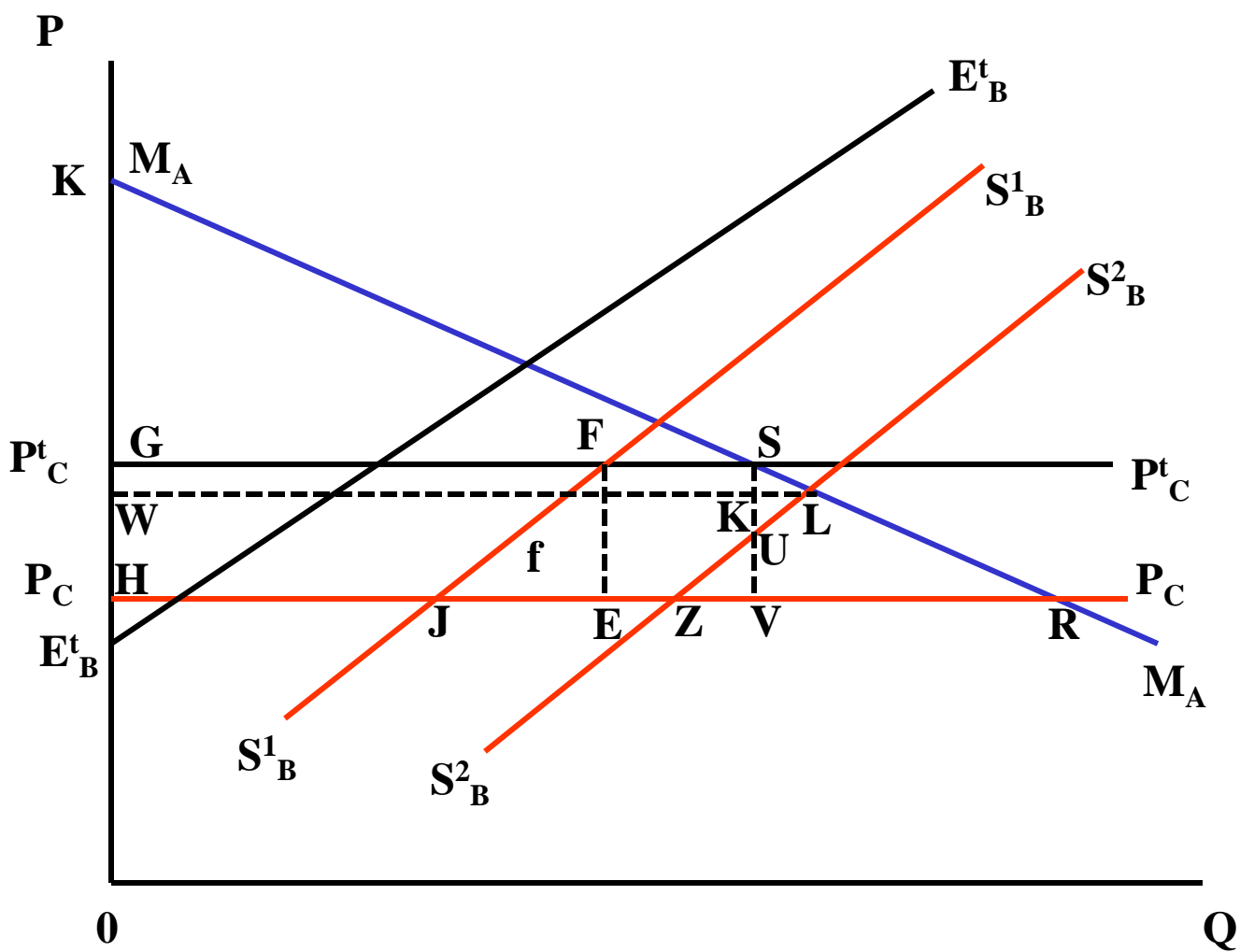


Figure 4: Preferential Removal of Tariff in FTA

- As B has no tariff, then in B, price is world price, $P_C < P_C + t_A$, so B will divert all supply to A, i.e., the new supply curve of B to A is $S^1_B S^1_B$
- Revenue transfer effect from A to B of EFGH, with no new trade created – with net gain being EFGH minus triangle f, the latter being loss to FTA as a whole
- If $t_B > 0$, B is an exporter, and its pre-FTA tariff is redundant; with FTA, B still exports all its supply to A, but imports at $P_C + t_B$, generating domestic deadweight loss
- Case 2: Supply by A and B equals demand in A

