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The Flawed Welfare Foundations of Pro-Free Trade Arguments

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ABSTRACT

Free trade has long been defended as an unquestioned good in economics, yet its welfare foundations are deeply flawed. The efficiency gains highlighted by comparative advantage rest on the Potential Pareto Principle, which assumes away distributional concerns and treats aggregate surplus as synonymous with social welfare. In practice, free trade produces both winners and losers, often with significant and lasting harms to labor. Classical and modern theorists—from Ricardo to Samuelson—have acknowledged these problems, but standard textbooks and policy rhetoric bury them beneath confident claims of net benefits. Revisiting the Stolper-Samuelson Theorem, critiques of consumer and social surplus, and later retractions by Hicks and Samuelson, we show that the intellectual case for free trade rests on indefensible ethical and empirical premises. A more rigorous and honest approach requires economists to restrict themselves to identifying effects on different groups, while leaving judgments about welfare and distribution to broader political debate.

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Free trade is under increasing attack by both the left and the right. Yet in economics classes across the country and in virtually all microeconomic textbooks it is gospel that free trade increases social welfare. A 2012 survey by the University of Chicago's Kent A. Clark Center for Global Markets found no one on their panel of prominent academic economists disagreed that free trade improves efficiency and leads to long-run gains exceeding any losses. While many economists likely recognize that the case for free trade involves strong assumptions such as full employment, no externalities, and that short-run efficiencies translate into long-run benefits, they are remarkably accepting of the strong assumptions behind free trade.

In this paper we argue that the welfare theory that undergirds the economic analysis of free trade is not defensible. The welfare theory behind the free trade argument ignores distribution, which is undeniably a factor in human welfare. Only by making that additional unrealistic welfare assumption can they conclude that the winners in free trade outweigh the losers in free trade. The founders of the modern theory of free trade were aware of these deficiencies, but were conspicuously not forthcoming in their presentations of the theory for textbooks and the public, thereby presenting an exaggerated case for free trade.

I. The Case for Free Trade: Comparative Advantage

The basis of the case that free trade increases welfare is David Ricardo's theory of comparative advantage. Ricardo advanced the unsurprising point that if trading partners each specialize in what they do best, output increases. We begin with an example of two countries that have different opportunity costs for producing two goods. We show that the production possibility frontier of the countries considered together expands if at least one of the two countries specializes in producing the good for which it has a comparative advantage. Figure 1 shows an example of comparative advantage, in which the production possibility frontiers for two countries, hypothetically named "Spain" and "Japan," are linear. Japan has an absolute advantage in producing both goods, but absolute advantage plays no role in this analysis. Japan has a comparative advantage in producing x since the opportunity cost in terms of y for producing one more unit of x is less for Japan than it is for Spain. It follows that the production possibility frontier ("PPF") for the union of the two countries is kinked, with a slope equal to the slope of Japan's PPF as long as the output of y is larger than 4, that is, larger than what Spain can produce if it specializes in producing y. As seen in the diagram, for $x > 8$, global output will have $y < 4$, so Japan now becomes the specializing country (specializing in producing x), while Spain produces both x and y and the global PPF has the same slope as Spain's PPF. This global PPF shows the increased output resulting from specialization. Intuitively, the country that specializes will want to specialize only if it can trade with the other country, so "gains from specialization" occur only if there is trade. A rigorous proof that a position on the global PPF implies that the countries trade with each other and that they become better off than they are in autarky is presented in Appendix 1.

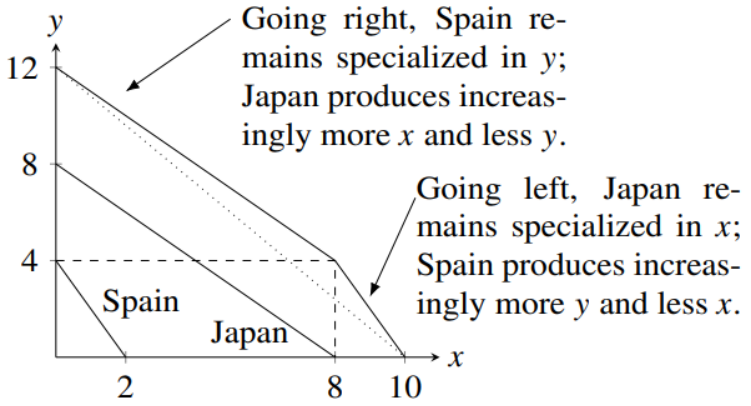

Figure 1. Production Possibility Frontiers for two countries, and for the union of the two countries if at each point at least one country specializes according to its comparative advantage. For every one unit increase in production of x, Japan loses one unit of y and Spain loses 2 units of y. Therefore Japan has a comparative advantage in producing x. Starting at (0,12), neither is producing any x. As x increases, it is best for Japan, not Spain, to begin producing x, while Spain stays at (0,4) (remaining specialized). This is true until x rises to $x = 8$, which is the most Japan can produce. If production of x goes above 8, Japan remains at its point of maximum x production, (8,0) (so Japan remains specialized), and Spain starts producing x. This continues until aggregate $x = 10$, when both Spain and Japan are producing only x.

