



GWARTNEY
INSTITUTE

TRADE



2026 PPE LEAGUE READER

MENARD
Family
STUDENT PROGRAMS

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TRADE

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AN INQUIRY INTO THE NATURE AND CAUSES OF
**THE WEALTH OF
NATIONS**

by

Adam Smith

AN ELECTRONIC CLASSICS SERIES PUBLICATION

BOOK I

OF THE CAUSES OF IMPROVEMENT IN THE PRODUCTIVE POWERS OF LABOUR, AND OF THE ORDER AC- CORDING TO WHICH ITS PRODUCE IS NATURALLY DISTRIBUTED AMONG THE DIFFERENT RANKS OF THE PEOPLE.

CHAPTER I

OF THE DIVISION OF LABOUR

THE GREATEST IMPROVEMENTS in the productive powers of labour, and the greater part of the skill, dexterity, and judgment, with which it is anywhere directed, or applied, seem to have been the effects of the division of labour. The effects of the division of labour, in the general business of society, will be more easily understood, by considering in what manner it operates in some particular manufactures. It is commonly supposed to be carried furthest in some very trifling ones; not perhaps that it really is carried further in them than in others of more

importance: but in those trifling manufactures which are destined to supply the small wants of but a small number of people, the whole number of workmen must necessarily be small; and those employed in every different branch of the work can often be collected into the same workhouse, and placed at once under the view of the spectator.

In those great manufactures, on the contrary, which are destined to supply the great wants of the great body of the people, every different branch of the work employs so great a number of workmen, that it is impossible to collect them all into the same workhouse. We can seldom see more, at one time, than those employed in one single branch. Though in such manufactures, therefore, the work may really be divided into a much greater number of parts, than in those of a more trifling nature, the division is not near so obvious, and has accordingly been much less observed.

To take an example, therefore, from a very trifling manufacture, but one in which the division of labour has been very often taken notice of, the trade of a pin-maker: a workman not educated to this business (which the division of labour has rendered a distinct trade, nor acquainted with the use of the machinery employed in it (to the invention of which the same division of labour has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty.

But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades. One man draws out the wire; another straightens it; a third cuts it; a fourth points it; a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business; to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind, where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all

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wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly, not the two hundred and fortieth, perhaps not the four thousand eight hundredth, part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations.

In every other art and manufacture, the effects of the division of labour are similar to what they are in this very trifling one, though, in many of them, the labour can neither be so much subdivided, nor reduced to so great a simplicity of operation. The division of labour, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labour. The separation of different trades and employments from one another, seems to have taken place in consequence of this advantage. This separation, too, is generally carried furthest in those countries which enjoy the highest degree of industry and improvement; what is the work of one man, in a rude state of society, being generally that of several in an improved one. In every improved society, the farmer is generally nothing but a farmer; the manufacturer, nothing but a manufacturer. The labour, too, which is necessary to produce any one complete manufacture, is almost always divided among a great number of hands. How many dif-

ferent trades are employed in each branch of the linen and woollen manufactures, from the growers of the flax and the wool, to the bleachers and smoothers of the linen, or to the dyers and dressers of the cloth! The nature of agriculture, indeed, does not admit of so many subdivisions of labour, nor of so complete a separation of one business from another, as manufactures. It is impossible to separate so entirely the business of the grazier from that of the corn-farmer, as the trade of the carpenter is commonly separated from that of the smith. The spinner is almost always a distinct person from the weaver; but the ploughman, the harrower, the sower of the seed, and the reaper of the corn, are often the same. The occasions for those different sorts of labour returning with the different seasons of the year, it is impossible that one man should be constantly employed in any one of them. This impossibility of making so complete and entire a separation of all the different branches of labour employed in agriculture, is perhaps the reason why the improvement of the productive powers of labour, in this art, does not always keep pace with their improvement in manufactures. The most opulent nations, indeed, generally excel all their neighbours in agriculture as well as in manufactures; but they are commonly more distinguished by their superiority in the latter than in the former. Their lands are in general better cultivated, and having more labour and expense bestowed

upon them, produce more in proportion to the extent and natural fertility of the ground. But this superiority of produce is seldom much more than in proportion to the superiority of labour and expense. In agriculture, the labour of the rich country is not always much more productive than that of the poor; or, at least, it is never so much more productive, as it commonly is in manufactures. The corn of the rich country, therefore, will not always, in the same degree of goodness, come cheaper to market than that of the poor. The corn of Poland, in the same degree of goodness, is as cheap as that of France, notwithstanding the superior opulence and improvement of the latter country. The corn of France is, in the corn-provinces, fully as good, and in most years nearly about the same price with the corn of England, though, in opulence and improvement, France is perhaps inferior to England. The corn-lands of England, however, are better cultivated than those of France, and the corn-lands of France are said to be much better cultivated than those of Poland. But though the poor country, notwithstanding the inferiority of its cultivation, can, in some measure, rival the rich in the cheapness and goodness of its corn, it can pretend to no such competition in its manufactures, at least if those manufactures suit the soil, climate, and situation, of the rich country. The silks of France are better and cheaper than those of England, because the silk manufacture, at least under the present

high duties upon the importation of raw silk, does not so well suit the climate of England as that of France. But the hardware and the coarse woollens of England are beyond all comparison superior to those of France, and much cheaper, too, in the same degree of goodness. In Poland there are said to be scarce any manufactures of any kind, a few of those coarser household manufactures excepted, without which no country can well subsist.

This great increase in the quantity of work, which, in consequence of the division of labour, the same number of people are capable of performing, is owing to three different circumstances; first, to the increase of dexterity in every particular workman; secondly, to the saving of the time which is commonly lost in passing from one species of work to another; and, lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many.

First, the improvement of the dexterity of the workmen, necessarily increases the quantity of the work he can perform; and the division of labour, by reducing every man's business to some one simple operation, and by making this operation the sole employment of his life, necessarily increases very much the dexterity of the workman. A common smith, who, though accustomed to handle the hammer, has never been used to make nails, if, upon some particular occasion, he is obliged to attempt it, will scarce, I

am assured, be able to make above two or three hundred nails in a day, and those, too, very bad ones. A smith who has been accustomed to make nails, but whose sole or principal business has not been that of a nailer, can seldom, with his utmost diligence, make more than eight hundred or a thousand nails in a day. I have seen several boys, under twenty years of age, who had never exercised any other trade but that of making nails, and who, when they exerted themselves, could make, each of them, upwards of two thousand three hundred nails in a day. The making of a nail, however, is by no means one of the simplest operations. The same person blows the bellows, stirs or mends the fire as there is occasion, heats the iron, and forges every part of the nail: in forging the head, too, he is obliged to change his tools. The different operations into which the making of a pin, or of a metal button, is subdivided, are all of them much more simple, and the dexterity of the person, of whose life it has been the sole business to perform them, is usually much greater. The rapidity with which some of the operations of those manufactures are performed, exceeds what the human hand could, by those who had never seen them, he supposed capable of acquiring.

Secondly, The advantage which is gained by saving the time commonly lost in passing from one sort of work to another, is much greater than we should at first view be apt to imagine it. It is

impossible to pass very quickly from one kind of work to another, that is carried on in a different place, and with quite different tools. A country weaver, who cultivates a small farm, must lose a good deal of time in passing from his loom to the field, and from the field to his loom. When the two trades can be carried on in the same workhouse, the loss of time is, no doubt, much less. It is, even in this case, however, very considerable. A man commonly saunters a little in turning his hand from one sort of employment to another. When he first begins the new work, he is seldom very keen and hearty; his mind, as they say, does not go to it, and for some time he rather trifles than applies to good purpose. The habit of sauntering, and of indolent careless application, which is naturally, or rather necessarily, acquired by every country workman who is obliged to change his work and his tools every half hour, and to apply his hand in twenty different ways almost every day of his life, renders him almost always slothful and lazy, and incapable of any vigorous application, even on the most pressing occasions. Independent, therefore, of his deficiency in point of dexterity, this cause alone must always reduce considerably the quantity of work which he is capable of performing.

Thirdly, and lastly, everybody must be sensible how much labour is facilitated and abridged by the application of proper machinery. It is unnecessary to give any example. I shall only observe, there-

fore, that the invention of all those machines by which labour is so much facilitated and abridged, seems to have been originally owing to the division of labour. Men are much more likely to discover easier and readier methods of attaining any object, when the whole attention of their minds is directed towards that single object, than when it is dissipated among a great variety of things. But, in consequence of the division of labour, the whole of every man's attention comes naturally to be directed towards some one very simple object. It is naturally to be expected, therefore, that some one or other of those who are employed in each particular branch of labour should soon find out easier and readier methods of performing their own particular work, whenever the nature of it admits of such improvement. A great part of the machines made use of in those manufactures in which labour is most subdivided, were originally the invention of common workmen, who, being each of them employed in some very simple operation, naturally turned their thoughts towards finding out easier and readier methods of performing it. Whoever has been much accustomed to visit such manufactures, must frequently have been shewn very pretty machines, which were the inventions of such workmen, in order to facilitate and quicken their own particular part of the work. In the first fire engines {this was the current designation for steam engines}, a boy was constantly employed to open and shut alter-

nately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of those boys, who loved to play with his companions, observed that, by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without his assistance, and leave him at liberty to divert himself with his play-fellows. One of the greatest improvements that has been made upon this machine, since it was first invented, was in this manner the discovery of a boy who wanted to save his own labour.

All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers, or men of speculation, whose trade it is not to do any thing, but to observe every thing, and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects in the progress of society, philosophy or speculation becomes, like every other employment, the principal or sole trade and occupation of a particular class of citizens. Like every other employment, too, it is subdivided into a great number of different branches, each of which affords occupa-

tion to a peculiar tribe or class of philosophers; and this subdivision of employment in philosophy, as well as in every other business, improve dexterity, and saves time. Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity of science is considerably increased by it.

It is the great multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people. Every workman has a great quantity of his own work to dispose of beyond what he himself has occasion for; and every other workman being exactly in the same situation, he is enabled to exchange a great quantity of his own goods for a great quantity or, what comes to the same thing, for the price of a great quantity of theirs. He supplies them abundantly with what they have occasion for, and they accommodate him as amply with what he has occasion for, and a general plenty diffuses itself through all the different ranks of the society.

Observe the accommodation of the most common artificer or daylabourer in a civilized and thriving country, and you will perceive that the number of people, of whose industry a part, though but a small part, has been employed in procuring him this accommodation, exceeds all computation. The woollen coat, for example, which covers the day-labourer, as coarse and rough as it may ap-

pear, is the produce of the joint labour of a great multitude of workmen. The shepherd, the sorter of the wool, the wool-comber or carder, the dyer, the scribbler, the spinner, the weaver, the fuller, the dresser, with many others, must all join their different arts in order to complete even this homely production. How many merchants and carriers, besides, must have been employed in transporting the materials from some of those workmen to others who often live in a very distant part of the country? How much commerce and navigation in particular, how many ship-builders, sailors, sail-makers, rope-makers, must have been employed in order to bring together the different drugs made use of by the dyer, which often come from the remotest corners of the world? What a variety of labour, too, is necessary in order to produce the tools of the meanest of those workmen! To say nothing of such complicated machines as the ship of the sailor, the mill of the fuller, or even the loom of the weaver, let us consider only what a variety of labour is requisite in order to form that very simple machine, the shears with which the shepherd clips the wool. The miner, the builder of the furnace for smelting the ore the feller of the timber, the burner of the charcoal to be made use of in the smelting-house, the brickmaker, the bricklayer, the workmen who attend the furnace, the millwright, the forger, the smith, must all of them join their different arts in order to produce them. Were we to

examine, in the same manner, all the different parts of his dress and household furniture, the coarse linen shirt which he wears next his skin, the shoes which cover his feet, the bed which he lies on, and all the different parts which compose it, the kitchen-grate at which he prepares his victuals, the coals which he makes use of for that purpose, dug from the bowels of the earth, and brought to him, perhaps, by a long sea and a long land-carriage, all the other utensils of his kitchen, all the furniture of his table, the knives and forks, the earthen or pewter plates upon which he serves up and divides his victuals, the different hands employed in preparing his bread and his beer, the glass window which lets in the heat and the light, and keeps out the wind and the rain, with all the knowledge and art requisite for preparing that beautiful and happy invention, without which these northern parts of the world could scarce have afforded a very comfortable habitation, together with the tools of all the different workmen employed in producing those different conveniencies; if we examine, I say, all these things, and consider what a variety of labour is employed about each of them, we shall be sensible that, without the assistance and co-operation of many thousands, the very meanest person in a civilized country could not be provided, even according to, what we very falsely imagine, the easy and simple manner in which he is commonly accommodated. Compared, indeed, with the more extravagant

luxury of the great, his accommodation must no doubt appear extremely simple and easy; and yet it may be true, perhaps, that the accommodation of an European prince does not always so much exceed that of an industrious and frugal peasant, as the accommodation of the latter exceeds that of many an African king, the absolute masters of the lives and liberties of ten thousand naked savages.

CHAPTER II

OF THE PRINCIPLE WHICH GIVES OCCASION TO THE DIVISION OF LABOUR

THIS DIVISION OF LABOUR, from which so many advantages are derived, is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion. It is the necessary, though very slow and gradual, consequence of a certain propensity in human nature, which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another.

Whether this propensity be one of those original principles in human nature, of which no further account can be given, or whether, as seems more probable, it be the necessary consequence of the faculties of reason and speech, it belongs not to our present subject to inquire. It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contracts. Two greyhounds, in running down the same hare, have sometimes the appearance of acting in some sort of concert. Each turns her towards his companion, or endeavours to intercept her when his companion turns her towards himself. This, however, is not the effect of any contract, but of the acci-

dental concurrence of their passions in the same object at that particular time. Nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog. Nobody ever saw one animal, by its gestures and natural cries signify to another, this is mine, that yours; I am willing to give this for that. When an animal wants to obtain something either of a man, or of another animal, it has no other means of persuasion, but to gain the favour of those whose service it requires. A puppy fawns upon its dam, and a spaniel endeavours, by a thousand attractions, to engage the attention of its master who is at dinner, when it wants to be fed by him. Man sometimes uses the same arts with his brethren, and when he has no other means of engaging them to act according to his inclinations, endeavours by every servile and fawning attention to obtain their good will. He has not time, however, to do this upon every occasion. In civilized society he stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons. In almost every other race of animals, each individual, when it is grown up to maturity, is entirely independent, and in its natural state has occasion for the assistance of no other living creature. But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can

interest their self-love in his favour, and shew them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this. Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantages. Nobody but a beggar chooses to depend chiefly upon the benevolence of his fellow-citizens. Even a beggar does not depend upon it entirely. The charity of well-disposed people, indeed, supplies him with the whole fund of his subsistence. But though this principle ultimately provides him with all the necessaries of life which he has occasion for, it neither does nor can provide him with them as he has occasion for them. The greater part of his occasional wants are supplied in the same manner as those of other people, by treaty, by barter, and by purchase. With the money which one man gives him he purchases food. The old clothes which another bestows upon him he exchanges for other clothes which suit him better, or for lodging, or for food, or for money, with which he

can buy either food, clothes, or lodging, as he has occasion.

As it is by treaty, by barter, and by purchase, that we obtain from one another the greater part of those mutual good offices which we stand in need of, so it is this same trucking disposition which originally gives occasion to the division of labour. In a tribe of hunters or shepherds, a particular person makes bows and arrows, for example, with more readiness and dexterity than any other. He frequently exchanges them for cattle or for venison, with his companions; and he finds at last that he can, in this manner, get more cattle and venison, than if he himself went to the field to catch them. From a regard to his own interest, therefore, the making of bows and arrows grows to be his chief business, and he becomes a sort of armourer. Another excels in making the frames and covers of their little huts or moveable houses. He is accustomed to be of use in this way to his neighbours, who reward him in the same manner with cattle and with venison, till at last he finds it his interest to dedicate himself entirely to this employment, and to become a sort of house-carpenter. In the same manner a third becomes a smith or a brazier; a fourth, a tanner or dresser of hides or skins, the principal part of the clothing of savages. And thus the certainty of being able to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other

men's labour as he may have occasion for, encourages every man to apply himself to a particular occupation, and to cultivate and bring to perfection whatever talent of genius he may possess for that particular species of business.

The difference of natural talents in different men, is, in reality, much less than we are aware of; and the very different genius which appears to distinguish men of different professions, when grown up to maturity, is not upon many occasions so much the cause, as the effect of the division of labour. The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature, as from habit, custom, and education. When they came in to the world, and for the first six or eight years of their existence, they were, perhaps, very much alike, and neither their parents nor play-fellows could perceive any remarkable difference. About that age, or soon after, they come to be employed in very different occupations. The difference of talents comes then to be taken notice of, and widens by degrees, till at last the vanity of the philosopher is willing to acknowledge scarce any resemblance. But without the disposition to truck, barter, and exchange, every man must have procured to himself every necessary and conveniency of life which he wanted. All must have had the same duties to perform, and the same work to do, and there could have been no such difference of

employment as could alone give occasion to any great difference of talents.

As it is this disposition which forms that difference of talents, so remarkable among men of different professions, so it is this same disposition which renders that difference useful. Many tribes of animals, acknowledged to be all of the same species, derive from nature a much more remarkable distinction of genius, than what, antecedent to custom and education, appears to take place among men. By nature a philosopher is not in genius and disposition half so different from a street porter, as a mastiff is from a grey-hound, or a grey-hound from a spaniel, or this last from a shepherd's dog. Those different tribes of animals, however, though all of the same species are of scarce any use to one another. The strength of the mastiff is not in the least supported either by the swiftness of the greyhound, or by the sagacity of the spaniel, or by the docility of the shepherd's dog. The effects of those different geniuses and talents, for want of the power or disposition to barter and exchange, cannot be brought into a common stock, and do not in the least contribute to the better accommodation and conveniency of the species. Each animal is still obliged to support and defend itself, separately and independently, and derives no sort of advantage from that variety of talents with which nature has distinguished its fellows. Among men, on the contrary, the most dissimilar ge-

niuses are of use to one another; the different produces of their respective talents, by the general disposition to truck, barter, and exchange, being brought, as it were, into a common stock, where every man may purchase whatever part of the produce of other men's talents he has occasion for,

CHAPTER III

THAT THE DIVISION OF LABOUR IS LIMITED BY THE EXTENT OF THE MARKET

AS IT IS THE POWER of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for.

There are some sorts of industry, even of the lowest kind, which can be carried on nowhere but in a great town. A porter, for example, can find employment and subsistence in no other place. A village is by much too narrow a sphere for him; even an ordinary market-town is scarce large enough to afford him constant occupation. In the lone houses and very small villages which are scattered about in so desert a country as the highlands of Scotland, every farmer must be butcher, baker, and brewer, for his own family. In such situations we can scarce expect to find even a smith, a

carpenter, or a mason, within less than twenty miles of another of the same trade. The scattered families that live at eight or ten miles distance from the nearest of them, must learn to perform themselves a great number of little pieces of work, for which, in more populous countries, they would call in the assistance of those workmen. Country workmen are almost everywhere obliged to apply themselves to all the different branches of industry that have so much affinity to one another as to be employed about the same sort of materials. A country carpenter deals in every sort of work that is made of wood; a country smith in every sort of work that is made of iron. The former is not only a carpenter, but a joiner, a cabinet-maker, and even a carver in wood, as well as a wheel-wright, a plough-wright, a cart and waggon-maker. The employments of the latter are still more various. It is impossible there should be such a trade as even that of a nailer in the remote and inland parts of the highlands of Scotland. Such a workman at the rate of a thousand nails a-day, and three hundred working days in the year, will make three hundred thousand nails in the year. But in such a situation it would be impossible to dispose of one thousand, that is, of one day's work in the year. As by means of water-carriage, a more extensive market is opened to every sort of industry than what land-carriage alone can afford it, so it is upon the sea-coast, and along the banks of navigable rivers, that industry of every

kind naturally begins to subdivide and improve itself, and it is frequently not till a long time after that those improvements extend themselves to the inland parts of the country. A broad-wheeled waggon, attended by two men, and drawn by eight horses, in about six weeks time, carries and brings back between London and Edinburgh near four ton weight of goods. In about the same time a ship navigated by six or eight men, and sailing between the ports of London and Leith, frequently carries and brings back two hundred ton weight of goods. Six or eight men, therefore, by the help of water-carriage, can carry and bring back, in the same time, the same quantity of goods between London and Edinburgh as fifty broad-wheeled waggons, attended by a hundred men, and drawn by four hundred horses. Upon two hundred tons of goods, therefore, carried by the cheapest land-carriage from London to Edinburgh, there must be charged the maintenance of a hundred men for three weeks, and both the maintenance and what is nearly equal to maintenance the wear and tear of four hundred horses, as well as of fifty great waggons. Whereas, upon the same quantity of goods carried by water, there is to be charged only the maintenance of six or eight men, and the wear and tear of a ship of two hundred tons burthen, together with the value of the superior risk, or the difference of the insurance between land and water-carriage. Were there no other communication between those two

places, therefore, but by land-carriage, as no goods could be transported from the one to the other, except such whose price was very considerable in proportion to their weight, they could carry on but a small part of that commerce which at present subsists between them, and consequently could give but a small part of that encouragement which they at present mutually afford to each other's industry. There could be little or no commerce of any kind between the distant parts of the world. What goods could bear the expense of land-carriage between London and Calcutta? Or if there were any so precious as to be able to support this expense, with what safety could they be transported through the territories of so many barbarous nations? Those two cities, however, at present carry on a very considerable commerce with each other, and by mutually affording a market, give a good deal of encouragement to each other's industry.

Since such, therefore, are the advantages of water-carriage, it is natural that the first improvements of art and industry should be made where this conveniency opens the whole world for a market to the produce of every sort of labour, and that they should always be much later in extending themselves into the inland parts of the country. The inland parts of the country can for a long time have no other market for the greater part of their goods, but the country which lies round about them, and separates them from the

sea-coast, and the great navigable rivers. The extent of the market, therefore, must for a long time be in proportion to the riches and populousness of that country, and consequently their improvement must always be posterior to the improvement of that country. In our North American colonies, the plantations have constantly followed either the sea-coast or the banks of the navigable rivers, and have scarce anywhere extended themselves to any considerable distance from both.

The nations that, according to the best authenticated history, appear to have been first civilized, were those that dwelt round the coast of the Mediterranean sea. That sea, by far the greatest inlet that is known in the world, having no tides, nor consequently any waves, except such as are caused by the wind only, was, by the smoothness of its surface, as well as by the multitude of its islands, and the proximity of its neighbouring shores, extremely favourable to the infant navigation of the world; when, from their ignorance of the compass, men were afraid to quit the view of the coast, and from the imperfection of the art of ship-building, to abandon themselves to the boisterous waves of the ocean. To pass beyond the pillars of Hercules, that is, to sail out of the straits of Gibraltar, was, in the ancient world, long considered as a most wonderful and dangerous exploit of navigation. It was late before even the Phoenicians and Carthaginians, the most skilful navigators and

ship-builders of those old times, attempted it; and they were, for a long time, the only nations that did attempt it.

Of all the countries on the coast of the Mediterranean sea, Egypt seems to have been the first in which either agriculture or manufactures were cultivated and improved to any considerable degree. Upper Egypt extends itself nowhere above a few miles from the Nile; and in Lower Egypt, that great river breaks itself into many different canals, which, with the assistance of a little art, seem to have afforded a communication by water-carriage, not only between all the great towns, but between all the considerable villages, and even to many farm-houses in the country, nearly in the same manner as the Rhine and the Maese do in Holland at present. The extent and easiness of this inland navigation was probably one of the principal causes of the early improvement of Egypt.

The improvements in agriculture and manufactures seem likewise to have been of very great antiquity in the provinces of Bengal, in the East Indies, and in some of the eastern provinces of China, though the great extent of this antiquity is not authenticated by any histories of whose authority we, in this part of the world, are well assured. In Bengal, the Ganges, and several other great rivers, form a great number of navigable canals, in the same manner as the Nile does in Egypt. In the eastern provinces of China, too, several great rivers form, by their different branches, a

multitude of canals, and, by communicating with one another, afford an inland navigation much more extensive than that either of the Nile or the Ganges, or, perhaps, than both of them put together. It is remarkable, that neither the ancient Egyptians, nor the Indians, nor the Chinese, encouraged foreign commerce, but seem all to have derived their great opulence from this inland navigation.

All the inland parts of Africa, and all that part of Asia which lies any considerable way north of the Euxine and Caspian seas, the ancient Scythia, the modern Tartary and Siberia, seem, in all ages of the world, to have been in the same barbarous and uncivilized state in which we find them at present. The sea of Tartary is the frozen ocean, which admits of no navigation; and though some of the greatest rivers in the world run through that country, they are at too great a distance from one another to carry commerce and communication through the greater part of it. There are in Africa none of those great inlets, such as the Baltic and Adriatic seas in Europe, the Mediterranean and Euxine seas in both Europe and Asia, and the gulfs of Arabia, Persia, India, Bengal, and Siam, in Asia, to carry maritime commerce into the interior parts of that great continent; and the great rivers of Africa are at too great a distance from one another to give occasion to any considerable inland navigation. The commerce, besides, which any nation can carry on by means of a river which does not break itself into any

great number of branches or canals, and which runs into another territory before it reaches the sea, can never be very considerable, because it is always in the power of the nations who possess that other territory to obstruct the communication between the upper country and the sea. The navigation of the Danube is of very little use to the different states of Bavaria, Austria, and Hungary, in comparison of what it would be, if any of them possessed the whole of its course, till it falls into the Black sea.



Comparative Advantage

The great bulk of the reality and significance of comparative advantage lies beneath the surface, with unseen surprises.

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By **Donald J. Boudreaux**

Comparative advantage, like language, is ubiquitous. No one who interacts with anyone can escape its operation, which occurs every moment of every day to everyone everywhere. Also like language, comparative advantage was not invented; it arises naturally whenever humans interact with each other. Nor can its array of vast details be reengineered at will to achieve some visionary's dream. And each of us uses comparative advantage to our benefit without being aware that we're doing so. Except for a handful of economists, almost no one knows about comparative advantage, and therefore, almost no one can describe it or articulate its logic.

So what exactly is this profound economic force?

This essay answers that question and several related others. In the process, it demonstrates how specialization and trade guided by comparative advantage improve our daily lives—and that despite being a relatively easy or even trivial concept to grasp, comparative advantage is full of surprising implications.

What Is Comparative Advantage?

Most simply, comparative advantage refers to a person's ability and willingness to supply other people with a good or service that these other people cannot otherwise acquire at a lower cost. Described this way, comparative advantage appears trite: To say that Ann has a comparative advantage at supplying fish to Bob is to say only that, at least for Bob, the lowest-cost supplier of fish is Ann. If, therefore, Bob wants to acquire fish and have as much income remaining as possible to buy other things, he'd best buy fish from Ann. Nothing about such a relationship is remarkable or even interesting.

Yet while the previous paragraph is accurate, it's the tip of an iceberg. The great bulk of the reality and significance of comparative advantage lies beneath the surface, with unseen surprises.

The chief nontrivial insight gained from understanding comparative advantage is this: An economic entity's technical ability to produce a product is, by itself, irrelevant for determining if that entity should produce that product itself or acquire that product by first producing something else and then trading that something else for the desired product.

A simple example: You want a new deck and are willing to pay up to \$21,000 for it, but you're also an excellent carpenter. If you work full-time to build the deck yourself, you can build it in one month. Your neighbor Jones, however, offers to build you a deck of identical quality, but because his carpentry skills are not as good as yours, it will take Jones two months to complete the job. Clearly, if technical ability were all that mattered, you should build your own deck.

But an understanding of comparative advantage reveals that this reality is insufficient to economically justify your building the deck. Your building the deck would be worthwhile only if your *cost* of doing so were less than the cost of having someone else, such as Jones, build it for you.

How can it be that Jones could build the deck for you at a lower cost? According to comparative advantage, your being a better carpenter than Jones tells us nothing about whether you are economically a more efficient deck builder than Jones. What matters economically is the opportunity cost to you to personally build your deck *compared to* the opportunity cost to you of having Jones build the deck for you. That you possess better skills for building decks than Jones doesn't guarantee that the cost to you of building the deck is less than the cost to Jones.

If you work as a radiologist and earn an annual salary of \$240,000, taking one month off work to build your deck would cost you a month's worth of income, or \$20,000. Because you value the deck at \$21,000, if the only way for you to acquire the deck would be for you to build it yourself, you'd find it worthwhile to spend your time building the deck.

Fortunately, you have a better option. Your neighbor Jones works as a bookkeeper. His annual salary is \$84,000, or \$7,000 per month. If Jones were to take *two* months off his job to build your deck, he'd forgo an income of \$14,000. Clearly Jones can build the deck at a cost \$6,000 lower than the cost you'd incur to build it yourself. So you hire Jones for two months at the competitive wage, paying him \$14,001 to build your deck.

Had you personally built your deck, you'd have denied yourself \$20,000 of income and \$20,000 worth of radiology services for others. In contrast, by employing Jones to build your deck, the value of the services denied others is only \$14,000.

You're technically a more proficient deck builder than Jones, but economically this is irrelevant. What's relevant are opportunity costs. Because Jones's opportunity cost of building the deck is lower than yours, Jones is economically a better deck builder than you—by \$6,000. Jones has a *comparative* advantage over you at building decks. Table 1 summarizes this example.

Table 1

While you are better at building a deck than Jones, paying him to build it benefits you and the economy

Scenario A: You build the deck yourself

	\$ Value
Your earnings from building the deck	\$0
Your opportunity cost of building it*	\$20,000
Jones' income at his job (because he is not building)**	\$14,000
Net outcome: You lose by building yourself rather than employing Jones for \$14,001	-\$5,999

Scenario B: You hire Jones to build the deck

	\$ Value
Jones' earnings from building the deck (i.e., what you pay him)	\$14,001
Jones' opportunity cost of building it**	\$14,000
Total income you earn at your job (because you hired Jones)*	\$20,000
Cost to you of hiring Jones	\$14,001
Net outcome: Your savings from employing Jones to build	\$5,999

*Your opportunity cost is the income you earn at your regular job as a radiologist over the course of a month (i.e., the amount of time it would take you to build the deck).

**Jones' opportunity cost is the income he earns at his regular job as a bookkeeper over the course of two months (i.e., the amount of time it would take him to build the deck).

The lesson is that if the goal is maximum possible economic gain, the determination of what an economic entity should or shouldn't produce cannot be made according to that entity's technical proficiency. What matters economically is the cost to the entity of acquiring the desired output by producing the output itself compared to the cost of producing something else, earning income from the sale of that something else and then using that income to buy the desired output from another producer—that is, compared to the cost of trading for the desired output.

This reality is not affected by the political jurisdiction in which the different parties live. You and Jones might be neighbors in the United States, or Jones might live across the border in Canada. Either way, it's worthwhile for Jones to build your deck. And it's better for the economy: If you build the deck, you would deny the economy \$20,000 worth of economic output from your regular job; if Jones builds it, the economy loses only \$14,000 from his regular job. Nothing—not even government subsidies—alters this conclusion, at least not for citizens of the home country.

What Are Some Comparative Advantage Surprises?

The scholar, financier, and statesman David Ricardo (1772–1823) is credited with first clearly identifying comparative advantage. He did so in Chapter 7 (“On Foreign Trade”) of his 1817 treatise, *On the Principles of Political Economy and Taxation*. Ricardo used a simple example to show that under reasonable assumptions, even if the Portuguese were technically superior to the English at producing both wine and cloth, if the Portuguese's superiority over the English at producing wine was greater than their superiority over the English at producing cloth, both the English and the Portuguese would gain if the English specialized at producing cloth, the Portuguese specialized at producing wine, and then each country freely traded with the other.

Ever since Ricardo offered his explanation of what still appears to many people to be a surprising conclusion, the case for free trade has regularly been said to rest on comparative advantage. While correct, the common interpretation of this fact misses an important reality. This common interpretation holds that a pattern of comparative advantage exists and *then* gives rise to the pattern of specialization and trade that reflects the pre-existing comparative advantages. This sequence often happens in the real world but not always.

Adam Smith (1723–1790), whose 1776 *Inquiry into the Nature and Causes of the Wealth of Nations* was published 41 years before Ricardo's treatise, demonstrated that specialization is advantageous even *without* a pre-existing pattern of comparative advantage. For Smith, specialization improves workers' or businesses' technical proficiency at producing the goods and services in which they specialize. By concentrating on doing a

particular task, each producer over time becomes better at performing that task. That is, by specializing, each producer creates for itself a comparative advantage. For Smith, specialization is the *source* of comparative advantage (although Smith was unaware of this principle's full reality); for Ricardo, specialization is the *result* of comparative advantage.

Both Smith and Ricardo are correct. Taken together, their analyses identify a virtuous cycle of improvement in economic productivity. Specialization begets greater comparative advantages, while greater comparative advantages increase the benefits of specialization. This is one surprise; combining Smith's analysis with Ricardo's reveals others.

By concentrating his or her productive efforts on a particular task, a specialized producer further improves his or her skills at doing the task for which that person has a comparative advantage, thereby becoming an economically *worse* performer of other tasks.

Consider the deck-building example. Despite your being technically better at carpentry than Jones, it pays to employ Jones to build your deck. Suppose, as Adam Smith predicts, your concentrating your time working as a radiologist improves your radiology skills and causes your annual salary to rise to \$252,000. At your higher salary, building the deck yourself would cost you \$21,000 rather than \$20,000. Your becoming a better radiologist makes you, economically, a worse—that is, a more costly—deck builder even though your proficiency at carpentry hasn't declined.

More surprisingly, your becoming a better radiologist makes Jones, compared to you, an economically better deck builder—even if Jones's technical proficiency at carpentry remains unchanged. His cost of building the deck (\$14,000) was 70 percent of your cost of doing so (\$20,000) at your previous wages. Now that your radiology skills have improved and your wages are higher, however, Jones's cost of building the deck is only 66.7 percent of your new cost of doing so (\$21,000). Your improved radiology skills economically improves Jones's carpentry skills *in comparison to yours*. Put differently, the improvement in your comparative advantage at radiology improved Jones's comparative advantage at building decks.

You're obviously made better off by becoming a better radiologist. But is Jones made better off by the resulting improvement of his comparative advantage at building decks? Possibly, but not necessarily. If the amount that you pay Jones to build your deck isn't increased by your improved

skills at radiology, Jones reaps no benefit from your improved radiology skills (unless he finds himself in need of the services of a radiologist, but that's a different story). But two facts here are worth noting. First, Jones isn't harmed by your becoming a better radiologist. Second, Jones is *potentially* made better off by your becoming a better radiologist.

Before the improvement in your radiology skills, you would have been willing to pay Jones up to \$20,000 to build the deck, but not a cent more. Had Jones earlier demanded to be paid, say, \$20,500, you would have refused, and he would have had no hope of changing your mind. The reason, of course, is that earlier you could have built the deck yourself for \$20,000. But since your radiology skills have improved, you're now willing to pay him as much as \$21,000 to build the deck.

