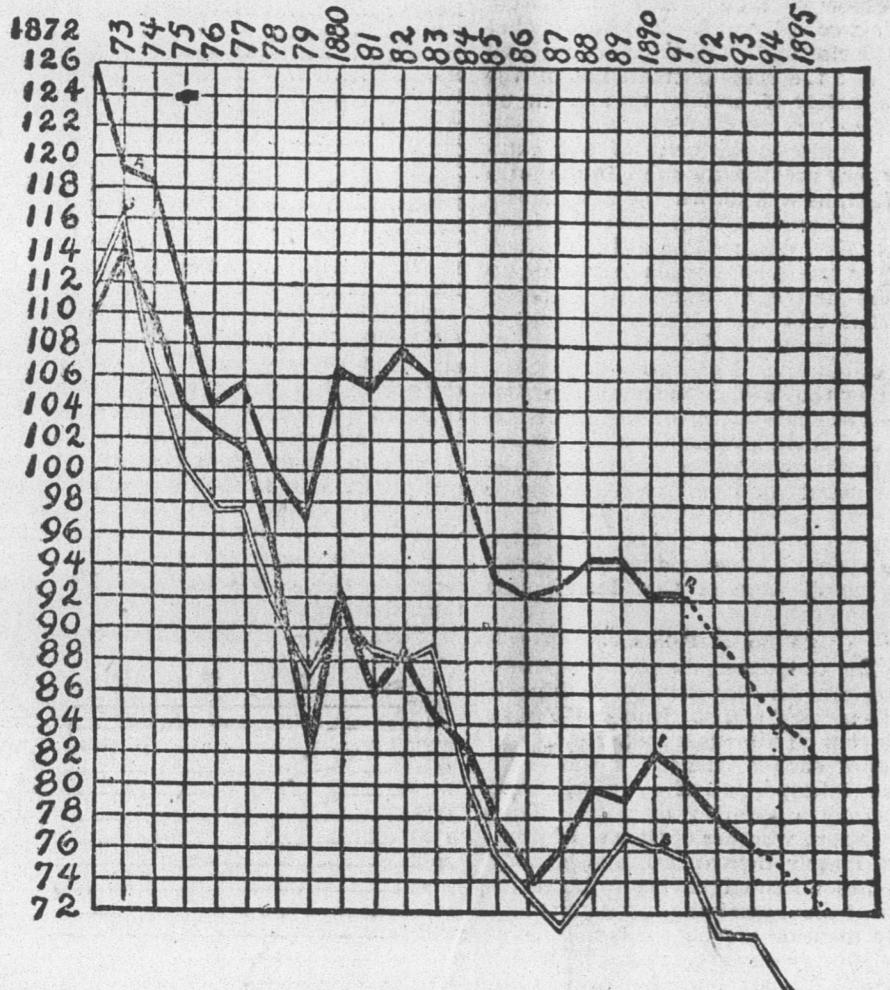


Asking you to bear in mind, as before stated, that no general law in economics can be learned except by studying broad and large results over considerable periods of time, I ask you to note how beautifully this chart exemplifies to the eye the effects of the rise of gold. The line of gold is not uniform, but its general direction is upward. The lines of silver and commodities are not entirely regular, but their general tendency is downward. The correspondence between the values of commodities and silver is very remarkable and ought to be very interesting to gentlemen who deny the appreciation of gold and declare that there is no parallel between the prices of commodities in general and silver. You will notice that in 1860, for example, there was a sudden rise of silver and of these commodities. Naturally silver rose in the more pronounced degree than the other commodities, because in that year there was pending in congress a proposition to rehabilitate the white metal and make it as good as gold. As soon as there was a likelihood of the restoration of its full money functions it began to mount toward the point of parity, and as a necessary consequence gold began to fall.

Chart C exhibits upon one diagram the course of prices in England as shown by The Economist and Sauerbeck tables, and in the United States as shown by the Aldrich report, already referred to. The prices are in gold, of course. The United States prices are shown in the heavy dark lines marked A, and the two English lines are indicated by their appropriate letters.

The general correspondence of the three is very striking. American prices started higher than English prices and have remained so. The action of our protective tariff in stimulating production, restricting competition very largely to our own producers and upon our own standard of living and keeping out our own markets for those producers has justified the policy of its advocates, of whom I claim to be as faithful as any, but it has not availed to withstand the constricting influence of the gold standard, whose sway is as "broad and general as the air." Prices had fallen in the United States about 28 per cent by 1891, and by 1895 the fall was certainly 35 per cent or more, so that the purchasing power of gold in this country is fully 50 per cent greater than it was in 1873.

