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This is the fifth in a series of papers from The Laffer Center assessing, and calling to account, the major academic trends in inequality research of recent years.

MONETARY POLICY PLAYED SECOND FIDDLE IN THE GREAT DEPRESSION

By Arthur B. Laffer, Ph.D. and Brian Domitrovic, Ph.D.[1,2]

It's a fact: economists know that monetary policy caused the Great Depression. The economy of the late 1920s was overheated with a bloated stock market—caused by excessive tax cuts for the rich, unsupervised banks and overleveraged credit. The inevitable reckoning came at the hands of an ultra-conservative Federal Reserve, tight monetary policy and an inflexible gold standard.

In the words of Ben Bernanke:

> *"The extent to which a country adhered to the gold standard and the severity of its depression were closely linked. In particular, the longer that a country remained committed to gold, the deeper its depression and the later its recovery."*[3]

In 1965, Milton Friedman and Anna J. Schwartz declared:

> *"The monetary system collapsed, but it clearly need not have done so."*
>
> *"A moderately informed understanding…would have cut short the liquidity crisis before it had gone very far, perhaps before 1930."*
>
> *"It happens that a liquidity crisis in a unit fractional reserve banking system is precisely the kind of event that can trigger and often has triggered a chain reaction. And economic collapse often has the character of a cumulative process. Let it go beyond a certain point, and it will tend for a time to gain strength from its own development as its effects spread and return to intensify the process of collapse."*[4]

As night follows day, the Great Depression followed the Roaring 20s. These arguments have long held sway in discussions of the causes of the economic catastrophe of the 1930s.

Believing we have the answer has made professional economists blind to the effect tax increases had on starting, deepening and maintaining the Great Depression across its long eleven-year course. Without this blind spot, it's hard to imagine U.S. policies being what they were during the 2008-2009 economic collapse. Remarkably, the litany of tax increases at all levels of government in the late 1920s and 1930s was just that, a litany—to wit: "a tedious recital or repetitive series." The tax increases are too extensive to detail here.

To be sure, the Federal Reserve did try to choke off stock market rallies in the 1930s and also put undue pressure on banks that chose not to join the Fed system. President Franklin D. Roosevelt was alternatively authoritarian and feckless with respect to gold ownership and the gold price. The federalization of banking regulation drained the spirited entrepreneurial gumption from the banking system, which had ensured that previous economic panics would be brief. International monetary authorities were misguided in their own ways, which also affected the American monetary system.

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[2] We would like to thank Richard Neikirk and Kenneth Smith for their invaluable contributions to this paper.
[3] Ben S. Bernanke, "Money, Gold, and the Great Depression," March 2, 2004, federalreserve.gov.
[4] Milton Friedman and Anna J. Schwartz, *The Great Contraction, 1929-33* (Princeton: Princeton University Press, 1965), 111-12, 123.

Yet even a careful recounting of the major monetary mistakes of the Great Depression era consistently reveals a common factor—an enormous force lurking in the shadows. Every time the monetary crisis became acute, a major tax increase was present.

A core tenet of supply-side economics, as it developed care of Arthur Laffer and his University of Chicago mentor Robert A. Mundell in the late 1960s and the 1970s, was that real monetary demand was at least as important as monetary supply for the conduct of monetary policy. Arthur Laffer wrote about this in his classic 1980 paper, "The Reinstatement of the Dollar: A Blueprint." He noted that when monetary authorities do their job correctly, there will be:

> *"An incipient excess demand for dollars relative to their supply…The growth in monetary aggregates would tend to accelerate to accommodate this excess demand for dollars…The value of investments such as gold…would fall relative to stocks and bonds [and] demand for dollars would surge in international markets as well."*[5]

Proper economic policy is specifically, as Laffer observed in this paper, that which increases "real, after-tax returns" to private economic activity.

If people really want money—if they want money so that they can invest it for good take-home return—the officials of the monetary policy institutions will find their job easy. They can supply money to meet the high demand; they can do so without sense that they are overdoing it, that inflation may result, that they are outrunning a gold stock or that they are inflating a bubble. The trouble with monetary policy comes generally only in one context: when monetary demand dries up care of major tax rate increases. This is exactly what happened in the Great Depression.