Obviously, you want to pay Jones as little as possible. Whether or not your improved comparative advantage at radiology—meaning also Jones's improved comparative advantage at building decks—redounds to Jones's benefit depends on how many people are competing for Jones's services as a producer. The more intense this competition, the more likely it is that market forces will drive you to share with Jones some of the benefits you reap from your improved radiology skills.

The question of whether and by how much you would be driven by market forces to share with Jones the benefits of your enhanced comparative advantage at radiology can be answered only by investigating the structure and competitiveness of markets—chiefly, the number of buyers and suppliers of deck-building services. Such an investigation is beyond this essay's scope. It's enough here to demonstrate the surprising and important fact that when the comparative advantage of party A improves, the comparative advantage of party A's trading partner—party B—also improves, thus at least *potentially* increasing party B's welfare in addition to the certain improvement of party A's welfare.

How Does Comparative Advantage Apply to International Trade?

Comparative advantage ultimately exists at the level of individuals and firms: No country *as such* has comparative advantages or disadvantages. Nevertheless, patterns of international trade reflect the international pattern of comparative advantage. If, for example, producers in the United States have a comparative advantage over producers in Mexico and Sweden at producing pharmaceutical products, the United States would export pharmaceutical products to Mexico and Sweden and import goods from these countries that they produce at a comparative advantage over the United States. If, say, Mexico has a comparative advantage at producing prefabricated buildings while Sweden's comparative advantage is producing fish, Americans would export pharmaceutical products and import prefabricated buildings from Mexico and fish from Sweden. And Mexico and Sweden would similarly produce and trade based on their comparative advantages.

Talking of countries trading with each other can be a useful shorthand as long as it's kept in mind that individuals and firms, not countries, trade and that comparative advantages and disadvantages exist only at the level of the specific producer units, meaning individuals and firms. Observed patterns of international trade reflect the patterns of comparative advantages that exist across the different producer units in each country.

Do Subsidies Obviate Comparative Advantage?

What happens if we introduce subsidies? Let's return to our deck-building example. What would happen if a Canadian producer were to be subsidized by its government to build decks in the United States?

Suppose that you and Jones live in America while Schwartz lives in Canada and is a neurosurgeon whose annual earnings are \$360,000. Like Jones, Schwartz is technically a worse carpenter than you are and would require two months to build your deck. Unlike Jones, however, if Schwartz took two months off work, she would sacrifice more income (\$60,000) than you'd sacrifice by taking off one month (\$21,000). Clearly, among you, Jones, and Schwartz, the comparative advantage at building the deck remains with Jones, so you prepare to hire Jones to do the job.

But before finalizing the contract with Jones, Canada's government announces that it will pay Schwartz \$50,000 if she lets herself be hired to build your deck. In this case, were Schwartz to build your deck, her net loss of income from taking time off from the hospital would be only \$10,000. If you then offer to pay Schwartz \$10,001 to spend two months to build your deck, she'd happily do it.

Because hiring Jones requires that you pay him at least \$14,001, you now find it attractive to employ Schwartz at any price less than \$14,001. So you employ Schwartz to build your deck for \$10,001. She'll accept because her total income over the two months she spends building your deck would be slightly more than \$60,000—the \$50,000 subsidy paid to her by the Canadian government plus the \$10,001 paid to her by you.

Schwartz is slightly better off with this arrangement, as she earns for those two months \$1 more than she would by working as a neurosurgeon. Jones is slightly worse off, missing out on the opportunity to earn the extra \$1 that he'd have made had you hired him. You, however, are made better off by this subsidy by \$4,000.

Canada's subsidy makes the *American* economy better off by \$4,000. With your deck being built by the Canadian Schwartz instead of by the American Jones, the U.S. economy doesn't lose the \$14,000 in Jones's bookkeeping services. Instead, the cost to the U.S. economy of building your deck under Canada's subsidy scheme is only the \$10,001 that you pay to the Canadian Schwartz, a sum \$4,000 less than you'd have paid to employ Jones.

Schwartz doesn't have a "real" comparative advantage over Jones at building your deck. Schwartz is employed to build the deck in the United States only because her government subsidizes her. For Canadians, the subsidy only makes it *appear* that Schwartz has the comparative advantage at deck building. Canadians' taxes are raised by \$50,000 to entice Schwartz to work at a job at which she would otherwise not work—a job at which she doesn't really have a comparative advantage.

Yet for Americans—whose taxes *aren't* raised to pay for this subsidy—this appearance of Schwartz's comparative advantage at deck building is an economic reality. For Americans, her deck-building services are indeed available at a cost lower than what you or Jones would incur. For Americans, Canada's subsidies are a gift that enriches us no less than we'd be enriched had an unsubsidized Canadian entrepreneur invented a

process for lowering the cost of building decks to \$10,001, thus enabling you to purchase one of these lower-cost decks at that price.

From Americans' perspective, the *source* of lower-cost options abroad is irrelevant. If these lower-cost options arise naturally—say, because there is discovered abroad more deposits of some raw material—we Americans would gain by taking advantage of the foreigners' improved comparative advantage. If instead these lower-cost options arise artificially—say, because foreign governments subsidize exports—we Americans still would gain, and we would gain no less than when foreigners actually improve their comparative advantage. In both cases we get more exports in exchange for any given amount of our imports.

Any economic downsides, such as some Americans' losing particular jobs, that arise in America from our purchase of foreign outputs made artificially less pricey by subsidies arise no less from our purchase of foreign outputs made naturally less pricey by foreigners' improved real comparative advantage. In both cases we should welcome the increased bounty to which we have access through trade. Artificial advantages might raise *political* concerns (e.g., Jones demanding import protection or his own subsidies), but they do not raise economic ones.

Is Government Intervention Needed to Improve an Economy's Comparative Advantages?

An understandable objection to this conclusion is that governments don't dispense subsidies willy-nilly. At least in some cases, governments use subsidies as tools to transform industries in which their countries don't currently have a comparative advantage into industries that will in the future have a comparative advantage. Subsidies, often combined with protective tariffs, are in these cases designed by each government to ensure that its country hopefully will have a better set of comparative advantages than it would have under a policy of free trade.

This essay's task isn't to assess this so-called industrial policy. Excellent assessments are available from many sources, including **Charles Schultze**, **Don Lavoie**, **Deirdre McCloskey** and **Alberto Mingardi**, **Scott Lincicome**,

Samuel Gregg, and **Linda Cohen and Roger Noll**. It's sufficient to note here that industrial policy's historical record offers no reason for optimism that government attempts to artificially improve a nation's pattern of comparative advantage will enhance the wealth of the nation.

Fortunately, to ensure vigorous economic growth, we don't have to rely on the state to engineer improved comparative advantages. Not only does the state have little prospect of succeeding at this task, but individuals have strong incentives and abilities to change their comparative advantages from worse to better.

Indeed, almost no individual goes through life with same comparative advantage that he or she was born with. People get educated. People acquire job skills. Businesses change their product lines, hiring new workers who bring skills that existing employees don't possess. Entrepreneurs innovate with new outputs and techniques of production and distribution—efforts that, when successful, create new comparative advantages for workers and firms.

These individual- and firm-level efforts to change their comparative advantages are, unlike industrial-policy efforts, guided by market prices. When the wages paid to workers with particular skills rise, other workers are incited to acquire those skills—that is, to change their comparative advantages. When the prices of some outputs rise relative to the prices of other outputs, entrepreneurs shift their efforts into the production of the now-higher-priced outputs, thus often altering their comparative advantages.

Also, unlike industrial-policy efforts, private efforts to explore and pursue different comparative advantages are disciplined by the prospect of loss. Not spending other people's money, private workers and firms abandon failed projects as soon as the likelihood of failure appears sufficiently high. Government officials, in contrast, are too likely to throw (other people's) good money after bad, promising that the vision earlier sold to the public will be realized if only the government shoves yet more resources into the pet projects.

In short, the comparative advantage at pursuing better comparative advantages is had by individuals operating in competitive markets—not by pundits and politicians pursuing their hunches and visions with other people's money and in contradiction to market prices.

Conclusion

By the nature of comparative advantage, it will exist as long as humanity exists. And as long as comparative advantage exists, there will also exist possibilities for mutually advantageous trade. This reality is unaffected by political borders. Gains from specialization and trade inspired by comparative advantage are not one jot fewer if the trading parties are citizens of different countries than if they're citizens of the same country. Therefore, obstructing international trade with the goal of improving citizens' economic welfare in fact worsens that welfare as it prevents citizens from taking full advantage of the opportunities to specialize and trade according to their comparative advantages.

This conclusion holds even if (as is almost always the case) foreign governments interfere with their citizens' freedom to trade. When a government grants special privileges, such as tariff protection or subsidies, to particular producers within its country's borders, the bulk of the burden of these privileges falls on that government's citizens. As a result, that country is made poorer, not richer. And the home country only worsens its own economic performance if it retaliates with **tariffs and subsidies** of its own. Further, in the case of export subsidies, there is also an unambiguous *gain* for citizens of the countries that purchase those exports. From the perspective of citizens of the home country, export subsidies paid by foreign governments are sources of benefits identical to those that would be enjoyed if producers in foreign countries had improved their comparative advantages.

Comparative advantage does indeed supply a solid economic justification for a policy of unilateral free trade.

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ARTICLES

The Case for Free Trade

In international trade, Hoover fellow Charles Wolf Jr. argues above, deficits don't much matter. Here **Milton Friedman** and **Rose Friedman** discuss what does: freedom. A ringing statement of logic and principle.

Thursday, October 30, 1997 • 7 min read

By: **Milton Friedman**, **Rose D. Friedman**



It is often said that bad economic policy reflects disagreement among the experts; that if all economists gave the same advice, economic policy would be good. Economists often do disagree, but that has not been true with respect to international trade. Ever since Adam Smith there has been virtual unanimity among economists, whatever their ideological position on other issues, that international free trade is in the best interests of trading countries and of the world. Yet tariffs have been the rule. The only major exceptions are nearly a century of free trade in Great Britain after the repeal of the Corn Laws in 1846, thirty years of free trade in Japan after the Meiji Restoration, and free trade in Hong Kong under British rule. The United States had tariffs throughout the nineteenth century, and they were raised still higher in the twentieth century, especially by the Smoot-Hawley tariff bill of 1930, which some scholars regard as partly responsible for the severity of the subsequent depression. Tariffs have since been reduced by repeated international agreements, but they remain high, probably higher than in the nineteenth century, though the vast changes in the kinds of items entering international trade make a precise comparison impossible.



Today, as always, there is much support for tariffs--euphemistically labeled "protection," a good label for a bad cause. Producers of steel and steelworkers' unions press for restrictions on steel imports from Japan. Producers of TV sets and their workers lobby for "voluntary agreements" to limit imports of TV sets or components from Japan, Taiwan, or Hong Kong. Producers of textiles, shoes, cattle, sugar--they and myriad others complain about "unfair" competition from abroad and demand that government do something to "protect" them. Of course, no group makes its claims on the basis of naked self-interest. Every group speaks of the "general interest," of the need to preserve jobs or to promote national security. The need to strengthen the dollar vis-à-vis the deutsche mark or the yen has more recently joined the traditional rationalizations for restrictions on imports.

One voice that is hardly ever raised is the consumer's. That voice is drowned out in the cacophony of the "interested sophistry of merchants and manufacturers" and their employees. The result is a serious distortion of the issue. For example, the supporters of tariffs treat it as self evident that the creation of jobs is a desirable end, in and of itself, regardless of what the persons employed do. That is clearly wrong. If all we want are jobs, we can create any number--for example, have people dig holes and then fill them up again or perform other useless tasks. Work is sometimes its own reward. Mostly, however, it is the price we pay to get the things we want. Our real objective is not just jobs but productive jobs--jobs that will mean more goods and services to consume.

Another fallacy seldom contradicted is that exports are good, imports bad. The truth is very different. We cannot eat, wear, or enjoy the goods we send abroad. We eat bananas from Central America, wear Italian shoes, drive German automobiles, and enjoy programs we see on our Japanese TV sets. Our gain from foreign trade is what we import. Exports are the price we pay to get imports. As Adam Smith saw so clearly, the citizens of a nation benefit from getting as large a volume of imports as possible in return for its exports or, equivalently, from exporting as little as possible to pay for its imports.

The misleading terminology we use reflects these erroneous ideas. "Protection" really means exploiting the consumer. A "favorable balance of trade" really means exporting more than we import, sending abroad goods of greater total value than the goods we get from abroad. In your private household, you would surely prefer to pay less for more rather than the other way around, yet that would be termed an "unfavorable balance of payments" in foreign trade.

The argument in favor of tariffs that has the greatest emotional appeal to the public at large is the alleged need to protect the high standard of living of American workers from the "unfair" competition of workers in Japan or Korea or Hong Kong who are willing to work for a much lower wage. What is wrong with this argument? Don't we want to protect the high standard of living of our people?

The fallacy in this argument is the loose use of the terms "high" wage and "low" wage. What do high and low wages mean? American workers are paid in dollars; Japanese workers are paid in yen. How do we compare wages in dollars with wages in yen? How many yen equal a dollar? What determines the exchange rate?

Consider an extreme case. Suppose that, to begin with, 360 yen equal a dollar. At this exchange rate, the actual rate of exchange for many years, suppose that the Japanese can produce and sell everything for fewer dollars than we can in the United States--TV sets, automobiles, steel, and even soybeans, wheat, milk, and ice cream. If we had free international trade, we would try to buy all our goods from Japan. This would seem to

be the extreme horror story of the kind depicted by the defenders of tariffs--we would be flooded with Japanese goods and could sell them nothing.

Before throwing up your hands in horror, carry the analysis one step further. How would we pay the Japanese? We would offer them dollar bills. What would they do with the dollar bills? We have assumed that at 360 yen to the dollar everything is cheaper in Japan, so there is nothing in the U.S. market that they would want to buy. If the Japanese exporters were willing to burn or bury the dollar bills, that would be wonderful for us. We would get all kinds of goods for green pieces of paper that we can produce in great abundance and very cheaply. We would have the most marvelous export industry conceivable.

Of course, the Japanese would not in fact sell us useful goods in order to get useless pieces of paper to bury or burn. Like us, they want to get something real in return for their work. If all goods were cheaper in Japan than in the United States at 360 yen to the dollar, the exporters would try to get rid of their dollars, would try to sell them for 360 yen to the dollar in order to buy the cheaper Japanese goods. But who would be willing to buy the dollars? What is true for the Japanese exporter is true for everyone in Japan. No one will be willing to give 360 yen in exchange for one dollar if 360 yen will buy more of everything in Japan than one dollar will buy in the United States. The exporters, on discovering that no one will buy their dollars at 360 yen, will offer to take fewer yen for a dollar. The price of the dollar in terms of the yen will go down--to 300 yen for a dollar or 250 yen or 200 yen. Put the other way around, it will take more and more dollars to buy a given number of Japanese yen. Japanese goods are priced in yen, so their price in dollars will go up. Conversely, U.S. goods are priced in dollars, so the more dollars the Japanese get for a given number of yen, the cheaper U.S. goods become to the Japanese in terms of yen.



The price of the dollar in terms of yen would fall, until, on the average, the dollar value of goods that the Japanese buy from the United States roughly equaled the dollar value of goods that the United States buys from Japan. At that price everybody who wanted to buy yen for dollars would find someone who was willing to sell him yen for dollars.

The actual situation is, of course, more complicated than this hypothetical example. Many nations, and not merely the United States and Japan, are engaged in trade, and the trade often takes roundabout directions. The Japanese may spend some of the dollars they earn in Brazil, the Brazilians in turn may spend those dollars in Germany, the Germans in the United States, and so on in endless complexity. However, the principle is the same. People, in whatever country, want dollars primarily to buy useful items, not to hoard, and there can be no balance of payments problem so long as the price of the dollar in terms of the yen or the deutsche mark or the franc is determined in a free market by voluntary transactions.

Why then all the furor about the "weakness" of the dollar? Why the repeated foreign exchange crises? The proximate reason is because foreign exchange rates have not been determined in a free market. Government central banks have intervened on a grand scale in order to influence the price of their currencies. In the process they have lost vast sums of their citizens' money (for the United States, close to two billion dollars from 1973 to early 1979). Even more important, they have prevented this important set of prices from performing its proper function. They have not been able to prevent the basic underlying economic forces from ultimately having their effect on exchange rates

but have been able to maintain artificial exchange rates for substantial intervals. The effect has been to prevent gradual adjustment to the underlying forces. Small disturbances have accumulated into large ones, and ultimately there has been a major foreign exchange "crisis."

In all the voluminous literature of the past several centuries on free trade and protectionism, only three arguments have ever been advanced in favor of tariffs that even in principle may have some validity.

First is the national security argument--the argument that a thriving domestic steel industry, for example, is needed for defense. Although that argument is more often a rationalization for particular tariffs than a valid reason for them, it cannot be denied that on occasion it might justify the maintenance of otherwise uneconomical productive facilities. To go beyond this statement of possibility and establish in a specific case that a tariff or other trade restriction is justified in order to promote national security, it would be necessary to compare the cost of achieving the specific security objective in alternative ways and establish at least a prima facie case that a tariff is the least costly way. Such cost comparisons are seldom made in practice.

We could say to the rest of the world: We cannot force you to be free. But we believe in free practice it.

The second is the "infant industry" argument advanced, for example, by Alexander Hamilton in his Report on Manufactures. There is, it is said, a potential industry that, if once established and assisted during its growing pains, could compete on equal terms in the world market. A temporary tariff is said to be justified in order to shelter the potential industry in its infancy and enable it to grow to maturity, when it can stand on its own feet. Even if the industry could compete successfully once established, that does not of itself justify an initial tariff. It is worthwhile for consumers to subsidize the industry initially--which is what they in effect do by levying a tariff--only if they will

subsequently get back at least that subsidy in some other way, through prices lower than the world price or through some other advantages of having the industry. But in that case is a subsidy needed? Will it then not pay the original entrants into the industry to suffer initial losses in the expectation of being able to recoup them later? After all, most firms experience losses in their early years, when they are getting established. That is true if they enter a new industry or if they enter an existing one. Perhaps there may be some special reason why the original entrants cannot recoup their initial losses even though it may be worthwhile for the community at large to make the initial investment. But surely the presumption is the other way.

The infant industry argument is a smoke screen. The so-called infants never grow up. Once imposed, tariffs are seldom eliminated. Moreover, the argument is seldom used on behalf of true unborn infants that might conceivably be born and survive if given temporary protection; they have no spokesmen. It is used to justify tariffs for rather aged infants that can mount political pressure.

The third argument for tariffs that cannot be dismissed out of hand is the "beggar-thy-neighbor" argument. A country that is a major producer of a product, or that can join with a small number of other producers that together control a major share of production, may be able to take advantage of its monopoly position by raising the price of the product (the Organization of Petroleum Exporting Countries cartel is the obvious example). Instead of raising the price directly, the country can do so indirectly by imposing an export tax on the product--an export tariff. The benefit to itself will be less than the cost to others, but from the national point of view, there can be a gain. Similarly, a country that is the primary purchaser of a product--in economic jargon, has monopsony power--may be able to benefit by driving a hard bargain with the sellers and imposing an unduly low price on them. One way to do so is to impose a tariff on the import of the product. The net return to the seller is the price less the tariff, which is why this can be equivalent to buying at a lower price. In effect, the tariff is paid by the foreigners (we can think of no actual example). In practice this nationalistic approach is highly likely to promote retaliation by other countries. In addition, as for the infant industry argument, the actual political pressures tend to produce tariff structures that do not in fact take advantage of any monopoly or monopsony positions.

A fourth argument, one that was made by Alexander Hamilton and continues to be repeated down to the present, is that free trade would be fine if all other countries practiced free trade but that, so long as they do not, the United States cannot afford to. This argument has no validity whatsoever, either in principle or in practice. Other countries that impose restrictions on international trade do hurt us. But they also hurt themselves. Aside from the three cases just considered, if we impose restrictions in turn, we simply add to the harm to ourselves and also harm them as well. Competition in masochism and sadism is hardly a prescription for sensible international economic policy! Far from leading to a reduction in restrictions by other countries, this kind of retaliatory action simply leads to further restrictions.

We are a great nation, the leader of the world. It ill behooves us to require Hong Kong and Taiwan to impose export quotas on textiles to "protect" our textile industry at the expense of U.S. consumers and of Chinese workers in Hong Kong and Taiwan. We speak glowingly of the virtues of free trade, while we use our political and economic power to induce Japan to restrict exports of steel and TV sets. We should move unilaterally to free trade, not instantaneously but over a period of, say, five years, at a pace announced in advance.

Few measures that we could take would do more to promote the cause of freedom at home and abroad than complete free trade. Instead of making grants to foreign governments in the name of economic aid--thereby promoting socialism--while at the same time imposing restrictions on the products they produce--thereby hindering free enterprise--we could assume a consistent and principled stance. We could say to the rest of the world: We believe in freedom and intend to practice it. We cannot force you to be free. But we can offer full cooperation on equal terms to all. Our market is open to you without tariffs or other restrictions. Sell here what you can and wish to. Buy whatever you can and wish to. In that way cooperation among individuals can be worldwide and free.

Adapted from "The Tyranny of Controls" in *Free to Choose: A Personal Statement*, by Milton Friedman and Rose Friedman, published by Harcourt Brace Jovanovich, © 1980.

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3

The Economics of Peace: How Richer Neighbors Are Very Good News

By Emmanuel Martin

If one person gains, does someone else have to lose? Are the gains of one nation at the expense of others? Are human groups doomed to perpetual conflict? Emmanuel Martin is an economist and executive director of the Institute for Economic Studies–Europe. In addition to organizing programs across Europe and Africa, he was founding editor of UnMondeLibre.org and LibreAfrique.org. His writing has appeared in such publications as Le Cercle des Échos and Les Échos in France, Il Foglio in Italy, L'Écho in Belgium, Libération in Morocco, and The Wall Street Journal–Europe.

“War costs a nation more than its actual expense; it costs besides, all that would have been gained, but for its occurrence.”

²⁴

—Jean-Baptiste Say

Winners and Losers

Many people believe that if one person profits, another has to lose. Such people believe that the sum of the benefits and the losses among persons is zero, meaning that for every gain for some, there is a corresponding and equal loss for others.

Accordingly, people who believe that, upon seeing someone prosper, look around to see who must have lost. If that were the only possible model of prosperity, social conflict would be omnipresent and war would be inevitable.

Fortunately, there are other modes of prospering that do not involve corresponding loss for others. The contemporary world is strong evidence of that, as incomes have gone up virtually everywhere in the world. More people live longer, healthier, and wealthier lives than in the past. Not only are more people prospering, but an ever-larger percentage of the world's population is doing so, as well. In some cases, of course, the gain of one person does come at the expense of another. For example, if a thief steals something, the thief's gain comes at the expense of the victim. But gains can also come from activities other than stealing, such as work, innovation, discovery, investment, and exchange.

One of the most important economists of all times explained clearly and directly how your gain may be my gain, as well. In doing so, he explained not only the economic foundation for material prosperity, but for peace. Jean-Baptiste Say (1767–1832) is sometimes considered the “French Adam Smith,” but in fact he was much more than merely a popularizer of Smith's insights. He advanced significantly on Smith's thought.

Like Smith, he was a critic of war, colonialism, slavery, and mercantilism and an advocate of peace, independence, liberation, and freedom of trade. He advanced beyond Smith not only in explaining that services have value (indeed, that the value of material goods is due to the services they render to us), but that the creation of goods and services is the source of the demand for other goods and services. That's sometimes called "Say's Law of Markets." It's a very important insight, not only for "macroeconomics," but for social relations generally, and for international relations in particular. If people are free to trade, the increasing wealth of one party is not harmful to, but is beneficial to the prosperity of their trading partners, for the increasing prosperity of one trading partner means that there is more effective demand for the goods and services of the others.

Enemies of free markets, notably economic nationalists and mercantilists, argue that if one country is becoming more prosperous, it must be at the expense of others. They have what is called a "zero-sum" view of the world, meaning that the sum of the gains is zero; if one person gains (a "plus"), someone else had to lose (a "minus"). Say showed that that is wrong. And that matters for peace, because it means that countries can prosper together, because there are mutual gains from voluntary trade. Trade is a "positive-sum" game, meaning that the sum of the gains is positive. In contrast, conflict and war are worse than zero-sum games, in which the gain of one party is equal to the loss of the other. Wars are almost invariably "negative-sum" games in which the sum of the losses are greater than any gains, and generally, in wars both parties lose.

A World of Producer-Consumers

“Nations will be taught to know that they have really no interest in fighting one another; that they are sure to suffer all the calamities incident to defeat, while the advantages of success are altogether illusory.”²⁵

—Jean-Baptiste Say

Say explained that in an exchange economy humans should be seen as both producers and consumers. To produce is to “give value to things by giving them utility.”²⁶ The progress of industry is measured by the ability to generate new products and to reduce the prices of already existing products. When more goods are produced, it means that the prices will be lower than they would be otherwise, which means that there is additional purchasing power leftover for the consumers to buy other goods.

Say explained that the entrepreneur is crucial in that process of “utility” creation. Say was an entrepreneur himself, and he understood the role of the “enterpriser,” the one who “undertakes” new ventures and is looking for how to produce goods and services while sacrificing the least. (That’s what it means to “cut costs” of production.) Say explained the important role of entrepreneurs in the market. Entrepreneurs have very often been portrayed as visionary geniuses who possess extraordinary abilities and comprehensive knowledge of markets, techniques, products, tastes, people, and so on. But Say explained that all of us, including the more “common” among us, also perform entrepreneurial activities.

One way to understand entrepreneurship is finding ways to produce at the least cost, which “frees up” scarce resources to be devoted to fulfilling other wants. The factory worker who sees how to produce the same amount with less time; the farmer who arranges the crops so as to minimize plowing and weeding time; the restaurateur who pays attention to when people leave work, so as to have the food ready at the right time; all are seeing how to increase production at the least cost. Arranging exchanges, too, is a form of production; it makes scarce products available in spaces or times where they would not otherwise be available and it increases the values of both parties to the transaction, which is why they exchange.²⁷

“Say’s Law” and Mutual Gains

A powerful theoretical construct that helps to understand economic development has become known as “Say’s Law of Markets.” In the chapter of his famous 1803 *Treatise on Political Economy* on “Débouchés” (the outlets for goods, which we could translate as “markets”), Say described how “it is production which opens a demand for products,”²⁸ because, as the idea was summed up later, “products are exchanged for products.” The slogan “supply creates its own demand” that is frequently attributed to Say is a caricature of his insight. What Say was describing is precisely what we have seen as the world has become more and more prosperous, as the average wealth of the world has grown many times over since Say’s time, as poverty has receded, and as health, literacy, longevity, and access to consumer goods have grown for the poor. He was one of the first to understand the mechanism of causation behind growing global prosperity, the “snowball effect” of rising wealth among trading partners.

In the dry language of contemporary economics, it's an "inter-sectoral theory of economic growth" in which the growth of one producer/sector/nation represents a growing market or demand for other producers/sectors/nations. And when you think about it, that's really a cool thing to behold.

When traders produce more of their own specialized products, they generate more utility for others; those others, by specializing in production, also generate more utility that facilitates exchange; each has more "purchasing power" as he buys from the other. To use the vocabulary of another great French Economist, Jacques Rueff, each gains more "rights" by the utility he has created for the other. And more rights enable each to acquire more from the other. Mutual gains in the context of exchange of products are cumulative. I get richer by providing my neighbor with more utility and my neighbor gets richer by providing more utility to me. And because I am richer I can buy more from my neighbor, who in turn will get richer. Obviously the possibilities for division of labor and production in a small or closed economy are limited, but in larger markets more possibilities open among numerous individuals, occupations, and industries. As Adam Smith explained before Say, "The division of labor is limited by the extent of the market."²⁹ Say added that "the more numerous are the producers, and the more various their productions, the more prompt, numerous, and extensive are the markets for those productions."³⁰

Say described the positive sum game of exchange of products. In voluntary exchanges, the fact that my customers are getting richer is very good news for me. If, on the contrary, they become poorer, it's not good news at all, but bad news. In Say's words, "The success of one branch of commerce supplies more ample means of purchase, and consequently opens a market for the products of all the other branches; on the other hand, the stagnation of one channel of manufacture, or of commerce, is felt in all the rest."³¹

Say explained that economic development is a self-sustaining mechanism based (to use modern and rather dry language) on truly "endogenous growth": the "size of the market," which is so crucial to the level of specialization and division of labor, is endogeneized in the sense that market size depends on production itself. More production generates more purchasing power, which translates into a larger market size, which in turn provides opportunities for more production.

The mechanism of development is obviously incremental and evolutionary, which is why in Say's time French people "bought and sold in France five or six times as many commodities, as in the miserable reign of Charles VI."³² Division of labor and specialization increase the number of industries and create new branches of industry (and even branches of branches). A market economy is a process in constant motion.

Say was an optimist compared to most of his fellow economists at the time. Far from being obsessed by the idea of scarcity, he emphasized man's ability to create products and to generate wealth, and he explained how such production is a precondition for others to do the same; production and exchange are a positive sum game. For Say, scarcity was to be overcome by entrepreneurial spirit and services, by exchange and innovation. Thus for him, scarcity was not an obsession, as it was for Thomas Malthus, with whom Say debated. Say sought to study and understand the economics of prosperity and argued against Malthus's gloomy picture of humanity's future. Say turned out to be right, and Malthus turned out to be wrong.

Say's Law Applied at the International Level

Whether it is across borders or within them, to hurt one's neighbor is to hurt oneself: "Each individual is interested in the general prosperity of all, and . . . the success of one branch of industry promotes that of all the others."³³ Indeed, within a nation we very rarely find people complaining about the prosperity of another city or of another industry; most people understand that if French farmers are prospering, it will be good for French urban workers, and vice versa.

That is the true source of the gains made by the towns' people from exchange with the country people, and again by the latter with the former; both of them have wherewithal to buy more and better products, the more amply they themselves produce:

A city, standing in the centre of a rich surrounding country, feels no want of rich and numerous customers; and, on the other hand, the vicinity of an opulent city gives additional value to the produce of the country.

The division of nations into agricultural, manufacturing, and commercial, is idle enough. For the success of a people in agriculture is a stimulus to its manufacturing and commercial prosperity; and the flourishing condition of its manufacture and commerce reflects a benefit upon its agriculture also.³⁴

Say goes on to show how relations between countries are no different than relations between regions or cities and countrysides:

The position of a nation, in respect of its neighbours, is analogous to the relation of one of its provinces to the others, or of the country to the town; it has an interest in their prosperity, being sure to profit by their opulence.³⁵

Here again, rich neighbors mean an opportunity for us to sell more and become richer ourselves.

He makes his point even clearer in his correspondence with Malthus, and shows to what extent a merchant has an interest in the wealth of other countries or regions:

When I advance that produce opens a vent for produce; that the means of industry, whatever they may be, when unshackled, always apply themselves to the objects most necessary to nations, and that these necessary objects create at once new populations and new enjoyments for those populations, all appearances are not against me. Let us only look back two hundred years, and suppose that a trader had carried a rich cargo to the places where New York and Philadelphia now stand; could he have sold it? Let us suppose even, that he had succeeded in founding there an agricultural or manufacturing establishment; could he have there sold a single article of his produce?

No, undoubtedly. He must have consumed them himself. Why do we now see the contrary? Why is the merchandise carried to, or made at Philadelphia or New York, sure to be sold at the current price? It seems to me evident that it is because the cultivators, the traders, and now even the manufacturers of New York, Philadelphia, and the adjacent provinces, create, or send there, some productions, by means of which they purchase what is brought to them from other quarters.³⁶

Trade Barriers (“Protectionism”) as Negative-Sum Games

Many argued then, as some do today, that we don’t need to trade with foreigners and that we should make everything “at home.” Say offered a very insightful criticism of that mentality:

Perhaps it will be said that “what is true with respect to a new state, may not be applicable to an old one: that there was in America room for new producers and new consumers; but in a country which already contains more producers than sufficient, additional consumers only are wanting.” Permit me to answer, that the only true consumers are those who on their side produce, because they alone can buy the produce of others; and that unproductive consumers can buy nothing, unless by means of the value created by those who produce.³⁷

Say describes how “protectionism” is self-destructive: it is as “if at the door of every house an import duty were laid upon coats and shoes, for the laudable purpose of compelling the inmates to make them for themselves.”³⁸ In a very modern fashion, he was quite aware of the important role played by international value chains.

Some complain that some countries run “trade deficits” and others “trade surpluses,” and even suggest that anything in “deficit” must be a bad thing. Say explained the fallacy of “the balance of trade,” a destructive heritage from mercantilist thought that has been the cause of too many wars. “Trade wars” or “retaliations” are merely waged to protect the interests of a few who are cunning enough to make the public confuse their special interests with the interests of the entire nation. Say was already wary of what we today call “Free Trade Agreements.” Unilateral free trade was Say’s favored policy: one should treat foreign nations as neighbors and friends. Exclusive commercial treaties entail unequal treatment of partners: “concessions” given to exporters from one nation mean “refusal of concessions” to others, and that is a source of conflict. Say could already perceive that instead of generating more trade, such treaties may merely generate “trade diversion,” shifting trade flows away from nations whose governments were not parties to the treaty.

Say warned of the dangers of granting export subsidies. Such policies attract what are now called “cronies” or “rent seekers” who manipulate laws to their own benefit. Say was a critic of “crony capitalism” *avant la lettre*, or before it was more widely understood. Cronyism is merely, to use the term of another great French economist, Frédéric Bastiat: “mutual plunder.”

An opponent of Say on free trade—and peace—was none other than Napoleon Bonaparte himself. While editor of the journal *Décade Philosophique*, Say had first supported Bonaparte’s coup d’état in 1799 that ended the French Revolution and established the Consulat constitution. Say was actually even a member of the Tribunat, one of the four chambers of the Consulat.

But after Say published his *Traité* in 1803, Bonaparte, who had become “Lifetime” Consul in 1802, insisted that Say should re-write sections on free trade and change them to support protectionism and government intervention. Say vehemently refused Bonaparte’s request. His intellectual integrity caused him to be ousted from the *Tribunat*, to have the second edition of his *Traité* censored, and to be prohibited from working as a journalist.

Bonaparte became an opponent of Say on a very practical level, as well. After Say’s expulsion from public life, he decided to launch a spinning company. Say was quite entrepreneurial, used the latest hydraulic engine, expanded the work force to 400 people, and offered serious competition to rival British producers. That was, until Bonaparte’s protectionist policies ruined the company in 1812. Say and his company’s workers and their families experienced directly the practical consequences of bad ideas.

Peace for Prosperity

Say lost his younger brother, Horace, a very promising intellectual, in 1799 during the French expedition to Egypt led by Bonaparte. Perhaps the loss of a younger brother in a colonial expedition helped Say to understand the full costs of war. In the later editions of the *Treatise*, Say was very critical of the “ruinous wars . . . such as occurred in France under the domination of Napoleon.”³⁹

Peace is the first condition of economic development. People do not invest or plan for the future as much when they are being massacred or threatened with massacre as they do when there is peace.