Again assume $t_B = 0$, if $S^2_B S^2_B$ lies sufficiently far to right of S, FTA eliminates C as a source of imports, delinking price in A from P^t_C , price being determined by intersection of $S^2_B S^2_B$ with $M_A M_A$

- Decline in internal price creates trade of KL, FTA welfare rising by SLU, but there is trade diversion of UVZ – latter getting smaller the farther right is B's supply curve

- For A, it gains area SKL, but also loses area WKVH due to tariff-revenue transfer to B, while GSKW becomes part of A's consumer surplus
- The farther to the right is B's supply curve, the closer is A's internal price to the world price P_C , and once at P_C , no revenue transfer occurs, and A benefits from trade creation
- Effect of FTA on B is positive – export price and quantity of exports rise, its net gain being WLZH, and in limiting case of price in A dropping to P_C , it neither gains nor loses
- If $t_B > 0$, as long as $P_C + t_B$ is less than height of point L, get effects already discussed, plus the internal deadweight loss in B
- If $P_C + t_B > L$, no firm will sell at price implied at L, i.e., price in A cannot fall below $P_B + t_B$ - if price did reach this level, then combined supply of A and B exceeds demand in A
- Case 3: Supply by A and B exceeds demand in A

If B's supply intersects $M_A M_A$ at price $< P_C + t_B$, FTA-wide price settles at $P_C + t_B$

- Welfare effects similar to Case 2 – B benefits, while A and FTA as a whole may or may not benefit, depending on level of t_B
- As t_B approaches zero, and B's supply curve shifts towards R, FTA equilibrium degenerates into free trade equilibrium, price in A and B dropping to P_C , such that A and FTA benefit, while B neither gains nor loses
- Overall, analysis suggests that if one is seeking unambiguous gains from a customs union or FTA, must look for sectors where partner country B is sole supplier even at initial equilibrium – i.e., no trade to be diverted
- Analysis assumes upward-sloping or perfectly elastic supply curves – what if they slope down?
- Assume scale economies are external to firms producing a homogeneous good, industry-wide average cost curve is AA' in Figure 5, and this technology is identical in countries A and B

- DD' is demand in each country, UU' the horizontal sum being demand in PTA. Prior to PTA, each country imposes non-discriminatory tariff at same rate
- Suppose C's tariff-inclusive price is P_C^t , and lies between E and F – initially, both countries import from C, where $(a+c)$ is tariff revenue and b is consumer surplus in A and B
- Formation of a PTA allows one country to produce by exploiting larger market, so gains from scale cause internal price to fall, although trade is diverted from C
- Each country loses c due to trade diversion, while gaining area d – again net effect of PTA is ambiguous
- If P_C^t lies above E initially, both countries produce and consume their own steel. With a PTA, keeping external tariff at initial level, one of the two countries ceases to produce, and PTA-wide price falls to P_U , each country gaining, i.e., no trade diversion