Comparative advantage as depicted in Figure 1 does not explicitly allow one to address tariffs. Instead, tariffs are typically analyzed, as in the famous elementary textbook of Samuelson and Nordhaus, using the framework of social surplus, which allows one to discuss the gains and losses free trade brings to different groups. This analysis is shown in Figure 2. One should interpret the "world price" horizontal line *LEF* as the foreign supply curve and the foreign marginal cost curve, and interpret the "domestic supply" line *SEHS* as the domestic supply curve and the domestic marginal cost curve. Before the tariff is imposed, consumer surplus is *upper-DFL* (interpreting "*D"* here as being a point instead of the whole demand curve, and "*upper-D"* as being the higher of the two *D*'s) and producer surplus is *LE-lower-S* (interpreting "*S"* here as being a point instead of the whole supply curve, and "*lower-S"* as being the lower of the two *S*'s). After the tariff is imposed, consumer surplus shrinks to *upper-DJM,* a loss of *MJFL*; producer surplus rises to *MH-lower S*, an increase of *MHEL*; the government captures the area labeled *B*; and the areas *A* and *C* are lost to society. Imposition of the tariff causes domestic consumption to fall from 300 to 250 units, which causes consumer surplus to fall by area *C*, the "deadweight loss" due to the tariff. The tariff causes domestic production to rise from 100 to 150 units, and area *A* is the increase in production costs caused by this shift from low-cost foreign producers to higher-cost domestic producers.

As pointed out earlier, the sum of *A* and *C* represents the loss of social surplus caused by the tariff. Consumers' payment to domestic producers rises by *MHEL* plus area *A*, but domestic firms' profits only rise by *MHEL*. If the tariff is removed, the "winners," who are the consumers, gain *A* (and *C*) and their expenditures going to domestic firms fall by *MHEL* plus area *A*. The "losers," who are the domestic firms, lose only *MHEL*; so the government could, as part of the tariff removal policy, tax the winners *MHEL* plus a bit more, transfer the tax receipts to the losers, and make both consumers and domestic firms better off than when the tariff was in place. According to the standard Potential Pareto Principle, the right policy is to remove the tariff, even if the winners do not compensate the losers. This is because the winners *could* compensate the losers and still be better off than with the tariff. Put differently, the Potential Pareto Principle implies that the goal of economic policy should be to maximize aggregate social surplus. (In this diagram, foreign firms earn no surplus either with or without tariffs, so do not affect the calculation of change in aggregate social surplus.)

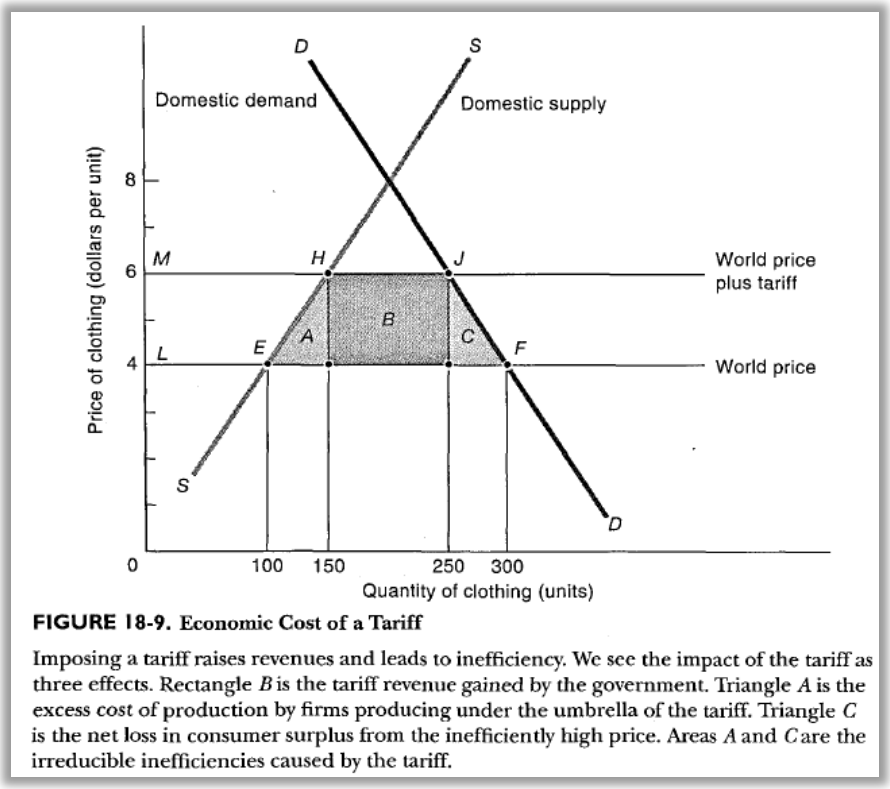

FIGURE 18-9. Economic Cost of a Tariff

Imposing a tariff raises revenues and leads to inefficiency. We see the impact of the tariff as three effects. Rectangle *B* is the tariff revenue gained by the government. Triangle *A* is the excess cost of production by firms producing under the umbrella of the tariff. Triangle *C* is the net loss in consumer surplus from the inefficiently high price. Areas *A* and *C* are the irreducible inefficiencies caused by the tariff.

Figure 2: The "Economic Cost of a Tariff" diagram from Samuelson and Nordhaus (2010 p. 354).