Say stressed the importance of limiting plunder (or “spoliation”) by government. Governments violate property not only when they can take away industries and lands, but also when they prescribe or prohibit certain usages of one’s property. Say believed that governments should be limited and governed by rules (made “regular”) and that “no nation has ever arrived at any degree of opulence that has not been subject to a regular government.”⁴⁰

Peace is obviously the first condition of mutual economic enrichment among nations. War destroys, cripples, and blights human lives, obliterates wealth, creates hunger, and wastes scarce resources. Wars are negative sum games. One of the tasks of political economy is to demonstrate their cost and the value of peace. Ask a Swiss in Zürich or a Swede in Stockholm today about the reasons for the marvelous wealth of either city or country; they will probably respond: “We did not blow ourselves up in two world wars.” As Say put it:

Nations will be taught to know that they have really no interest in fighting one another; that they are sure to suffer all the calamities incident to defeat, while the advantages of success are altogether illusory . . . Dominion by land or sea will appear equally destitute of attraction, when it comes to be generally understood, that all its advantages rest with the rulers, and that the subjects at large derive no benefit whatever. To private individuals, the greatest possible benefit is entire freedom of intercourse, which can hardly be enjoyed except in peace. Nature prompts nations to mutual amity; and, if their governments take upon themselves to interrupt it, and engage them in hostility, they are equally inimical to their own people, and to those they war against.

If their subjects are weak enough to second the ruinous vanity or ambition of their rulers in this propensity, I know not how to distinguish such egregious folly and absurdity, from that of the brutes that are trained to fight and tear each other to pieces, for the mere amusement of their savage masters.⁴¹

Peace and free trade reinforce each other to produce not only economic development, but genuine wealth and human flourishing.

FREE EXCHANGE AND FREE CONTRACT

The central core of the libertarian creed, then, is to establish the absolute right to private property of every man: first, in his own body, and second, in the previously unused natural resources which he first transforms by his labor. These two axioms, the right of self-ownership and the right to

⁷Arnold W. Green, "The Reified Villain," *Social Research* (Winter, 1968): 656.

⁸Frank Chodorov, *The Rise and Fall of Society* (New York: Devin Adair, 1959), pp. 29–30.

“homestead,” establish the complete set of principles of the libertarian system. The entire libertarian doctrine then becomes the spinning out and the application of all the implications of this central doctrine. For example, a man, X, owns his own person and labor and the farm he clears on which he grows wheat. Another man, Y, owns the fish he catches; a third man, Z, owns the cabbages he has grown and the land under it. But if a man owns anything, he then has the right to *give away* or *exchange* these property titles to someone else, after which point the other person also has absolute property title. From this corollary right to private property stems the basic justification for free contract and for the free-market economy. Thus, if X grows wheat, he may and probably will agree to exchange some of that wheat for some of the fish caught by Y or for some of the cabbages grown by Z. With both X and Y making voluntary agreements to exchange property titles (or Y and Z, or X and Z) the property then becomes with equal legitimacy the property of the other person. If X exchanges wheat for Y’s fish, then that fish becomes X’s property to do with as he wishes, and the wheat becomes Y’s property in precisely the same way.

Further, a man may exchange not only the tangible objects he owns but also his own labor, which of course he owns as well. Thus, Z may sell his labor services of teaching farmer X’s children in return for some of the farmer’s produce.

It so happens that the free-market economy, and the specialization and division of labor it implies, is by far the most productive form of economy known to man, and has been responsible for industrialization and for the modern economy on which civilization has been built. This is a fortunate utilitarian result of the free market, but it is not, to the libertarian, the *prime* reason for his support of this system. That prime reason is moral and is rooted in the natural-rights defense of private property we have developed above. Even if a society of despotism and systematic invasion of rights could be shown to be more productive than what Adam Smith called “the system of natural liberty,” the libertarian would support this system. Fortunately, as in so many other areas, the utilitarian and

the moral, natural rights and general prosperity, go hand in hand.

The developed-market economy, as complex as the system appears to be on the surface, is nothing more than a vast network of voluntary and mutually agreed-upon two-person exchanges such as we have shown to occur between wheat and cabbage farmers, or between the farmer and the teacher. Thus, when I buy a newspaper for a dime, a mutually beneficial two-person exchange takes place: I transfer my ownership of the dime to the newsdealer and he transfers ownership of the paper to me. We do this because, under the division of labor, I calculate that the paper is worth more to me than the dime, while the newsdealer prefers the dime to keeping the paper. Or, when I teach at a university, I estimate that I prefer my salary to not expending my labor of teaching, while the university authorities calculate that they prefer gaining my teaching services to not paying me the money. If the newsdealer insisted on charging 50¢ for the paper, I might well decide that it isn't worth the price; similarly, if I should insist on triple my present salary, the university might well decide to dispense with my services.

Many people are willing to concede the justice and propriety of property rights and the free-market economy, to concede that the farmer should be able to charge whatever his wheat will bring from consumers or the worker to reap whatever others are willing to pay for his services. But they balk at one point: inheritance. If Willie Stargell is ten times as good and "productive" a ball player as Joe Jack, they are willing to concede the justice of Stargell's earning ten times the amount; but what, they ask, is the justification for someone whose only merit is being born a Rockefeller inheriting far more wealth than someone born a Rothbard? The libertarian answer is to concentrate *not* on the recipient, the child Rockefeller or the child Rothbard, but to concentrate on the *giver*, the man who bestows the inheritance. For if Smith and Jones and Stargell have the right to their labor and property and to exchange the titles to this property for the similar property of others, they also have the right to *give* their property to whomever they wish. And of course most such gifts consist of the gifts of the

property owners to their children—in short, inheritance. If Willie Stargell owns his labor and the money he earns from it, then he has the right to give that money to the baby Stargell.

In the developed free-market economy, then, the farmer exchanges the wheat for money; the wheat is bought by the miller who processes and transforms the wheat into flour; the miller sells the flour to the baker who produces bread; the baker sells the bread to the wholesaler, who in turn sells it to the retailer, who finally sells it to the consumer. And at each step of the way, the producer may hire the labor services of the workers in exchange for money. How “money” enters the equation is a complex process; but it should be clear that *conceptually* the use of money is equivalent to any single or group of useful commodities that are exchanged for the wheat, flour, etc. Instead of money, the commodity exchanged could be cloth, iron, or whatever. At each step of the way, mutually beneficial exchanges of property titles are agreed upon and transacted.

We are now in a position to see how the libertarian defines the concept of “freedom” or “liberty.” Freedom is a condition in which a person’s ownership rights in his own body and his legitimate material property are *not* invaded, are not aggressed against. A man who steals another man’s property is invading and restricting the victim’s freedom, as does the man who beats another over the head. Freedom and unrestricted property right go hand in hand. On the other hand, to the libertarian, “crime” is an act of aggression against a man’s property right, either in his own person or his materially owned objects. Crime is an invasion, by the use of violence, against a man’s property and therefore against his liberty. “Slavery”—the opposite of freedom—is a condition in which the slave has little or no right of self-ownership; his person and his produce are systematically expropriated by his master by the use of violence.

The libertarian, then, is clearly an individualist but *not* an egalitarian. The only “equality” he would advocate is the equal right of every man to the property in his own person, to the property in the unused resources he “homesteads,” and to

the property of others he has acquired either through voluntary exchange or gift.

PROPERTY RIGHTS AND "HUMAN RIGHTS"

Liberals will generally concede the right of every individual to his "personal liberty," to his freedom to think, speak, write, and engage in such personal "exchanges" as sexual activity between "consenting adults." In short, the liberal attempts to uphold the individual's right to the ownership of his own body, but then denies his right to "property," i.e., to the ownership of material objects. Hence, the typical liberal dichotomy between "human rights," which he upholds, and "property rights," which he rejects. Yet the two, according to the libertarian, are inextricably intertwined; they stand or fall together.

Take, for example, the liberal socialist who advocates government ownership of all the "means of production" while upholding the "human" right of freedom of speech or press. How is this "human" right to be exercised if the individuals constituting the public are denied their right to ownership of property? If, for example, the government owns all the newsprint and all the printing shops, how is the right to a free press to be exercised? If the government owns all the newsprint, it then necessarily has the right and the power to allocate that newsprint, and someone's "right to a free press" becomes a mockery if the government decides not to allocate newsprint in his direction. And since the government must allocate scarce newsprint in *some* way, the right to a free press of, say, minorities or "subversive" antisocialists will get short shrift indeed. The same is true for the "right to free speech" if the government owns all the assembly halls, and therefore allocates those halls as it sees fit. Or, for example, if the government of Soviet Russia, being atheistic, decides not to allocate many scarce resources to the production of matzohs, for Orthodox Jews the "freedom of religion" becomes a mockery; but again, the Soviet government can always rebut that Orthodox Jews

are a small minority and that capital equipment should not be diverted to matzoh production.

The basic flaw in the liberal separation of “human rights” and “property rights” is that people are treated as ethereal abstractions. If a man has the right to self-ownership, to the control of his life, then in the real world he must also have the right to sustain his life by grappling with and transforming resources; he must be able to own the ground and the resources on which he stands and which he must use. In short, to sustain his “human right”—or his property rights in his own person—he must also have the property right in the material world, in the objects which he produces. Property rights *are* human rights, and are essential to the human rights which liberals attempt to maintain. The human right of a free press depends upon the human right of private property in newsprint.

In fact, there *are no* human rights that are separable from property rights. The human right of free speech is simply the property right to hire an assembly hall from the owners, or to own one oneself; the human right of a free press is the property right to buy materials and then print leaflets or books and to sell them to those who are willing to buy. There is no extra “right of free speech” or free press beyond the property rights we can enumerate in any given case. And furthermore, discovering and identifying the property rights involved will resolve any apparent conflicts of rights that may crop up.

Consider, for example, the classic example where liberals generally concede that a person’s “right of freedom of speech” must be curbed in the name of the “public interest”: Justice Holmes’ famous dictum that no one has the right to cry “fire” falsely in a crowded theater. Holmes and his followers have used this illustration again and again to prove the supposed necessity for all rights to be relative and tentative rather than precise and absolute.

But the problem here is *not* that rights cannot be pushed too far but that the whole case is discussed in terms of a vague and woolly “freedom of speech” rather than in terms of the rights of private property. Suppose we analyze the problem

under the aspect of property rights. The fellow who brings on a riot by falsely shouting "fire" in a crowded theater is, necessarily, either the owner of the theater (or the owner's agent) or a paying patron. If he is the owner, then he has committed fraud on his customers. He has taken their money in exchange for a promise to put on a movie or play, and now, instead, he disrupts the show by falsely shouting "fire" and breaking up the performance. He has thus welshed on his contractual obligation, and has thereby stolen the property—the money—of his patrons and has violated their property rights.

Suppose, on the other hand, that the shouter is a patron and not the owner. In that case, he is violating the property right of the owner—as well as of the other guests to their paid-for performance. As a guest, he has gained access to the property on certain terms, including an obligation not to violate the owner's property or to disrupt the performance the owner is putting on. His malicious act, therefore, violates the property rights of the theater owner and of all the other patrons.

There is no need, therefore, for individual rights to be restricted in the case of the false shouter of "fire." The rights of the individual are *still* absolute; but they are *property* rights. The fellow who maliciously cried "fire" in a crowded theater is indeed a criminal, but *not* because his so-called "right of free speech" must be pragmatically restricted on behalf of the "public good"; he is a criminal because he has clearly and obviously violated the property rights of another person.

WHY FREE TRADE IS REQUIRED BY JUSTICE*

BY FERNANDO R. TESÓN

I. INTRODUCTION

In this essay I argue that free trade is required by justice. Protectionist laws are indefensible on two grounds. First, they are indefensible in *principle* because they coercively redistribute resources in favor of persons who are not deserving beneficiaries under any plausible theory of domestic or international justice. Second, protectionist laws have objectionable *consequences* because they harm persons generally (they cause more harm than good), and they particularly tend to harm the poor. Resting on a robust consensus in the economic literature, I claim that liberalizing trade would contribute significantly to global and national growth and, mainly for that reason, would help in reducing poverty. An important corollary of my argument is that protectionist laws are indefensible, not just under a classical-liberal view of politics, but under *any* plausible moral-political theory.

Protectionist laws assume various forms: tariffs, import licenses, export licenses, import quotas, subsidies, government procurement rules, sanitary rules, voluntary export restraints, local content requirements, national security requirements, and embargoes. All these trade barriers, while different in a number of respects, have this in common: they raise the cost (sometimes prohibitively) of importing goods and services.¹ Protectionist laws are artificial, coercive obstacles placed by governments on voluntary transactions across borders. Citizens, and especially the poor, are doubly harmed by trade barriers. On the one hand, protectionist barriers erected by governments of *poor* countries harm their own people. Seen from this perspective, interference with trade is one more instance of the market-unfriendly policies that have caused much of the stagnation in the developing world.² Protectionism in developing countries goes hand in hand with unproductive public spending, corruption, ineffectual regulations—all features of economically and socially burdened societies. But on the other hand, when governments in *rich* countries enact protectionist laws, in addition to harming their own citizens, they harm the world's poor by

* I am heavily indebted to Jonathan Klick of the University of Pennsylvania, who did the research summarized in Section II. Many thanks also to the Social Philosophy and Policy Center of Bowling Green State University. The summer I spent there in 2008 as a Visiting Scholar allowed me to conduct part of the research for this essay.

¹ Trade barriers differ in their restrictive effect. See James E. Anderson and J. Peter Neary, *Measuring the Restrictiveness of International Trade Policy* (Cambridge, MA: MIT Press, 2005).

² See the discussion below, Section VII.

denying them access to wealthy markets. This *is* an injustice done by governments of wealthy countries to the world's poor. This particular injustice is a harmful, coercive interference with voluntary transactions—an unwarranted interference in the pursuit of personal projects in order to benefit persons who, as I shall show, are not deserving beneficiaries.

I proceed as follows. First I summarize the economics of trade presented by the most reliable *corpus* of research on international economics. The professional consensus is that free trade contributes to national and global economic growth and, mainly for that reason, helps the poor. I then examine the possible justifications for protectionist laws enacted by *rich* countries and find them wanting. I continue by examining the possible justifications for protectionist laws enacted by *developing* countries and conclude that those, too, are untenable. I end by discussing objections to my arguments.

II. THE ECONOMICS OF INTERNATIONAL TRADE

In this article I assume the accuracy of the general consensus in the economic literature on the beneficial effects of international trade.³ When trade opens between nations, in all practical situations joint gains occur and no country (considered as a unit) loses. In most situations, the gains of trade are split, so each of them gains. Therefore, not only does trade enhance aggregate wealth (that is, the wealth of both nations added together) but, in virtually every case, it also enhances the national wealth of each nation. This improvement occurs because the resources in each country are used more efficiently, as predicted by the law of comparative advantages. This law predicts that even if a country can produce one of the goods more cheaply than a trading partner, it still may import that good if doing so frees up its resources to produce a good in which its trading partner has an even greater cost disadvantage.⁴

³ Economic models of international trade generally fall into two categories: the law of comparative advantages, which in turn has two versions, the Ricardian original version (see next note) and the Hecksher-Olin version; and the endogenous-growth model. The first model supports the view that liberalized trade is good for general economic growth and for the poor in particular. The second model is a version of the infant-industry argument and, while conceding that open trade is generally beneficial, it makes the case (I think unconvincingly) for sometimes supporting trade barriers in developing countries. For a full discussion of these trade theories, see Fernando R. Tesón and Jonathan Klick, "Global Justice and Trade: A Puzzling Omission," FSU College of Law, Public Law Research Paper No. 285; FSU College of Law, Law and Economics Paper No. 07-24. Available at SSRN: <http://ssrn.com/abstract=1022996>.

⁴ The first proponent of the theory was David Ricardo. See David Ricardo, *On the Principles of Political Economy and Taxation*, section 7.15 (3d. ed. 1821), available at <http://www.econlib.org/library/Ricardo/ricP.html>. Country 1 has a comparative advantage in the production of good A relative to Country 2 if its opportunity cost of producing good A (i.e., how many units of good B it can no longer produce if it produces an additional unit of good A for a given stock of resources) is lower than Country 2's opportunity cost of producing good A. Or, more succinctly, Country 1's marginal rate of transformation between Good A and Good B is lower than that of Country 2. Ricardo offers an example in which England and

Even under models that defend some trade barriers in specific situations (like the endogenous-growth model) restraints on trade generate short-term losses. Moreover, in this model long-term gains from the restraints are highly uncertain and depend, implausibly, on the foresight and predictive ability on the part of rulers. In particular, those models overlook the potential susceptibility of such actors to rent-seeking activities on the part of those industries seeking protection.⁵

The theoretical and empirical evidence shows that a country benefits even when it liberalizes trade *unilaterally*.⁶ In that situation, all countries improve; moreover, the growth is most pronounced in the liberalizing country⁷—an insight that contradicts the folk belief that the country that liberalizes unilaterally is the naive loser in the international trade game.

The finding that trade is a positive-sum game when nations are considered as units contradicts the claim that the country that erects trade barriers helps itself and hurts other countries. We routinely hear this claim from politicians and others not trained in economics, and it is based on a serious economic mistake: that exports are good and imports are bad. The view is known as mercantilism.⁸ Mercantilism views trade as a

Portugal both produce wine and cloth. If it takes 100 English workers one year to produce quantity X of cloth and 120 English workers one year to produce quantity Y of wine, and it takes 90 Portuguese workers to produce X units of cloth and 80 Portuguese workers to produce Y units of wine in the same time period, Ricardo claims that Portugal will import its cloth from England and export wine to the country. To see this, if Portugal allocates its 90 cloth workers to wine-making, in principle, it can ship $9/8 Y$ units of wine to England. In turn, England can now allocate its wine workers to cloth production, sending $6/5 X$ units of cloth in return to Portugal. After this trade, employing the same total amount of workers as before, Portugal has 20 percent more cloth than it previously produced (and the same amount of wine), and England has 12.5 percent more wine than it previously produced (and the same amount of cloth). While the exact split of the surplus generated by the trade will differ depending on the relative demands for wine and cloth in the two countries, in Ricardo's example both countries have the potential to expand their consumption of both goods without using more resources. Joint consumption of both goods across the two countries is guaranteed to rise even though Portugal can produce both goods more cheaply than England can. That is, economic growth occurs even if Portugal has an absolute advantage in the production of both goods. Earlier, Adam Smith had argued the case for free trade when a nation has the opportunity to trade with a country exhibiting an absolute advantage in desired goods. By specializing in the good in which its comparative advantage lies, trade effectively allows both countries to shift their production possibility frontiers outward. I owe this explanation of the law of comparative advantages to Jon Klick. For a full treatment, see Fernando R. Tesón & Jonathan Klick, "Global Justice and Trade: A Puzzling Omission."

⁵ Gene Grossman and Elhanan Helpman, "Protection for Sale, *American Economic Review* 84 (1994): 833 present their rent-seeking model as a plausible way to look at trade policy. An individual engages in rent seeking when he tries to obtain benefits in the political arena, as opposed to trying to obtain them in the market. See David Henderson, "Rent-Seeking," in the *Library of Economics and Liberty*, at <http://www.econlib.org/library/Enc/RentSeeking.html>.

⁶ See the collection of essays in Jagdish Bhagwati, ed., *Going Alone: The Case for Relaxed Reciprocity in Freeing Trade*, (Cambridge, MA: MIT Press, 2002).

⁷ See Dan Ben-David and Michael B. Loewy, "Knowledge Dissemination, Capital Accumulation, Trade, and Endogenous Growth," *Oxford Economic Papers*, 52 (2000): 646.

⁸ Mercantilism was refuted more than 230 years ago, notably by Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, R. H. Campbell and A. S. Skinner ed., vol. 2 [1776]; (Indianapolis: Liberty Fund, 1981), 642–66.

zero-sum game where one country's gains come at the expense of other countries. It rests on the false assumption that a surplus in international trade must be a deficit for other countries.⁹ Mercantilists claim that exports, believed to benefit domestic producers, should be encouraged, while imports, believed to hurt domestic producers, should be discouraged.¹⁰ But national well-being is based on present and future increased consumption. Exports are valuable only indirectly: they provide the income to buy products to consume.¹¹

Mercantilism is so obviously wrong that one wonders why it continues to enjoy political and, in some circles, even academic success. The endurance of mercantilist beliefs stems from the discursive pathologies of politics. First, trade theory is *opaque and counterintuitive*. The public cannot easily see that the country that protects hurts its own citizens. Instead the public tends to adopt simpler zero-sum explanations of social outcomes.¹² Second, protectionists use the imagery of nationalism. We need to protect "us" against "them"; our local industries against the invading products; our culture against immigrant invasion.¹³ People use vivid imagery for political gain. To see the advantages of trade, people need to see that the government that protects *hurts its own people*.¹⁴ This is concealed by the notion of "protecting" *something that is ours*, in our country, against *something that comes from the outside*. Because that "something" is alien or external, politicians and rent-seekers can easily portray it as a threat. All one can say is a trivial truth: that the government can protect *specific* producers and workers by shielding the industry from foreign competition (or, for that matter, from domestic competition.) But trade barriers do not "protect" the employment rate in one's country because they have high opportunity costs. They artificially divest resources toward inefficient endeavors. Nor do trade barriers "protect" the real value of wages. Conversely, trade barriers positively harm *all* consumers, that is, everyone. When the rhetorical smoke clears, trade barriers benefit inefficient producers who prey, courtesy of the government, on defenseless consumers.

⁹ See Thomas A. Pugel and Peter H. Lindert, *International Economics*, 11th ed. (McGraw-Hill, 2000): 33.

¹⁰ *Ibid.*

¹¹ Thus, "imports are part of the expanding national consumption that a nation seeks, not an evil to be suppressed." *Ibid.* Equally problematic is the claim that imports reduce domestic employment. See Laura LaHayes, "Mercantilism," *Concise Encyclopedia of Economics*, <http://www.econlib.org>.

¹² Guido Pincione and I analyze this phenomenon in *Rational Choice and Democratic Deliberation: A Theory of Discourse Failure* (Cambridge, UK: Cambridge University Press, 2006).

¹³ This rhetorical argument was criticized more than a hundred years ago by Henry George. See Henry George, *Protection of Free Trade: An Examination Of the Tariff Question, with Special Regard to the Interests of Labor*, chap. 6 (1886), Library of Economics and Liberty, <http://www.econlib.org/library/YPDBooks/George/grgPFT6.html>.

¹⁴ As Jagdish Bhagwati writes: "The fact that trade protection hurts the economy of the country that imposes it is one of the oldest but still most startling insights economics has to offer." Jagdish Bhagwati, "Protectionism," in *The Concise Encyclopedia of Economics*, <http://www.econlib.org/library/Enc/Protectionism.html>.

One way to encapsulate the mercantilist mistake is this. Mercantilists see protectionism as an *unsuccessful coordination game*: “Our country must protect because we know *they* will protect. If only they made a credible commitment to repeal their protectionist laws, we would do the same.” However, protectionism is best characterized as a *successful rent-seeking game*: industries affected by foreign competition seek and obtain protection from their governments in exchange for political support and other benefits.¹⁵ Two further facts explain the political success of protectionism notwithstanding the well-known fact that open trade benefits the great majority of the population. The groups that benefit from free trade, such as consumers, are *diffuse* and have high organizational costs; while the groups that benefit from protection are *concentrated* and have low organizational costs. Further, while trade theory predicts that in the long run many of the workers and firms now hurt by foreign competition will be better off because free trade creates higher-paying jobs and higher returns to capital, workers and owners have trouble grasping these benefits.

The theoretical prediction is that freer trade causes global and national growth in *aggregate terms*. Critics of free trade have long argued that the beneficial aggregate effect of trade is consistent with the bad effect of leaving the poor out, as it is possible that the gains of trade fall on the rich or the middle class of both trading partners.¹⁶ Nations must be disaggregated to find out who wins and who loses with open trade. On this view, when we take *persons or families* as units, free trade may well lead to losses for the poor.¹⁷

This objection finds no support in theory or evidence.¹⁸ An analysis of the effect of trade on poverty centers on a simple two-step argument:

¹⁵ I owe this insight to Jon Klick.

¹⁶ This is what critics of globalization mean by the cliché that “trade helps big business.” Even philosophers of the stature of John Rawls echo such sentiments. Referring to the European Union, Rawls writes:

The large open market including all of Europe is aim of the large banks and the capitalist business class whose main goal is simply larger profit. The idea of economic growth, onwards and upwards, with no specific end in sight, fits this class perfectly. If they speak about distribution, it is [al]most always in terms of trickle down. The long—term result of this—which we already have in the United States—is a civil society awash in a meaningless consumerism of some kind.

John Rawls and Phillippe van Parijs, “Three Letters on The Law of Peoples and the European Union,” *Revue de Philosophie Économique* 8 (2003): 9. Phillippe van Parijs approvingly calls this passage Rawls’s “most explicitly ‘anti-capitalist’ text.”

¹⁷ As an aside, all theories of justice have difficulty identifying the appropriate entity (class, family, individual) that should benefit from redistribution of resources.

¹⁸ The specialized research converges on this point. See L. Alan Winters, “Trade and Poverty: Is There a Connection?” (2000), www.wto.org/English/news_e/pres00_e/pov3_e.pdf; T. N. Srinivasan and Jessica S. Wallack, “Globalization, Growth, and the Poor,” *De Economist* 152 (2004): 251; David Dollar and Aart Kray, “Growth is Good for the Poor,” *World Bank Policy Research, Working Paper*, no. 2587 (2001).

trade enhances growth, and growth reduces poverty.¹⁹ Even if openness to trade *at first blush* does not help the poor more than it helps others, why assume that the poor will end up worse off than before? When a country grows, good things happen. More industries are created, more jobs are available, and so the opportunities for the poor expand. Further, when a country grows, so do societal resources that can be used to alleviate poverty. The more resources a country has, the more resources the government will have. And the more resources the government will have, the more effectively it will address the country's poverty. So whether a country's economic policies are laissez-faire or redistributive, the poor will benefit from access to global markets as producers and consumers.

In general, empirical studies have found that "in most cases, trade reform increases the income of the poor as a group and that the transition costs are generally relatively small relative to the overall benefits."²⁰ However, a country may liberalize trade yet simultaneously pursue policies that are counterproductive for either growth or wealth distribution. This conflict of forces occurred in Argentina, where the liberalizing measures of the 1990s were accompanied by massive unproductive public spending and political corruption.²¹ Under those circumstances, it is of course fallacious to attribute the cause of the country's collapse (and the corresponding increase in poverty) to trade liberalization. It is therefore crucial to control for non-trade variables when assessing the effects of trade on the poor. Specialists recommend that governments accompany the country's adaptation to the law of comparative advantages, for example, by easing industrial adjustment or helping the country diversify its exports, always in the light of its comparative advantages.²²

But even if the gains from trade were partially skewed against the poor, trade would still be beneficial. For consider: The main goal of development policy is to get poor countries to *develop*, even prior to computing distributional effects. So it is a bit strange for trade skeptics to reject a practice that concededly makes a poor country grow by saying: "no, not *that* kind of growth." At the very least, they should

¹⁹ The evidence for this proposition is overwhelming. For a nontechnical account, see Jagdish Bhagwati, *In Defense of Globalization* (Oxford, UK: Oxford University Press, 2004), pp. 51–67. For a more technical analysis, see Neil McCulloch, et al., *Trade Liberalization and Poverty: A Handbook* (Centre for Economic Policy Research 2001), and Jagdish Bhagwati and T. N. Srinivasan, "Trade and Poverty in the Poor Countries," *American Economic Review* 92 (2002): 180. As these authors show, the argument that free trade helps the poor are static (freer trade should help in the reduction of poverty in the poor countries which use their comparative advantages to export labor-intensive goods), and dynamic (trade promotes growth; and growth reduces poverty).

²⁰ Geoffrey J. Bannister and Kamau Thugge, "International Trade and Poverty Alleviation," *Finance and Development* 38 (2001): 50.

²¹ See Jean-Cartier Bresson, "Economics of Corruption," *OECD Observer* (May 2000), www.oecdobserver.org/news/fullstory.php/aid/239; and Joseph Contreras, "Argentina's Fiasco," *Newsweek*, December 21, 2001.

²² See, e.g., Bhagwati, *In Defense of Globalization*, p. 55.

welcome free trade and then propose measures to correct the undesirable distributional effects.

To be sure, trade liberalization will produce winners and losers, and many of those losers will be poor. But my claim here is not that *each* poor person will improve as a result of trade liberalization; in fact, no policy can do that. The claim is that, in virtually every instance, the poor *as a class* will improve. On the issue of cost of goods, trade liberalization will help the poor in the same way it helps all consumers: by lowering prices of imports and keeping the prices of substitutes for imported goods low, thus increasing people's real incomes. On the question of wages, the evidence seems to show a number of things. Labor markets need flexibility to adjust to comparative advantages. If firms are too constrained by labor laws from reducing their work forces, then the poor may suffer as a result. This is ironic, given that supporters of strict labor regulations claim to act *on behalf* of the poor.²³ Also, the gap between the wages of skilled and unskilled workers may increase, but this is hardly an objection to the claim that the poor as a class benefit from trade liberalization. The objection that liberalizing trade will reduce government revenues, and thus its ability to fight poverty, is also misplaced because it ignores the dynamic effects of trade liberalization. If trade liberalization produces growth, taxable incomes will grow as well, and government revenues will grow with them. And independently of whether the poor are able to export (that is, independently of whether or not foreign markets are open to the goods they produce), the poor *benefit from having a wider variety of available goods to consume*, either because the imported product is not available domestically or because trade lowers the price of the product, bringing it within the reach of the poor.

In sum, trade liberalization (1) increases *aggregate* wealth, that is, wealth measured aggregatively in both trade partners; (2) increases wealth in *each* of the trade partners, and (3) *at the very least*, within each trade partner, such growth is most often shared by the poor in various ways. The burden of proof is on those who deny the beneficial effects on trade. That burden is heavy indeed.

It is important to note the claims I do *not* make in support of free trade. Free trade does not necessarily reduce *inequality* among trade partners or among different groups or individuals within the trade partners. Further, free trade is not a panacea for economic success: countries with bad institutions are less likely to reap the benefits of trade. In particular, nations need to recognize well-defined property rights, freedom of contract, and the rule of law.²⁴

²³ Thus, for example, critics of sweatshops claim that, due in part to lax work conditions, "clothing companies benefit from free trade through BIG profits, and garment workers lose out." See <http://www.sweatshopwatch.org/index.php?s=36>

²⁴ The literature on the importance of good governance is extensive. A seminal work is Douglass C. North, *Institutions, Institutional Change, and Economic Performance* (Cambridge, UK: Cambridge University Press, 1990).

III. THE INJUSTICE OF TRADE PROTECTION BY RICH COUNTRIES

Rich nations are, in general, less protectionist than developing nations.²⁵ However, they have enacted strong protectionist laws for targeted sectors—in particular agriculture. The United States periodically reenacts the Farm Bill, which obligates the government to buy surplus from farmers in order to keep prices artificially high.²⁶ The European Union has long maintained the Common Agricultural Policy, a euphemism denoting, too, a vast system of subsidies that keeps inefficient European farmers in business.²⁷ In addition to these subsidies, rich nations have enacted a host of (mostly) phony regulations, such as quality control, sanitary rules, government procurement rules, and so on, the effect of which is often to virtually ban imported agricultural products. These restrictions certainly harm *consumers* in rich countries who have to pay more for agricultural products. Without these barriers, consumers would simply buy the cheaper (and usually better) agricultural products from developing nations, while the resources now artificially channeled toward agricultural protection would be freed to produce goods and services where the rich nations are comparatively efficient.

These laws, of course, harm local consumers, and are objectionable just for that reason, since, as we shall see, the government has no moral justification for interfering with a voluntary transaction in this way. But crucially, these laws harm *producers* in developing nations as well, because they lose wealthy markets for their products. I have little to add to the extensive literature documenting this fact.²⁸ Farmers in developing countries experience catastrophic losses as a result of Northern subsidies.²⁹ Unless these laws can be morally justified, they inflict an injustice on the world's poor by coercively interfering with their means of subsistence and growth.

Can these restrictions be nonetheless justified? Here we face an interesting problem for global justice. In rich countries, these agricultural subsidies are redistributive: they transfer wealth from domestic consumers and foreign farmers to domestic farmers. Supporters of these laws may

²⁵ See the *2010 World Index of Economic Freedom*, published by the Heritage Foundation and the Wall Street Journal, at www.heritage.org/index/. The study evaluates economic freedom generally, not just trade openness. However, trade openness is one of the components, and the ratings can be found in the section “Executive Highlights” of the report.

²⁶ The Food, Conservation, and Energy Act of 2008 (Pub.L. 110-234, 122 Stat. 923, enacted May 22, 2008, H.R. 2419, also known as the 2008 U.S. Farm Bill) is a \$288 billion, five-year agricultural policy bill that was last passed into law by the United States Congress on June 18, 2008. This bill has been roundly criticized from right and left. See “A Disgraceful Farm Bill,” *The New York Times*, May 16, 2008.

²⁷ For a useful description and summary of criticisms, see “Common Agricultural Policy”, at www.economicexpert.com/a/Common:Agricultural:Policy.htm

²⁸ See Thomas Pogge, *World Poverty and Human Rights* 2d ed. (Polity, 2010): 17–19.

²⁹ See “The Farmers Ruined by Subsidies,” *The Times Online*, www.timesonline.co.uk/tol/news/world/africa/article1629405.ece.

invoke reasons of distributive justice. Let us assume, implausibly, that farmers in rich countries are, under appropriate principles of distributive justice, the rightful beneficiaries of societal subsidies. Still, those subsidies hurt *foreign* farmers, and in particular farmers in developing nations. This means that even if the protectionist could successfully argue that the transfer is *domestically* justified, he cannot possibly maintain that the protectionist laws meet any test of global justice that focuses on alleviating world poverty. For protectionist laws interfere with voluntary transactions between consenting sellers and buyers in such a way as to hurt the most vulnerable. By enacting these laws rich countries *worsen* the situation of the world's poor.

This is a serious problem for mainstream theories of distributive justice, for they were originally designed to evaluate a basic *domestic* institutional structure, the goal of which is to benefit the *domestic* worst-off groups in society.³⁰ When those theories add global reach, however, it turns out that the domestic redistributive policies they favor often hurt the distant poor, who almost always are considerably worse off than the domestic poor. The startling conclusion is that enforcing redistributive programs in the name of *domestic* justice may well violate *international* justice or, at least, international duties of humanity or charity toward persons elsewhere that are struggling for survival. For example, in the United States some support imposing a tax on corporations who move their operations to developing countries. They justified this tax by proclaiming the need to "keep jobs at home." Yet, should this policy succeed, it will deny significant employment opportunities to poor persons in developing countries.