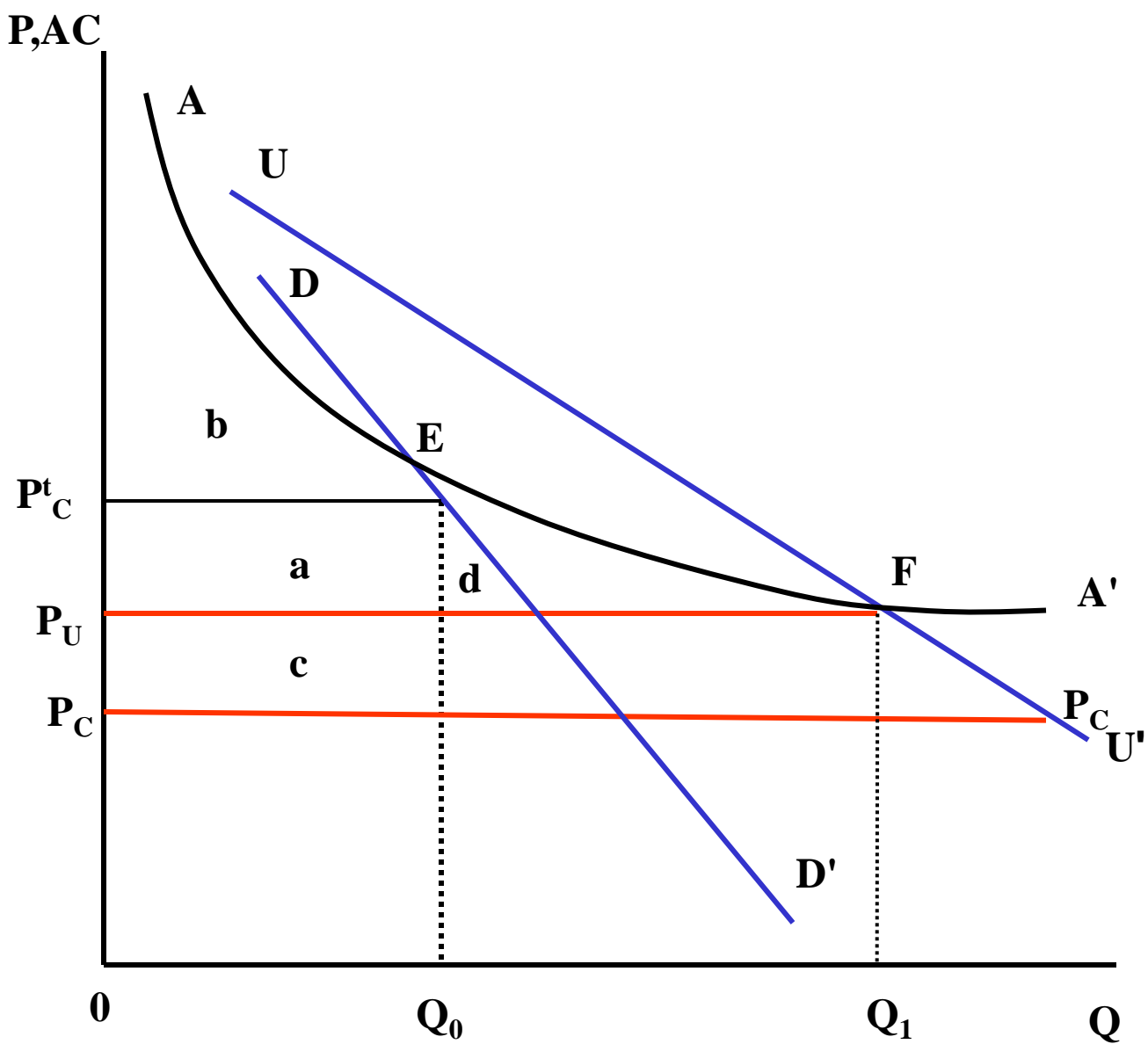


Figure 5: Economies of Scale and PTAs

- Proliferation of FTAs is leading to what Bhagwati (1995) has called a “spaghetti bowl”
- Even after FTAs have been fully implemented, varying degrees of discrimination across products and countries remain due to differences in “rules of origin” across FTAs
- Rules of origin ensure that a lower-tariff member does not import goods from outside FTA in order to re-export them to a higher-tariff member
- If such *trade deflection* were permitted, all imports into FTA would be routed through the member with lowest tariff, and FTA would be turned into a CU
- Particularly important in terms of trade in intermediate vs. finished goods:

Example: Mexico exports overcoats to US tariff-free, but if fabric used in production is imported from outside NAFTA, overcoat subject to a tariff

- FTAs run risk of generating production inefficiencies due to absence of MFN principle in trade policy – so many economists would argue in favor of speeding up multilateral trade negotiations under WTO