The "economic cost of a tariff" demonstration has held great sway among economists, and a version of this graph can be found in most principles of microeconomics textbooks. We challenge the assumption that social surplus areas of the sort used Figure 2 are a correct

measure of welfare. That assumption, from the perspective of modern welfare economics, is indefensible.

We stop here to summarize the conclusions so far. The argument that tariffs are bad in general relies on a welfare theory that states that economic welfare consists of the most output or GDP or total social surplus and ignores how these quantities are distributed. This is the lesson of the Potential Pareto Principle that operates behind the scenes in Figure 2 from Samuelson and Nordhaus and reproduced in some form in most principles of microeconomics textbooks.

II. Free Trade and Economic Welfare

We have written at length elsewhere about how industrial organization and antitrust's "consumer welfare standard" is based the same flawed Potential Pareto framework (which we also refer to as the social surplus approach), and our discussion here touches on many of the same themes as that work. The social surplus welfare approach assumes that distribution does not matter, only total surplus matters. In industrial organization, this has sometimes been simplified to: all that matters for welfare are increases in output. The literature on international trade is less wedded to the Potential Pareto Principle than industrial organization. Trade theorists are willing to acknowledge that free trade, while it can be beneficial to some groups, such as the consumers in Figure 2, can be harmful to others, such as the domestic firms in Figure 2, if the winners are not asked to compensate the losers. However, their acknowledgment is half-hearted.

Take for example the following passage from a *New York Times* article reporting on the overwhelming support for free trade at the January 2025 meeting of the American Economic Association:

> Researchers have long understood, for example, that globalization can have costs, in lost jobs or reduced wages in some industries. Most economists argue that the benefits—cheaper goods and a more productive, dynamic economy—outweigh those costs, and that even many of the people who are initially harmed will be better off in the long run. But they have often talked about those tradeoffs in a way that could seem dismissive and insensitive, said Glenn Hubbard, a chairman of the Council of Economic Advisers under Mr. Bush.
>
> "Our own language got in the way," Mr. Hubbard said. "When we talk about 'transition costs,' what an awful piece of language to describe people and places."

What Professor Hubbard meant can be illustrated by how an old edition of Paul Samuelson's elementary textbook (1961, pp. 730, 738), which was used by thousands of future economists, civil servants, and politicians, treated the question. First are the obligatory pro-free-trade pronouncements: "Trade is efficient production. Efficient production is always better than inefficient production…. *[U]nhampered trade promotes a mutually profitable international*

division of labor, greatly enhances the potential real national product of all countries, and makes possible higher standards of living all over the globe" (emphasis in the original). The caveats follow. How Samuelson treats these caveats is revealing (id., 743–4, emphases ours):

> Thus far we have had nothing but adverse criticism for the "cheap pauper foreign labor" tariff argument. To be objective, and without objectivity there can be no science, we must admit that it may have the following *iota* of *possible* truth…. [L]abor scarcity in the United States could be alleviated by our international specialization in labor-economizing products and … real wages might actually fall under conditions of free trade. Real national product would go up, but the relative and absolute share of labor might go down [footnote referencing the Stolper-Samuelson Theorem].
>
> Although admitting this as a *slight theoretical* possibility, *most* economists are still *inclined* to think that its *grain* of truth is outweighed by more realistic considerations. Of course, *particular* laborers such as textile workers might be hurt by removing a tariff. Nobody denies that. But since labor is such an important and flexible factor of production with many alternative uses, it *seems likely* that other laborers would gain from expanded trade more than they lose and that *labor as a whole* would share in the increased national product resulting from trade.

What is remarkable about Samuelson's discussion is his complete dismissal of the welfare of the losers from free trade. Their welfare in the quote above is referred to as an "iota." Yet it is arguable that free trade played an important role in hollowing out major portions of United States' industry, creating deserts of unemployment in the middle of the country; is it correct for a social scientist to claim that the size of the loss is minimal without referring to any empirical evidence? A reduction in the economic rent earned by workers is part of the change of total social surplus, but no graph of the labor market or other input markets, and the changes in economic rent occurring in them, is shown together with Figure 2 or in the majority of similar discussions—only the product market is shown.

Samuelson's lack of concern is ironic given that it is one of his own major contributions to trade theory, the Stolper-Samuelson Theorem. The Stolper-Samuelson Theorem is developed in the framework of the Hecksher-Ohlin model, which models international trade assuming perfectly competitive firms and constant returns to scale technology. The Hecksher-Ohlin model has been superseded by much more realistic models, but the point is that Samuelson's own seminal theorem showed that free trade was not Pareto-improving. To show the logic of the theorem, we provide a proof of it in Appendix 2. Stolper and Samuelson described the implications of the theorem this way (1941 p. 66, emphasis in the original): "*International trade necessarily lowers the real wage of the scarce factor expressed in terms of any good*." For example, in the U.S. circa 1990, in industries such as manufacturing, labor was the scarce factor (compared to its abundance in countries like China); capital was the more abundant

factor. When at that time the U.S. lowered tariff barriers, this reduced the price of labor-intensive manufactured goods. The Stolper-Samuelson theorem predicts that this leads to a fall in the real returns to labor in manufacturing and a rise in the real returns to capital, so the move to free trade would hurt these U.S. workers—as in fact it did. Similarly, concerning what since Ricardo has probably been the most famous real-world example of trade policy, Samuelson (1961 p. 736) conceded that "the large British landowners who a century ago constituted the backbone of the Conservative Party may have been selfish in opposing the famous repeal of the English corn-law tariffs in 1846, but they were not necessarily unintelligent." (The word "necessarily" is gratuitous.)