CHART C.—FALL OF PRICES IN ENGLAND AND THE UNITED STATES SINCE 1873.



United States.—A, based on senate report No. 134. Fifty-second congress, second session, commonly called the Aldrich report. 223 commodities. See part 1, page 91. (Gold prices). England—S, based on Sauerbeck's tables adjusted to Aldrich plan. See report, part 1, page 225. 43 commodities. E, based on Economist's tables adjusted to Aldrich plan. See report, part 1, page 226. 22 commodities.

The enormous fall of prices in the gold standard world I have proved. Gentlemen in this debate may hereafter seek some other explanation for the fact than that which I offer as chiefly accounting for it, but nobody will deny the fact. It is an open and notorious fact, whose significance, if preponderantly due to the single gold standard, challenges the intellect, the conscience and the patriotism of this nation. Contrast it for a moment with this: The purchasing power of silver in silver using countries is today almost the same as in 1873. Consul Wetmore, at Shanghai, shows this by the following index numbers based on 20 staple commodities in the Chinese market:

	Aggregate value of twenty commodities, in silver.	Silver value of gold.
1853	2,000	2,000
1854	1,814	2,029
1855	1,787	2,078
1856	1,740	2,101
1857	2,31	2,159
1858	2,102	2,215
1859	2,023	2,301
1860	1,925	2,275
1861	1,840	2,252
1862	1,888	2,307
1863	1,916	2,332
1864	1,888	2,375
1865	1,854	2,425
1866	1,855	2,471
1867	1,774	2,648
1868	1,701	2,730
1869	1,508	2,746
1870	1,508	2,593
1871	1,45	2,52
1872	1,731	2,950

And the royal commission of 1888 declared that the purchasing power of silver in India had not fallen.

Sir, there is a simple reason why prices began falling about the year 1873 and have kept falling with more or less regularity ever since. Down to that period gold and silver shared together the functions of ultimate money among the great commercial nations of the world. Together they formed one vast money reservoir, whose aggregated contents measured all exchange values and constituted the ultimate solution of all representative and credit money.

England's action in going upon the gold standard in 1816 had not impaired this relation, but the sudden and nearly contemporaneous adoption of that standard about 1873 by several leading governments, followed at frequent intervals by others, made a sudden and tremendous lessening of the mint demand for silver and threw upon the volume of gold the double burden of sustaining the credits and the redemption functions formerly borne by both metals jointly. This added enormously to the strain upon gold, rendering it relatively scarce and more difficult to obtain, increasing almost beyond conception the demand for it, while its supply did not materially alter. The inevitable result was to raise the value of gold, to make it constantly necessary to give more and more of all commodities, on the average, to get gold. The full effect was not felt all at once in 1873. The steps in the process were progressive, and the effects

were correspondingly so. Prices began falling with the cause and have fallen and are falling as the cause continues and intensifies. The following is a fairly good statement of these successive stages in the process of squeezing the expanding energies of the nineteenth century down to the narrowing measure of the gold standard:

From Bimetallism to Gold.

1872.—Norway and Sweden substitute the gold standard for the silver standard.

1873.—The United States, while on a paper basis and looking longingly toward resumption of specie payments, adopts the gold standard, although silver at the time is worth more in the market than gold, and although there has been no public demand for such action, the people and nearly every man in public life being ignorant of the real scope and object of the act, no amendment to which striking the standard of silver dollar from our coinage can to this day be found of record. Thus on resuming specie payments in 1879 we became an aggressive scrambler for a share of the gold in the world, which was now becoming more and more the object of the eager pursuit of nations. Between 1877 and 1879 we absorbed over \$60,000,000 of gold as against about \$55,000,000 in the preceding 11 years.

1873.—Germany changes from the silver standard to the single gold standard, making a great demand for gold, so that by May, 1881, she had coined over \$41,000,000 worth of it, and throwing upon the market for sale as bullion large masses of her worn and demonetized silver coin, selling by 1879 more than 7,100,000 pounds weight of fine silver.

1873.—Belgian parliament authorizes the government to suspend the free coinage of silver.

1873-1874.—France and the Latin Union (Italy, Switzerland, Belgium and Greece, besides France) suspend the free coinage of silver, and France substitutes the gold standard for the double standard.

1873.—Holland formally demonetizes silver, having suspended its free coinage in 1873, and adopts the single gold standard for herself and her East India colonies.

1873-1875.—The Bank of France retires \$360,000,000 worth of paper and adds greatly to its gold reserve.