Friedman Contra Keynesianism

Prior to the publication of Milton Friedman's and Anna Schwartz's *Monetary History of the United States* in 1963, the consensus in academic and public-intellectual opinion was that the Great Depression had come about for Keynesian reasons. Namely, as of the late 1920s and early 1930s, there was insufficient "aggregate demand" in the economy—savings exceeded investment at full employment. The rich had gotten so rich, the argument went, that there was not enough purchasing power on the part of the mass of consumers to buy up all the things that the moneyed producers kept on making. The producers had recognized the problem early on in the 1920s and tried to goad on purchasing through unconventional means, such as advertising, installment-buying plans and so forth. By 1929, however, the jig was up. The producers had siphoned off for themselves so much income from their own production that the masses could not continue to consume. The poor spend what they get, so the story goes, and the rich get what they spend.

As sales started to decline in 1930, producers made layoffs. John Maynard Keynes, studying these developments, called it a "liquidity trap." Producers needed high rates of return on their investments to continue investing. If they were not going to get high rates and if they had to adjust their enterprises to capture a lower rate, they would refuse to invest, triggering a downward spiral in the economy. The problem was that the rich were too rich.

In mainstream economics of the 1920s, the received view of the economy was something akin to Say's Law, named after the Napoleonic-era economist Jean-Baptiste Say. The supply of work effort is the demand for goods and services. If workers do not want goods and services, why then would they work? Supply creates its own demand. High unemployment for long periods was not possible.

In his *General Theory* of 1936, Keynes presented his views on these matters. He spent the first part of the book calling into question Say's Law and the idea that producers invested because they saw latent demand in the marketplace. Keynes's treatment of the matter in the *General Theory* was the foundation of the book, as in this central early passage:

> *"If [Say's Law] were true, competition between entrepreneurs would always lead to an expansion of employment up to the point at which the supply of output as a whole ceases to be elastic, i.e. where a further increase in the value of the effective demand will no longer be accompanied by any increase in output. Evidently this amounts to the same thing as full employment…An alternative, though equivalent, criterion is that at which we have now arrived, namely a situation in which aggregate employment is inelastic in response to an increase in the effective demand for its output. Thus Say's Law, that the aggregate demand price of output as a whole is equal to its aggregate supply price for all volumes of output, is equivalent to the proposition that there is no obstacle to full employment. If, however, this is not the true law relating the aggregate demand and supply functions, there is a vitally important chapter of economic theory which*

[5] Arthur B. Laffer, "The Reinstatement of the Dollar: The Blueprint," A.B. Laffer Associates, Feb. 29, 1980, pp. 7-8.

> *remains to be written and without which all discussions concerning the volume of aggregate employment are futile."*[6]

This "vitally important chapter…which remains to be written" was that of the liquidity trap. If the rich, over time, get so rich that they will not produce even if there is demand, there will come a Great Depression—unless profit margins are very large. And this, in Keynes's interpretation, is what happened as the 1920s gave way to the 1930s.

Textbooks in the 1940s and 1950s, such as Paul Samuelson's *Economics*, endorsed Keynes's idea of the "paradox of thrift"—i.e. that the rich save too much—as the prime force behind the Great Depression. If only people would consume more and save less, the increased buying, even with consumers going into debt to do so, would have kept producers producing. In the presence of too much saving, the best practice was for the government to run deficits, i.e. purchases beyond which the government can immediately pay for with its own resources. Oh how jealous they would have been had they only known what 21st-century politics would do with deficit spending. As Samuelson wrote in 1958:

> *"The moral is not for each individual to squander his money during a depression, trying to be patriotic. Instead, through proper national policies, we must recreate a high-employment environment in which private virtues are no longer social follies."*[7]

The Keynesian concept of aggregate demand was the dominant intellectuals' interpretation of the origins of the Great Depression well into the 1960s and to a large extent after that. Friedman's and Schwartz's monetary argument on the origins of the Great Depression in 1963 was revolutionary because it eschewed Keynesianism. It waved off the fiscal origins of aggregate demand, the propensity to consume, the liquidity trap, and the federal budget and held that only monetary effects on aggregate demand were paramount in the collapse of 1929-1933, which Friedman called the "Great Contraction."

Friedman summarized his and Schwartz's view in 1965:

> *"The contraction is in fact a tragic testimonial to the importance of monetary forces…[D]ifferent and feasible actions by the monetary authorities could have prevented the decline in the stock of money—indeed could have produced almost any desired increase in the money stock. Prevention or moderation of the decline in the stock of money…would have reduced the contraction's severity and almost as certainly its duration. The contraction might still have been relatively severe. But it is hardly conceivable that money income could have declined by over one-half and prices by over one-third in the course of four years if there had been no decline in the stock of money."*[8]

In Friedman's and Schwartz's view, the Federal Reserve was at fault as the Great Depression began and worsened to its nadir over the years 1929-1933. If the Fed had lowered interest rates, lent freely, supplied emergency funds to limit bank failures and taken other measures to prop up the money supply, the downturn of the early 1930s would not have been particularly exceptional.