This incompatibility between domestic and international justice has led some influential philosophers to reject a justice-based global duty to redistribute wealth.³¹ Under this view, justice mandates redistribution of resources only within state borders. These writers argue that preferring compatriots is morally acceptable as long as we do not violate the rights of foreigners. Our farmers (farmers in rich countries) hurt by foreign competition are entitled to our solicitude and help; distant others are not. The Farm Bill is simply an instance of moral solicitude toward those who are closest to us and share a common project. As long as our government doesn't *directly* harm foreigners it is empowered to enact policies in accordance with its best understanding of domestic distributive justice. The government is not a global charity agency. It has been appointed by the citizens of the state to serve their needs and advance their interests, as long as in doing so it does not violate the rights of foreigners. Raising the

³⁰ Loren Lomasky and I explore this issue in *Justice at a Distance* (unpublished manuscript).

³¹ See Richard Miller, "Cosmopolitan Respect and Patriotic Concern," *Philosophy and Public Affairs* 27 (1998): 202; John Rawls, *The Law of Peoples* (Cambridge, MA: Harvard University Press, 1999), pp. 113–20; and Thomas Nagel, "The Problem of Global Justice," *Philosophy and Public Affairs* 33 (2005): 113. There are important differences among these authors, but all favor a preference for compatriots in tax-based help (as opposed to voluntary charity.)

cost of imported goods is not a violation of a right that the foreign producer holds. True, the foreign farmers' clientele has been reduced, but no one has a vested right in a clientele. If one is willing to export goods, one has to expect that foreign governments will sometimes intervene in markets in order to realize (domestic) social justice. On this view, given the fact that governments are the normal agents for realizing justice in their own societies, this is a risk that exporters in developing countries should assume. So, the argument concludes, we must concede that compatriots are entitled to our help, and that therefore we cannot condemn protectionist laws just because they harm the distant poor.

This superficially attractive objection fails for several reasons. First, trade barriers *actively interfere* with the rights of persons, namely the rights of buyers (the domestic consumers) and sellers (the foreign producer). So it is incorrect to describe the situation as remote or indirect harm. A protectionist law coercively interferes with contract and directly harms the parties. The innocent description of a protectionist law as mere help to local producers misses the coercive nature of those laws. They help the producer by coercively interfering with a contract between the foreign exporter and the domestic importer, thus harming both. If the protectionist concedes that our duty toward foreigners is a negative duty of noninterference (as opposed to aid), then protectionist laws violate that duty. Particularly significant is the fact that a protectionist barrier violates a right of producers in developing nations: their right to freely dispose of their property, a right that is very important because it is intimately tied to their subsistence.

Second, the inefficient local producer does not have a right to foist his products on the public who no longer wants them. If consumers no longer demand the product it is hard to see what principle of justice, or any other principle, authorizes the producer to enlist the government in force-feeding his products to consumers. A law that grants the producer a monopoly can hardly be justified with public reasons. Nor do the workers in that industry retain a right to their job, given that their employer does not need them anymore. I cannot identify any principle that can justify state coercion to help people produce things that consumers no longer want.

The point can be put differently. We all suffer setbacks and disappointments in our lives. If I lose my job, or if someone rejects me, I can say I have suffered a setback.³² What kinds of setbacks can the state legitimately prevent or compensate? Certainly, the state should prevent unjust setbacks, such as those to which the criminal law reacts. But it is not the state's job to redress all setbacks. This would be absurd because most of what people do in their everyday lives affects others. For example, if Joe decides to marry Kirsten instead of Meredith, and Meredith loves Joe,

³² I avoid the word "harm" here because it prejudges the issue.

Meredith will be disappointed because her interests will be set back. If enough consumers decide to buy Apple computers because they judge them better, makers of PCs will suffer. If two persons compete for the same job, the interests of the one who is not chosen will be set back. Perhaps a necessary condition for legitimate state intervention is that the setting back of an interest be wrongful. That is, *A harms B* when (1) A sets back B's interest, and (2) A does this in a manner that violates B's rights.³³ Since in the above examples no rights are violated, those setbacks ought not to be compensated.

In the realm of international trade the loss of a job due to foreign competition is not an unjust setback of interest because it is purely *competitive*. The worker suffers because consumers are no longer interested in buying what he produces. Here I follow John Stuart Mill's lead in *On Liberty*:

In the first place, it must by no means be supposed, because damage, or probability of damage, to the interests of others, can alone justify the interference of society, that therefore it always does justify such interference. In many cases, an individual, in pursuing a legitimate object, necessarily and therefore legitimately causes pain or loss to others, or intercepts a good which they had a reasonable hope of obtaining. . . . Whoever succeeds in an overcrowded profession, or in a competitive examination; whoever is preferred to another in any contest for an object which both desire, reaps benefit from the loss of others, from their wasted exertion and their disappointment. But it is, by common admission, better for the general interest of mankind, that persons should pursue their objects undeterred by this sort of consequences. In other words, society admits no right, either legal or moral, in the disappointed competitors, to immunity from this kind of suffering; and feels called on to interfere, only when means of success have been employed which it is contrary to the general interest to permit—namely, fraud or treachery, and force.³⁴

Competitive setbacks of interests do not violate rights (notice that in this passage Mill does not even use the word "harm.") A free society should not redress competitive disadvantage for three reasons. First, as Mill says, competition creates wealth and benefits society as a whole. Second, the setback of someone's interest by a competitor is not wrongful because it is the result of a *fair contest*.³⁵ And third, the attempt to *redress*

³³ Joel Feinberg, *Harm to Others* (Oxford, UK: Oxford University Press), p. 65.

³⁴ John Stuart Mill, *On Liberty* [1859] in John Stuart Mill, *Utilitarianism, Liberty and Representative Government* (New York: Dutton 1971), 72.

³⁵ Here I follow Arthur Ripstein, "Beyond the Harm Principle," *Philosophy and Public Affairs* 34, no. 3 (2006): 215. Writes Ripstein: "[I]f you defeat me in a fair contest, you do not deprive me of any of my powers. I merely failed at something that I was trying to do. That

competitive disadvantage in turn seriously harms third parties, usually the more vulnerable, by coercively interfering with their voluntary transactions. Whatever the general justification the government of a rich nation may have for interfering with contracts, surely harming poor persons to benefit richer persons cannot be part of it. These deontological and consequentialist reasons should be extended to our present globalized economy. Protectionism is a particularly unjust form of coercive redress of competitive disadvantage.³⁶

The protectionist could reply that workers have acquired certain expectations that the government must try to preserve. It is not the worker's fault, he may argue, that his industry is now inefficient. He got this job, started a family, bought a home; in short, made life plans that are now frustrated by events he cannot control. For that reason, the worker disadvantaged by foreign competition is a proper beneficiary of societal help. On this view, trade barriers are justified, not so much to enrich the local employer (although they do that), but to preserve jobs. And it is appropriate for consumers to pay for this: society (the consuming public) subsidizes fellow citizens (the workers of the affected industries) who are suffering hardship. It is no different from other forms of wealth redistribution.

Responding to this argument leads to the final and conclusive refutation of the protectionist view. Even if we assume, contrary to what I have suggested, that the government is generally empowered to interfere with trade, protectionist measures are indefensible because they fail to achieve their goal: they do not and cannot effect just redistribution of wealth.³⁷ When a government protects an industry it *aborts the creation of jobs in other industries*. This occurs because as the economy is unable to adjust to the efficiencies of production, resources are artificially directed to the less efficient endeavors. The government assists workers in those inefficient industries by erecting trade barriers. But what should we say about the person who is now unemployed *because new industries* that would have employed him have been aborted by the strangling effect of protectionist laws? Seen in this light, producers and workers who benefit from protection are *not* deserving of transfers of wealth in their favor, because protection is harming *other* persons in that society. Since those persons are the unemployed,

failure may disappoint me, but it doesn't deprive me of means that I already had, it only prevents me from acquiring further ones. My defeat may change the context in which I use those powers in future: if you win the championship, other people may no longer hire me to endorse their products. But I had no entitlement against you to a favorable context or to have those other people enter into cooperative arrangements with me." (At pp. 238-39.)

³⁶ A useful discussion of competitive harm can be found in Richard A. Epstein, "The Harm Principle—And How It Grew," *University of Toronto Law Review* 45 (1995): 369.

³⁷ Mill makes exactly the same point: "Restrictions on trade, or on production for purposes of trade, are indeed restraints; and all restraint, *qua* restraint, is an evil: but the restraints in question affect only that part of conduct which society is competent to restrain, and are wrong solely because they do not really produce the results which it is desired to produce by them." *On Liberty*, Section V, "Applications."

they are worse-off than the protected workers. Just as the firms obtaining protection get rich at the expense of foreign firms, so the workers in protected industries keep their jobs at the expense of the poor, *in their own countries*. Because this harm really consists of the opportunity costs of inefficient laws, it can only be gauged by asserting counterfactuals and is, for that reason, opaque. The public cannot easily see it.³⁸

So, even assuming the nationalist premises of the argument, protectionist laws in developed countries are objectionable because: (1) they violate the rights of foreign producers by interfering with their voluntary transactions; (2) they do not benefit persons or groups that, on any plausible theory of domestic or international justice, are entitled to a transfer of wealth in their favor, and (3) they hurt the domestic poor (by aborting the establishment of efficient industries) and domestic consumers (by raising prices). When we add the fact that protectionist policies, far from being the outcome of a quest for justice, are ordinarily the reaction to political rent-seeking and other forms of predatory behavior, the argument from domestic justice vanishes. Well-organized protected industries hire powerful lobbyists who essentially “buy” the protectionist legislation from politicians interested in incumbency.³⁹ If protectionist barriers in rich countries are objectionable even without considering their effects on foreigners, they become particularly offensive when they harm the distant poor.

IV. THE INJUSTICE OF TRADE PROTECTION BY DEVELOPING COUNTRIES

Some people who criticize protectionism by rich countries are nonetheless reluctant to condemn protectionism by developing countries. This is a mistake. The arguments against protectionist laws apply equally to developing nations. Powerful local monopolies enlist the government in protecting them against foreign competition, thus hampering economic growth and perpetuating economic stagnation. The debate, once again, suffers from a fatal rhetorical glitch caused by the public’s failure to understand the economics of trade.

Critics of rich-country protectionist barriers correctly see that those barriers hurt producers in developing nations, thus hampering those nations’ growth. But they do not believe that poor-country protectionist laws will hurt producers in rich countries much, and even if they did, it wouldn’t matter much from the standpoint of global justice, since the

³⁸ There is yet another reason to oppose protectionism: even if the protectionist is right that the state can legitimately aid workers disadvantaged by trade, erecting trade barriers is a bad remedy. Domestic transfer policies such as industrial retraining are more efficient and fair ways to help those workers.

³⁹ The politics of protectionism are well summarized in John O. McGinnis and Mark L. Movsesian, “The World Trade Constitution,” *Harvard Law Review* 114 (2000): 521–31. See also Gene Grossman and Elhanan Helpman, *Protection for Sale* cit.

critics' moral concern is to alleviate the plight of the world's poor. Protectionism in developing countries, they claim, is at worst morally neutral because it doesn't harm foreign persons in a way that global justice should care: producers in rich countries have vast markets at their disposal, in particular their own wealthy domestic markets. In fact, some have gone further and insisted that protectionism by developing countries *benefits* those countries. This approach enjoyed considerable vogue during the 60s and 70s mainly as a result of the promotion by the United Nations Economic Commission for Latin America and the Caribbean (CEPAL, an acronym of the Spanish name.) It recommended a nationalist economic policy based on import substitution and massive public spending as prescriptions for growth and development. This policy ("Cepalism") was implemented in Latin America and Africa with disastrous results.⁴⁰ Vastly discredited today, this theory is still sporadically invoked by populist demagogues to justify nationalist policies.⁴¹

The view that protectionism by poor countries is benign ignores the central premise of international economics, which bears repetition: the government that erects trade barriers *hurts its own citizens*. Protectionism is self-destructive. In developing countries, the problem is not that these laws hurt producers in rich countries, but rather that they prey on *domestic* consumers in two ways. First, those laws force them to forego the economic choices generated by international trade; second, they abort the creations of new industries by redirecting resources toward inefficient activities. As I indicated, this harm is opaque. Tragically, the unemployed person in my native Buenos Aires cannot *see* that a main reason for his predicament is that inefficient producers and their powerful unionized workers have successfully lobbied the Argentine government to get protection against foreign competition. In this way, the labor unions have improved their situation vis-à-vis our unemployed person, because the latter now will not be employed by an industry that was *aborted* by the perverse incentives created by protectionist laws. Because understanding this requires, not only knowing the complex and counter-intuitive law of comparative advantages, but also positing a *counterfactual* that is itself hard to grasp, the victim of this governmental depredation does not see himself as such and, sadly, continues to support the populist demagogues in the hope that he, too, will benefit from some subsidy or other. A society of producers, sadly, has become a society of beggars.

When we think about who benefits from these laws in developing nations, we realize that the redistribution of wealth resulting from pro-

⁴⁰ For Latin America, see Hernando de Soto, *The Invisible Revolution in the Third World* (New York: Harper & Row, 1989); for Africa, see George B. Ayittey, *Africa Betrayed* (New York: St. Martin's Press, 1992).

⁴¹ For the example of Hugo Chávez in Venezuela, see Álvaro Vargas Llosa, "The Rise of Hugo Chávez," *The Independent Institute*, September 19, 2007, www.independent.org/newsroom/article.asp?id=2028.

tectionist laws cannot possibly be supported by moral reasons. The crude reality is that more often than not the industries that benefit are close allies of the regime in place. In exchange for protection those industries consolidate the rulers' power by helping them win elections or enabling them to persist in their undemocratic ways. But even ignoring this political reality, even assuming that trade protection is not a corrupt deal between government and industry, the redistribution of resources is a *reverse subsidy* in favor of the better-off members of society. This occurs in two ways. First, the owners and workers of protected industries benefit at the expense both of local consumers (who, remember, in these nations are overwhelmingly the poor). Second, the protectionist laws *abort* the creation of new, efficient industries, thus hurting those persons who *would* have been hired in those industries but is now unemployed. No political theory I know of can justify these transfers.

A final point. It is no mere coincidence that, with some exceptions, the wealthier countries have *less* trade barriers than the developing countries. If protectionist barriers were so good for developing nations we should see some evidence of this in the numbers. Not so. Nations who defeated poverty did so mostly by establishing market-friendly institutions and fixing their non-economic institutions, such as the judiciary. Trade openness is a component of economic openness, and the correlation between market-friendly institutions and economic prosperity is undeniable.

V. TRADE AND COERCION: THE PROBLEM OF STOLEN GOODS

International trade takes place mostly between private agents. A private producer in state A attempts to sell his product to private consumers in state B but the government of state B interferes by placing trade barriers, thus raising the cost for the consumers. Governments, I have argued, should not interfere with these voluntary transactions. But sometimes this voluntariness has been vitiated. Trade presupposes legitimate ownership over the traded goods, but sometimes the traded goods are stolen. How should the international trade system address the problem of stolen goods? The view that condemns trading in stolen goods has two versions: the Imperialist Thesis and the Dictator-Thief thesis. According to the Imperialist Thesis, rich people in developed nations presently hold resources that they obtained in the past from people in developing countries through theft, force, and deception. Trading with the poor the very resources that the owner stole from him is deeply wrong. According to the Dictator-Thief thesis, despots stole resources from their subjects and sold them to foreigners (usually in rich nations) mostly to advance these despots' own interests and consolidate their power. Both theses recommend corrective measures even before opening trade. We must return the stolen goods to their rightful owners; only then we could start talking about free trade. I discuss each thesis separately.

I have two replies to the Imperialist Thesis. The first is simply that its factual premises are, for the most part, wrong. The reasons why some nations are rich and others are poor have little to do with theft. Rather, they have to do with different equilibria between productive and predatory forces in society, as reflected in the quality of institutions and in particular on the success or failure of market-friendly practices. But there are surely some instances (some colonial cases come to mind) where perhaps some of the resources currently held by persons in rich countries are ill-gotten. However, even if ideally compensation would be sometimes justified, the practical difficulties of determining what part of the current wealth held by individuals should be returned to their rightful owners would be daunting. Surely not all wealth, not even its greatest part, is stolen.

But the Imperialist Thesis is misconceived in another sense. It recommends *not* liberalizing trade on the grounds that rich countries have no title over the goods they trade. Yet international institutions should help *reduce poverty, here and now*. If corrective measures are infeasible either because the theft took place too far back in time, or because we cannot possibly know the percentage of wealth that was stolen, or because the amount of coercion needed to restore the *status quo ante* is morally prohibitive, or simply because international politics pose insurmountable practical obstacles, or for some other reason, then that should not be a reason to refuse to liberalize trade, here and now, as a way to alleviate the world's poverty.

The Dictator-Thief thesis is harder to answer.⁴² A defense of free trade rests on the moral worth and beneficial effects of voluntary transactions. Yet dictators in some developing countries often appropriate the resources from the people and then sell them to foreigners, most of the time for their own enrichment.⁴³ In these cases the international transaction was *coerced* at some point, namely when the tyrant appropriated the resources at gunpoint. The case evinces an egregious failure of *domestic* institutions, aggravated by a defective rule of international law—the so-called principle of effectiveness.⁴⁴ Under international law, whoever politically con-

⁴² The argument is made by Mathias Risse, "Justice in Trade I: Obligations from Trading and the Pauper-Labor Argument," *Politics, Philosophy, and Economics* 6 (2007): 356, and more fully by Leif Wenar, "Property Rights and the Resource Curse," *Philosophy & Public Affairs* 36 (2008): 2.

⁴³ See Leif Wenar, "Property Rights and the Resources Curse."

⁴⁴ Under traditional international law, any government (with some exceptions) with effective political control over a territory is deemed to be, internationally, the legitimate government of the state. Moreover, international law is generally indifferent about how the resources of the state are internally distributed: they may be in private hands, or they may have been expropriated by the government in whole or in part. See, e.g. UN General Assembly, *Declaration of Principles of International Law Concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations*, 24 October 1970, available at: <http://www.unhcr.org/refworld/docid/3dda1f104.html> [accessed 25 April 2011], especially the principle that (e) "Each State has the right freely to choose and develop its political,

trols the country has a right to sell its resources. This rule is obviously unjust, not only from the standpoint of basic human rights, but from the standpoint of market rules themselves. The result is objectionable in principle because it countenances the sale of stolen goods, and in terms of its consequences because it aggravates poverty, since the tyrant does not utilize the resources to benefit the people but to increase his own power and wealth. Because the gains from trade are achieved at the expense of the victims of theft and oppression, these persons arguably have a fairness complaint against the trading partner, that is, the buyer of stolen goods.⁴⁵ An evaluation of free trade from the standpoint of justice must therefore recommend, as Leif Wenar does, abolishing the rule of effectiveness and substituting the principle that resources belong to the rightful owners and not to the rulers.⁴⁶ I think, therefore, that Wenar's general point is essentially correct and that the international trade system should be reformed to require that exported goods belong to their rightful owners.

There are a couple of difficulties with the argument, however. Wenar claims that material resources *collectively* belong to the people. This principle, he says, is compatible with either private or public ownership of the resources. According to Wenar, for the government to be legitimately entitled to sell the resources, the process of public acquisition must meet democratic strictures.⁴⁷ But the idea of the *people* collectively owning the resources does not sit well with private property rights. My house belongs to me, not to the people. Wenar attempts to solve this problem by requiring that any transfer of resources to the government be sanctioned by democratic procedures. Yet many "socialist" governments are not very different from our Dictator-Thief. The majority is no more entitled than the dictator to steal from the private owner *just because it is a majority*. So, in order to specify the rightful owners of the traded goods, Wenar must add a plausible *substantive* theory of justice that shows when the government may redistribute resources in its favor (or in its friends' favor.) This is not the place to discuss this large issue in political philosophy. Suffice it to say that grotesque dictators are not the only ones who steal resources from their rightful owners. Many democratically-elected governments

social, economic and cultural systems." This rule allows governments to expropriate private property and do exactly what Wenar criticizes: sell them. Even more explicit are the principles in the Declaration on Permanent Sovereignty over Natural Resources, G.A. res. 1803 (XVII), 17 U.N. GAOR Supp. (No.17) at 15, U.N. Doc. A/5217 (1962), cited approvingly by Wenar: "4. Nationalization, expropriation or requisitioning shall be based on grounds or reasons of public utility, security or the national interest which are recognized as overriding purely individual or private interests, both domestic and foreign."

⁴⁵ Risse, "Justice in Trade I," 362.

⁴⁶ This same point was made by Thomas Pogge, "Recognized and Violated By International Law: The Human Rights of the Global Poor," *Leiden Journal of International Law* 18 (2005): 717; Peter Singer, *One World : The Ethics of Globalization* (New Haven: Yale University Press, 2004), 96-105; and, in general terms (not specifically in reference to the trade system,) in my book *A Philosophy of International Law* (Boulder: Westview, 1998), 1-2.

⁴⁷ Wenar, 20-21.

(governments that would satisfy Wenar's proviso) systematically steal from their citizens as well.

Moreover, dictators of the world believe that placing the collective ownership on "the people" entitles them, the dictators, to dispose of the resources. As I indicated, the standard interpretation of the international instruments that Wenar cites (such as the Declaration on the Permanent Sovereignty of Natural Resources) endorses the governments' power to expropriate resources. This is why dictators support the principle that the "people" collectively own the natural resources: they claim to represent the people, *l'état, c'est moi!* In other words: Wenar's interpretation of the principle of permanent sovereignty over natural resources departs from the (objectionable) common understanding in international law that undemocratic governments, too, are deemed to represent the people. This means that Wenar cannot just invoke the people's ownership of natural resources without adding a theory of international representativeness that is diametrically opposed (although of course better) than the theory presupposed by the international instruments on which he relies.

Finally, it is entirely unclear that the government in the country where the prospective buyers reside will cure this injustice by erecting protectionist barriers. The Dictator-Thief problem dramatically underscores the fact that most injustices are homegrown, as I have indicated. While opening international trade alone will not remedy those injustices, closing trade will not do the job either. Here as elsewhere, protectionism is an ill-suited remedy to cure the problem. Something different is required, namely establishing a corrective procedure for restoring the stolen goods to their owners while maintaining free trade. The Dictator-Thief objection accurately identifies a problem in international trade, the problem of predatory rulers. *This* problem, however, cannot be solved or alleviated by protectionist laws.

These difficulties are not fatal to Wenar's thesis. He can simply claim that the global trade system must address the difficulty of stolen goods, *whatever* our thesis may be about when the goods are in fact stolen. Yet, the fact remains that, grotesque cases aside, liberal egalitarians will often disagree with classical liberals about when traded goods are indeed stolen goods.

VI. THE PAUPER-LABOR ARGUMENT

Some authors believe that domestic workers in rich countries are entitled to protection if the imported goods arrive in our shores, not through oppression or theft, but as a result of lower labor standards in the countries of origin. This is the Pauper-Labor argument, usually advanced with considerable stridency in labor circles. Mathias Risse has given a qualified defense of this argument. For him, if labor laws

in rich countries are established for moral reasons, then for the sake of consistency workers harmed by imports deserve compensation from the government.⁴⁸ The idea is that the moral reasons that underlie labor standards are universal, so while the government cannot enforce those in the country of origin, it should acknowledge the universality of those reasons by compensating domestic workers harmed by imports. The domestic workers' competitive disadvantage is the direct result of a morally objectionable act.

It is doubtful, however, that many labor standards are always or often enacted for moral reasons. The overwhelming evidence is that governments enact them for a host of political reasons, including protectionist reasons.⁴⁹ However, perhaps labor standards are *supported* by moral reasons, even if the government had other reasons for enacting the standards. This will largely depend on the labor standard in question. Take minimum wages: It is unlikely that high wages in rich countries are supported by moral reasons. These salaries are the result of self-interested bargaining by workers, either individually or through unions, at a time where world labor markets were highly segmented. With the rise of globalization, it became obvious that labor in developing countries was more competitive. Understandably, labor leaders in rich countries speak of sweatshops and slave labor, thus implying that workers in developing countries are in the same moral category as the oppressed, that they are coerced into working for miserly salaries, almost at gunpoint.⁵⁰ This rhetoric conceals the fact that unionized workers in rich countries have been simply out-competed. Assuming voluntary relationships, including a right to terminate the contract, one does not have a right to an ongoing high wage if the employer finds someone that can perform the same work at a lower wage.⁵¹ In fact, my intuition is exactly the opposite to Risse's: domestic workers in rich countries are acting *immorally* when they demand protection against cheaper imports, because in doing so they are knowingly enlisting the state in the aggravation of world poverty.⁵²

⁴⁸ Risse, "Fairness in Trade I," 366–69.

⁴⁹ See Risse's example of the 1930 U.S. Tariff Act, *ibid.*, 367. Horacio Spector has identified labor standards precisely along these dimensions, and concluded that most of them do *not* reflect moral principles but rather rent-seeking, desire to avoid competition, etc. See Horacio Spector, "Philosophical Foundations of Labor Law," *Florida State University Law Review* 33 (2006): 1119.

⁵⁰ For a refutation of these arguments, see Matt Zwolinski, "Sweatshops, Choice, and Exploitation," *Business Ethics Quarterly* 17 (2007): 689–727.

⁵¹ Of course, parties must abide by their contracts, so employers could be contractually committed to paying higher wages even if cheaper labor is available elsewhere.

⁵² Quite apart from this, the evidence does not support the view that trading with developing countries has depressed wages in rich countries. Rather, trade with poor countries may well have improved wages, in the sense that it has moderated the decline that might have occurred due to non-trade factors, such as labor-saving technological change. Jagdish Bhagwati, *In Defense of Globalization*, 124–25.

But perhaps *some* labor standards, such as occupational safety rules, are morally required in the sense that the workers have a *right* to those standards.⁵³ Even then, Risse's argument fails for two reasons. First, if workers in a developing country have a right to a labor standard, the employer who denies it harms those workers. It is entirely unclear why workers in the *rich* country should be entitled to compensation, especially considering that the taxpayers of the rich country, who have done nothing wrong, must foot the bill. Maybe the argument is that the failure of the developing country to secure the standard creates a "right" by workers in the rich country that their government ban the import (or place trade barriers against it.) This has the peculiar effect of enriching parties who were not wronged (were not denied the labor standard in question) and who are already much better off by global standards, while at the same time harming the people who have already suffered the alleged injustice.⁵⁴ Surely this cannot be right.

Second, the argument assumes that labor standards are *inalienable*. This is highly dubious. Imagine that the government of a developing country offers a choice to workers in a particularly successful industry. The government offers to enforce the standards, but workers must understand that this would make their product more expensive and hence less competitive overseas. Because the market for this particular product is largely foreign, enforcement of the labor standards will adversely affect the workers' own welfare. Alternatively, the government offers to relax the standards to keep the industry internationally competitive and thus continue to benefit workers. If the workers accept this offer they *consent* to lower standards in exchange for their overall economic welfare. They trade the risk of a workplace injury or illness for their enhanced prosperity. I cannot see why this would be objectionable unless one thinks, implausibly, that individuals are morally forbidden from making trade-offs of this kind. Accepting a higher occupational risk in exchange for a better economic prospect seems far removed from the standard cases of inalienability, such as consenting to being tortured, or even selling an organ. In this case workers in rich countries have no claim to protection.⁵⁵

⁵³ I am even unsure about the claim that safety standards are morally required. Why not think of different levels of safety as labor benefits offered by businesses, so that workers can freely choose between various combinations of accident risk and economic welfare? But I don't pursue the matter.

⁵⁴ I owe this point to Matt Zwolinski.

⁵⁵ Matt Zwolinski and Ben Powell make a similar point in "The Ethical and Economic Case for Sweatshop Labor: A Critical Assessment" (unpublished, 2011). Here again, the evidence does not support the much feared "race to the bottom", i.e., the view that allowing imports from countries with low standards will cause governments to relax theirs, thus creating a desperate race to lower production costs. Rather, the evidence shows exactly the opposite, a race to the *top*. As incomes rise in poor countries, their growing middle class expects and demands improvements in the workplace conditions. See Bhagwati, *In Defense of Globalization*, 127-34.

VII. IS THE CURRENT TRADE SYSTEM UNJUST?

Given the advantages of free trade, the role of the World Trade Organization (WTO) in liberalizing trade has been positive.⁵⁶ By enforcing the most-favored-nation clause, the WTO system has dramatically lowered tariffs and other trade barriers in the last fifty years or so, with the corresponding global economic growth.⁵⁷ However, while the current WTO regime is preferable to a generalized protectionist regime, it has a number of imperfections from the standpoint of justice and efficiency. First, current arrangements allow governments to over-protect, thus hampering the chances that the poor will participate in the world economy. One problem with the WTO treaty, therefore, is that it *does not liberalize trade enough*.⁵⁸ In particular, the WTO rules that allow protection of agriculture by rich countries are highly objectionable, as I have already pointed out. The WTO should enforce the most-favored-nation clause without exceptions if it is to be consistent with global justice.⁵⁹ Second, although generally structured to gradually lower trade barriers, the WTO regime is partly predicated on outdated mercantilist notions: governments seek to secure foreign markets access for exporters, thus treating access to *their* markets as a bargaining “chip.” Because imports benefit consumers, the notion that granting access to one’s markets is a *concession* to other countries is false. A government that lowers tariffs helps its own citizens. This fact is, yet again, concealed by the nationalist rhetoric of protectionism. So the WTO is suboptimal from the standpoint of global justice, and it is certainly inferior to more liberal alternatives, like unrestricted trade.⁶⁰

Still, however bad the present system may be, protectionism is worse. Current critics of the WTO, while rightly criticizing protectionism in rich countries, wrongly claim that developing nations can sometimes help

⁵⁶ The World Trade Organization was created in 1995, and it is the international organization that deals with trade rules among nations. It is the successor to the General Agreement on Tariffs and Trade, which had been in place since 1947. See http://www.wto.org/english/thewto_e/thewto_e.htm.

⁵⁷ See McGinnis & Movsesian, *The World Trade Organization*, 529–47.

⁵⁸ For an earlier appraisal of the protectionist features of the WTO (then the GATT), see Jagdish Bhagwati, *Protectionism*, in *The Concise Encyclopedia of Economics*, (1988), available at <http://www.economlib.org>. My criticism of the WTO is diametrically opposed to the criticism by the anti-globalization forces, who blame the WTO for being too biased toward free trade. I believe, on the contrary, that the WTO does not do enough to promote free trade.

⁵⁹ The most favored nation clause is the centerpiece of the international trade system. It prohibits discrimination among trade partners by obligating members to extend any trade concession they make on a product to the same product exported by everyone else. Article 1 of the GATT 1947 (one of the constitutive agreements of the WTO), reads: “any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.”

⁶⁰ See Amartya Sen, “How to Judge Globalism,” *American Prospect* (Winter 2002): 2 (“Global interchange is good; but the present set of global rules needlessly hurts the poor.”).

their economies by enacting protectionist measures. The institutional solution that could bring the world closer to the ideal of unrestricted trade is a WTO-like organization whose sole purpose is to ensure that nations liberalize trade. On the other hand, excessive international regulation *restrictive* of trade, even if meant to address a genuine market failure, is often counterproductive with regard to the poor.

The main contrary view is represented by the work of Thomas Pogge.⁶¹ He claims that the global order, and especially the world trade system, is *directly responsible* for poverty.⁶² According to Pogge, the global order, established and dominated by rich countries, systematically confines millions of persons to extreme poverty. This happens through a variety of mechanisms, of which three are salient. First, rich countries refuse to liberalize agriculture. They protect their own rich farmers, thus harming farmers in the developing world. Second, rich countries have succeeded in enforcing intellectual property rights on pharmaceuticals, which exacerbates health problems in the developing world. And finally, the global order controlled by rich countries is too deferential to sovereignty. This allows corrupt and tyrannical elites in the developing world, in complicity with the West, to exploit their subjects.

Pogge deserves credit for having awakened new audiences to the awful reality of world poverty; for having called attention to the objectionable protectionist policies by rich countries; and for having challenged the prevailing notion of sovereignty upon which the international order relies. On the latter issue, the sanctity of borders and its political incarnations, nationalism and national interest, have harmed many persons in history and done much to undermine justice in the world at all levels. Economic relations, no less than political relations, often proceed without sufficient scrutiny of the moral credentials of governments. Global institutions such as the World Bank and the International Monetary Fund are subject to criticism on this score, because they assist developing countries without pausing to consider whether they are thereby consolidating bad governance and, eventually, perpetuating poverty as well.

The problem with Pogge's theory is that his *causal* claim is wrong. The global order, far from being the cause of poverty, is responsible for the vast amelioration of extreme poverty over the last one hundred years or so. As Mathias Risse explains, according to Pogge's own benchmarks, the global order "has caused amazing improvements over the state of misery that has characterized human life throughout the ages."⁶³ Once one controls for domestic institutions, Pogge's attempt to blame rich countries loses much of its superficial appeal. Rich countries got rich for quite

⁶¹ See Thomas Pogge, *World Poverty and Human Rights*, 2d ed. (Malden, MA: Polity, 2008).

⁶² *Ibid.*, 1-32.

⁶³ Mathias Risse, "Do We Owe the Global Poor Assistance or Rectification?" *Ethics & International Affairs*, 19 (2005): 9-10.

diverse reasons, usually anchored in Europe's embracing of capitalism and technological innovation. The literature points to two of such reasons: the emergence of good, stable institutions, and the establishment of efficient markets.⁶⁴ Even when those institutions were morally objectionable to our modern eyes, they were nonetheless hospitable to growth and innovation. As David Landes put it:

The economic expansion of medieval Europe was . . . promoted by a succession of organizational innovations and adaptations, most of them initiated from below and diffused by example. The rulers, even local seigneurs, scrambled to keep pace, to show themselves hospitable, to make labor available, to attract enterprise and the revenues it generated.⁶⁵

This is known as the institutionalist thesis, the view that poverty and stagnation are caused by deficient institutions, including, but not limited to, insufficient protection of private property and freedom of contract. Pogge's attempt to dismiss the massive evidence in favor of the institutionalist thesis is, I think, unsuccessful.⁶⁶ Some of his more specific empirical claims are dubious as well. For example, Pogge cites the rich countries' protectionist agricultural policies as evidence that the global order (which allows these practices) causes poverty. While those unjust practices exacerbate the problem, they are far from being the main cause of world poverty. The explanation understates the importance of domestic institutions, as explained.⁶⁷ It suggests that stagnation in the developing world derives mainly or only from what *others* do, and thus fails to control for the ruling elites' contribution to that stagnation.⁶⁸ Further, whether the West's protectionist policies harm farmers of a given developing country

⁶⁴ Mathias Risse develops a full (and I think definitive) response to Pogge in his article "How Does the Global Order Harm the Poor?" *Philosophy and Public Affairs* 33 (2005): 349–76.

⁶⁵ David Landes, *The Wealth and Poverty of Nations*, (New York: Norton, 1998), 67–68. See also his description of the ideal wealth-creating society, 239–40.