The only viable position for economists to have taken after the publication of the Stolper-Samuelson Theorem in 1941is an agnostic view of free trade, because it is beyond the economist's purview to know the true social impact on the winners and losers from free trade. It follows that economics, as an objective science, should be limited to quantifying the effects of a specific policy on winners and losers. Deciding in advance that $1 in welfare gains of the winners ought to exactly offset $1 in welfare losses of the losers is not an objective, scientific exercise. As Kaldor (1939 p. 551) wrote, "it is quite impossible to decide on economic grounds what particular pattern of income-distribution maximises social welfare."

Unfortunately, retreating from the tariff debate is not what economists did. The long above-quoted passage from Samuelson's textbook shows the path actually taken. Students are taught that the loss of displaced workers' wages and jobs is an "iota." The Stolper-Samuelson Theorem is a "possible" truth, contains a "grain of truth," is a "slight theoretical possibility." In other words, these are footnotes to be disregarded in favor of the overriding truth that free trade is good. Students are told that what "most economists are inclined to think" is "more realistic" than what the rigorous model shows; they are told what "seems likely," without the faintest shred of empirical evidence that what "seemed" likely to Paul Samuelson was actually was true; and their devotion is directed to "labor as a whole," as if "labor as a whole," or "America as a whole," or "the people as a whole," or "national income" (GDP), were not a type of deeply problematic construct flying directly in the face of the ethics of Pareto Optimality.

Modern economists, having therefore been thoroughly miseducated, now are astonished that the victims of free trade not only exist, but they resent being ignored. The victims connect that disregard with the devastation that free trade policies have wreaked upon their families and their communities, and they are in revolt against the academic and policy-making infrastructure which has so grievously damaged them.

III. How did Neoclassical Economics Get to This Point?

We have argued elsewhere that neoclassical economics took a wrong turn in 1939, and Lord Kaldor was the individual economist most to blame. Given Kaldor's quote reproduced above, one might think that Kaldor would advocate that economists take a modest stance in policy

making, but Kaldor did the opposite. To be fair to Kaldor, we quote his reasoning in full (Kaldor 1939 550–1, emphasis in the original):

> In all cases, therefore, where a certain policy leads to an increase in physical productivity, and thus of aggregate real income, the economist's case for the policy is quite unaffected by the question of the comparability of individual satisfactions; since in all such cases it is *possible* to make everybody better off than before, or at any rate to make some people better off without making anybody worse off. There is no need for the economist to prove—as indeed he never could prove—that as a result of the adoption of a certain measure nobody in the community is going to suffer. In order to establish his case, it is quite sufficient for him to show that even if all those who suffer as a result are fully compensated for their loss, the rest of the community will still be better off than before. Whether the landlords, in the free-trade case, should in fact be given compensation or not, is a political question on which the economist, *qua* economist, could hardly pronounce an opinion. The important fact is that, in the argument in favour of free trade, the fate of the landlords is wholly irrelevant: since the benefits of free trade are by no means destroyed even if the landlords are fully reimbursed for their losses.

There is a great deal to unpack in this passage, but it is immediately obvious that the dismissal of the losers is present, in perhaps an even more extreme form than in Samuelson's textbook: "the fate of the landlords is wholly irrelevant." (Why are economists so cavalier about throwing groups of people under the proverbial bus?)

In this passage, Kaldor invented the "Potential Pareto" principle, also called the "Compensation Criterion." It states that if a Policy A (e.g., free trade), when followed by a Policy B which is distributional in nature (e.g., taxing free trade's winners and using the proceeds to compensate free trade's losers), is a Pareto Improvement, then economists should advocate adoption of Policy A.

The syllogism is: if A + B is good, then A is good. No logician would consider this approach to be a valid syllogism.

If "my taking possession of a car from a car dealer" plus "my paying the car dealer for the car" is good, then "my taking possession of a car from a car dealer" and *not* paying the car dealer for the car is good? This makes little sense.

Kaldor's faulty Potential Pareto criterion was embraced by economists because it rescued economics from the distressingly modest fate Roy Harrod consigned economists to:

> "If the incomparability of utility to different individuals is strictly pressed, not only are the prescriptions of the welfare school ruled out, but all prescriptions whatever. The economist as an advisor is completely stultified." (Harrod 1938, quoted in Kaldor 1939 p. 549)

Harrod was too pessimistic: even if economists cannot decide policy, they can still analyze policy effects, and such analyses can be important for policy makers. Nevertheless, Kaldor sought a grander position for economists, the role of policy arbiters, not merely policy illustrators. So Kaldor advanced the Potential Pareto criteria, and tragically, many economists eagerly followed, including Samuelson (and not just in Samuelson's undergraduate textbook: the last two sentences of the 1941 Stolper-Samuelson article constitute a clear endorsement of the Potential Pareto criterion).