In the 1960s and 1970s, the Keynesian and Friedman/Schwartz views were the central interpretations of the origins of the Great Depression. They were at odds with each other only in the sense as to what policies affected aggregate demand. To both of them, Professor Edward Shaw of Stanford would say, "they assume that supply is like a rubber womb which will accommodate unembarrassingly any fetus of aggregate demand."[9] Advocates of one view said there was not enough deficit spending to increase aggregate demand, and advocates of the other that there was not enough money to increase aggregate demand. In both cases, the problem that led to the Great Depression was a lack of aggregate demand.

The Keynesian view implicitly blamed the system—"capitalism"—for being inherently unstable as it conduced to great inequalities and needing an outside force in the form of government expenditures to keep it going. The Friedman/Schwartz view blamed government functionaries for the problem. If the masters of the Fed had not been so bad at their jobs, the Depression would not have come on as badly as it did, if at all. Perhaps the interpretations could have been reconciled. Conceivably, combining these ways of thinking, if the federal government had run big deficits, and the Federal Reserve had bought up the debt with new money, the crisis would have never happened.

Bringing in the Gold Standard

In the 1970s, Charles Kindleberger placed international issues at the center of the origins of the Great Depression. He argued that there was a leadership vacuum in the world economy after World War I. The received leader, Great Britain, was a shell

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[6] John Maynard Keynes, *The General Theory of Employment, Interest and Money* (New York: Harcourt, Brace & World, 1964), 26.
[7] Paul A. Samuelson, *Economics: An Introductory Analysis* (New York: McGraw Hill, 1958), 247.
[8] Friedman and Schwartz, *The Great Contraction*, 4-5.
[9] Edward S. Shaw was a professor of economics at Stanford University. Shaw authored several books on economics and served as a consultant to the federal governments and central banks of many nations, most notably South Korea.

of its former self in terms of its ability to project power and inspire imitation, ceding to the ascending United States the obligations of leadership. However, these processes unfolded without anyone fully recognizing and taking stock of them. When the great economic shocks of the stock market crash of 1929 and the subsequent bank failures took hold, the leadership vacuum conduced to nothing good getting done. As Kindleberger wrote:

> *"In these circumstances [of acute financial and economic crisis], the international economic and monetary system needs leadership, a country that is prepared, consciously or unconsciously,…to set standards of conduct for other countries and to seek to get others to follow them, to take on an undue share of burdens of the system,…maintaining a flow of investment capital, and discounting its paper. Britain performed this role in the century to 1913; the United States in the period after the Second World War…It is the theme of this book that part of the reason for the length and most of the explanation for the depth of the world depression was the inability of the British to continue their role of underwriter to the system and the reluctance of the United States to take it on…"*[10]

Kindleberger's work was a harbinger of a fresh new theory depicting the course of the Great Depression.

In the 1980s, a bold new international monetary argument on the causes of the Great Depression came on the scene. This argument claimed that the gold standard had caused the event. The argument was put forth by Barry Eichengreen, a junior faculty member in Harvard University's economics department.

Eichengreen held that because of all the new money created by the belligerents in World War I (during which these nations suspended gold payments), it was impossible to go back on the gold standard in the 1920s without major adverse consequences. But go back on the gold standard most countries did. Accordingly, problems materialized, and they came in full force after 1929. As monetary authorities tried to address credit demands and bank failures as the panic of 1929 started, the comparative scarcity of gold (still generally priced officially at prewar pars) with respect to the increased national currency floats made it impossible for central banks to keep up liquidity while maintaining gold reserves. To the degree that central banks tried to adhere to the gold standard, they had to tighten money. This turned the initial panic into the Great Depression.