⁶⁶ Pogge is aware that his views are contradicted by mainstream economic research. That is why he, uncharacteristically, dismisses economists *in totum*. He writes that we should take the economists' findings with a great deal of caution, because "while economists like to present themselves as disinterested scientists, they function today more typically as ideologists for our political and economic 'elites'—much like most theologians did in an earlier age." Thomas Pogge, "Real World Justice," *Journal of Ethics* 9 (2005): 29.

⁶⁷ See Kym Anderson, Agriculture, Trade Reform, and Poverty Reduction: Implications for Sub-Saharan Africa, http://www.unctad.org/en/docs/itcdtab24_en.pdf. The author shows that while trade liberalization in the agriculture sector can bring important gains, developing countries need to change their "anti-agriculture, anti-export and anti-poor bias of current policies." The extremely complex empirical issues are set forth in M. Ataman Aksoy & John C. Beghin, eds., *Global Agricultural Trade and Developing Countries* (Washington, D.C.: World Bank, 2004).

⁶⁸ At several points Pogge suggests that this emphasis on domestic factors, which he calls *explanatory nationalism*, may be self-serving. See *World Poverty*, pp. 4, 6, and 15.

depends on the size of the market for that country's exports. Argentina, for example, sells her beef and grain mostly to Russia, China, India, and Egypt. Given that the rising demand for agricultural products (at the time of this writing) comes from non-Western countries, farmers in developing countries might be in a particularly advantageous situation, as they do no longer depend on exporting those products to Western markets. They are certainly less likely to be harmed by the West's trade policies. Of course, this is an empirical issue and will vary for particular countries and products, but the truth is that protectionist policies harm first and foremost the country's *own* consumers. Of course Pogge is correct in calling for the dismantling of the West's protectionist policies. As I argued, that call is part of the general call to liberalize trade for *moral* reasons. But saying that liberalizing agricultural trade will help is not the same as saying that the current protectionist policies of Western powers are the main cause of poverty.

VIII. A CURIOUS CASE STUDY: EXPORT SUBSIDIES

I said that the government that enacts protectionist laws hurts its own people. However, economists have identified an apparent exception to this. It is the case of strategic export subsidies. Imagine two firms from different countries, A and B, who export a homogenous product (say, sugar) to a third country, C. C imports all the sugar it consumes. If the two exporting firms cannot collude to fix prices, then in the absence of any subsidies there is a state of equilibrium where each firm would choose its own output to maximize profits (they cannot alter the competitor's output).⁶⁹ Now suppose that A subsidizes its firm's exports. The subsidy will displace the competitor's sugar from C's market. It will shift profits from B's firm to A's firm. If the gains for A exceed the amount of the subsidy, then A will gain. In this specific case it seems to be in the national interest for citizens of A to subsidize its sugar industry. The idea is that "it is to the advantage of a country to capture a large share of the production of profit-earning imperfectly-competitive industries."⁷⁰ In this case, where a duopoly competes for a third market, the country that subsidizes reaps net benefits. This finding, in short, would be an exception (albeit a partial and narrow one) to the principle that the country that protects hurts itself.

These findings generated an important literature.⁷¹ In general, economists have been skeptical of the validity of the argument. The problem is that if the assumptions of the models are slightly changed the conclusion

⁶⁹ The seminal paper is James A. Brander and Barbara J. Spencer, "Export Subsidies and International Market Share Rivalry," *Journal of International Economics* 18 (1985): 83.

⁷⁰ *Id.* at 84.

⁷¹ For a full discussion of the strategic-subsidy debate, see Douglas Irwin, *Against the Tide: An Intellectual History of Free Trade* (Princeton: Princeton University Press, 1996): 207-16.

that the country benefits from the subsidy collapses as well. The following changes in the assumptions would drastically alter the original finding: (1) the possibility of subsidy wars and their negative effects on the subsidizing country, (2) the possibility of entry of multiple firms in the market, which approach perfect competition and thus prevent appropriation of profits, (3) the possibility of competing firms using a common resource such as research and development, which significantly alters the results, and (4) the possibility of foreign ownership of the domestic firm, which again alters the conclusion.⁷²

Let us assume that sometimes it is at least *prima facie* plausible that the export subsidy helps the country that subsidizes. Is it still *fair*? The strategic trade theory rests solely on the supposition that national interest is the yardstick for measuring the desirability of trade policy. In any country, if a subsidy helps that country, then it is appropriate and rational for that country to enact the subsidy. But this is not enough for global justice. Policies pursued in the national interest may unfairly harm foreigners. I already mentioned *internal* subsidies and how they affect foreign producers. In the United States and Europe governments pay inefficient farmers to keep them in business and thus price foreign producers out of domestic markets. This practice harms the world's poor and is for that reason objectionable (an internal subsidy by a developing country will be objectionable as well since it will harm domestic consumers.)

But, unlike the internal subsidy, the export subsidy is an economic benefit bestowed by a government to a producer for exporting his products. It may consist of monetary payments, tax exemptions, or payments in kind, but in all cases the payment is tied to export performance in the sense that facilitates exportation by lowering exporter's production costs. Like internal subsidies, export subsidies have an effect on the country of importation, albeit a bit different effect. Consumers in the importing country buy the subsidized product which displaces the like product available locally. There is no question that the subsidy is inefficient. It creates what economists call a *deadweight loss*, that is, an aggregate loss that no one recoups. But aside from that, does an export subsidy inflict an injustice on persons in the country of importation (or in third countries)?

Let us evaluate an export subsidy in a rich country from the standpoint of the welfare of the world's poor. Let us consider first the case of firms from rich countries competing for the market of a poor country. Rich country A subsidizes a sugar producer so it can successfully export to poor country C. Country C *does not* produce sugar: it imports all the sugar it consumes. Country A does this to compete with a firm from country B, another rich country. A's and B's firms are competing for C's sugar mar-

⁷² See the discussion in Irwin, *Against the Tide*. See also Paul Krugman's criticism, "Does the New Trade Theory Require a New trade Policy," *The World Economy* 15 (1992): 423.

ket, and this competition does not displace C's sugar producers since there are none.

It seems clear that no injustice is done by A to persons in C, the poor country. On the contrary, the citizens in A are bestowing a *gift* on C's consumers by paying their sugar supplier so that those consumers can pay less for their sugar and thus increase their welfare. Moreover, C *welcomes* the competition between A and B, even if it takes the form of a subsidy war. In fact, this may be an imaginative and better alternative to development aid provided by the governments of A and B to the government of C. The only injustice is suffered by A's taxpayers, who are coerced by their government into helping the sugar producer. But we can avoid this complication by imagining that A's citizens pay *voluntary* contributions to the sugar producer, and thus indirectly help C's consumers. Here it is clear that, from an economic standpoint, A's citizens are providing a *benefit* to C's citizens. Moreover, the poor country welcomes this subsidy war! But what about B's citizens, the rich country whose firm gets displaced? Aren't they the victims of an injustice? Hardly. No one has a right to maintain its competitiveness in the face of the improved situation of one's competitor. If A's subsidy to its firm can be interpreted as A's citizens giving money to its sugar producer to help it compete against B's firm in C's market, it is entirely unclear that B has any moral claim. Moreover, the assumption is that B is also a rich country. So this is a transaction where A is bestowing a benefit on C, the poor nation. Other things being equal, arranging world trade so that poor countries benefit is a good thing. And this benefit is preferable to direct governmental aid for a number of reasons, including the fact that the benefit is experienced directly by C's consumers without governmental interference.

The situation changes if C, the poor country, has sugar producers. By operation of comparative advantages, C's sugar producers will suffer. They can no longer profitably produce sugar and will have to direct their resources (capital, labor) to a different endeavor. However, C will experience a net *benefit*, since the savings by the sugar-buying public normally will exceed the losses by the local sugar producers. Here everything depends on the ability of C's economy to accommodate to the efficiencies of production, but at any rate, as explained earlier, erecting tariffs is not the adequate response to the subsidy. This is because, quite simply, the tariffs will hurt C's own people. Working families will have to pay more for their sugar. So the verdict is uncertain. If a major goal of international arrangements is to alleviate poverty, then subsidies by wealthy countries to gain access to markets in poor countries, in cases where the subsidizing country is competing against other rich producers, do not wrong others. Subsidizing exports can be seen as a creative way to replace the usually unproductive foreign aid. However, this is true *only if* the subsidized imports do not predictably harm the

developing country otherwise. This occurs in the case, already discussed, of the *internal* subsidies granted by rich countries to their farmers, which displace the more efficient producers from developing countries from the rich countries' domestic markets.

IX. CONCLUDING REMARKS

With few exceptions, the literature on global justice has been indifferent or hostile to free trade. Yet anyone who cares about justice should support free trade for empirical and moral reasons. The benefits from trade to the poor are denied both by protectionist measures in developed countries and by local monopolies and foreign interests allied with those in power in developing nations. Few things have done as much to cause the economic stagnation in the developing world as the policies of import substitution and similar protectionist devices (perhaps only *political* failure ranks higher in the list of such causes.)⁷³ Trade barriers cannot possibly be justified by a theory of justice, domestic or international. Domestically, trade barriers transfer resources from the worse-off (local consumers) to the better-off (workers and owners of protected industries). Internationally, trade barriers in rich countries transfer resources from poorer foreign producers and workers to richer local owners and workers. And this, assuming the best scenario: More often, trade barriers allow governments to transfer resources in favor of rent-seekers and other political parasites.

Developed countries deserve scorn for not opening their markets to products made by the world's poor by protecting their inefficient industries, while ruling elites in developing nations deserve scorn for allowing bad institutions, including misguided protectionism. International reform, then, should try to *create those effectively functioning institutions* that best secure economic growth while helping the poor. Because trade relies on mutual advantage and not on altruism, there is little doubt that liberalizing global voluntary exchanges will go a long way toward that goal.

Critics of free trade simply do not believe that the poor can compete in world markets. They conjure up the image of a poor and uneducated peasant immersed into a whirlwind of overwhelming economic forces which he cannot possibly shape or control. Yet only by allowing this poor peasant to participate freely in a global free market will he regain the freedoms he *does not* currently have: the freedoms to produce, work, and trade at will. The evidence unequivocally shows that freeing world markets improves the lives of millions of persons. Our poor peasant is the

⁷³ For the effect of import substitution policies in Latin America, see Joseph L. Love, "The Rise and Decline of Economic Structuralism in Latin America: New Dimensions," *Latin American Research Review* 40 (2005): 105, ("it is universally agreed that ISI has not been a viable policy for some time.") For a useful account of the debate, see generally Henry J. Burton, "A Reconsideration of Import Substitution," *Journal of Economic Literature* 36 (1998): 903.

WHY FREE TRADE IS REQUIRED BY JUSTICE

victim, not of free trade, but of one or more of the following: oppressive political conditions, in particular denial of human rights; collusion of the government with local monopolies or foreign producers; lack of protection of property and contract; lack of labor mobility; and stifling cultural structures. These institutional failures cause poverty, not the other way around.

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3

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1 WHY THE FREE MARKET CAN'T DO EVERYTHING

The free market cannot optimize everything that generates economic value. Industrial policy is an extended series of responses to this fact.¹

The shortcomings of free markets are a vast topic, with many of them having little relevance to industrial policy. Those important for our purposes here are:²

1. Externalities
2. Time horizons
3. Systemic effects
4. Fundamental innovations
5. Dynamic efficiency
6. Increasing returns

Because each of the above creates at least the *possibility* of the free market producing a suboptimal outcome, it creates, in principle, the possibility that government intervention could produce something better.³

Let us examine these shortcomings in turn, and the policies used in attempts to overcome them. This discussion is simplified and abstract, but we will spend the rest of this book filling in the concrete details.

Externalities

An externality occurs whenever an economic activity “leaks” costs or benefits elsewhere, without the entity performing the activity incurring the cost or benefit itself. Some externalities are negative, such as pollution, which harms the environment without this cost being borne by the firm doing the harm. The classic governmental responses are emissions regulations and fines for polluters.

The Underlying Economics

Other externalities are positive, such as when a firm develops a new technology that will create value all over the economy, beyond the reach of its own profits.⁴ When its innovation cannot be protected by patents or trade secrets, a firm may not be able to capture all of its value and thus may choose to underinvest in developing the technology.⁵ Governmental responses include tax credits for, and direct investments in, R&D (see Chapters 19–23).

Another example is training personnel who may then go to work for other companies – a disincentive to invest in training. Governmental responses include free public schools and subsidies for worker training.

The concept of *inappropriability* embraces everything firms do that generates economic value they cannot fully capture. Inappropriability also occurs, for example, when a firm invests in upgrading its supplier companies, which will then be able to sell to anyone, not just the company paying for the upgrades. Governments have responded by funding technology extension services to help small and medium enterprises upgrade themselves (see Chapter 22).

Time Horizons

Short-term investing can accomplish many important economic tasks, but some of the most crucial investments must be long term. And there is nothing in capitalism guaranteeing that capitalists will have sufficiently long time horizons.⁶ But without long-term investments, whose payoff may not come for years or even decades, businesses often won't develop the next generation of technology, instead sticking with variations on what already exists. Companies with short time horizons will cede market after market to rivals with longer time horizons. Entire industries can be outcompeted by foreign rivals with time horizons artificially lengthened by their home country's industrial policies.

Short-term thinking may be economically rational for the firms engaging in it, and even more so for managers compensated for short-term results. But society, as opposed to any one firm, goes on forever, so it has good reason to prefer long time horizons. Thus, governments try to lengthen firms' time horizons with tools such as low-cost, "patient" capital (see Chapter 3). This capital is often generated by the many, often hidden, policies used to force or incentivize people and firms to save more. Governments also offer tax credits for, and incentivize banks to lend preferentially to, projects expected to have long-term payoffs for the economy as a whole, and directly fund high-risk technological research whose potential payoff is too far in the future to interest private firms.

Systemic Effects

Systemic effects are aspects of the economy that are not optimizable at the level of individual actors like people and firms. Most things *are* optimizable at this level, which is why market economies work in the first place. But a market economy, by definition, is *not* centrally planned, so it will have a hard time achieving outcomes that don't emerge naturally from the actions of its individual profit-seeking players. Even if every player does what's best for itself, the result will not always be optimal for the economy as a whole.

For example, "quality of demand" refers to the fact that companies selling anything from jewelry to jet engines to exceptionally sophisticated customers will be driven by their demands to excel.⁷ Competitive pressure to respond to these demands will drive them to *upgrade* their capabilities, since they can no longer maximize profits by standing pat. But no individual customer will see a financial reward commensurate with the benefits that the quality of their demand confers on the whole economy. As a result, markets alone will not always induce an optimal quality of demand. Therefore, governments have deliberately pushed their nation's industries to upgrade more aggressively than immediate profitability would have caused (see Chapter 6). Quality of supply has an analogous logic.

Another systemic issue concerns the benefits of geographical clusters of related firms such as Silicon Valley, which are often extraordinarily successful. Once a cluster exists, the market will automatically prompt firms to locate in it. However, it is very hard for an individual firm, unless it is extremely large, to create a cluster on its own. The *coordination problem* is usually not solvable by a single firm. Therefore, governments try to create and nurture clusters (see Chapters 29 and 30).

Market Shortcomings: Fundamental Innovations

Per capita economic growth requires that an economy produce more goods and services on Tuesday than it did on Monday because something changed that made its workers more productive.⁸ Adding capital investment is the obvious candidate, but how should the money be invested? Simply buying every mechanic in a factory a second wrench won't make that factory more productive.⁹ The mechanics need something they *don't* already have, something that will enable them to produce more output with the same amount of labor: a *better* wrench, or perhaps some automation. In other words, technology.

Technological advance in developing nations can mean adoption of technologies already existing elsewhere. But in developed nations that already use existing technologies to their full potential, new technologies must be created.¹⁰ In these economies, *innovation* is required for productivity growth.¹¹

Unfortunately, free-market economics, despite its enthusiastic rhetoric about innovation, has a very incomplete explanation for why and how technology advances. It is on reasonably solid ground explaining incremental advances by the private sector. The market will pay to develop technologies that are readily monetizable. But many technologies must pass through long stages of risky and expensive development before they earn a profit. Because the market can't optimize their creation, it has not, in recent decades, produced many of the most economically important technologies. Since World War II, the great majority have originated elsewhere: in government labs, especially military ones, in publicly supported nonprofits such as universities, and in government-sanctioned monopolies such as AT&T. The internet, for example, was created to enable government scientists to share data, not to make money. Jet engines were first developed for the Air Force (see Chapters 19 and 26).

Market Shortcoming: Static versus Dynamic Efficiency

With respect to economic growth, each nation faces not one question but two:

1. What is the most productive thing to do today, given the current state of its productive resources?
2. How can it transition to better productive resources tomorrow?

Markets are generally good at achieving the former, so-called static efficiency. But they are less good at the latter, "dynamic" efficiency. This is clearest in developing nations: Growth is about turning Burkina Faso into South Korea, not about being the most efficient possible Burkina Faso forever. But it is also true for developed nations.

Why? Because static and dynamic efficiency are not only different, but can conflict. It can sometimes be rational to do things that are *inefficient* in the short run because there is a long-run payoff. For example, a nation can protect infant industries – forcing its consumers to buy more expensive domestically produced goods for a time – to get lucrative new industries started. This difficult but fruitful trade-off between static and dynamic efficiency is central to many aspects of industrial policy.

Market Shortcoming: Increasing Returns

Increasing returns mean that when a firm spends more money on inputs, the value of its outputs goes up even faster. For example, if baking a loaf of bread requires a \$1,000 oven and \$1 worth of dough, then baking one loaf will cost \$1,001 per loaf. But if one bakes two loaves, the cost will be

\$501 per loaf – and if one bakes enough loaves, it will eventually get close to \$1. Because the cost per loaf continually falls, the value of additional bread obtained for each additional dollar continually rises.

In industries where increasing returns are present, the market will not be completely free. This is clearest in the extreme case, increasing returns that go on forever, costs dropping ad infinitum with each additional unit. (A search engine like Google is probably the closest thing to this in the real world.)¹² The most efficient outcome is one producer for the entire world, because two producers would each produce half as much and therefore have higher costs. An initially free market will tend to deliver this one-producer outcome because whichever producer has slightly higher volume will have slightly lower costs per unit, be more competitive, gain volume at the expense of its rivals, lower its costs more, and inexorably drive them out of business. But then the free market will come to an end, because there will be a monopoly. Any new firm entering the industry, unless it can do so with the same production volume as the incumbent, will not be competitive, so the monopoly will persist.

Most increasing returns are not this extreme, but the more they are present in an industry, the less free the market will be. There will be “imperfect” competition: not one single producer but only a few, so that each firm will be big enough for its actions to affect the entire market. In other words, an *oligopoly*. Increasing returns tend to make the industries in which they occur oligopolistic – a fact with great significance for industrial policy, as we will see in the next section.

Advantageous Economic Activities

Increasing returns are the first of a set of characteristics of what this book will refer to as “advantageous” economic activities.¹³ These characteristics tend to coincide, reinforce each other, and build up *cumulative causation* (when something happens because multiple causes build up over time). To wit:

- Increasing returns
- Pricing power
- Technological dynamism
- Dynamic rent-seeking
- Synergies

Economic activities with these characteristics tend to produce dynamic efficiency, causing an economy to repeatedly gain in productivity and thus grow. The more a nation's economy consists of such activities, the more prosperous it will be today and the better its growth prospects will be for tomorrow. *Industrial policy, at root, is about increasing the quantity of such activities in an economy.*

Pricing power occurs whenever a firm can choose to charge more and sell less, or charge less and sell more – as opposed to just having to accept the market price. The latter happens when there are many small competitors: Each will be able to sell at will at the market price, but not at all if it charges a penny more. Pricing power requires that some factor be present that reduces competition, so pricing power tends to accompany increasing returns.

Pricing power means that sellers get a higher price. It can come from being the only coffee shop on the block, but the kind relevant to industrial policy comes from producing *things that are hard to produce*, such as jet engines or smartphones. When only a small number of highly skilled firms can produce a product, an oligopoly will develop – whose members will have pricing power. In fact, whenever know-how is the major production cost, there will necessarily be increasing returns, because once that know-how has been paid for, each additional unit of product amortizes its cost over more output.

Technological dynamism: “Hard to produce” usually means sophisticated technology. But what was once cutting-edge usually becomes commonplace and easy to produce over time. So, what producers want is ongoing technological change, so that they can stay forever near the leading edge, employing the difficult, relatively new technology that confers pricing power.

One way to accomplish this is to produce the technological change oneself. Enter R&D. Pursuing profits in this way is called “**dynamic rent-seeking**.” (The term “rent,” in the peculiar usage of economics, means profits exceeding what a free market would grant.) Dynamic rent-seeking is based on continually innovating and upgrading to keep earning the rent. Its opposite is static rent-seeking, which means seeking some privilege, such as a legal monopoly, that enables charging a premium without doing anything productive to earn it. Static rent-seeking does an economy no good, but dynamic rent-seeking increases productivity and thus produces growth.

Synergies: Some economic activities, when they first emerge or later improve their productivity, enable other activities to emerge or improve *their* productivity. For example, cheap mass-produced steel, whose first major market was railroad rails, made skyscrapers possible. Vacuum tube production originally flowered to build radios, then enabled televisions. Computer chips were invented when computers were room-sized, but eventually became sufficiently small, powerful, and cheap to enable smartphones. Smartphones, in turn, enabled ride-hailing services. Jet engines developed for military aircraft enabled passenger jets, mass tourism, and ultimately Disney World.

When synergies are present, advances in one part of the economy tend to push forward other parts. This is important for long-term growth because there is a limit to how much any one industry can grow, simply because there is a limit to how much of any one product consumers want. When are synergies absent?

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Consider single-export economies, producing, say, bananas or petroleum. A nation may be poor if it produces only bananas, or rich if it produces only petroleum, but either way, market forces alone are unlikely to set it on a path to producing anything else.

Advantageous Industries Produce Growth

Advantageous economic activities are *activities*, not industries, but all economic activities take place in industries. Some industries are “tightly packaged” – that is, one must perform all their activities to perform any. Others are loosely packaged: Some activities can be delegated to other firms, or geographically scattered so a country can host some but not others.

Advantageous industries tend to have six key characteristics:

1. High income elasticity of demand
2. Susceptibility to repeated improvement
3. Competition *not* on pure price
4. Capacity to absorb investment
5. Path dependence
6. Human capital accumulation

Advantageous industries generally produce products for which **income elasticity of demand** is high. For example, people spend significantly more money on cars as their incomes go up, but only a little more on milk. Therefore demand for products like cars can rise with the overall income growth of an economy. As a result, productivity gains in making such products do not just drive down their price, as output can rise along with those gains. Productivity gains are thus shared between producers, in the form of higher profits and wages, and consumers, in the form of lower prices. Contrarily, with products of relatively inelastic demand, such as commodity foodstuffs, productivity gains usually go mostly to consumers, not producers.¹⁴

Advantageous industries tend to produce goods **susceptible to repeated improvement**, like computers or airplanes, while disadvantageous industries produce goods whose character is basically fixed, like fruit or T-shirts. When a product exhibits meaningful variety, producers can establish mini-oligopolies in specific niches, enabling dynamic rent-seeking. Product variety also increases opportunities for innovation, both because inventing new varieties is itself an innovation, and because innovation can now advance on multiple fronts.

Advantageous industries tend **not to compete on pure price**. (Price is obviously a factor with anything sold for money, but it is *relatively* less important here.) They compete instead on quality, technology, reliability, reputation,

marketing, service, variety, style, rapid innovation, understanding of buyer needs, vendor financing, managerial sophistication, and customer relationships.¹⁵ Importantly, these forms of competition make cheap foreign labor much less relevant, allowing advantageous traded industries to maintain their workers' incomes despite foreign competition.

Advantageous industries tend to have a high **capacity to absorb investment**. Buying another \$1,000,000 worth of tractors for a coffee plantation that already has them won't increase its productivity very much. But a television factory will likely be able to repay investment in better machinery with higher productivity. Even better, advantageous industries tend to activate a virtuous cycle in which innovation absorbs capital and repays it by raising profitability, generating more capital and repeating the cycle. Economy-wide growth often involves a multi-industry virtuous cycle, in which the upgrading of one industry causes others to upgrade and so on.

Advantageous industries tend to exhibit **path dependence**. That is, having advantageous industries makes it easier for a nation to acquire other advantageous industries.¹⁶ For example, nations that produced radios were better equipped to produce televisions. As a result, economic growth is path dependent: What nations can produce tomorrow largely depends on what they produce today. This is why much industrial policy, historically, has centered on policies, from infant-industry protection to cash subsidies, designed to break into industries expected to lead somewhere. Historically, this usually meant getting out of agriculture and raw materials and into manufacturing (especially of products sophisticated at the time), although a *small* segment of advanced service industries has been entering the advantageous category since the late 1970s.

Advantageous industries tend to experience **human capital accumulation**, because they use technology their workers must have training to operate. This creates a premium on a skilled, not just cheap, workforce. Human capital embodied in the workers themselves encourages better treatment of labor, for the same reason factory owners do not let valuable machinery rust away. Advantageous industries thus make at least *possible* the "countervailing powers," such as the bargaining power of unions, that spread the profits of industry beyond its owners. (Such leverage is not guaranteed, but workers can't bargain for a share of profits that aren't there.) Rising worker incomes also provide the purchasing power to sustain growth, and as incomes rise, consumers generally demand better products, driving the industries of the nation – which will depend at least in part upon domestic demand – to upgrade.

Advantageous versus disadvantageous is not binary, but a sliding scale from very advantageous to very disadvantageous, with most industries falling somewhere in between. It is also not guaranteed that any given advantageous

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industry will have all six listed qualities. But these qualities are interlinked, mutually dependent, and tend to appear as a package. For example, technological advance is linked to expanding production because it is much easier to invest in new technology when one is adding new machinery to expand production. And expanding production is linked to elastic demand, or else nobody would buy the output.

Note, finally, that our treatment here is highly abstract and elides many industry-specific details. Exceptions will not be hard to find. But it is certainly true enough of the time to be a useful guide to policy.

The ideas of increasing returns and oligopoly industries have been around for a long time. But mainstream economics does not generally follow the train of thought just discussed, largely because its logic interferes with the idea of general equilibrium, the keystone of the notion that free markets are best.¹⁷ This is because in the presence of increasing returns, there is not one possible equilibrium but many, depending on contingent events.

The main academic home of these concepts is thus not economics departments but business schools. For example, here is Michael Porter of Harvard Business School, who refers to our “advantageous” industries as “structurally attractive”:

[I]ndustries important to a high standard of living are often those that are structurally attractive. Structurally attractive industries, with sustainable entry barriers in such areas as technology, specialized skills, channel access, and brand reputation, often involve high labor productivity and will earn more attractive returns to capital. Standard of living will depend importantly on the capacity of a nation's firms to successfully penetrate structurally attractive industries.¹⁸

Disadvantageous Industries

In *disadvantageous* industries, some or all of the positive dynamics just explained are absent – or worse, run in reverse. Such industries not only tend to have low wages and profits today, but also tend not to lead to better industries tomorrow. For centuries, “disadvantageous” has meant commodity agriculture, natural-resource extraction, and services such as domestic servants and retail. And since the late 1960s, low-skilled manufacturing has been inexorably joining this category.

Agriculture and natural resources generally exhibit diminishing, not increasing, returns, as once the best land and most accessible resource deposits have been exploited, increasing production means turning to inferior land and

deposits.¹⁹ Such industries rarely have pricing power, as they generally produce undifferentiated commodities. (Commodity booms come but they also go.) Because price and income elasticity of demand for their products are low, productivity growth tends to flow to consumers as lower prices, rather than to producers as profits and wages. American farmers, for example, use advanced technologies ranging from genetically engineered seeds to satellite positioning systems for their tractors, but struggle to stay solvent.²⁰

Industries such as retail and restaurants have less scope for productivity improvement than manufacturing. A 1950s diner is not that different from one today, while a 1950s auto assembly line would be totally uncompetitive. Technological innovations in disadvantageous industries tend to come from *other* industries: Farmers themselves don't invent satellite-navigating tractors or genetically engineered corn. As a result, innovations tend to increase the productivity of all producers at once, driving down the price of the product: The producer of the innovation, not its end user, earns the premium. Agricultural prices also tend to be volatile: Soybean or banana prices can vary by 50 percent from year to year, but not car prices.

Disadvantageous industries generally lack synergies. When the Santa Clara Valley in California (better known today as Silicon Valley) specialized in plum production before World War II, this brought about a prune industry and fruit canning, but little more. When it became a center for aerospace and defense electronics, this led to transistors, then integrated circuits, then computer hardware, computer software, and, contemporaneously, a venture capital industry feeding on and nurturing these industries and others. Their output is worth many, many times what the region's fruit production once was.

The presence of advantageous industries in an economy generally improves wages in even that economy's disadvantageous industries. For example, growth of manufacturing in a developing nation raises the incomes of farm workers by tightening the labor supply. Rising manufacturing wages generate higher prices for farm goods that must be consumed locally because of transport costs and perishability. Advantageous industries can also set a "wage floor," preventing the unemployed from crowding into disadvantageous industries and dragging down productivity due to these industries' diminishing returns.²¹

Underdeveloped nations are poor because their economies are predominantly composed of disadvantageous industries and they can't find a way out of them. Developed nations are not wealthier because they engage in the same economic activities as developing nations, only with greater productivity. They engage in fundamentally different activities because they host fundamentally different industries. Commodity agriculture, for example, exists in developed nations, but is a small percentage of GDP and employment.

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Nations that used to be poor and agricultural, such as South Korea in 1960, didn't become rich by finding ways to produce rice and fish (South Korea's main industries then) with 20 times the productivity. They used proactive industrial policies to break into industries, like steel and cars, where 20 times the per-worker productivity of a small-scale fisherman or peasant farmer is the norm.

Note, finally, that having a lot of advantageous industries is not the same thing as merely being *rich*, as small-population states with large natural resources, such as Argentina in 1900 (beef; see Chapter 12) or Kuwait in 1980 (oil), can have high per capita incomes. But the resource-based model doesn't scale. There has never been a large nation that was rich purely on the strength of natural resources because no nation has ever had enough resources. As Chinese economist Justin Yifu Lin, the World Bank's former chief economist, puts it, "except for a few oil-exporting countries, no countries have ever gotten rich without industrialization first."²² But advantageous industries, on the other hand, can scale. And when their ability to scale is exhausted and their products commoditized, they lead to new industries and scaling can begin anew.



< ALL COMMENTARY

SATURDAY, NOVEMBER 23, 2024

LEER EN ESPAÑOL



Image Credit: Alexa - Pixabay

ECONOMICS FREE TRADE RENT-SEEKING TARIFFS TRADE WASTE

THE MANY HIDDEN COSTS OF TARIFFS



BENJAMIN SEEVERS



rhetoric embraced by President-elect Donald Trump has changed; in fact, the **evidence** suggests that tariff policy will worsen. Given this climate, it is important for economists to make the case for free trade.

Of course, tariffs **raise** the price of tariffed goods and benefit domestic manufacturers at the expense of domestic consumers and foreign producers. These drawbacks are well known. However, there are also some less well known effects of trade restrictions.

For example, Gordon Tullock, in his 1967 paper “**The Welfare Costs of Tariffs, Monopolies, and Theft**,” lists a number of costs that are not typically considered.

Tullock states, “Collection of a tariff involves expenditure on customs inspectors, etc., who do the actual collection and coast guards who prevent smuggling.” Essentially, the government spends money on stopping tariff dodgers. If the government did not have a tariff policy, then this money could have remained in the hands of private actors.

If the government spends money on preventing tariff dodging, then it follows that people will try to get around these barriers. Tullock continues, “Further, customs brokers are normally hired by the shipper to expedite the movement of their goods through customs.” This could take a variety of forms. Importers may expend resources on smuggling, or they might hire a lawyer or a lobbyist to help get around these barriers legally.

Additionally, the revenue from tariffs may be wasted. Tullock states:

Suppose further that the revenues raised by this tax are completely wasted, building tunnels, for example, which go nowhere...The people buying the product pay more than the cost, but no one benefits from the expenditure. The funds are not transferred because no one benefits from the existence of the tax. The whole economy is poorer...by the whole amount of wasted resources.

despite the undesirability of taxes. Whatever the tariff revenue goes towards, however, will likely involve some level of waste. Perhaps a significant level. If the tariff revenue was not extracted in the first place, then the funds would have stayed in the private sector where they would have likely been utilized **more efficiently**.

There are also costs associated with lobbying, as Tullock points out. Domestic manufacturers gain monopolistic advantages associated with import tariffs, so they are willing to pay some price for that advantage. This price tends to come in the form of lobbying expenditures—a practice known as *rent-seeking*. Again, these expenditures would not exist if not for tariffs.

The domestic steel industry has historically supported tariffs on foreign steel through lobbying. As OpenSecrets **reports**, “During the first part of the 2000s, the industry strongly pushed—with some success—trade policies that were decried by critics as protectionist, including a tariff on imports.” In the absence of tariffs, lobbying spending would be much lower, and domestic manufacturers would spend on more productive enterprises rather than trying to obtain monopolistic advantages.

As demonstrated by Tullock, the costs of tariffs are greater than typically understood. In addition to compromising the global division of labor, they also lead to waste in a number of other ways, as outlined above. To create a strong and healthy economy, it is paramount that Trump cease imposing new tariffs, and if he is willing, revoke those that have already been enacted.

Additional Reading:

The Welfare Costs of Tariffs, Monopolies, and Theft by Gordon Tullock

Why Government Spending Is Bad for the Economy by Patrick Carroll

Rent-Seeking: A Primer by Sandy Ikeda

Who's "Protected" by Tariffs?

1

A mere recital of the economic policies of governments all over the world is calculated to cause any serious student of economics to throw up his hands in despair. What possible point can there be, he is likely to ask, in discussing refinements and advances in economic theory, when popular thought and the actual policies of governments, certainly in everything connected with international relations, have not yet caught up with Adam Smith? For present-day tariff and trade policies are not only as bad as those in the seventeenth and eighteenth centuries, but incomparably worse. The real reasons for those tariffs and other trade barriers are the same, and the pretended reasons are also the same.

In the century and three-quarters since *The Wealth of Nations* appeared, the case for free trade has been stated thousands of times, but perhaps never with more direct simplicity and force than it was stated in that volume. In general Smith rested his case on one fundamental proposition: "In every country it always is and must be the interest of the great body of the people to buy whatever they want of those who sell it cheapest." "The proposition is so very manifest," Smith continued, "that it seems ridiculous to take any pains to prove it; nor could it ever have been called in question, had not the interested

sophistry of merchants and manufacturers confounded the common-sense of mankind.”

From another point of view, free trade was considered as one aspect of the specialization of labor:

It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The tailor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own clothes, but employs a tailor. The farmer attempts to make neither the one nor the other, but employs those different artificers. All of them find it for their interest to employ their whole industry in a way in which they have some advantage over their neighbors, and to purchase with a part of its produce, or what is the same thing, with the price of a part of it, whatever else they have occasion for. What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom.