1873.—The United States enacts the Bland law, compelling the government to

"I am far from denying that if the Italian government decide to carry into effect M. Luzzatti's threat of buying gold at all hazards, and if the like course be taken by the United States and France, not to speak of Germany, there might be considerable disturbance of values for the time. But it is likely that such proceedings will be taken by rational statesmen and rational parliaments? It is really too absurd to suppose that any country will insist upon having a gold currency at any cost."

Alas for the fallibility of geniua! Even Jevons could not foresee that so many parliaments would prove irrational, and that great countries should be so smitten of the gold standard he advocated as to pay their lifeblood for it.

But no prophecy of economic effects from observed causes has probably ever been made so unique and startling in its insight and accuracy as that of Ernest Seyd, the famous bimetallist, who in 1871 wrote: "It is a great mistake to suppose that the adoption of the gold valuation by other states besides England will be beneficial. It will only lead to the destruction of the monetary equilibrium hitherto existing and cause a fall in the value of silver, from which England's trade and the Indian silver valuation will suffer more than all other interests grievous as the general decline of prosperity all over the world will be. The strong doctrinism existing in England as regards the gold valuation is so blind that when the time of depression sets in there will be this special feature—the economical authorities of the country will refuse to listen to the cause here foreshadowed; every possible attempt will be made to prove that the decline of commerce is due to all sorts of causes and irreconcilable matters. The workman and his strikes will be the first convenient target; then speculation and overtrading will have their turn. Later on, when foreign nations, unable to pay in silver, have recourse to protection; when a number of other secondary causes develop themselves, then many would be wise men will have the opportunity of pointing to specific reasons which, in their eyes, account for the falling off in every branch of trade. Many other allegations will be made, totally irrelevant to the main issue, but satisfactory to the moralizing tendency of financial writers. The great danger of the time will then be that among all this confusion and strife England's supremacy in commerce and manufactures may go backward to an extent which cannot be redressed when the real cause becomes recognized and the natural remedy is applied."

Nothing could better show on what just philosophical principles bimetallism rests than this picture in 1871 of events to begin with demonetization in 1873 and continue until now and as much longer as we shall permit. If the test of science is prediction and verification, surely the evils of gold monometallism are scientifically condemned.

Just before the monetary conference at Brussels, in 1892, the late Dr. Soetheer, the eminent German philosopher, wrote, foretelling the cataclysm of the year 1893 and subsequent evils:

"I fear that if the English government on the occasion of the forthcoming international monetary conference should refuse to submit or support practicable propositions destined to extend considerably the use of silver as legal tender there will probably result a further incalculable depreciation in the value of the metals and a very serious appreciation of gold, followed by disastrous consequences."

Yet, sir, men will persist in referring the fall of prices since 1873 to the multiplication of inventions and to cheapened cost of production. It is no impugnment of my argument to admit that this may account for a relatively small proportion of the fall. But, sir, it is a very small proportion. Between 1850 and 1873 prices gradually and generally rose, a fact nobody will dispute, and yet I assert with perfect confidence that between those dates greater improvements in productive processes, compared with the condition at the beginning of the period, were made than between 1873 and the present time.

Gentlemen cannot have forgotten the marvelous mechanical exhibit at the centennial exposition, practically all of which related to the period in question.

By far the greatest amount of this accomplishment belongs, so far as its commercial and productive aspect is concerned, to the period from about 1850. By that time the steam engine had been perfected. The old Newcomen engine of 1791 with a "duty" of 5,500,000 foot pounds per one bushel of Welsh coal had developed into the improved Cornish engine of 1850 with a "duty" of 60,000,000 foot pounds. The factory system had come into systematic operation—the greatest revolution in production in the history of industry—so that when England, about 1850, changed the tariff policy under which she had grown great and started out to impose free trade upon the world it is estimated that the money would buy for him when he borrowed it, then he loses the difference, and the money lender makes it.

Now, in either case the changing standard takes something from one man without his deserving to lose it and gives it to another who has no right to it. In either case it is a silent robbery. The ideal standard would preserve the rights of both debtors and creditors. But if a deliberate choice had to be made between a gradually falling and a gradually rising standard all writers of authority agree, and it is consonant with common sense, that morally, economically, politically and socially the falling standard would be preferable. Its inevitable losses fall on the creditor, the lender, who can better than the debtor endure its effects, and it encourages enterprise, while the certain hardships of the rising standard fall on the borrower, the debtor, the investor, the captain of industry, who cannot so well sustain the burden, who has no surplus, but is most frequently wiped out of the face of the industrial world by the vanishing of the margin between his property and the automatically enlarging lien upon it.