For Pareto Optimality, each individual is treated individually: social welfare is a function of the separate utilities of each individual and cannot be aggregated as a Utilitarian (unweighted) sum $\sum_i u_i$ for individuals i each of whom has utility u_i. By contrast, the Potential Pareto criterion, and GDP, are fatally flawed as welfare measures because they ignore distribution. For Kaldor, policy decisions *are* made on the basis of how the policy changes a sum over individuals, the only difference between Marshall's Welfare Economics and Kaldor's "New" Welfare Economics being that Marshall's sum was $\sum_i u_i$ while the sum of Kaldor and modern applied economists (outside of experts in welfare economics and a few other careful writers such as Pugel (2009 p. 156) and Krugman and Obstfeld (2003 pp. 225, 228)) is either $\sum_i SS_i$ where SS_i is the social surplus enjoyed by persons/firms i (or $\sum_i EV_i$ or $\sum_i CV_i$ where EV_i and CV_i are equivalent and compensating variations, which are loosely related to social surplus in ways we have explored elsewhere). Such $\sum_i SS_i$ reasoning is of course the standard argument for why tariffs are bad, as illustrated in the social surplus loss areas of Figure 2.

Hidden behind the $\sum_i SS_i$ sum (or the $\sum_i EV_i$ sum or the $\sum_i CV_i$ sum) is an indefensible ethical principle: "distribution is not important" (because the only thing that is important is the sum, not whether the sum was composed from for example $5 + 5$ or from $11 + 0$). This Utilitarian ethics underlies the collectivist "labor as a whole" goal quoted from Samuelson's principles textbook, as well as Kaldor's "aggregate real income." The problem is that our deep ethical intuition, and the virtually universal opinion of moral philosophers, is that equal treatment of all humans (that is, a basic principle of equality) is a fundamental, if not the most fundamental, human ethical premise. Research in anthropology and human biology suggests that "inequality aversion plays an important role in guiding human social decision-making and appears to be ubiquitous across human populations" (McAuliffe 2013 p. iii), presumably because "social groups with more altruists will, for various reasons, outcompete other groups" (Tomasello et al. 2012 p. 673). Distribution does matter, and inequality has devastating consequences for human well-being. Economists' ethical presumption that "distribution is unimportant" is factually incorrect as an empirical description of typical members of the species *Homo sapiens*. Once economists acknowledge distribution as a critical component of welfare—not because the individual economist cares about distribution but because typical humans care about distribution—economists become what they should be: policy illustrators, not policy arbiters.

In their seminal graduate microeconomics textbook, Mas-Colell, Whinston and Green (1995 Section 10.E) finesse the problems with $\sum_i SS_i$ by "suppos[ing] that … there is some central

authority who redistributes wealth by means of transfers of the numeraire commodity in order to maximize social welfare." This is a deeply unserious assumption, and its moral function is to, as the eminent mathematical welfare economists Chipman and Moore (1978 p. 580) put it, "wash one's hands of the responsibility for one's own actions." (But Mas-Colell, Whiston and Green do deserve praise for not burying the assumption.)

There are other, non-ethical problems with the Potential Pareto approach, including that it can be internally inconsistent; that its policy prescription can depend on the choice of numeraire; and that the term "efficiency," as used for example in Samuelson and Nordhaus's caption in Figure 2, is ambiguous. For discussions see our previous papers (for example, Glick et al. 2025).

IV. Hicks and Samuelson Speak Out Against Potential Pareto (and Pareto also)

In the early 1940's, Sir John Hicks embraced Kaldor's Potential Pareto criterion and extended it, so Potential Pareto is sometimes separated into the Kaldor Criterion and the Hicks Criterion (often incorrectly combined into "the Kaldor-Hicks Criterion"). However, it is important to consider that after passage of a few decades, Hicks (1975, 309–310) totally abandoned not only the Potential Pareto criterion but even the Pareto Criterion. Hicks wrote:

> Even if the utilities of individuals are incapable of being compared, there is still a sense in which something may be said to be increased, when there is a change which is to the advantage of all individuals in the community, or to the advantage of some and to the disadvantage of none. [...] Suppose we call (A) those changes which do bring about a gain in this sense, (B) those changes which benefit some and damage others [...].
>
> We might take a particular (B) change and combine it with some 'redistributional' measure to offset its primary 'distributional' effect. There should be some (B) changes which can be modified in this way to convert them into (A) changes; call them (BA) changes if they are capable of being so modified.
>
> For whatever it was that distinguished the changes which I have called (A)+(BA) changes from the rest, it did not look like anything which could properly be described as an increase in 'welfare'. Nor is the matter improved by the substitution of 'potential welfare' for 'welfare', since it is by no means directly apparent that 'potential welfare' is anything in which we have any reason to be interested. Further, can even those changes which we have designated (A) changes necessarily deserve a congratulatory title? The (A) test, it was often pointed out, would be satisfied when the bloated plutocraft [*sic*] had an extra course upon his table, provided he did not acquire it at the expense of anyone else. Why should we be required to give our blessing to his acquisition, as we must appear to do if we are to reckon it as an increase in 'welfare'?