But whatever led people to suppose that what was prudence in the conduct of every private family *could* be folly in that of a great kingdom? It was a whole network of fallacies, out of which mankind has still been unable to cut its way. And the chief of them was the central fallacy with which this book is concerned. It was that of considering merely the immediate effects of a tariff on special groups, and neglecting to consider its long-run effects on the whole community.

2

An American manufacturer of woolen sweaters goes to Congress or to the State Department and tells the committee or officials concerned that it would be a national disaster for them to remove or reduce the tariff on British sweaters. He now sells his sweaters for \$15 each, but English manufacturers could sell here sweaters of the same quality for \$10. A duty of \$5, therefore, is needed to keep him

in business. He is not thinking of himself, of course, but of the thousand men and women he employs, and of the people to whom their spending in turn gives employment. Throw them out of work, and you create unemployment and a fall in purchasing power, which would spread in ever-widening circles. And if he can prove that he really would be forced out of business if the tariff were removed or reduced, his argument against that action is regarded by Congress as conclusive.

But the fallacy comes from looking merely at this manufacturer and his employees, or merely at the American sweater industry. It comes from noticing only the results that are immediately seen, and neglecting the results that are not seen because they are prevented from coming into existence.

The lobbyists for tariff protection are continually putting forward arguments that are not factually correct. But let us assume that the facts in this case are precisely as the sweater manufacturer has stated them. Let us assume that a tariff of \$5 a sweater is necessary for him to stay in business and provide employment at sweater making for his workers.

We have deliberately chosen the most unfavorable example of any for the removal of a tariff. We have not taken an argument for the imposition of a new tariff in order to bring a new industry into existence, but an argument for the retention of a tariff *that has already brought an industry into existence*, and cannot be repealed without hurting somebody.

The tariff is repealed; the manufacturer goes out of business; a thousand workers are laid off; the particular tradesmen whom they patronized are hurt. This is the immediate result that is seen. But there are also results which, while much more difficult to trace, are no less immediate and no less real. For now sweaters that formerly cost \$15 apiece can be bought for \$10. Consumers can now buy the same quality of sweater for less money, or a much better one for the same money. If they buy the same quality of sweater, they not only get the sweater, but they have \$5 left over, which they would not have had under the previous conditions, to buy something else. With the \$10

that they pay for the imported sweater they help employment—as the American manufacturer no doubt predicted—in the sweater industry in England. With the \$5 left over they help employment in any number of other industries in the United States.

But the results do not end there. By buying English sweaters they furnish the English with dollars to buy American goods here. This, in fact (if I may here disregard such complications as multilateral exchange, loans, credits, gold movements, etc. which do not alter the end result) is the only way in which the British can eventually make use of these dollars. Because we have permitted the British to sell more to us, they are now able to buy more from us. They are, in fact, eventually *forced* to buy more from us if their dollar balances are not to remain perpetually unused. So, as a result of letting in more British goods, we must export more American goods. And though fewer people are now employed in the American sweater industry, more people are employed—and much more efficiently employed—in, say, the American automobile or washing-machine business. American employment on net balance has not gone down, but American and British production on net balance has gone up. Labor in each country is more fully employed in doing just those things that it does best, instead of being forced to do things that it does inefficiently or badly. Consumers in both countries are better off. They are able to buy what they want where they can get it cheapest. American consumers are better provided with sweaters, and British consumers are better provided with motor cars and washing machines.

3

Now let us look at the matter the other way round, and see the effect of imposing a tariff in the first place. Suppose that there had been no tariff on foreign knit goods, that Americans were accustomed to buying foreign sweaters without duty, and that the argument were then put forward that we could *bring a sweater industry into existence* by imposing a duty of \$5 on sweaters.

There would be nothing logically wrong with this argument so far as it went. The cost of British sweaters to the American consumer

might thereby be forced so high that American manufacturers would find it profitable to enter the sweater business. But American consumers would be forced to subsidize this industry. On every American sweater they bought they would be forced in effect to pay a tax of \$5 which would be collected from them in a higher price by the new sweater industry.

Americans would be employed in a sweater industry who had not previously been employed in a sweater industry. That much is true. But there would be no net addition to the country's industry or the country's employment. Because the American consumer had to pay \$5 more for the same quality of sweater he would have just that much less left over to buy anything else. He would have to reduce his expenditures by \$5 somewhere else. In order that one industry might grow or come into existence, a hundred other industries would have to shrink. In order that 20,000 persons might be employed in a sweater industry, 20,000 fewer persons would be employed elsewhere.

But the new industry would be *visible*. The number of its employees, the capital invested in it, the market value of its product in terms of dollars, could be easily counted. The neighbors could see the sweater workers going to and from the factory every day. The results would be palpable and direct. But the shrinkage of a hundred other industries, the loss of 20,000 other jobs somewhere else, would not be so easily noticed. It would be impossible for even the cleverest statistician to know precisely what the incidence of the loss of other jobs had been—precisely how many men and women had been laid off from each particular industry, precisely how much business each particular industry had lost—because consumers had to pay more for their sweaters. For a loss spread among all the other productive activities of the country would be comparatively minute for each. It would be impossible for anyone to know precisely how each consumer *would* have spent his extra \$5 if he had been allowed to retain it. The overwhelming majority of the people, therefore, would probably suffer from the optical illusion that the new industry had cost us nothing.

4

It is important to notice that the new tariff on sweaters would not raise American wages. To be sure, it would enable Americans to work *in the sweater industry* at approximately the average level of American wages (for workers of their skill), instead of having to compete in that industry at the British level of wages. But there would be no increase of American wages *in general* as a result of the duty; for, as we have seen, there would be no net increase in the number of jobs provided, no net increase in the demand for goods, and no increase in labor productivity. Labor productivity would, in fact, be *reduced* as a result of the tariff.

And this brings us to the real effect of a tariff wall. It is not merely that all its visible gains are offset by less obvious but no less real losses. It results, in fact, in a net loss to the country. For contrary to centuries of interested propaganda and disinterested confusion, the tariff *reduces* the American level of wages.

Let us observe more clearly how it does this. We have seen that the added amount which consumers pay for a tariff-protected article leaves them just that much less with which to buy all other articles. There is here no net gain to industry as a whole. But as a result of the artificial barrier erected against foreign goods, American labor, capital and land are deflected from what they can do more efficiently to what they do less efficiently. Therefore, as a result of the tariff wall, the average productivity of American labor and capital is reduced.

If we look at it now from the consumer's point of view, we find that he can buy less with his money. Because he has to pay more for sweaters and other protected goods, he can buy less of everything else. The general purchasing power of his income has therefore been reduced. Whether the net effect of the tariff is to lower money wages or to raise money prices will depend upon the monetary policies that are followed. But what is clear is that the tariff—though it may increase wages above what they would have been in *the protected industries*—must on net balance, when *all* occupations are considered, *reduce real wages*.

Only minds corrupted by generations of misleading propaganda can regard this conclusion as paradoxical. What other result could we expect from a policy of deliberately using our resources of capital and manpower in less efficient ways than we know how to use them? What other result could we expect from deliberately erecting artificial obstacles to trade and transportation?

For the erection of tariff walls has the same effect as the erection of real walls. It is significant that the protectionists habitually use the language of warfare. They talk of "repelling an invasion" of foreign products. And the means they suggest in the fiscal field are like those of the battlefield. The tariff barriers that are put up to repel this invasion are like the tank traps, trenches, and barbed-wire entanglements created to repel or slow down attempted invasion by a foreign army.

And just as the foreign army is compelled to employ more expensive means to surmount those obstacles—bigger tanks, mine detectors, engineer corps to cut wires, ford streams, and build bridges—so more expensive and efficient transportation means must be developed to surmount tariff obstacles. On the one hand, we try to reduce the cost of transportation between England and America, or Canada and the United States, by developing faster and more efficient ships, better roads and bridges, better locomotives and motor trucks. On the other hand, we offset this investment in efficient transportation by a tariff that makes it commercially even more difficult to transport goods than it was before. We make it \$1 cheaper to ship the sweaters, and then increase the tariff by \$2 to prevent the sweaters from being shipped. By reducing the freight that can be profitably carried, we reduce the value of the investment in transport efficiency.

5

The tariff has been described as a means of benefiting the producer at the expense of the consumer. In a sense this is correct. Those who favor it think only of the interests of the producers immediately benefited by the particular duties involved. They forget the interests of the consumers who are immediately injured by being forced to pay these duties. But it is wrong to think of the tariff issue as if it represented a

conflict between the interests of producers as a unit against those of consumers as a unit. It is true that the tariff hurts all consumers as such. It is not true that it benefits all producers as such. On the contrary, as we have just seen, it helps the protected producers at the expense of all other American producers, *and particularly of those who have a comparatively large potential export market.*

We can perhaps make this last point clearer by an exaggerated example. Suppose we make our tariff wall so high that it becomes absolutely prohibitive, and no imports come in from the outside world at all. Suppose, as a result of this, that the price of sweaters in America goes up only \$5. Then American consumers, because they have to pay \$5 more for a sweater, will spend on the average five cents less in each of a hundred other American industries. (The figures are chosen merely to illustrate a principle: there will, of course, be no such symmetrical distribution of the loss; moreover, the sweater industry itself will doubtless be hurt because of protection of still *other* industries. But these complications may be put aside for the moment.)

Now because foreign industries will find their market in America *totally* cut off, they will get no dollar exchange, and therefore they will be *unable to buy any American goods at all.* As a result of this, American industries will suffer in direct proportion to the percentage of their sales previously made abroad. Those that will be most injured, in the first instance, will be such industries as raw cotton producers, copper producers, makers of sewing machines, agricultural machinery, typewriters and so on.

A higher tariff wall, which, however, is not prohibitive, will produce the same kind of results as this, but merely to a smaller degree.

The effect of a tariff, therefore, is to change the *structure* of American production. It changes the number of occupations, the kind of occupations, and the relative size of one industry as compared with another. It makes the industries in which we are comparatively inefficient larger, and the industries in which we are comparatively efficient smaller. Its net effect, therefore, is to reduce American efficiency, as well as to reduce efficiency in the countries with which we would otherwise have traded more largely.

In the long run, notwithstanding the mountains of argument pro and con, a tariff is irrelevant to the question of employment. (True, sudden *changes* in the tariff, either upward or downward, can create temporary unemployment, as they force corresponding changes in the structure of production. Such sudden changes can even cause a depression.) But a tariff is not irrelevant to the question of wages. In the long run it always reduces real wages, because it reduces efficiency, production and wealth.

Thus all the chief tariff fallacies stem from the central fallacy with which this book is concerned. They are the result of looking only at the immediate effects of a single tariff rate on one group of producers, and forgetting the long-run effects both on consumers as a whole and on all other producers.

(I hear some reader asking: "Why not solve this by giving tariff protection to *all* producers?" But the fallacy here is that this cannot help producers uniformly, and cannot help at all domestic producers who already "outsell" foreign producers: these efficient producers must necessarily suffer from the diversion of purchasing power brought about by the tariff.)

6

On the subject of the tariff we must keep in mind one final precaution. It is the same precaution that we found necessary in examining the effects of machinery. It is useless to deny that a tariff does benefit—or at least *can* benefit—*special interests*. True, it benefits them *at the expense of everyone else*. But it does benefit them. If one industry alone could get protection, while its owners and workers enjoyed the benefits of free trade in everything else they bought, that industry would benefit, even on net balance. As an attempt is made to *extend* the tariff blessings, however, even people in the protected industries, both as producers and consumers, begin to suffer from other people's protection, and may finally be worse off even on net balance than if neither they nor anybody else had protection.

But we should not deny, as enthusiastic free traders have so often done, the possibility of these tariff benefits to special groups. We

should not pretend, for example, that a reduction of the tariff would help everybody and hurt nobody. It is true that its reduction would help the country on net balance. But *somebody* would be hurt. Groups previously enjoying high protection would be hurt. That in fact is one reason why it is not good to bring such protected interests into existence in the first place. But clarity and candor of thinking compel us to see and acknowledge that some industries are right when they say that a removal of the tariff on their product would throw them out of business and throw their workers (at least temporarily) out of jobs. And if their workers have developed specialized skills, they may even suffer permanently, or until they have at long last learnt equal skills. In tracing the effects of tariffs, as in tracing the effects of machinery, we should endeavor to see *all* the chief effects, in both the short run and the long run, on *all* groups.

As a postscript to this chapter I should add that its argument is not directed against *all* tariffs, including duties collected mainly for revenue, or to keep alive industries needed for war; nor is it directed against all arguments for tariffs. It is merely directed against the fallacy that a tariff on net balance “provides employment,” “raises wages,” or “protects the American standard of living.” It does none of these things; and so far as wages and the standard of living are concerned, it does the precise opposite. But an examination of duties imposed for other purposes would carry us beyond our present subject.

Nor need we here examine the effect of import quotas, exchange controls, bilateralism, and other devices in reducing, diverting or preventing international trade. Such devices have, in general, the same effects as high or prohibitive tariffs, and often worse effects. They present more complicated issues, but their net results can be traced through the same kind of reasoning that we have just applied to tariff barriers.

The American Scholar Forum

THE COMING ECONOMIC WORLD PATTERN

Free Trade or State Domination?

Henry Hazlitt

Freedom of trade, in the eyes of Adam Smith and his nineteenth-century successors in the liberal tradition, meant freedom from government interference. All that the “classical” economists asked of governments in the field of international trade was that they should *permit it to occur*. They wanted a removal of prohibitions and of nearly all tariffs. But they did not ask for positive “encouragement” or artificial stimulants. They were as much opposed to bounties as they were to barriers.

What the older liberals meant by freedom, in short, was freedom of the individual citizen. They asked that he be free to sell his goods to whatever country and whatever market would pay him the best price for them. They asked that he be free to buy whatever he wanted wherever he could get it cheapest. They argued that these freedoms were not only good in themselves, but that they represented by far the best means to bring about the most efficient division of labor and to maximize world production and world consumption. All they asked of government was that it enforce the laws against

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fraud, force, and theft and that it refrain from debasing the currency.

The world barriers to international trade in the nineteen thirties, for which every large nation was in part responsible, but in the erection of which the totalitarian governments went to the greatest lengths, brought about such chaos that few responsible persons now undertake to defend them. High tariffs, import quotas, export subsidies, competitive currency depreciation, blocked currencies, bilateral arrangements, forced barter — all these are today deplored by lip in all respectable circles. The demand now is for International Cooperation.

I

But when the concrete proposals for this international cooperation are examined, it turns out to be something radically different from the international cooperation hoped for by the older liberals. It is not the freedom of the private citizens of any country to trade with the private citizens of any other. It is not primarily the cooperation among private citizens of different countries at all. It is primarily cooperation among governments. As in the thirties, it is governments that are going to take the matter in hand. But instead, as in the wicked thirties, of restricting trade and making economic war

The exigencies of time made it impossible for the two contributors to this number's Forum to read each other's papers before publication. Both contributors have been invited to reply by letter, for publication in the Spring issue.

upon each other, this time, we are told, the governments are going to direct and stimulate trade in the interests of peace.

It is a pleasant fantasy; but there are the gravest reasons for doubting that it will ever be realized. There are the strongest reasons, on the other hand, for fearing that this kind of intergovernmental cooperation will break down, and that when it does the resulting chaos in international trade and economic relations will be greater than ever.

For government officials, even when they really understand (which is very rarely) the basic economic forces that they are trying to control, are almost never disinterested. They are almost certain to reflect the special interests of some political pressure group. The interests of the pressure groups represented by the bureaucrats of one nation are certain to clash with those of the pressure groups represented by the bureaucrats of another. And these conflicting interests, precisely because they are represented by their respective governments, are far more likely to clash openly, directly and politically than in a world of genuine free trade.

But perhaps, before we come back to these larger issues, it would be well to examine in detail the leading proposals so far put forward for the postwar economic world.

The agreements reached by the experts at Bretton Woods seem to typify the intended shape of things to come. The proposed International Monetary Fund has as one of its ostensible purposes the promotion of "exchange stability." Now the way to secure exchange stability, as worked out before the first World War, was clear. A nation kept its own currency sound. It made it convertible on demand into a definite and fixed quantity of gold. To make sure that the promise to pay that fixed quantity of gold would be kept, it saw to it that there was not an excessive expansion of bank credit. It saw to it also that the central government did not issue such a volume of debt that its ability to maintain interest on that debt and to retire it would come into question. A nation saw to it that the government's bonds were sold to the public, so that they were paid for out of real savings and not merely out of the creation of additional bank credit.

If a government were to meet all these requirements it had to balance its budget, or at least make certain that its budget was not too long or too heavily out of balance.

When the public was confident, as a result of these conditions, that the promise of gold convertibility would be kept, a nation's currency in the foreign exchange market was stabilized (with comparatively minute fluctuations) in terms of this fixed gold value. The currencies of other countries were likewise fixed in terms of definite gold values. As each currency was held, by each country's own policy, to the value of a fixed quantity of gold, it followed that each gold currency was necessarily fixed in terms of every other. General exchange stability was preserved.

This was the international gold standard. It was a form of international cooperation worked out and perfected through the centuries. It reached its highest development in the latter part of the nineteenth century and in the present century before the first World War.

II

One will look in vain through the Articles of Agreement on the International Monetary Fund for any reference to balanced budgets, to limitations on internal credit expansion, or to any definite requirement for gold convertibility. How, then, does the Fund propose to maintain international currency stability? Instead of contemplating that each currency shall be separately anchored to gold, and that each nation shall be responsible for maintaining that link so far as its own currency is concerned, the Fund proposes that every currency be tied directly to every other. This is to be done by forcing the strong currencies automatically to support the weaker.

Suppose, to take a fictitious example, that the Ruritanian rurita has a par value of twenty cents in terms of American dollars. Suppose it has a sinking spell, or that everybody shows a sudden desire to get rid of ruritas and to acquire dollars instead. It becomes the duty of the Fund to supply these dollars, at least up to an amount stipulated in advance in the Articles of Agreement. The Fund must keep buying the

ruritas at twenty cents. It must do this regardless of whether the rurita is sinking because the Ruritians are buying more goods from the outside world than they have the exports or credit to pay for, or because Ruritania is having a revolution, or because it has a Fascist government that has just announced that it is expropriating the property of some minority group, or because it has a budget deficit brought about by a heavy armament program, or simply because it is grinding out too much paper money on its printing presses.

Now the real value of the rurita, left to the natural play of supply and demand, may be only two cents. Nevertheless, it must continue to be bought by the Fund at twenty cents. But if, as is most probable, it is being bought by dollars, this means that American taxpayers are buying two-cent ruritas for twenty cents, thereby immediately losing 90 per cent of their investment on each purchase, while they pay for Ruritania's luxury imports, her armament program or her Fascist experiment.

But does the International Monetary Fund, though it explicitly lists that objective among its purposes, even contemplate exchange stability? On the contrary, it clearly contemplates a great deal of exchange instability. It provides, first of all, that any nation may at any time devalue its currency 10 per cent. It is explicitly stipulated that "the Fund shall raise no objection." Any nation may propose a devaluation of its currency by another 10 per cent, and the Fund must either concur or object within seventy-two hours. The practical effect of this pressure for a quick answer will be to give the benefit of the doubt to the nation that wants to devalue. If a nation wishes to devalue its currency even further, it must consult the Fund. But if the Fund refuses its request the member can simply withdraw, without advance notice, if it prefers further devaluation to whatever additional automatic credit it might still be entitled to in the Fund.

But the most ominous provision of the Fund, from an inflationary standpoint, is that which permits it by a majority of the total voting power to make "uniform pro-

portionate changes in the par values of the currencies of all members." Each such change must be approved also by every member that has 10 per cent or more of the total of the quotas. It is true that an individual member of the Fund, if it decides within seventy-two hours, may be allowed to keep the par value of its currency unchanged; but as devaluation of all other currencies would be certain to cause a prompt drop of commodity prices within a non-devaluing nation, all nations would be virtually forced to participate in the devaluation.

Now this provision of the Fund is a provision for periodic world inflation. The historic instances in which the par value of the monetary unit has been increased are so rare as to be negligible. The practical political pressures are always in the other direction. So we are safe in assuming that the "uniform proportionate changes" referred to by the Fund mean uniform proportionate *devaluations*. Devaluation is the modern euphemism for debasement of the coinage. It always means repudiation. It means that the promise to pay a certain definite weight of gold has been broken, and that the devaluing government, for its bonds or currency notes, will pay a smaller weight of gold.

III

When a nation devalues by acting alone, all this is plain enough. Foreigners who hold bank deposits in that nation, or exchange bills drawn on that nation, or any obligation of that nation stated in terms of its own currency, know that they have been cheated. The value of their claims in terms of their own currency immediately drops by the percentage of the devaluation. They will be paid only 90 or 80 or 50 cents on the dollar. All this makes devaluation morally embarrassing to the devaluing nation.

There are other embarrassing effects. Devaluation seldom comes out of a clear sky. It follows an overexpansion of the government's debt or currency notes or an overexpansion of internal bank credit. Foreigners, reading these signs, begin to withdraw their deposits. The nation's own citizens, seeking to protect their own position, begin to transfer their deposits to other countries that look

safer. This is called the flight of capital. The politicians in power, and economic writers who reflect their point of view, seek to put the blame, not on the government that has made its credit and intentions questionable, but on the creditors who question them. They call the money of these creditors hot money — though it is, of course, merely money that is trying to leave hot places. In spite of this modern vocabulary, nations are still embarrassed by this flight of capital and this public evidence of distrust. Moreover, it is a blow to national pride and prestige for a nation's currency to sell at a discount in the foreign exchange markets.

It is obvious that a *uniform* depreciation of *all* currencies would either remove or conceal most of these embarrassing results to a single government. Though the dollar, say, would go to a discount of 25 or 50 per cent, the man in the street would hardly suspect it at first because all the external measuring rods would have shrunk in exact proportion. A hundred dollars would still be worth the same number of pounds, francs, marks, lire, rubles, and so on, as before, and vice versa, because they would be different pounds, francs, and rubles as well as dollars. Relative foreign exchange rates would remain unchanged. There would be no flight of capital, because every place to which it could go would be equally disadvantageous. The provision in the Fund for world inflation, in brief, is a provision to make resort to inflation easy, smooth, and above all respectable.

But the real harm that inflation would do would be no less under world-wide inflation than under national inflation. Commodity prices would rise. Everybody's cost of living would go up. Those who lived on pensions, either private or part of government social security systems, would find them buying less than before. The holders of government securities would find the real value of their securities greatly cut. All those with fixed incomes would find themselves subjected to an invisible but real and ungraduated income tax (in addition to the government's acknowledged graduated income tax). All those with savings accounts and insurance policies would find them cut by an invisible but real

and uniform capital levy. In short, private citizens, as before, would be cheated by their governments; but the government propaganda agencies would assure them that the latest inflation had merely ushered in a new paradise.

The proposed International Monetary Fund is bad from so many aspects that it is difficult to know in advance which danger will prove the most serious. By keeping up exchange rates by artificial means, buying currencies at par regardless of their real market value, and making devaluation easy and respectable, the way will be cleared for encouraging every government in power to follow the easy political path. It can continue to pay heavy subsidies to all sorts of pressure groups, to embark on public works and patronage on a grand scale, and to tax lightly, thus continuing chronic budget deficits and financing them by added debt.

But all this will not give us free exchange markets. The Fund Agreement does not say in so many words whether there will be a free foreign exchange market or not. But it provides for the continuance of controls during an indefinite "transition" period, and it encourages permanent controls over capital movements. To control international capital movements would in practice require supervision and policing of all exchange transactions. In practice, therefore, people could not buy or sell abroad, or travel, without going through a great maze of red tape to get permission from their government to do so. They would lose the power to dispose of their property as they wished, or to emigrate and take their money with them. Government power over the lives and actions of its citizens would be extended in yet further directions. Still more former freedoms would be abridged or circumscribed.

IV

Let us turn from the proposed International Monetary Fund to the proposed International Bank for Reconstruction and Development. Here at least is an institution in which, with proper safeguards, the possibilities for good might outweigh the possibilities for harm. The Bank, apart from its unnecessarily large subscribed capital

(\$9,100,000,000), is set up on a comparatively conservative basis. It is not to lend or guarantee loans for more than the full amount of its unimpaired subscribed capital, reserves and surplus. It is not to make loans on an automatic basis, like the Fund. It can exercise discretion. A project, for example, for which funds are being asked must be deemed meritorious by a committee selected by the Bank. The borrower must be "in position to meet its obligations."

Such a Bank, in the decade immediately following the war, could perform a useful service. In particular, it could make loans to stabilize their currency to those nations that show a genuine will and capacity to do so. Whether the proposed International Bank would provide a better medium for this purpose than the existing American Export-Import Bank is a question of practical judgment. The International Bank would have the advantage of symbolizing international cooperation. There would be psychological and political advantages in making individual nations responsible for payment of their debts to a Bank representing forty-five different nations rather than to a bank merely representing one. On the other hand, while the United States would supply the lion's share of the lendable funds of such a Bank, and probably assume an even greater share of the risks, and while most of the loans would doubtless be floated in this market, our government would have much less to say about the loans and the conditions attached to them than if it were making them alone. While it is true that the American representative on the Bank would be technically free to veto a proposed loan made in dollars in this market, it might be made very embarrassing for him to do this.

It is not necessary here to weigh the relative merits of the proposed International Bank and our existing Export-Import Bank as a medium for making international stabilization loans. But it is important to point out that there are only two sound reasons why governments, either individually or jointly, should engage at this time in the business of international lending at all. The first is the whole record of default and repudiation of foreign loans in the inter-war period. This

was brought about to some extent by real embarrassment on the part of debtors, but even more by the prevailing anti-foreign and anti-capitalistic ideology which regards the foreign lender, not as a man who takes risks and supplies essential aid, but as an "exploiter" who "throttles" the native economy. This record of default and repudiation has led to at least a temporary reluctance of private investors to make further foreign loans. The second reason why government intervention is now needed is that the terrific disruption brought about by war will make it extremely difficult for some nations to stabilize their currencies without outside help.

But whatever governmental institutions are used to make such loans should be temporary in nature. They should confine themselves to currency stabilization loans only. Where help is needed for humanitarian reasons it should be granted freely and generously, as a pure gift. The United Nations Relief and Rehabilitation Administration already exists for this purpose. Its scope may need to be expanded. But everything above this should be placed on a strictly business basis. It will never be placed on such a basis if it is managed by governments. Where loans are made by private groups, risking their own funds, they will be made, in the overwhelming main, where the risks seem smallest and the chance of profit greatest. Under these conditions world resources are likely to be utilized in the most efficient manner. But where loans are made by government officials who risk other people's funds and not their own, they are bound to be made primarily for political reasons and will often be wasteful from an economic point of view.

It is contemplated that the loans guaranteed by the proposed International Bank will be guaranteed first of all by some government. If the project for which the loan is made is located in Ruritania, for example, the Ruritanian government or central bank would have to guarantee the loan before the International Bank would do so. This would, of course, reduce the risk assumed by the International Bank. On the other hand, it would enable it to make loans only to proj-

ects that had home government support. The home government, by this power to give or refuse guarantees, would exercise a great influence on the development and direction of home industry. It would be in a stronger position than otherwise to grant or withhold political favors. It is important to keep in mind that a government would be less likely to think of the broad economic effects of such loans than of their effects in increasing the potential armament program or the economic self-sufficiency of their country in time of war. These considerations, however, would not be the same as those that would lead to the most efficient utilization of world resources. Quite the contrary.

V

I have dwelt at length upon the proposed International Fund and Bank because these are specific proposals that have already been presented in detail. Space unfortunately does not permit an adequate analysis of the proposals for international commodity controls in the postwar period. At the moment of writing only one of these — the Anglo-American oil agreement — has reached the stage of presentation to the public. But indications from many sides have already made it clear that what is being contemplated is a revival and extension on a far greater scale of the type of international commodity controls of the thirties. This seems likely to apply, if the planners have their way, to cotton, wheat, sugar, coffee, tin, beef, tea, rubber, wool, copper, nitrates, cocoa, and quinine. Controls for some of these existed before the war. Many of these peacetime controls have merely been allowed to remain dormant.

The chief controls have proved disastrous failures. Almost invariably they follow the same general pattern. Ostensibly the effort always is merely to "stabilize" the price of the commodity. But in every instance (except in one or two where a temporary control has been imposed by some single powerful governmental buyer) the interests of the producers have been put first. The result in every such instance is that the price is fixed above the level that market conditions justify. To compensate for this, a

proportional restriction of output is usually placed on each producer subject to the control. This has several immediately bad effects. It means that total world production is cut. The world's consumers are able to enjoy less of that product than they would have enjoyed without restriction. The world is just that much poorer. Consumers are forced to pay higher prices than otherwise for that product. They have just that much less to spend on other products.

A uniform proportional restriction means, on the one hand, that the efficient low-cost producers are not permitted to turn out all of the output that they can at a low price. It means, on the other hand, that the inefficient high-cost producers are artificially kept in business. This increases the average cost of producing the product. It is being produced less efficiently than otherwise. The inefficient marginal producer thus artificially kept in that line of production continues to tie up land, labor, and capital that could much more profitably and efficiently be devoted to other uses.

If this artificial restriction of output does not take place unsold surpluses of the overpriced commodity continue to pile up until the market for that product finally collapses to a far greater extent than if the control program had never been put into effect. Or producers outside the restriction program, stimulated by the artificial rise in price, expand their own production enormously. This is what happened to the British rubber restriction and the American cotton restriction programs. In either case the collapse of prices finally goes to catastrophic lengths that would never have been reached without the restriction scheme. The plan that started out so bravely to "stabilize" prices and conditions brings incomparably greater instability than the free forces of the market could possibly have brought.

Of course the international commodity controls after the war, we are told, are going to avoid all these errors. This time prices are going to be fixed that are "fair" not only for producers but for consumers. Producing and consuming nations are going to agree on just what these fair prices are, because no one will be unreasonable. Fixed prices will

necessarily involve "just" allotments and allocations for production and consumption as among nations, but only cynics will anticipate any unseemly international disputes regarding these. Finally, by the greatest miracle of all, this postwar world of super-international controls and coercions is also going to be a world of "free" international trade!

Just what the planners mean by free trade in this connection I am not sure, but we can be sure of some of the things they do not mean. They do not mean the freedom of ordinary people to buy and sell, lend and borrow, at whatever prices or rates they like and wherever they find it most profitable to do so. They do not mean the freedom of the

plain citizen to raise as much of a given crop as he wishes, to come and go at will, to settle where he pleases, to take his capital and other belongings with him. They mean, I suspect, the freedom of bureaucrats to settle these matters for him. And they tell him that if he docilely obeys the bureaucrats he will be rewarded by a rise in his living standards. But if the planners succeed in tying up the idea of international cooperation with the idea of increased State domination and control over economic life, the international controls of the future seem only too likely to follow the pattern of the past, in which case the plain man's living standards will decline with his liberties.

Nations Are Economic Partners

Max Lerner

The core problem of the coming economic world pattern is not whether we shall choose between free trade and a policy of restriction. It is rather how to build an economic framework for the nations of the world within which free trade will be related to the problems of a real world, and the efforts to achieve it will take on some perspective and a measure of possibility. It is to see free trade as a consequence rather than as a cause of some degree of economic order in the world. It is to think crucially how that economic order is to be achieved.

If we do not achieve it, and if we bungle this task, then the more formal arrangements for a world security organization will be but a glittering paper construct. Unless there are economic health and economic neighborliness of feeling among the nations of the world, there is very little chance of political health and the avoidance of another war.

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How clear is our present thinking on this score? It is much clearer on the administrative level than on the idea level. That is to say, the practical men and the administrative technicians who have met as international commissions, to discuss the problems of United Nations relief, the need and supply of foodstuffs, the International Monetary Fund and the world bank, and the international regulation of labor standards, have had a surer instinct about the possible and desirable than the commentators who have sat on the side lines and wrung their hands. The attack on the new international economic pattern has come mainly from two sources: from the isolationists and imperialists, who want either American autarchy or an American *imperium*, and who attack any international plans as Henry Wallace idealism and "globaloney"; and from the anti-planning liberal free-traders, who regard any deviation from international *laissez-faire*, to use Hayek's phrase, as "the road to serfdom." Thus on one score

The Infant-Industry Argument

The “infant-industry” argument has been considered as the only justifiable ground for a protective tariff by many “neoclassical” economists. The substance of the argument was clearly stated by one of its most noted exponents, Professor F.W. Taussig:

The argument is that while the price of the protected article is temporarily raised by the duty, eventually it is lowered. Competition sets in ... and brings a lower price in the end. ... [T]his reduction in domestic price comes only with the lapse of time. At the outset the domestic producer has difficulties, and cannot meet foreign competition. In the end he learns how to produce to best advantage, and then can bring the article to market as cheaply as the foreigner, even more cheaply.¹

¹F.W. Taussig, *Principles of Economics*, 2nd ed. rev. (New York: Macmillan 1916), p. 527. Taussig went on to assert that “the theoretical validity of this argument has been admitted by almost all economists,” and that the difficulties lay in the practical application of the policy.

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Principles of Economics and Government Intervention

Thus, older competitors are alleged to have historically acquired skill and capital that enable them to outcompete any new “infant” rivals. Wise protection of the government for the new firms will, in the long run, promote, rather than hinder, competition.

The troublesome question arises; if long-run prospects in the new industry are so promising, why does private enterprise, ever on the lookout for profitable investment opportunities, persistently fail to enter the new field? Such unwillingness to invest signifies that such investment would be uneconomic, i.e., would waste capital and labor that might otherwise be invested in satisfying more urgent wants of consumers.

An infant industry will be established if the superiority of the new location outweighs the economic disadvantages of abandoning already-existing, nontransferable capital goods in the older plants. If that is the case, then the new industry will compete successfully with the old without benefit of special governmental protection. If the superiorities do not balance the disadvantages, then government protection constitutes a subsidy causing a wastage of scarce factors of production. Labor and capital (including land) is wastefully expended in building new plants, when an existing plant could have been used more economically. Consumers are forced to pay a subsidy for a wastage of goods needed to serve their wants. This does not imply that if, at one time, an infant industry is unprofitable on the free market, and hence uneconomic, that such will always be the case. In many instances, the new location becomes superior after a portion of the existing capital goods in the old plants has been allowed to wear away.

Protectionist economic historians are under pains to assert that no important infant industry can be established without substantial tariff protection against entrenched foreign competition. The high degree of tariff protection in the greater part of the history of the United States, has made this preeminent industrial country a favorite “proof” of the infant-industry argument.

Ironically, it is the United States that provides the most striking illustrations of the fallaciousness of the infant-industry doctrine. Within its vast borders, the United States offers an example of one of the world’s largest free-trade areas. The frequent regional shifts in American industries provide numerous examples of birth and growth of infant industries, and decline of old, established industries. One of the most striking examples is that of the cotton textile industry.