In the latter case the absolutely unavoidable result must be, if the evil is permitted to run, that all property will eventually belong to those who shall control the ultimate money of the world, and thirft and enterprise, if enterprise and thirft can belong to a race of slaves, would plan and save and toll to further fatten the overfed fatness of their masters. This is no exaggeration of language. It is the speech of truth and soberness. Said Sir Arthur James Balfour, the real head of the present Conservative government of England, an earnest bimetallist and one of the profoundest thinkers in Europe, in a speech at Manchester Oct. 27, 1892:

"But of all conceivable systems of currency that system is assuredly the worst which gives you a standard steadily, continuously, indefinitely appreciating, and which by that very fact throws a burden upon every man of enterprise, upon every man who desires to promote the agricultural or the industrial resources of the country and benefits no human being whatever but the owner of fixed debts in gold."

History of Industry.

In agriculture the period in question saw the perfection of the plow, the seedling machine, the grain drill and the mowing machine. The first successful reaper was McCormick's, invented in 1834, improved in 1847 and first attracting general attention at the London world's fair of 1851, where it took the gold medal, and from which time it came rapidly into use. Between 1851 and 1876 nearly 8,000 patents were taken out in this country alone for harvesters and their attachments. The threshing machine was brought to perfection in 1853. The self binder belongs to a later period, but its effect and that of improvements on the inventions named had nothing like the significance for agriculture which the devices that came in from 1850 to 1873 had. To this period also belongs the beginning of scientific agriculture and the use of imported and manufactured fertilizers on a large scale, the systematic and general breeding of cattle, horses and sheep and the inauguration and considerable development of the cheese factory system.

In manufactures it is sufficient to name the leading processes and machines that had become commercially effective in this period—the cotton gin and spinning jenny, with their principal attachments and improvements; the power loom, calico printing and color weaving; the hot blast in iron manufacture, perfected by 1845, by which many previously refractory ores were rendered reducible and the cost of smelting was diminished nearly half; the steam hammer, rolling mill and turning lathe; the Bessemer steel process and the chief improvements in producing and refining iron, the casting, forging and rolling of the heated metal and the turning and planing of the cold metal; the jack, the slotting, key grooving, milling and shaping machines; the process of assembling, or the making of interchangeable parts of machines, permitting the vastly cheaper manufacture of articles like watches, clocks and firearms; the sewing machine, dating effectively from about 1850, between 1850 and 1876 about 2,000 patents

connected with it were granted in the United States; the pneumatic caisson in engineering, the centrifugal pump, tunneling and drilling machinery, and the use of compressed air in connection with them; scales and elevator machinery, gang and circular saws and sawmill machinery generally, about the only new departure from since that time being the use of the band saw on a large scale; turning machinery, particularly Blanchard's spoke lathe for turning irregular forms; general woodworking machinery for planing mills and furniture factories, washing machines and knitting machines, the principal kinds of boot and shoe machinery, especially the McKay sewing machine, which, between 1861, when it was perfected, and 1870, had made 225,000,000 pairs of shoes in the United States alone; the Westinghouse air brake and its various adaptations, electroplating, lithography and photolithography, optical instruments, musical instruments, iron machines, the growth of India rubber manufacture, the Goodyear vulcanizing process, dating from 1844; machinery used in sugar refining and in paper, porcelain and glass manufacture, stereotyping and electrotyping processes, Bruce's and other type casting machines, folding and addressing machines, the Gordon job press and the Adams, Campbell, Walter, Bullock and Hoe perfecting printing presses.

In this connection remember that there is no branch of industry where production has cheapened in any degree approaching that of the mining of gold in recent years. But cheapened gold mining does not seem to have cheapened gold compared with other commodities to any alarming extent.

Effects of a Changing Standard.

The method of operation and the effect of a changing money standard are not sufficiently understood. Any convenient medium of exchange to which prices had once accommodated themselves would discharge sufficiently well the mere function of a medium of exchange. But, when viewed as a measure of the values of all other things, it is of the very greatest importance that the money unit remain as nearly unvarying as possible in value over long periods of time. When a man loans another a sum of money, he loans a certain quantity of purchasing power, for that is what money is. Now, absolute justice would require that when the loan is repaid it should stand for the same purchasing power as before. But if, meantime, money has depreciated—that is, if prices have risen—the same nominal sum when repaid has less purchasing power than when borrowed, and the lender or creditor really receives less than he loaned, the borrower or debtor profiting by the difference. On the other hand, if money rises in purchasing power between the making of the loan and the repayment, so that the borrower has to find more commodities with which to buy the money to pay back than the money would buy for him when he borrowed it, then he loses the difference, and the money lender makes it.

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