Throughout Samuelson's career, one can find him expressing contradictory opinions about the Potential Pareto criterion and consumer/social surplus. We have seen that he used them without hesitation in his textbook and in the Stolper-Samuelson article. However, as far back as his 1948 *Foundations,* he criticized consumer surplus, entitling a subsection "Why Consumer's Surplus is Superfluous," and writing that "my ideal *Principles* would not include consumer's surplus in the chapter on welfare economics except possibly in a footnote, although in my perfect *Primer* the concept might have a limited place, provided its antidote and alternatives were included close at hand" (1947 p. 197). When writing his textbook, Samuelson clearly abandoned his own advice. Yet Samuelson often assailed the Potential Pareto criterion, as here in an interview late in his life (Suzumura 2005, 334–5, emphasis added):

> I think on the whole the "new" welfare economics of Kaldor [and] Hicks [...] was overrated. In the first place, you know already you can find it in John Stuart Mill who discusses something like free trade. He in effect says that free trade may help some people, and hurt some other people, but the gainers would be able to compensate the losers. Thus, the "new" welfare economics of the compensationist school is not really that new. In the second place, *there is a great ambiguity as to whether the fact that gainers would be capable of compensating the losers, yet do not actually pay compensations, has any significance*.

This was around the time that Samuelson (2004) was published, in which Samuelson chided "economists John and Jane Doe" (i.e., most economists) for being "dead wrong about the *necessary* surplus of winnings over losings" when free trade is adopted (p. 136). The model in Samuelson (2004) is an aggregate model, but in the epilogue he warns about economists taking a "Marie Antoinette" attitude towards intra-country inequality (p. 144), and he favorably refers to Johnson and Stafford (1993), who have a model in which outsourcing the jobs of unskilled workers in the richer country lowers those workers' real wage rate as the displaced workers "'crowd into' the domestic goods industry (i.e., take 'McJobs')" (p. 129).

Later in the same interview with Suzumura (p. 350), Samuelson added a critique of aggregation, and he even implied that the Luddite point of view—that some inventions should be slowed down—might be valid.

> When you merge Peter and Paul in an aggregate demand curve, and you start taking areas under the aggregate demand curve, in the first place, it is technically wrong—these triangles do not measure anything you want to measure when the marginal utility of money is an endogenous variable. From the very beginning, this was the criticism of Marshall by many different people. There was a[n] 1889 letter from John Neville Keynes to Marshall, in which he wrote: "You are going to be in a trouble on this and you know it is not right. What you pay for the first unit if you are buying only one unit is different from what happens if

> you are buying others." [...] Arnold Harberger, Chicago's leading applied economist during his time, tried to measure the consumers' surplus triangle. His dogma was that a square inch of area is a square inch of area; you don't have to worry about poor people or rich people; you can aggregate the jelly of Peter with the jelly of Paul, and you have got jelly. Now, what Marshall says is something a little more careful. He says: "Most things affect all classes equally." In other words, they all even out. That goes back to what I said is the underlying principle of most economists of all ages. If you do the thing that increases the size of the pie, it will trickle down, which is a vague law of large numbers. One time it will hurt one group, and another time it will hurt another group. I am sure that Joseph Schumpeter believed in something like that, and the widespread use of the Marshallian consumers' surplus hinges squarely on such a belief to be widely shared. Ricardo famously recanted on his earlier belief that every invention must raise the real wage. Wicksell, Kaldor, Schumpeter and Stigler all believed that he goofed—until I proved that he had not. I did wonder why Ricardo never favored slowing down such inventions. My best guess was that he too relied on the guess that in the long run chance would favor wage growth. A comfortable wishful guess.

(We have elsewhere (Glick et al. 2024) shown the fallacy of the "Package Paretianism" argument that Samuelson above ascribes to "most economists of all ages.")

It is not only that Samuelson sometimes spoke against the Potential Pareto criterion: throughout his career, Samuelson was even an opponent of the Pareto criterion, and championed the main alternative to Pareto and Potential Pareto for making welfare judgments to such an extent that we now call that alternative the "Bergson-Samuelson Social Welfare function model" (see here). As Samuelson put it in the 2005 interview (Suzumura p. 336):

> You cannot obtain an ethical result without already putting an ethical premise in the proposition from outside

(i.e., one cannot obtain an ethical result with the Pareto or Potential Pareto criteria). Also (id.):

> But never did he [Bergson] make the following common error: If situation α is Pareto optimal and β is not, then always society should prefer α to β.

(I.e., society may prefer a particular non-Pareto-optimal point over a particular Pareto-optimal point.)

Thus, at some point in their careers including at the end, both Hicks and Samuelson shared our critique of the Potential Pareto/Compensationist justification for free trade—and they even went further, expressing mistrust of Pareto Efficiency itself as a guide for public policy. Samuelson famously wrote "I don't care who writes a nation's laws […] if I can write its economic textbooks." His words were prescient, as introductory textbooks have created undeserved adherence to principles of free trade.

V. CONCLUSION

The argument that free trade is always the correct policy is based on a flawed welfare analysis. Free trade results in winners and losers and economists are not competent to analyze the impact on well-being as a whole or the spillover social consequences of the discontent of the losers. It is true that comparative advantage exists; even permanent comparative advantage exists. But whether adopting free trade, or for that matter adopting the new textile technology that threw the Luddites out of work, is the correct policy depends in part on its consequences for a measure of social welfare that considers distribution, as well as input from other social scientists such as political scientists and sociologists. There are mountains of research showing that distribution matters for human well-being, and that inequality has social consequences. Economists should not be allowed to assume distribution away and bury their tracks.