The Rothbard Reader

One of America's important industries, cotton textiles were manufactured almost exclusively in New England from 1812 to 1880. During that period, there were practically no textile plants in the cotton-growing areas of the South. In 1880, the cotton textile industry began to grow rapidly in the South, rising at a far greater rate than the industry in the "entrenched" New England area, despite absence of special protection. By 1925, half of the country's cotton textile production occurred in the South. In the early 1920s, moreover, cotton textile production in New England began a sharp absolute decline as well, so that, at present, the South produces approximately three-fourths of the country's cotton textiles, and the New England area less than one-fourth.²

Another striking example of a regional shift is the clothing industry, which was highly concentrated in New York City and Chicago (close to the retail markets) until the 1921 depression. At that time, under the pressure of union-maintained wage rates and work rules in the face of falling prices, the clothing industry moved with great rapidity to disperse in rural areas. Other important shifts have been the relative dispersal of steelmaking from the Pittsburgh area, the growth of coal mining in West Virginia, airplane manufacturing in California, etc.

Logically, the "infant-industry" argument must apply to interlocal and regional as well as national trade, and failure to apply it to those areas is one of the reasons for the persistence of this point of view. Logically extended, the argument would imply that it is difficult or impossible for any firm to exist and grow against the competition of existing firms in the industry, wherever located. Illustrations of this growth, and of decay of old firms, however, are innumerable, particularly in the United States. That, in many instances, a firm with almost no capital can successfully outcompete a firm with existing "entrenched" capital need only be demonstrated by

²Cf. Jules Backman and Martin Gainsbrugh, *Economics of the Cotton Textile Industry* (New York: National Industrial Conference Board, 1946). Some of the reasons for the shift in capital from North to South were (1) lower wage rates for comparable labor in the South—about half in 1900; (2) development of power in the South; (3) more rapid unionization in the North, and hence, shorter hours, and great work restrictions, raising the unit labor cost; (4) earlier wage and hour legislation in the North; (5) higher taxes in the North. These factors took on greater importance after World War I, when immigration restrictions sharply reduced the supply of mill labor in the North, while the labor supply of the poor Ozark Southerners continued to be plentiful, and when unions and social legislation became more powerful.

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the case of the lowly peddler, who is legally banned or restricted at the instance of his rivals throughout the world.

HISTORICAL APPENDIX

It is ironic that the American cotton textile industry provides a major example of the growth of an unprotected infant industry, for the infant-industry argument first came into prominence precisely in connection with this industry. Although the infant-industry argument has been traced back to mid-seventeenth-century England,³ it was first widely used after the War of 1812 in America. During the war, when foreign trade had practically ceased, American capital turned to investment in domestic manufactures, particularly cotton textiles in New England and the Mid-Atlantic states. After 1815, these new firms had to compete with established English and East Indian competition. The protectionists first appeared in force upon the American scene, urging that the new industry must be protected in its infant stages. Mathew Carey, Philadelphia printer, brought the argument into prominence, and he exerted great influence on young Friedrich List, who was later to become the infant-industry argument's best-known advocate.⁴

³Cf. Jacob Viner, *Studies in the Theory of International Trade* (New York: Harper and Brothers, 1937), pp. 71–72.

⁴Cf. Mathew Carey, *Essays in Political Economy* (Philadelphia: H.C. Carey & I. Lea, 1822); Joseph Dorfman, *Economic Mind in American Civilization*, vols. 1 and 2 (New York: Viking Press, 1946).

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Debunking the Three Best Arguments for Tariffs

Iain Murray • 01/07/2025

With President Trump's return to office after the Biden interregnum, we can be sure of one thing: tariffs are going to be a major part of his policy. He has [touted tariffs](#) as revenue generators, as ways to [bring back](#) manufacturing, and as [negotiating tactics](#). The trouble is that all of these are in tension with each other, and none are particularly effective at what they purport to do. Indeed, their likely failure will result in harm to the people Trump claims to care for the most — [working-class families](#).

It has become commonplace among tariff supporters to point out that the US government used tariffs as its [main source of revenue](#) in the nineteenth century, implying that we would do well to replicate that model and perhaps even [abolish the income tax](#). The latter ideas are fanciful, but even regarding the amount of revenue that could be raised from tariffs, the idea that tariffs will be a significant source of revenue is inaccurate. As the [Tax Foundation explains](#) in its detailed analysis of the [revenue effects](#) of the Trump tariff proposals, a 10 percent universal tariff will raise \$2.7 trillion in customs revenue and a 20 percent tariff will generate \$4.5 trillion over a 10 year period (2025 to 2035.) Income taxes, by contrast, contribute [\\$2.2 trillion annually](#).

This is why the idea that tariffs could replace income taxes is fanciful. The [spending cuts](#) required would be wonderful to see, as any free-market economist [will tell you](#), but in a political reality where getting [any spending cuts at all](#) is more painful than pulling teeth without anesthetic, it requires purely wishful thinking to imagine them happening.

But even those revenue figures for tariffs miss the mark. Because the costs of tariffs are [ultimately borne](#) by American consumers (a point tariff supporters seem unable to grasp), they reduce income and therefore spending, which means fewer imports, which means less tariff revenue. After accounting for this, revenues fall to \$1.7 trillion and \$2.8 trillion for the lower and higher rates respectively. The higher rate has a greater effect and therefore a larger reduction in revenue.

Nor do tariffs occur in a vacuum. Countries generally respond to higher tariffs with [retaliatory tariffs](#) on American exports. These, too, would reduce consumer income and therefore tariff revenues, knocking those figures down by around \$190 billion over the decade.

Because tariffs are ultimately paid by consumers, it is worth considering which households bear the brunt of those costs. [Research has repeatedly found](#) that because lower-income households typically spend a larger share of their income on tradable goods (such as

everyday household items) than higher-income households, those poorer households end up [bearing a disproportionately large share](#) of the cost increases. In other words, the tariffs [hurt the working class household more](#). As revenue generators go, tariffs are regressive.

Moreover, as suggested above, revenue is not the only purpose attributed by their supporters to raising tariffs. Another purpose that is frequently cited is that tariffs will cause industries to [re-shore their operations](#) to maintain sales, thus bringing good manufacturing jobs back to the United States and thereby increasing household income.

Yet if this happens, then import revenue will be reduced. If all goods that can be produced in the United States are, then revenue will fall accordingly. Tariffs bringing jobs back and tariffs providing a consistent revenue stream are mutually incompatible.

Moreover, tariffs are at least as much a threat to manufacturing as they are an opportunity. Much that America imports is not finished goods, but inputs, i.e. raw materials and parts, that domestic manufacturing needs to operate efficiently. With tariffs, fewer of these inputs will be imported, or the price of finished goods will go up. With fewer imports, American manufacturing jobs will suffer. With higher prices, American middle class households will see their standard of living fall. Neither is good for the American middle class.

Of course, tariff proponents will say that these duties will cause American industries to onshore supply chains, which means more jobs for Americans. [Up to a point, Lord Copper](#), as Evelyn Waugh would put it. Some things must be sourced offshore as either lack of natural resources or things like American environmental law make them impossible to be sourced domestically. For those things that could be made here, the price differential will have to be addressed. In most cases that means that automation is the best option to keep labor costs down, which means once facilities are constructed, they will have few jobs. And the industrial robots that will staff those factories are mostly made in Japan, Germany, or Switzerland.

The idea that tariffs will bring back jobs and therefore benefit the middle class is one that puts the interests of citizens as producers ahead of the interests of citizens as consumers. Yet while all producers are consumers, not all consumers are producers. Consider that tariff supporters often say that they want wages to be high enough to support a worker and his family – in this case, the housewife is a non-producing consumer, who will be motivated to keep costs low. This was why Margaret Thatcher often pitched her [economic reforms](#) directly at the housewife.

This is the problem that Adam Smith recognized as being the main flaw of the mercantilist system when he wrote in Book IV of [The Wealth of Nations](#),

Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer. But in the mercantile system, the interest of the consumer is almost constantly sacrificed to that of the producer; and it seems to consider production, and not consumption, as the ultimate end and object of all industry and commerce.

In other words, the misconception that economic policy should be focused on producers is not a new idea, but one that resurfaces again and again. Just as with [Britain's corn laws](#) or the [Smoot-Hawley tariffs](#) that [worsened the Great Depression](#) or what is happening in countless [countries like Nigeria](#), it will be the working class that suffer the most from the imposition of tariffs that are supposed to help them.

Yet what about the other justification – that tariffs are useful tools in negotiations? Once again, a moment's thought will reveal that this isn't compatible with the other justifications. If tariffs are just a negotiating tool, they won't bring in significant revenue and nor will that re-shore massive amounts of industry. Even the respectable academic argument for "optimal tariffs," which suggests that large countries can drive down the price of imports through tariff policy, puts them in the low single digit range once other factors are accounted for, and they are about lowering import prices, not revenue generation or reshoring.

Explainer: How do tariffs work and how will they impact the American and global economy? HKS international trade expert Robert Lawrence on what higher tariffs will mean for the United States and the world.

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Over the past week, President Donald Trump announced, and then largely paused, a new tariff regime more severe than anything seen in more than a century, and certainly out of step with the United States' role as the creator and guarantor of an international system of free trade. (On April 9, hours after they had gone into effect, Trump announced a 90-day postponement on some tariffs to many countries, though not China.) Questions around these policies remain. Will tariffs help the U.S. economy, as the president has said? And what effect will the uncertainty and turmoil have on the United States' role as an anchor of the international economic system? We sat down, before the latest pause was announced, to speak with international trade expert Robert Lawrence (<https://www.hks.harvard.edu/faculty/robert-lawrence>), the Albert L. Williams Professor of International Trade and Investment at HKS and author of "Behind the Curve: Can Manufacturing Still Provide Inclusive Growth? (<https://cup.columbia.edu/book/behind-the-curve/9780881327472/>)"

Q: How do you understand the economic and political arguments behind the Trump administration's tariff policy?

President Donald Trump has told us that tariffs are a wonderful word, and I think he sees them as a multipurpose tool that can advance the variety of concerns which he has and the number of goals which he'd like to achieve. Tariffs firstly raise revenue and there's a debate over who will actually pay the money. The evidence suggests that, by and large, tariffs are likely to be passed through to American consumers who purchase the products on which the tariffs have been levied. But there's also evidence that in some cases foreigners might lower their prices and therefore implicitly pay some of the tariffs. Although the president

has proposed using the tariffs to help raise revenue for the government, he's proposed using tariffs to obtain leverage from foreign governments, for example, with Canada and Mexico over smuggling of fentanyl and immigration. There's also an idea that tariffs can level the playing field because there's a perception that is widely held that Americans have been taken advantage of, our market being more open than those of the rest of the world. So they are viewed as a multipurpose tool. ²

Q: Does the president have a point when he argues that the United States has been taken advantage of—that it has played by the rules but other countries have not?

I think if you look historically, the United States has typically had lower tariffs than other countries, and the U.S. is a very open society as well as economy and easier for foreigners to enter than many other places. But whether this is unfair or not really depends on whether you think this openness is a cost to the United States or a benefit. The fact that the U.S. has low tariffs actually means that Americans can buy imports more cheaply, which I see as a benefit. The fact the U.S. is a rules-based, open society likewise brings strong advantages. In any case, what the president believes is that a trade deficit tells us that foreigners are unfairly taking advantage of us. However, there's another, and perhaps more relevant, way to look at a trade deficit. A country borrowing from the rest of the world can be a very good thing if it allows you to invest to build a plant or equipment, for example. You can actually enjoy an advantage from having a trade deficit. Just as individuals who go to Harvard have student loans, we wouldn't say they're being taken advantage of. We'd actually say they're going to derive some benefit in the future. Most economists would say that the reason the United States has had prolonged deficits has little to do with whether foreigners are fair or unfair or whether American tariffs are lower or higher than those in other parts of the world. It is much more a reflection of American spending patterns. Ironically, with the current policies of the Trump administration, on the one hand they're trying to close the deficit by raising tariffs, but on the other hand, they're trying to use the money to give tax cuts, which will mean that the U.S. government ² is saving less. So, our left hand is at odds with what our right hand is doing, and unless we change our spending patterns and either save more or invest less in the United States and borrow less, the trade deficit isn't going to change at all.

Q: Among the reasons given for tariffs is the need to protect U.S. jobs and reshore or inshore manufacturing. Is there evidence that this will happen?

The central claim is that America can be revitalized and indeed the American middle class can be revitalized; workers without college education can be helped, and left-behind places can be restored if we stimulate manufacturing in the United States. But at the moment it's important to realize and recognize that only just over 8% of Americans work in

manufacturing and even if we were to entirely close the trade deficit that we have in manufactured goods, it's likely that manufacturing employment would increase by somewhere between one or two percentage points. So instead of around 8% of Americans working in manufacturing, 10% of Americans would work in manufacturing. Manufacturing is simply too small to have a significant impact on the American labor force and both Presidents Biden and Trump have been obsessed with restoring American manufacturing. In my own view, the claims that they make that somehow this is going to have a significant impact on the availability of jobs for the middle class is completely unrealistic. There are some manufactured products that are very important. We need semiconductors—they're important for artificial intelligence, they're important for national security. We need to decarbonize, and so electric vehicles and solar panels are important. So there are certain kinds of products which can help us meet national goals. But it is unrealistic to see manufacturing as a policy that is going to have a significant impact on the major problems of less educated Americans. Both Biden and Trump are in a sense appealing to nostalgia for a world that no longer exists, in which manufacturing is a major driver of access to the middle class. They're about 30 to 40 years out of date because, as a result of both automation and the way we spend our money today, manufacturing has shrunk and is a relatively small part of our economy.

Q: Will tariffs help raise revenues, as the administration has claimed?

It's problematic, because the higher the tariffs that you impose, at some point the less revenue you're actually going to receive. The kind of estimates we're seeing from the administration are that they will raise \$600 billion. I think that's an extremely optimistic view because as you make products more expensive, consumers will pay less or will be prepared to spend less on those imported products. In addition, one of the purposes of the tariffs is to get foreigners to come and invest in the United States. Well, if they do, they'll no longer be paying the tariff. So ironically, the long run achievement of goals like bringing a lot of investment into the United States to replace the imports is going to undermine the goal of raising revenue, and that's why it's very difficult to know exactly how much is going to be raised. But it's important to point out that people, as they get richer, spend less and less on goods and more on services, and that means that tariffs have a regressive incidence because they take much more out of the pockets of poor Americans than they do of rich Americans. So to the degree that we now raise revenue using tariffs and use the money we save or the money we raise to reduce the taxes patented after the previous Trump tax cuts, this is an extremely regressive move for American households and the estimates are that the typical household is going to spend an additional \$2,000 to \$4,000, depending on which economist you believe. There's also an exaggeration of the employment impact that you're going to get from tariffs. Let's take the example of a tariff on steel. You might create

more jobs in the steel industry, but you will also raise input costs for the users of steel, and this in turn affects somewhere between 60 and 80 jobs for every one you save in the steel industry itself. So in the aggregate, the tariffs can be counterproductive, especially if they're put on inputs which are used in producing other products.

Q: Is the United States' large trade deficit sustainable?

I think firstly there's an obsession with goods that isn't the right measure. What we ought to be looking at is not only our trade in goods, but also our trade in services, and we have a significant surplus in our trade in services. Therefore, when you aggregate the two together, you get a much smaller percentage and a smaller number relative to our GDP. The second point is that we've been running deficits for 30 or 40 years, and what it means is that the United States is borrowing much more from the rest of the world than we lend, and therefore our net position has been declining over time. But remarkably, Americans earn more from, or earn just about as much from, their total investments abroad as foreigners earn in the United States. So if you look historically, we have felt no additional pressure about sustainability of our position. As long as we borrow the money and use it productively to increase investment in the United States, it is eminently sustainable, as with any investment.

Q: How would U.S. exports be impacted?

One of the effects of the tariffs is going to be over the medium term to strengthen the American dollar because Americans will need less foreign exchange in order to import, and when the dollar gets stronger, this affects all American exporters, whether they are exporting goods or whether they are exporting services. A second point is that foreigners are not going to take these tariffs lying down. They are going to retaliate. Much of their retaliation can take the form of higher tariffs on American exports of goods, but in addition, foreigners are talking about levying taxes on the sales of American services and indeed some of the information technology company services that are being sold abroad. So there are going to be an adverse impact on exporters virtually any way you look—there are going to be higher input costs, they are going to have to sell into markets which are closing to them because of foreign retaliation, and the currency is going to get stronger and so their products are going to get more expensive.

“It's important to realize and recognize that only just over 8% of Americans work in manufacturing. ... Manufacturing is simply too small to have a significant impact on the American labor force.” Robert Lawrence

Q: The World Trade Organization was created to oversee international trade. What is its role now?

Since the late 1940s, under American leadership, a rules-based multilateral system has been operating, and its performance has been outstanding. It has been associated with increasing trade liberalization. It has allowed millions of people living in Asia and other poor countries to rise out of poverty, and by and large countries have respected its rules. This is how the WTO operated, I would say, until 2015 or so. Since that time, the WTO's attractiveness and its power have been considerably diminished. The United States, which had led this institution, became, under Donald Trump, its biggest violator. The most important principle is that all nations who belong to the World Trade Organization are "most favored." That is to say they should all be treated equally. Secondly, America pledged to bind its tariff, as do all WTO members, at particular rates. And on average, these were around 3%. What the Trump moves indicate or represent a complete violation of those principles. It's treating trading partners completely differently, demanding reciprocity, which is a complete violation of the rules and raising tariffs at multiples of the rates which America pledged never to exceed. In addition, the United States, starting back with President Obama, began to veto appointments to the WTO's dispute settlement system. Today the appellate body no longer functions because they can't make appointments. So not only is the WTO in trouble because it cannot apply effective negotiations, it's also in trouble because it cannot enforce its rules. Additionally, we've seen many regional trade agreements created in the past couple of decades. Some argued these were substitutes for the WTO, others that they were complementary, but they showed that the WTO no longer had a monopoly on where the rules were being written. There are certain regional agreements—in Asia in particular, but also in Africa—that are thriving today. Another huge problem that has confronted the trading system is how we absorb a country that operates by different rules and is the largest exporter in the world: China. How can the more market-oriented western countries coexist in a single framework with China, particularly as Chinese exports have become increasingly disruptive of labor markets around the world. This has become a very salient issue. People are calling for different solutions, but it's widely recognized that the WTO is subject to huge stress because of the different views on how the system should operate.

Q: Are we in a global trade war? What does economic tell us will happen next?

At the moment, nobody knows. One view is that we're increasingly going to see the United States separate from the rest of the world. The old debate was, do we decouple the West from China? The new debate is going to be, does the rest of the world really need the United States? We are, after all, only about 12% of world trade. And so, can the 88% just simply get along without us? What we can expect is that if these tariffs remain in place for a long time, the goods that would have come here from China and elsewhere are going to go to third markets, and this trade deflection could in turn give rise to protectionist pressures in those

other countries. That's the great danger of whether the impact spreads to the rest of the world. Moreover, there are many countries, most notably our neighbors, Canada and Mexico, who are very dependent on the American market, and they're going to experience a slowdown and perhaps recessions, and in turn, their sluggishness can be spread to the rest of the world. So, in the long run, there are negative consequences that are likely to result from these measures.

“One view is that we’re increasingly going to see the United States separate from the rest of the world. The old debate was, do we decouple the West from China? The new debate is going to be, does the rest of the world really need the United States?” **Robert Lawrence**

Q: How would tariffs impact the dollar?

There are kind of two effects at play. If you ask what happens when you put on tariffs, generally the answer will be the exchange rate will strengthen. So, you would expect, as I said earlier, that the dollar will strengthen. On the other hand, if this is like a big supply shock and if we have a weak American economy, that in turn could cause an increase in the price level in the United States and could feed into wages so that the Federal Reserve has to slow down the economy. And investors may find the U.S. a less attractive place, and dollars become a less attractive currency to purchase. So, it's a very tricky thing to forecast over the medium term. There's another question. The administration's position is to acknowledge that there may well be a slowdown and there may well be inflation, but this is short-term pain for a long-term gain because eventually these high tariffs are going to spur foreigners to come and set up their production facilities in the United States. Firstly, even if this works, it will take a long time to plan a factory, to find the location, to get the permits, to find the workers. And it can be a very lengthy process—on the order of two to four years—before you start to see the fruits. And I don't think we would see significant effects before Donald Trump has left office. Secondly, in order to make those investments, foreigners have to be convinced that these policies will remain permanent, but the way they've been rolled out and the kind of disruption they're going to cause is going to lead to a political reaction that is going to cause a lot of uncertainty. And with uncertainty, foreign investors are going to be unlikely to sink their capital into investments that are premised on the idea that the market will remain permanently protected.

Q: Are there concerns at all about the role of the dollar as the global reserve currency?

Yes, we have an amazing privilege in the United States. Traditionally, as soon as there's any trouble in the world, people flee to the safe haven of the U.S. dollar. Even after the 2008 financial crisis, despite the fact we caused it in our own housing market, the dollar strengthened. All of this is based on foreign faith that the United States is a strong economy and is governed by the rule of law. And what we're seeing today in a variety of places is that

Americans are starting to question the validity of rulings by courts, and I think this is a significant impact. A second danger is that foreigners sometimes see their currency holdings used against them in the form of economic sanctions, and this undermines their willingness to hold the dollar as a reserve currency. The full faith and credit of the United States is vital in sustaining our position as the central reserve currency of the world, and the kind of instability that we're seeing today stands as a threat. In addition, picking on our allies and taking these steps is severely undermining the goodwill that foreigners have towards the United States and their faith in the United States as an economy that is a model for them. The long run undermining of our soft power, as our colleague Joe Nye refers to it, will take its toll, and that in turn will impact people's confidence in the United States as a secure and safe haven.

7 CHINA

Pursuing Economic Hegemony through Mercantilism

China's economy is a unique combination of cheap, well-trained, disciplined workers, modern technology, generously funded R&D, and a production scale that in many industries is the largest in the world.¹ Its share of global manufacturing value-added grew from 6 percent in 2000 to 28 percent by 2018 – more than twice its share of global GDP – and it has today 136 million manufacturing workers, versus 12 million in the US.²

China is not only a threat to America's positions in key industries and technologies, but also a geopolitical rival and promoter of an authoritarian challenge to liberal democracy worldwide. It is more dangerous than the USSR because it is more competently governed, vastly wealthier, and ideologically pragmatic. It has a global presence through its trade and construction programs. It will soon be a technological peer of the US, and has four times the population.

Beijing today has the world's most intensive all-of-government industrial policy, based on a full-spectrum theory about how nations develop and compete. This theory has no ideological commitment to either the private or the public sector per se: Both are viewed as tools to be used pragmatically – though they must always support the power and legitimacy of the Chinese Communist Party (CCP).

China's policies proactively shape the country's comparative advantage. Its relentless aim has been to move up the technology and manufacturing ladder to ever-more-advantageous industries. Crudely put, its method has been to shower new, high-technology sectors with state resources and protection, while lower-return, aging, and nonessential industries are left to fend for themselves in the market or relegated to supplying cheap inputs to favored industries.

Since rapprochement in 1971, the US has been China's key enabler, absorbing its trade surpluses, granting it Permanent Normal Trade Relations in

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2000, allowing it to join the WTO in 2001, and failing to counter its currency manipulation, intellectual property theft, and other illegal practices. It has also given Beijing access to its capital markets, and by the end of 2020, US investors held at least \$1.2 trillion of Chinese corporate securities.³

The US has paid a large price for this indulgence. As of 2022, China accounted for about a quarter (\$366 billion) of America's gross bilateral trade deficits.⁴ Job losses directly attributable to China from 2001 to 2011 were about 1 million, with another 1–1.4 million from multiplier effects.⁵ As of 2021, the affected regions had not recovered.⁶

The History

For most of recorded history, China, civilized but autocratic, was the world's largest economy.⁷ But until about 1980, its modern history was one of turmoil and weakness. It cut itself off from the rest of the world just as the West began the Scientific and Industrial Revolutions that underpinned the West's nineteenth-century explosion of technology and economic growth. Among the costs to China was the loss of territorial sovereignty, epitomized by the "unequal treaties" of the 1840s that gave several European nations, the US, and Japan extraterritorial control of Shanghai's and Hong Kong's economies. Since that time, China has lived through 150 years of colonization, revolution, invasion, occupation, civil war, and economically destructive policy experiments, most famously the Maoist variety of Marxism.

In 1911, a revolution ended the decaying Qing dynasty and installed Sun Yat-sen's Chinese Republic. But this regime proved unequal to the task of reforming the country, which disintegrated into warlord-ruled fiefdoms. Nationalist General Chiang Kai-shek nominally reunified China in 1928, but spent most of the next 20 years waging civil war or under Japanese occupation. Japan's defeat in World War II ended the occupation, but the Communists won the civil war in 1949 and the Nationalists fled to Taiwan.

Mao believed in a socialist economy, but even Chiang distrusted capitalists and believed in a strong state role and government control of key industries. Mao rejected the USSR's model of a total command economy and allowed some entrepreneurship – albeit by socialist not-for-profit collectives, rather than individuals. His failure to understand basic economics led to the disastrous 1958–62 Great Leap Forward, in which the rural economy was brutally milked for resources in a failed attempt at rapid industrialization. Thirty million people died from famine as farmers were given irrational tasks such as manufacturing iron in primitive backyard furnaces instead of growing rice.

Beginning in 1978, when Deng Xiaoping assumed power, a historic turnaround has been produced, thanks to selectively using *aspects* of capitalism and China's innate advantages. Chinese culture regards strong, centralized economic and political leadership as legitimate, and it has a large, industrious, inexpensive workforce and a vast potential market to attract foreign investment.

Creating Comparative Advantage

Beijing's openly stated aim is to restore China's historic preeminence among nations, and it has designed and implemented elaborate plans to get there.⁸ None of its industrial policies are novel, especially in East Asia, and many were previously deployed in Japan, South Korea, Taiwan, and Singapore. But China has been exceptionally aggressive in how it has applied them, in how many agencies of government have been involved, and in how quickly and radically they have been changed as its economy has evolved. And unlike its East Asian predecessors, China has not transitioned to even modestly democratic governance as it has become wealthier.

For important industries, Beijing proactively manipulates every possible variable – financial resources, investment decisions, R&D levels, senior management, protection against foreign competitors, domestic regulations, inbound foreign direct investment (FDI), and outbound FDI. As economic goals have been reached and new ones have become possible, China's policies have changed, though its overall goals have not.

The CCP thinks of industrial policy as an intricate, long-term orchestration of its largest corporations, often deliberately striving to weaken foreign competitors in a dance of moves and countermoves managed by the state. The National Development and Reform Commission (NDRC) does China's overall economic planning, while other agencies, such as the Ministry of Industry and Information Technology (MIIT), are more micro-oriented and industry-specific.

The state does not hesitate to wield its authority over private firms. For example, it forced the merger of small, weak, domestic home appliance makers to create a few large, globally competitive producers. Firms over a certain size are required to have a CCP official in a senior position. There is lots of red tape for most businesses, but for the top firms in each prefecture, local officials make sure the business environment is efficient and that their needs are met.⁹ They do this in part because the CCP promotes them based on the economic performance of the regions they govern.¹⁰

Industrial policy in China is always partly political – that is, about balancing the interests of powerful factions. Overall, the CCP is split between

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elitist and populist factions, the elitists being familial descendants of the original 1949 revolutionaries, the populists having risen to power through the military, business, or other paths. The elitists are more oriented to the state companies, and this split created something akin to checks and balances until Xi Jinping (an elitist) short-circuited the system by declining to step down in 2022.¹¹

Problems with China's Economic Model

China still has vast, grinding rural poverty, even if one ignores the fact that its own government occasionally admits that its national economic statistics are inaccurate.¹² The country has far more corruption, especially in the state sector, than market economies. Both the private and state sectors are corrupt, but there are more *forms* of corruption in the state sector, such as officials shaking down firms that need licenses, directing university research toward crony companies, and misdirecting public procurement. Private corruption is the same as in many other countries: violating building codes, selling fraudulent products, overstating earnings or assets to qualify for loans or boost stock prices, insider trading, et cetera.

China has a huge excess of debt and ghost cities of empty apartment towers. It has wasted large amounts of its scarce capital, especially in heavy industry, where subsidized financing and unrealistic growth targets have created excess capacity – whose production then destroys industries worldwide when dumped abroad below cost.

The CCP believes that, over time, it can tame environmental destruction, corruption, resource misallocation, and cronyism. It sees corruption as a curable addiction, not an inherent feature of the system, and believes that exposing state-owned enterprises (SOEs) to market forces will contain their cronyism. It sees environmental degradation as controllable through investment in cleaner technologies and punishment of offenders. And it believes that unsubsidized interest rates and continued expansion of the private sector will reduce wasteful investment.

This optimism may be overconfident, a classic hazard of competent authoritarian regimes on the rise, especially for one that believes it can correct these ills while retaining a CCP monopoly on political power that places it quite literally above the law. Many of its cadres still resist the creativity and efficiency of the market and underestimate what superior corporate management can do. The Party sometimes rotates its officials through corporate leadership roles for which they are unqualified. It understands that non-state enterprises use capital more efficiently, as shown by their higher return on assets, but fears the growth of private economic power.

The CCP cracks down when private firms challenge state companies or threaten Party “discipline” – that is, control. This is why Xi Jinping cracked down on Big Tech and other sectors in 2020. But he remains well aware that China needs private companies to keep innovating and perform other tasks for which the state is unsuited. And some of his crackdowns were simply rational policy, for example against diploma mills and overleveraged real estate firms.

The CCP and state bureaucrats do not deserve all the credit for China’s accomplishments. China’s private companies made the products, solved the technical problems, took the risks, moved quickly, and priced aggressively. Although entrepreneurs had to fight for acceptance, China remains a highly entrepreneurial, risk-taking culture. Its people are hardworking. Yet the example of other nations that also have entrepreneurs and toiling workers, but have not matched China’s growth, makes it clear that these private-sector accomplishments depended upon a context created by government.

Gaming the Trading System

China’s extreme mercantilism stressed the international system of trade and investment governance to its breaking point. In 2016, it began to crack with the Trump administration’s turn to tariffs and the milder but still real cutbacks of trade openness to China by Europe, Japan, and other nations.

The WTO was never designed to constrain a technically competent authoritarian state ruling nearly a fifth of the world’s population. Its rules-based architecture presumed that the rule of law, including trade law, would be followed by its members, so it was intrinsically vulnerable to a government determined to combine nominal compliance with actual defiance.

When China began the process of joining the WTO in 1987, other nations realized that existing General Agreement on Tariffs and Trade (GATT) rules were insufficient, so special negotiations with Beijing were undertaken. By the time it was allowed to join in 2001, a detailed special set of rules, applicable only to China and designed to conform its policies to WTO rules, had been agreed upon.

However, these rules are regularly flouted in practice.¹³ WTO enforcement relies on aggrieved companies complaining to their own governments, which then file cases with the WTO. But firms are often kept silent by Beijing’s threats to retaliate by, for example, suspending licenses for current operations, initiating investigations into product standards or antitrust violations, or granting new privileges to competitors. The US and EU often push back diplomatically and China commonly withdraws the most offending measures, but with compromises that tend to leave more discretionary, case-by-case violations in place.

China's SOEs pose a special problem. WTO rules for SOEs were written for SOEs that operate independently, as is common outside China. But China's are tied to and at least partly controlled by a single agency, the State-owned Assets Supervision and Administration Commission (SASAC). With \$10 trillion in assets, it is the world's single largest economic entity, and its 96 companies are directed to support one another, have below-market financing from state-owned banks, and are insulated from the financial markets' profit discipline.¹⁴ China promised in 2001 to sign a WTO agreement on government procurement (which, if interpreted to treat SOEs as governmental entities, would affect their purchases and sales), but 22 years later, Beijing is still "negotiating" the terms.

China's industrial policies have unfolded in three phases: the first from 1980 through the mid-2000s, the second from then to the present, and the third consisting of Beijing's plans for the future.

Phase One: 1980–Mid-2000s

In 1978, Chinese industry was wholly in the public sector, stagnant, and riddled with inefficient, poorly performing SOEs. Many enterprises, often village- or province-owned, were basically warehouses for marginal workers. Then Deng Xiaoping began a series of pro-market reforms. At the time, China's per capita GDP was \$156 in today's dollars and its economy was 6 percent the size of the US, despite having more than four times the population.¹⁵

Deng's first big changes were:

1. Introducing market forces by decollectivizing agriculture and allowing privately owned businesses
2. Allowing SOEs to sell production exceeding their quotas and permitting individuals and private groups to manage them under contract
3. Allowing primitive capital markets to appear (but still controlling important features, including interest rates)
4. Managing the yuan, including formal and informal pegs to the dollar, devaluing it, and keeping it undervalued
5. Opening up to foreign investment

The first objective of these reforms was to give profit incentives to peasant farmers, entrepreneurs, and managers of village enterprises. Farmers were allowed to own their own land and sell for profit any production over the amount contracted to the government. China also began to invite multinationals to manufacture and export from Chinese plants.

Results came fast. In 1978, trade was only 10 percent of GDP,¹⁶ and the country accounted for a mere 0.8 percent of world exports.¹⁷ But by 1985,

these numbers were 21 and 1.4 percent, respectively. Chinese exports at this time were mainly labor-intensive products such as apparel, toys, furniture, and other light manufactures.

Increasing and Upgrading Industrial Production

The reformers' first priority was improving the performance of the 150,000 state- and village-owned enterprises. This meant closing some, consolidating others, and replacing hidebound communist management committees with strong, dynamic, individual CEOs.

The big SOEs in steel, shipbuilding, petroleum, and other heavy industries were forced to compete, in some cases with each other. But Beijing still made sure (as it still does) that the SOEs, profitable or not, would always be able to carry out their designated economic roles. For example, oil companies were often required to sell their products at below-market prices to subsidize other industries. The central bank kept interest rates well below market levels to keep their cost of capital low. One result is that the four major state-owned banks, which made these loans, to this day carry record levels of nonperforming loans, often labeled as something else.

China gradually allowed foreign firms into *some* of its markets to upgrade the capabilities of domestic enterprises. Beijing quickly opened many mid- and low-tech manufacturing industries. It needed foreign technology, management skills, and smart capital, all of which were in short supply. Foreign companies thus opened Chinese plants in industries ranging from hand tools to diesel engines to commodity chemicals. China's leaders assumed, correctly, that indigenous firms would learn from the foreigners, improve their performance over time, and eventually become viable competitors domestically and as exporters. Foreign firms investing in China freely brought their technology, which, while not cutting-edge and no threat to their operations back home, was still superior to what China had.

China also encouraged the growth of indigenous private firms. But these were not allowed to operate as freely as private companies in the West. Close relationships with CCP and government officials at the provincial and local levels were (and are) required for financing, operating licenses, access to SOE customers, use of land, tax subsidies, and other things. Symbiotic relationships are the rule: Local and provincial officials need successful private-sector firms to prove their value to the CCP hierarchy, and the CCP needs entrepreneurs to grow the tax base and to help sustain the party's legitimacy by joining it.