APPENDIX 1: COMPARATIVE ADVANTAGE, SPECIALIZATION, AND TRADE

In Figure 1, the furthest-out PPF reflects specialization, but it does not necessarily reflect free trade (or any sort of trade) between the countries. In this appendix we show conditions under which being on the global PPF implies not only specialization, but also implies trade, and a welfare improvement compared to autarky. We will not assume the two countries have identical preferences. (If one assumes identical preferences, the result is much easier to show, but identical preferences is a very strong assumption.)

In Figure 3 keeps the PPFs of Figure 1. The autarky position for Japan is I_J and the autarky position for Spain is I_S, and the x-coordinate of I_S is Δx. Suppose the economy moves to point A, which is Δx units to the right of I_J and is on the part of the global-with-specialization production possibility frontier where Spain specializes in producing y. Being at A implies that Spain goes to I_S' and Japan goes to I_J' (because Spain is producing $y = 4$ and I_J' is 4 units below A). From I_S' and I_J', both Spain and Japan will accept a trade in which Spain's consumption goes from I_S' back to I_S and Japan's consumption goes from I_J' to I_J'' (note that the move from I_S' to I_S is equal in magnitude and opposite in direction from the move from I_J' to I_J''). Therefore, the movement from autarchy (I_S and I_J) to specialization and trade (I_S and I_J'') has made Japan strictly better off and has left Spain at its original level of utility. A trade between Spain and Japan that has the same Δx but gives slightly more y to Spain and correspondingly slightly less y to Japan will make both countries strictly better off than their autarky positions. A necessary condition for this proof to go through is that the autarky optimal position for Spain is not I_S', that is, not the $(0,4)$ point of specialization. In other words, the necessary condition is that in autarky, Spain does not want to produce and consume only the good in which Spain has a comparative advantage. A similar construction can be made for the region of the global-with-specialization production possibility frontier where Japan specializes and Spain does not.

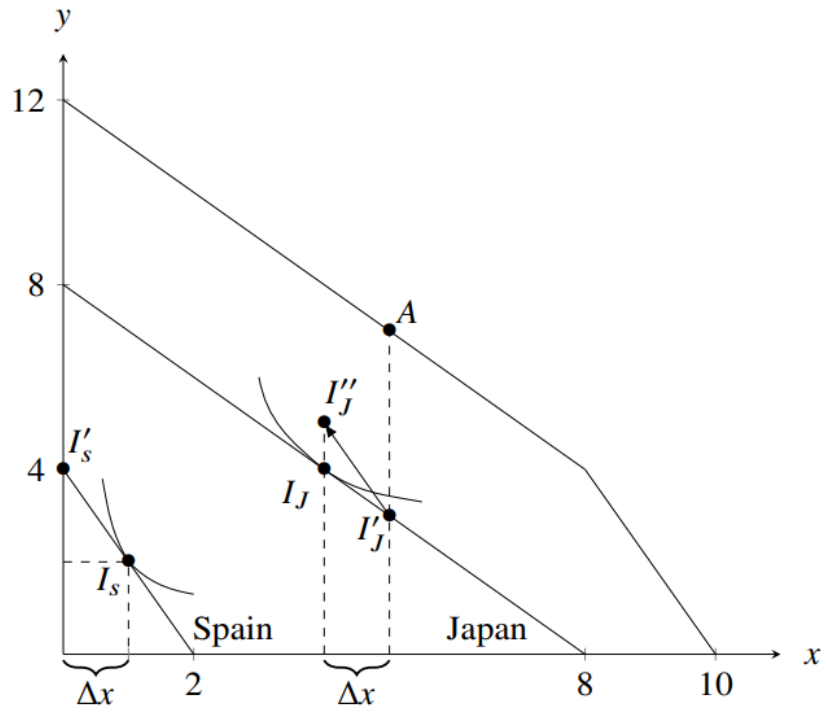

Figure 3. A demonstration that being at a point on the global production possibility frontier entails the countries trading with each other. This is true as long as under autarky, neither country wishes to specialize in producing only the good in which it has a comparative advantage.

APPENDIX 2: THE STOLPER-SAMUELSON THEOREM

Assume constant returns to scale and let $a_{iI} > 0$ denote the amount of input i used to produce output I. Suppose the inputs are capital, "k," and labor, "l." Suppose the outputs are a capital-intensive good called "K" and a labor-intensive good called "L." This implies that $a_{kK}/a_{lK} > a_{kL}/a_{lL}$. Let the prices of the inputs k and l be denoted by r and w respectively, and let the prices of the outputs be denoted by p_K and p_L respectively. In competitive equilibrium, constant-returns-to-scale industries earn zero profit, so average revenue is equal to average cost in each industry:

$$\begin{bmatrix} p_K \\ p_L \end{bmatrix} = \begin{bmatrix} a_{kK} & a_{lK} \\ a_{kL} & a_{lL} \end{bmatrix} \begin{bmatrix} r \\ w \end{bmatrix}$$