Accessing Global Markets through the WTO

For Beijing, joining the WTO was never about embracing free trade, in which it never believed. It always planned to limit real market access for foreigners. It used every known trick, from tariffs to technical standards, to keep foreigners out of sectors in which it did not want imports or foreign investment. Nontariff barriers included “voluntary” local-content rules and elaborate requirements for getting onto approved vendor lists, designed to add so much time, expense, and risk that importers gave up.

America’s political and economic leadership believed that China’s entry into the WTO in 2001 would not only expand trade and investment but also stimulate liberal political reforms.¹⁸ Sandy Berger, Bill Clinton’s national security advisor, said, “Approval of PNTR and accession to the WTO will make China more likely to emerge as a more open, stable, cooperative nation that plays by the rules of the international system and provides greater freedom to its people.”¹⁹ Mike Moore, the WTO’s director-general, said “China’s decision to join . . . will entrench market-based reform and strengthen the rule of law.”²⁰ These political judgments must in retrospect rank as among the most naive of all time.

Official Washington believed that China would comply with its WTO obligations. The multinationals thought that, with China’s WTO market-opening commitments, they would conquer its markets. Smaller corporations (albeit large enough to offshore production) believed that they could compete with Chinese exports only if they could manufacture there themselves.

China’s WTO entry negotiations were complex. It was given extra time to implement particularly sensitive changes, such as allowing 100 percent foreign ownership of firms. China insisted on being designated a developing economy, which allowed it higher import tariffs, industry subsidies, and many other practices denied developed nations. (It is still designated as such at the WTO.) In return, developed nations insisted that it be designated a nonmarket economy, which made it easier for US and EU firms to bring antidumping actions against it.

China used (and kept using until the Trump and Biden administrations) America’s preoccupation with formal rules and multilateralism against it. Beijing committed to revising more than 7,000 tariffs, cutting them from 17 percent to 9 percent on average and phasing out quantitative restrictions. It has largely met these commitments on paper: Its average tariff dropped from 14.1 percent in 2001 to 2.5 percent by 2020, a figure comparable to other major economies.²¹ It has continued to impose some tariffs, but in general, they are not the big problem.

Foreign Investment to Obtain Technology and Build Exports

China's first major export industries came from Hong Kong and Taiwanese investors. Western manufacturers soon followed. China's central, provincial, and local governments built the infrastructure, cut the deals, and even ensured much of the labor supply. For Beijing, FDI, both greenfield and brownfield, fell into four categories:

1. Consumer goods and general manufacturing, which were mostly open because they were not regarded as economically strategic or politically sensitive. Here 100 percent foreign ownership was allowed.
2. Advanced capital goods and high technology. China wanted the multinationals, especially for capital goods domestic companies could not produce, but only on its own terms. Foreigners could own up to 50 percent, with an SOE owning the rest, often as a joint venture.
3. Services such as banking, insurance, credit card payment systems, and telecom. Beijing viewed foreign ownership in these sectors as a threat to its control of its economy and society, so foreign ownership was either prohibited or marginalized by regulations.
4. Strategic mid-tech industrial sectors, such as steel, petroleum, mining, and chemicals. These were reserved for the big SOEs.

Foreigners were required to partner with an SOE to limit competition and promote technology transfer. Mandatory partnering also allowed the state to follow foreign firms closely and keep them under tight control. Generally, the foreign partners carried out the bulk of the R&D, while the Chinese side focused on the manufacturing.²²

Old-line CCP officials opposed the private sector, largely because it offered them no sinecures, but more forward-thinking cadres managed to keep the door open. By 2018, 88 percent of exports were from the private sector or foreign multinationals.²³

Controlling Wages

After 1980, more than 100 million rural workers left farms and failing rural SOEs to work in urban factories, a surge that lowered and still suppresses manufacturing wages. Wage growth since 1980 has averaged 8 percent per year, but even today, manufacturing wages are about a quarter of America's.²⁴ China will not be losing its labor cost advantage over developed nations anytime soon, though its advantage over other developing nations is diminishing. The wage differential gets smaller higher up the skill scale, but is still substantial even for skilled professionals. As of 2021, Chinese manufacturing enjoyed a total cost advantage over the US averaging 35 percent, broken down in Figure 7.1.²⁵

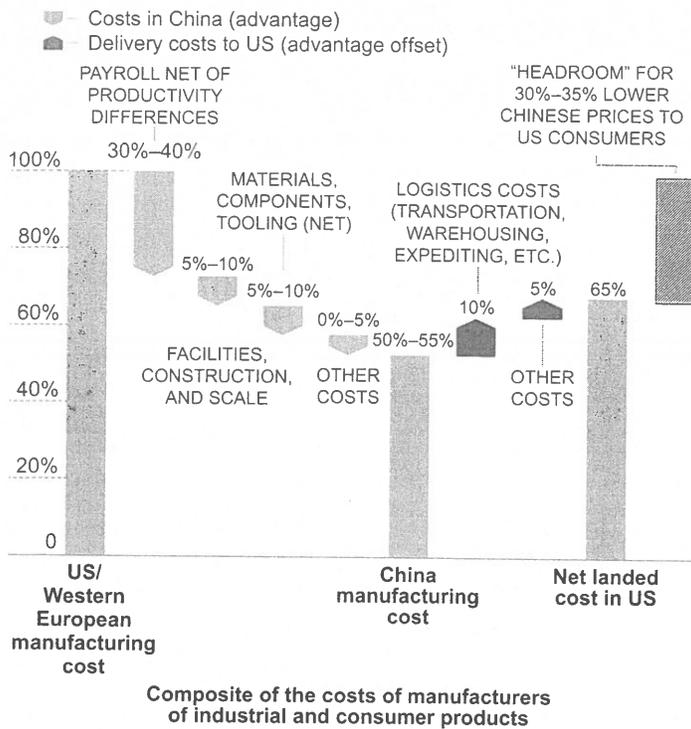


Figure 7.1 China's cost advantages versus the United States

Foxconn, the Shenzhen-based assembler of iPhones, illustrates the aggressive labor practices made possible by workers desperate for employment and the absence of unions. The firm extends working hours at will, without regulatory restraint or worker recourse, depending on changing production needs. In 2007, for example, Apple decided to change a product's screen just weeks before launch. Workers were awakened at midnight, when the new screens arrived at the vast, one-square-mile campus (which includes offices and dormitories as well as production facilities) and were set to work installing them to keep the launch on schedule.

Currency Manipulation

In 1981, China started moving its currency down in steps from the artificially high rates of its socialist era, and in 1994 it suddenly devalued the yuan from 5.9 to the dollar to 8.3 (see Figure 7.2). It maintained this rate until 2005 by intervening in currency markets to keep the dollars received for China's exports off the foreign exchange markets, thereby preventing the increase that

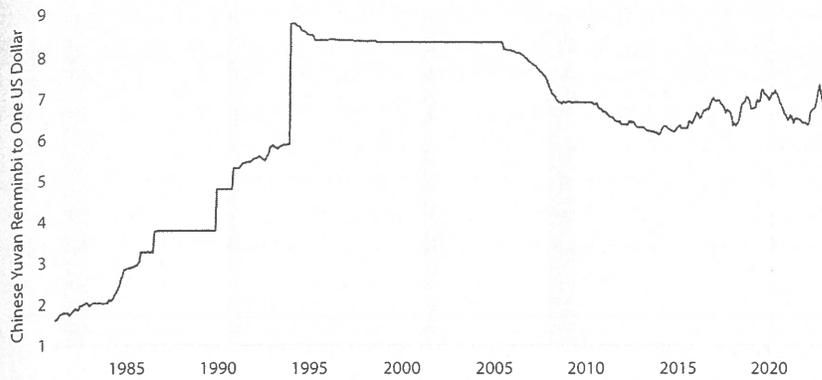


Figure 7.2 Renminbi per dollar²⁶

its productivity gains of 8 percent per year would otherwise have produced (see Chapter 4 for more about the mechanism).²⁷

The underpriced yuan made exports more competitive, and Beijing accepted the trade-off of higher import prices because raising the cost of imported consumer goods helped suppress domestic consumption. This suppression drove the high savings rate needed to finance a high level of investment without borrowing abroad. Keeping domestic interest rates low then required restricting outbound capital flows to prevent capital from seeking higher returns abroad.

China saw currency and capital-flow volatility damage other Asian economies in the 1990s, culminating in the Asian Financial Crisis of 1997. It therefore sought larger foreign currency reserves as a cushion against liquidity crises, to pay for imports and, later, to fund its international lending and investing. Large foreign currency reserves meant that its borrowers, including governments, would not be dependent for liquidity on foreign countries, their banks, or the IMF.

The End of Phase One

By the mid-2000s, China's productivity, competitive position, and international economic leverage had improved substantially. This created new opportunities, but also new conflicts with the US, Europe, and Japan, whose multinationals were operating profitably in China but whose domestic industries were now threatened by Chinese competition.

China had begun to run large trade surpluses in manufactured goods. From its WTO entry in 2001 to 2005, imports grew 27 percent annually. But exports grew at 29 percent. A huge fraction of China's imports were components for products to be assembled and reexported. Japan, among others, was thereby able to launder a lot of its own trade surpluses through China.

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Many foreign corporations' Chinese output was now a key part of their global supply chains, and their sales in China generated a large percentage of their profits. China was also becoming a major buyer of food, ore, and energy from Australia, Brazil, Southeast Asia, and Africa, building its leverage in the developing world.

But all was not well. Beijing was surprised at how slowly, if at all, the gap was closing between the multinationals and the SOEs in complex businesses. In the mid-2000s, foreign companies still dominated products ranging from elevators to excavators to high-speed rail equipment to jet aircraft to semiconductors. They accounted for nearly all China's high-tech exports, such as computers, cell phones, and telecom hardware. In autos, China had arranged joint ventures between SOE auto firms and Volkswagen, GM, Toyota, and others, expecting that the SOEs would readily absorb their technology and then displace them. Instead, these joint ventures grew to dominate the market while the indigenous industry remained second tier and niche oriented.

These realities meant China needed a new set of industrial policies. Beijing needed to keep foreign firms from controlling its most sophisticated markets *without* denying itself the high-end capital goods and technology they provided. At the same time, it needed to accelerate the development of indigenous firms in these sectors. And the CCP needed to maintain its rule in economic affairs and preserve enough state-controlled sinecures to keep its cadres happy.

Phase Two: Mid-2000s–Present

In response to these problems, the industrial policies that emerged in the ensuing years had the following core elements:

State-Owned Enterprises

SOEs continued to control major heavy industries such as steel, construction, and mining, plus sensitive areas such as communications, petroleum, and finance. These sectors provided basic business infrastructure, housing, healthcare, and other social goods (including jobs in depressed areas), so they were considered critical to nonmarket objectives such as national security and avoidance of political unrest.

More emphasis was placed on consolidating competing SOEs in capital goods industries such as rail equipment and aircraft, where China needed to catch up. China began to demand that the multinationals' most advanced technology be transferred to their Chinese partners, which were often now actual or potential competitors.

But the rise of China's private sector was inexorable. By 2005, private firms were investing twice as much in manufacturing as the SOEs, and by 2017, four times.²⁸ In 2005, the private and SOE shares of exports were equal, but by 2017, the private share was three times larger.²⁹ Private companies' average return on assets was also more than twice that of the SOEs, indicating more efficient use of capital.³⁰ And they made up 75 percent of China's 4,000 publicly listed companies.³¹

In digital and telecom high technology, the slow-moving SOEs have found it hard to compete, and China's progress has been led by private companies. But Beijing is experienced at cajoling and coercing private companies into roles compatible with the SOEs remaining in control of major industries. For example, it forced several private airlines to merge with state airlines. It believes that it can determine the optimal structure for any industry and impose it at will.

While SOEs today account for a declining share of capital investment and GDP, they still represent more than 60 percent of all earnings of listed firms and about 40 percent of GDP, simply because they are so large.³² Seventeen of China's largest 20 industrial and financial corporations by revenue are state-owned.³³ Roughly 40 percent operate at a loss and are kept afloat by government policy, though the major ones do much better.³⁴

Foreign High-Tech and Capital Goods

Local-content requirements for foreign high-tech and capital goods companies were raised, forcing them and their suppliers to bring more production to China. Foreign multinationals' continued access to the Chinese market was increasingly conditioned on their agreement – disingenuously labeled as voluntary to skirt WTO rules – to transfer technology. One result was a steadily increasing trade surplus in capital goods with the US since 2006.³⁵

Because China could not do without companies such as IBM, Ericsson, Oracle, GE, Siemens, Westinghouse-Toshiba,³⁶ and Areva (a French nuclear fuel cycle firm),³⁷ it set out to control them. Antimonopoly actions were disproportionately directed against them, not to protect competition but to pressure them. Most big capital-goods projects involved a state-owned buyer or contractor such as China Railways or Aviation Industry Corporation of China (the national champion created to someday compete with Boeing and Airbus), giving Beijing a great deal of influence over technologies used, who could bid, and who won.

China also used a novel patent regime against the foreign multinationals. In 2018, despite massive cheating, the country was still paying \$36 billion annually in royalties and licensing fees to foreign entities. (The reverse flow was \$6 billion.)³⁸ Multinationals were filing patent lawsuits in third countries where China was trying to sell products that used pirated technology. To get around expensive patents,

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China adopted the concept of “utility patents,” which enabled small changes in a product’s design to escape a patent.

Unique technical standards were used as a protectionist tool. China first did this in 2004 for wireless devices. It required manufacturers to make their devices compatible with China’s indigenous WAPI standard instead of the globally established Wi-Fi. Western producers fought back, saying this rule forced disclosure of proprietary designs and encryption technology. When the International Organization for Standardization rejected WAPI as inferior, Beijing labeled it a Western conspiracy. Nevertheless, to sell in China, producers must now comply with both standards. In theory and per WTO rules, this is not a trade barrier, but in practice, it is because most products produced elsewhere do not meet the standard.

But all remains negotiable, Beijing insists. The rules are flexible. Translation: It will give better terms to companies with the best technology.

Local Content Requirements

“Voluntary” local-content requirements were used as a Sinification strategy. Consider Germany’s Siemens’s experience in high-speed rail. To bid on a \$1 billion contract for a Beijing–Tianjin project of 60 train sets, it was obliged to form a joint venture (owning 49 percent) with China National Railway (CNR). Siemens provided the designs and trained CNR’s engineers. The first 3 train sets were built in Germany, the next 57 in Tangshan. This strategy advanced CNR enough technically that it was subsequently awarded a \$5.7 billion Beijing–Shanghai project based on Siemens’s designs, with Siemens as a subcontractor for only \$1 billion in components.³⁹ Multinationals, in particular Japan’s Kawasaki, France’s Alstom, Germany’s Siemens, and Canada’s Bombardier, once controlled two-thirds of China’s high-speed rail market. From 2009 to 2011, 63 percent of that market was open to foreign-based firms, a window that shrank to 17 percent by 2017–19. (The corresponding rate for Europe in 2021 was 79 percent.)⁴⁰ China Railway Rolling Stock Corporation (CRRC), the product of megamergers of China’s SOE rail equipment producers, now owns the Chinese market and is the world’s largest rail equipment exporter.

Wind turbines are another example. From 1996 to 2005, foreign firms held 75 percent of China’s market. Then the government, to reduce dependence on fossil fuels, decided to grow the industry dramatically by offering buyer subsidies and other incentives. It increased the local content requirement from 40 percent to 70 percent and hiked tariffs on components. As the market exploded, foreign manufacturers were unable to expand quickly enough, but their Chinese competitors, who had been licensing technology from Europe, took up the slack rapidly and cheaply. By 2009, Chinese firms, led by private Goldwind and state-owned Sinovel, controlled more than two-thirds of the market. (The 70 percent local content

requirement was later dropped, but only after sufficient component production had moved to China.)⁴¹

Beijing is a master of using timing and sequencing to pretend to open its markets while in fact controlling them. China, not surprisingly, views these policies differently than do the US, EU, and Japan, all of whom regard them as sophisticated forms of state-assisted technology theft. The United States Trade Representative (USTR) estimated in 2018 that China's intellectual property theft costs America \$225–600 billion a year.⁴² Whether China will continue to succeed with these strategies will depend, in large part, on how the rest of the world's leading multinationals and their governments reshape their own strategies and industrial policies to push back.

Developing Indigenous Technology

Development of indigenous technology was accelerated. In 2006, the National Medium- and Long-Term Plan for the Development of Science and Technology: 2006–2020 targeted eight fields: biotechnology, information technology, advanced materials, energy, marine, lasers, aerospace, and agriculture. The Plan focused on building up SOEs as China's best hope for innovation in major infrastructure sectors. It included big-ticket projects such as clean coal power generation, long-haul commercial aircraft, and new generations of nuclear reactors to avoid buying expensive French and Japanese models.

The Plan called for China to increase R&D spending from 1.3 percent of GDP in 2006 to 2.5 percent by 2020. (The actual figure attained in 2020 was 2.4 percent, vs. the US at 3.5 percent.)⁴³ But, in the words of one 2023 study, "China's gross innovation capabilities (e.g., R&D expenditures, venture capital [VC] investments, advanced-industry output, patent output, etc.) are now almost 40 percent greater than those of the United States."⁴⁴ China's government funds an estimated 69 percent of its R&D, compared to US government's 28 percent.⁴⁵ (See Chapters 19 to 24 about America's innovation system and its problems.)

Beijing was enamored with America's old AT&T model for technology, which combined development and deployment in a single national champion. This strategy reflects certain core beliefs: that putting scientists, engineers, and managers under one roof will outperform more distributed, competitive models; that China's scale was its principal advantage; and that the CCP's interests were best served by central control. But Beijing had more policy levers than the US had in AT&T's day. It owned all the land, so it could set its price, even to zero. It controlled the big banks, hence the interest rate SOEs had to pay. It controlled national laboratories and universities, hence scientific resources. And it controlled the tax collection agency, hence who paid what. Intramural politics in Beijing was (and is) largely about which SOEs got the best deals on all these fronts.

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The success of this model has varied by industry. Notable winners are CRRC, Shanghai Zhenhua Heavy Industries (ZPMC), and China Mobile. CRRC and ZPMC, which makes port machinery, are global market leaders, and China is now world class in wireless networks. The big failures have been in semiconductors and internal combustion engine cars, although China is now sprinting ahead in electric vehicles (EVs), albeit with a private firm in the lead.⁴⁶

Acquisition of technology-rich foreign companies was another strategy for building indigenous technological know-how, and was especially encouraged when the buyer was an SOE. This SOE favoritism contrasted with the government's often less enthusiastic guidance regarding private firms' foreign acquisitions and its foot-dragging on needed capital-export permissions, citing money wasted on hasty deals in the past.

Industrial Espionage

State-sponsored espionage to gain advantage in technology-intensive international industries is nothing new: French intelligence was caught spying on Boeing in the 1990s.⁴⁷ But Beijing escalated such espionage by orders of magnitude, both in its encouragement of private efforts and in its willingness to deploy state intelligence services. The latter are used for direct information gathering and for threats and bribes against private actors to get them to disclose information.

Huawei is a paradigmatic, although not unique malefactor.⁴⁸ It stole Motorola's wireless technology and Cisco's router source code. It violated SolarEdge's patents for inverters, PanOptis's for smartphone software, and the MPEG Consortium's for video compression.⁴⁹ A 2019 indictment in federal court revealed that the firm had a company-wide program to pay bonuses to employees for stealing secrets.⁵⁰

China's stealing sometimes blends seamlessly with programs that have a legitimate side, such as the Thousand Talents Program (TTP) that recruited (mainly ethnic Chinese) scientists abroad to work in China. Thus, scientist Hongjin Tan, a Chinese citizen and US permanent resident, went to prison in 2020 for stealing more than \$1 billion in battery trade secrets from his former employer in Oklahoma.⁵¹ TTP was terminated in 2018 due to US pressure, but reemerged two years later under a new name, Qiming.⁵²

Half the FBI's 5,000 active counterintelligence cases involve China. In 2019, a third of American CFOs reported that Chinese entities had stolen their firms' intellectual property over the previous decade.⁵³ Highly regarded Harvard chemistry professor Charles Lieber was found guilty in 2020 of concealing his involvement with the Wuhan University of Technology.⁵⁴ Although other nations report similar problems, the US, as a more open and diverse society than other high-tech hubs like Japan, is exceptionally vulnerable.

The naivete of China's American victims has played into Beijing's hands. For example, when GM complained to its Chinese partner, SAIC, about theft of its designs by the Chinese firm Chery, it was surprised to learn that SAIC *owned* 20 percent of the latter.⁵⁵ And China has not only stolen industrial secrets: In 2017, its military hacked the Equifax credit-reporting firm, taking sensitive personal information on 150 million Americans.⁵⁶ In the social media age, the possibilities for exploiting this information are infinite.

Engaging the World Economy on Its Own Terms

After 2005, China gradually managed the yuan up, relaxing *some* capital controls but not allowing full convertibility. Official reasons included cooling the economy and reducing the cost of imports and foreign asset purchases. There is evidence for additional motivations. Beijing feared that China's growing trade surpluses and foreign currency reserves were on the verge of triggering foreign pushback. With domestic goods prices, asset prices, physical capital investment rates, exports, and other indicators rising, it feared that hot money would sense a coming yuan upward revaluation and attempt large-scale inflows, stressing China's capital controls.

The yuan rose against the dollar, but as of late 2023, by only 20 percent, far less than fundamentals such as productivity growth and inflation differentials would imply. It is still undervalued on a purchasing power parity basis – that is, by comparing the price of identical goods in the two nations. As of June 2023, China's currency was estimated by the bipartisan Coalition for a Prosperous America's Currency Misalignment Monitor to be 23 percent undervalued against the dollar.⁵⁷

China will not be opening its capital markets to free flows any time soon. Beijing relaxes its rules from time to time, but never scraps them entirely. For example, in 2015, wealthy Chinese private capital was fleeing the country, in part due to uncertainty stemming from Xi Jinping's crack-down on "corruption" (especially against his political enemies). This capital flight forced China's central bank to intervene to keep the value of the yuan *up*.

Consumption is still suppressed: It rose from its trough of 49 percent of GDP in 2010 to 55 percent by 2020, but this is still very low by international standards. China's economy is still investment driven.⁵⁸ Gross investment in hard assets such as factories and infrastructure as a percentage of GDP has been on a steadily rising trend from 1962 (when the Great Leap Forward ended) through 2016, and now stands at 43 percent.⁵⁹ Developed nations are generally

around 20 percent. However, per capita, China still has only about 10 percent of their accumulated capital, so it needs to keep accumulating.⁶⁰

As China's domestic economy has developed, it has become less dependent on exports, which peaked at 36 percent of GDP in 2006 and fell to 19 percent by 2020.⁶¹ Measured by share of global export markets, by 2017 China had reached parity with the US in many key industries. The startling chart in Figure 7.3 is from *Made in China 2025 and the Future of American Industry*, a report released by Senator Marco Rubio (R-FL), and demonstrates this trend.⁶²

Between 2010 and 2020, China's corporate sector burgeoned. In 2010, only 46 firms were in the Global Fortune 500, versus 71 for Japan and 139 for the US. Five years later, China had 98, with Japan at 54 and the US at 128. By 2020, China was number one at 124. But in revenue, US firms still led at \$9.8 trillion versus China's \$8.3 trillion and Japan's \$3.1 trillion.⁶³ During this period, much of China's economy was thriving. In the digital sector, private companies like Tencent and Alibaba were succeeding without subsidies. Chinese-branded EVs were gaining global market share, even though the US imposed a 27.5 percent tariff on Chinese cars in 2018.⁶⁴ Then an economic slowdown in 2023 stalled much of China's economic engine; this was compounded when the government intentionally deflated a giant real estate bubble. The number of Chinese companies on the Fortune Global 500 dropped for the first time in 15 years.⁶⁵

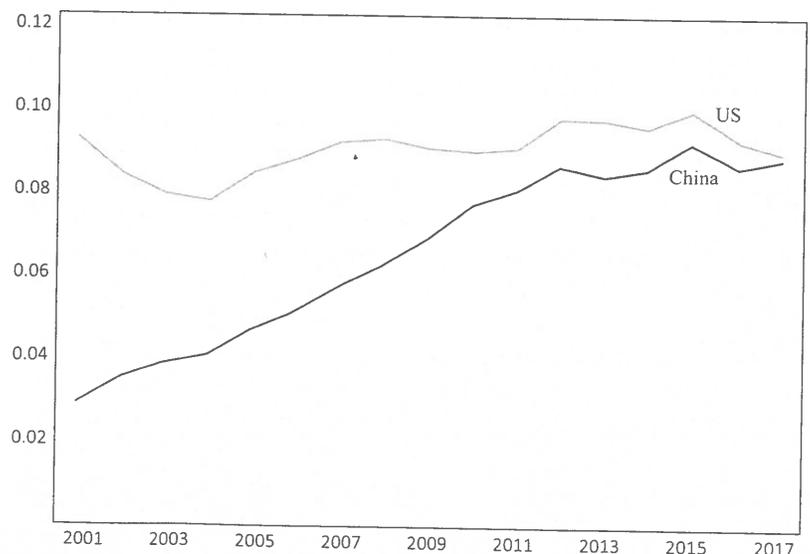


Figure 7.3 Share of global export market in 32 high-unit-value capital goods⁶⁶

Phase Three: The Future

Today, the economy is mainly driven by services, manufacturing, and agriculture, with strength in finance, energy, and materials. But it still lags in sophistication and competitiveness in key research-intensive industries such as semiconductors, aerospace, computers, electronics, and pharmaceuticals.

For reasons ranging from technological shortfalls to the aggressive defense of product positions by foreign multinationals, China has been unable to match some elite competitors. These include Boeing and Airbus in commercial aircraft, GE Power and Siemens in gas turbines, BAE Systems and Honeywell in avionics, Samsung and Kioxia in memory chips, TSMC and Intel in microprocessors, Omron and Bosch in auto electronics, Yamazaki Mazak and Trumpf in machine tools, Seagate and Toshiba in hard drives, Mitsubishi and Carrier in refrigeration compressors, Berry Packaging and Amcor in food packaging, and ABB and Fanuc in robotics.

These big-system and upstream-component industries are less vulnerable to market-share shifts because their competitive advantages are deeply rooted in complex science, accumulated engineering prowess, multidisciplinary design, and inside knowledge of customers' business processes that take decades to develop. Their products cannot readily be reverse engineered or their production relocated using China's standard "carrots" of cheap labor and subsidies and "sticks" of tariffs and controlled market access.

China is today therefore ramping up industrial policies better suited to these industries and the advantageous industries of the future. The flagship program here is Made in China 2025, announced in 2015, which sets forth Beijing's plan to become the world's leading manufacturer and innovator by 2049. It aims to create 40 national innovation centers in 10 sectors, including smart transportation, information technology, artificial intelligence, industrial robots, and aerospace. The long-run objective is to make China technologically independent. Figure 7.4 shows the program's goals for taking market share from imports.

This program has gotten the US government's attention: In the alarmed words of Senator Rubio, "If MIC2025 is successful by these terms, what the 'China shock' did to domestic US production of electronics, furniture, plastics, metals, and vehicle parts could threaten to repeat itself in capital goods like machinery, automobiles, high-end computers, rail, and aerospace products."

While the Chinese government no longer talks publicly about Made in China 2025, it is clearly still the plan.⁶⁷ For example, in 2021, the Chinese government allocated more than \$28 billion in subsidies to large Chinese firms centered on the technologies targeted by Made in China 2025.⁶⁸

Share of Chinese Market Served by Domestic Companies		
	2020	2025
High-tech ship components	60%	80%
New energy vehicles	70	80
Renewable energy equipment	50	80
Industrial robots	50	70
High performance medical products	50	70
Large farm tractors and harvesters	30	60
Mobile phone chips	35	45
Large-body aircraft	5	10

Figure 7.4 “Made in China 2025” market-share goals for eight product areas

To succeed in these areas, China is increasing its R&D. Much of its spending has been pedestrian, even wasted, in part because funds are misallocated to serve political agendas and because Beijing over-incentivizes the mere filing of patents. By more rigorous metrics, such as number of journal articles and patents used by others, or royalties and licensing fees, American R&D is more productive. But China’s research is improving fast and its researchers are gaining international respect. Its university R&D is now highly regarded in fields such as telecommunications, nanotechnology, and mining.

China is proactively developing a world-class innovation ecosystem. Its models for entrepreneurship are Silicon Valley and Israel. The country is relatively new to venture capital, but its state-linked funds are making sizeable investments in startups. In 2022, China claimed to add 74 new “unicorns.”⁶⁹ In total, China had 283, bested by the US at 704 and followed by India at 83.⁷⁰ Two of the world’s five largest technology clusters are in China.⁷¹ There are three main areas of interest:

Internet-based services such as search, fintech, virtual private network (VPN) apps, cryptocurrencies, payment systems, and cloud computing. Policies here are straightforward: promote indigenous firms by limiting the services the American incumbents can offer. Many internationally successful American firms, including Amazon, eBay, Yahoo, Uber, and Google, have been squeezed out of the country after making major investments.⁷² Those that remain are kept on a short leash: Apple, for example, was obliged to remove a VPN app (which undermines censorship) from its online store and to store data in China, where its law and judges rule. The firm is also being required to build R&D centers in China with local partners. But, as always, companies with strong technology platforms have leverage. China’s censorship of Google’s search engine drove the company out in 2010 and Google Cloud does not operate

there, but the firm was later partly allowed back in with its superior deep-learning tool TensorFlow (now outmoded).

Artificial Intelligence, currently exploding in economic and military importance. Beijing says that it wants to be the global leader by 2030 and claims (perhaps falsely) that it will spend up to \$80 billion to get there. It is moving fast and China is ranked among the top three countries for the vibrancy of its AI sector. Beijing pursues a two-front campaign, throwing money at domestic players (in the form of low interest loans, R&D subsidies, and seed capital) and investing in American startups.

Private companies lead China's AI effort. Big, established internet companies such as Baidu, Tencent, and Alibaba provide the big data for analysis and are willing to invest substantial sums. Computer scientists trained at China's top universities, and returning Chinese nationals with American PhDs, bring skills. Wealthy Chinese individuals and American and Japanese venture capitalists supply capital. The state is playing as well: In 2017, Baidu launched an AI lab in Beijing with the National Development and Reform Commission. (Such blurring of lines between private tech companies, financial sources, and the state makes it difficult to classify many Chinese players.)

America's deep, rich AI environment is China's other main source of research. Baidu, Tencent, Alibaba, and Didi Chuxing (China's Uber) all have AI labs in the US, and are making similar investments in Tel Aviv, Moscow, and other AI-intensive locations. American startups, many otherwise going unfunded, are attracted to Chinese venture capitalists' large risk appetite and fast decision-making. The gaps in America's own innovation system are playing into China's hands. For example, in 2016, Haiyin Capital invested \$1.2 million for a minority stake in Neurala, a Boston-based AI company. Neurala's early work was with NASA and the US Air Force, but it could not secure later-stage American funding.

Hardware components, especially telecom networks and semiconductors. In telecoms, Huawei and ZTE are world class. Including other manufacturers, China in 2019 had 38 percent of the global market.⁷³ But China still cannot compete head-to-head in semiconductors with the Taiwanese and Korean chip companies in the first tier, or even with the American, Japanese, Singaporean, and German firms in the second. It still depends on foreign manufacturing equipment.⁷⁴ Chinese chip companies are not expected to catch up for years.⁷⁵

In 2017, Congress restricted DOD networks from using Huawei or ZTE telecom equipment over espionage concerns. Washington subsequently tightened restrictions against these and other Chinese telecom equipment makers. It stopped buying from Huawei and removed equipment already installed in federal agencies.⁷⁶ In 2019, the FCC designated Huawei and ZTE

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national security threats and the Commerce Department put Huawei on the “entities list.” In 2022, the FTC banned the sale of Huawei and ZTE equipment in the US and restricted the use of some Chinese-made video surveillance systems.⁷⁷ And in 2023, the US declined to issue further licenses to export goods to Huawei. These measures and those imposed by the UK and Australia significantly cut Huawei’s sales.⁷⁸

In 2014, Beijing issued its Guidelines to Promote National Integrated Circuit Industry Development, which targeted “establishing a world-leading semiconductor industry in all areas of the integrated circuit supply chain by 2030.”⁷⁹ To achieve this, it launched the China Integrated Circuit Investment Industry Fund with an estimated capitalization of \$150 billion, in 2019 set up a second fund of \$29 billion, and in 2022 was reportedly assembling an additional \$143 billion.⁸⁰ But the leading edge of the industry moves so rapidly that the state has difficulty keeping up with where to target its money, and the fund was later put on hold. Nominally the hold was due to COVID, but audits that showed a lot of money being misspent, some corruptly, were an important factor.⁸¹

China has tried to buy American chipmakers, but all attempts have been blocked by the Committee on Foreign Investment in the US (CFIUS). However, there are other ways to acquire US technology, such as cross-border partnerships, often with American companies under profit pressure due to Chinese competition. Thus XMC, a rapidly growing Chinese memory chip designer and manufacturer, partnered with Spansion, part of \$2 billion Cypress Semiconductor, and Advanced Micro Devices licensed its technology to a joint venture in Tianjin. But China’s overall flow of FDI into the US declined sharply after 2016 due to political tensions.⁸²

Strengths

- A unified national government with strong policy traction over the country.
- Commitment to an economically sound concept of industrial policy – that is, the pursuit of ever-more-advantageous industries at largest feasible scale.
- Pragmatic, coordinated policymaking deploying the full range of industrial policy tools and adjusting effectively as China moves up the technological ladder.
- A good understanding of technological sequencing and of which industries would generate growth in others.
- Ability to raise investment capital through a wide range of forced savings policies.
- Meritocratically selected technocrats who do not allow political pressures or outright corruption to derail rational policymaking.

/ China

- Ability of the state to discipline the private sector, including the banks and financial markets, requiring it to succeed at state goals in return for support.
- Successful harnessing of the entrepreneurial, hardworking culture of China's people.
- Ability to reverse-engineer, improve, and then efficiently manufacture technologies developed in the West on an unprecedentedly large scale.

Weaknesses

- Hyperaggressive mercantilism, including industrial espionage on an unprecedented scale, that has alienated much of the rest of the world and caused growing pushback.
- Corruption, especially in the state-owned sector.
- Tendency to overinvest scarce capital in some targeted sectors such as real estate, infrastructure, and heavy industry.
- A significant number of SOEs that are still unprofitable, inefficient CCP patronage sinks.
- Continued heavy reliance on overseas markets – especially the US – to absorb the overproduction of its industries.
- Reluctance, driven by CCP fear of political blowback, to increase domestic consumption and decrease national investment as other nations raise barriers to subsidized or dumped Chinese exports.
- The danger that extreme concentration of political power in a single leader will create a cult of personality and a climate of fear that will stifle open discussion, especially of failed policies, degrading the quality of decision-making and administration.