Take the differential of both sides:

$$\begin{bmatrix} dp_K \\ dp_L \end{bmatrix} = \begin{bmatrix} a_{kK} & a_{lK} \\ a_{kL} & a_{lL} \end{bmatrix} \begin{bmatrix} dr \\ dw \end{bmatrix}$$

Solve for the change in the factor prices as a function of the change in the output prices:

$$\begin{bmatrix} dr \\ dw \end{bmatrix} = \begin{bmatrix} a_{kK} & a_{lK} \\ a_{kL} & a_{lL} \end{bmatrix}^{-1} \begin{bmatrix} dp_K \\ dp_L \end{bmatrix} = \frac{1}{a_{kK}a_{lL} - a_{kL}a_{lK}} \begin{bmatrix} a_{lL} & -a_{lK} \\ -a_{kL} & a_{kK} \end{bmatrix} \begin{bmatrix} dp_K \\ dp_L \end{bmatrix}$$

From the definition of capital- and labor-intensity given above, $a_{kK}a_{lL} > a_{lK}a_{kL}$, so the denominator of the fraction on the right-hand side (which is the determinant of the 2×2 matrix) is positive. Setting first $dp_K = 0$ and then alternatively $dp_L = 0$, we find

$\frac{\partial r}{\partial p_L} < 0$, $\frac{\partial w}{\partial p_L} > 0$, $\frac{\partial r}{\partial p_K} > 0$, and $\frac{\partial w}{\partial p_K} < 0$.

Hence as the price of the labor-intensive good L falls, r rises and w falls.

BIBLIOGRAPHY

Casselman, Ben (2025), "Economists Are in the Wilderness. Can They Find a Way Back to Influence?" New York Times (Jan. 10, 2025).

Chipman, John S., and James C. Moore (1978), "The New Welfare Economics 1939-1974," International Economic Review 19: 547-584. https://doi.org/10.2307/2526326

Fleurbaey, Marc, and Didier Blanchet (2013), Beyond GDP: Measuring Welfare and Assessing Sustainability. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199767199.001.0001

Glick, Mark, and Gabriel A. Lozada (2025), "The Failed Assumptions of Free Trade." The Sling. https://www.thesling.org/the-failed-assumptions-of-free-trade/

Glick, Mark, Gabriel A. Lozada, and Darren Bush (2024), "Law and Economics Fallacies: What Modern Economics Really Says About the Definition of Efficiency and the Measurement of Welfare," Houston Business and Tax Law Journal 24: 1-116. https://doi.org/10.2139/ssrn.4923471

Glick, Mark, Gabriel A. Lozada, and Darren Bush (2025), "Antitrust's Normative Economic Theory Needs a Reboot," forthcoming, International Journal of Political Economy. https://doi.org/10.2139/ssrn.5252830

Hicks, John R. (1975), "The Scope and Status of Welfare Economics," Oxford Economic Papers 27/3: 307-326. https://doi.org/10.1093/oxfordjournals.oep.a041321

Johnson, George E., and Frank P. Stafford (1993), "International Competition and Real Wages," American Economic Review-AEA Papers and Proceedings 83/2: 127-130. https://www.jstor.org/stable/2117652

Kaldor, Nicholas (1939), "Welfare Propositions of Economics and Interpersonal Comparisons of Utility," Economic Journal 49: 549-552. https://doi.org/10.2307/2224835

Kent A. Clark Center for Global Markets (2012), "Free Trade" (survey). https://kentclarkcenter.org/surveys/free-trade/

Krugman, Paul R., and Maurice Obstfeld (2003), International Economics: Theory and Policy. Boston: Addison Wesley.

Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green (1995), Microeconomic Theory. New York: Oxford University Press.

McAuliffe, Katherine Jane (2013), The Evolution and Development of Inequity Aversion, Ph.D. dissertation, Harvard University.

https://dash.harvard.edu/bitstream/handle/1/11156679/McAuliffe_gsas.harvard_0084L_10757.pdf

Pugel, Thomas A. (2009), International Economics (14th ed). Boston: McGraw-Hill Irwin.

Samuelson, Paul Anthony (1947), Foundations of Economic Analysis. Cambridge, Massachusetts: Harvard University Press.

Samuelson, Paul A. (1961), Economics: An Introductory Analysis (5th ed). New York: McGraw-Hill.

Samuelson, Paul A. (2004), "Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization," Journal of Economic Perspectives. 18/3: 135-146.
https://doi.org/10.1257/0895330042162403

Samuelson, Paul A., and William D. Nordhaus (2010), Economics. New York: McGraw-Hill Irwin.

Stolper, Wolfgang F., and Paul A. Samuelson (1941), "Protection and Real Wages," The Review of Economic Studies. 9/1: 58-73.
https://doi.org/10.2307/2967638

Suzumura, Kotaro (2005), "An Interview with Paul Samuelson: Welfare Economics, 'Old' and 'New', and Social Choice Theory," Social Choice and Welfare 25: 327-356.
https://doi.org/10.1007/s00355-005-0007-9

Tomasello, Michael, Alicia P. Melis, Claudio Tennie, Emily Wyman, and Esther Herrmann (2012), "Two Key Steps in the Evolution of Human Cooperation: The Interdependence Hypothesis," Current Anthropology 53: 673-692.
https://doi.org/10.1086/668207