Eichengreen summarized his argument in passages such as these in his 1992 book, appropriately called *Golden Fetters*:

> *"Far from being synonymous with stability, the gold standard itself was the principal threat to financial stability and economic prosperity between the wars."*
>
> *"The Depression was not simply a misfortune arising in 1929 for reasons unrelated to the gold standard's operation. The prior operation of the gold standard had played a central role in the coming of the Depression."*
>
> *"The failure of monetary and other fiscal authorities to take offsetting action once the Depression was underway is no longer perplexing once one acknowledges the role of gold standard constraints. Unilateral actions to increase public expenditure or make available additional money and credit[—]In either case gold convertibility would be threatened. The Federal Reserve and the Bank of France…had very little room to maneuver."*
>
> *"Once they shed their golden fetters, policymakers had several new policy options available. They could expand the money supply. They could supply liquidity to the banking system at the first sign of distress. They could increase the level of government expenditure."*
>
> *"It was not so much devaluation in and of itself that mattered, in other words, but the expansionary policies whose unilateral adoption was facilitated by the abandonment of the gold standard. This is why the devaluation cycle of the 1930s, which by 1937 had restored the relative prices of different national currencies*

[10] Charles Kindleberger, *The World in Depression 1929-1939* (Berkeley: University of California Press, 1986), 11. In the original edition of this book, from 1973, Kindleberger had stressed the importance of unilateral tariffs in sundering the spirit of international cooperation, and American leadership, in the years up to and including 1930. But in a revised edition of the book, in 1986, Kindleberger took issue with Jude Wanniski's argument from 1978 in *The Way the World Works* that the Smoot-Hawley tariff of 1930 was the Depression's efficient cause. He waves Wanniski off with such statements as "The Wanniski notion that a small, critical vote in a Senate subcommittee on a tariff question produced the stock market crash of Black Thursday and Black Tuesday, October 24 and 29, respectively, was noted earlier and deemed farfetched" (p. 125). The supply-sider journalist Wanniski's forwarding of the tariff-as-initial-cause-of-the-Great Depression argument was enough to eliminate the credibility of that argument within the boundaries of elite academic opinion. Since 1978, academic opinion on the causes of the Great Depression seems overly careful in not verifying Wanniski's thesis. This is an indication that arguments are being made not on the strict criterion of where evidence leads, but in part on account of who made previous arguments.

> *to early 1931 levels, had beneficial effects [that] followed from the stabilizing domestic impact of expansionary policies governments adopted in the wake of devaluation."[11]*

Ben Bernanke, a professor at Princeton when *Golden Fetters* was published, went over the moon for the Eichengreen argument. In 1995, Professor Bernanke asserted:

> *"[T]he evidence that monetary shocks played a major role in the Great Contraction, and that these shocks were transmitted around the world primarily through the workings of the gold standard, is quite compelling."[12]*

He kept on expressing his enthusiasm as he entered into public service, as Chairman of the Council of Economic advisers under President George W. Bush and then Chairman of the Federal Reserve Board. Bernanke pushed the argument perhaps further than Eichengreen preferred, blaming gold, gold, gold. As Bernanke said while a member of the Fed board in 2004:

> *"If declines in the money supply induced by adherence to the gold standard were a principal reason for economic depression, then countries leaving gold earlier should have been able to avoid the worst of the Depression and begin an earlier process of recovery. The evidence strongly supports this implication."*
>
> *"The finding that leaving the gold standard was the key to recovery from the Great Depression was certainly confirmed by the U.S. experience. One of the first actions of President Roosevelt was to eliminate the constraint on U.S. monetary policy created by the gold standard, first by allowing the dollar to float and then by resetting its value at a significantly lower level."*
>
> *"With the gold standard constraint removed and the banking system stabilized, the money supply and the price level began to rise. Between Roosevelt's coming to power in 1933 and the recession of 1937-38, the economy grew strongly."[13]*

Bernanke's high position in government in the 2000s made "gold-caused-it" the darling argument about the Great Depression, overtaking the previously regnant Keynesian interpretation. Bernanke was proud of his arguments to an almost embarrassing degree. As he made the gold arguments, he said such things as "to understand the Great Depression"—as only I can, he could have added—"is the Holy Grail of macroeconomics"—as if growth, industrialization, mass prosperity, mass affluence, entrepreneurialism, and the American Dream were somehow secondary in importance in the panorama of American economic history—and interest value—to the calamity of the early 1930s.[14]

Spending, Money and Gold, But Where are the Tax Increases?

Conspicuously missing from all four schools of thought on the origins of the Great Depression—the Keynesian aggregate-demand, the Friedman money stock, the Kindleberger leadership vacuum, and the Eichengreen-Bernanke international "golden fetters" schools of thought—was the incredible series of impending tax increases that began in late 1929, were consummated in 1930 with the signing of the Smoot-Hawley Tariff in June and held for the decade. References to taxes were nowhere to be found in the other schools of thought. However, it was a completely different story from the supply-side perspective.

In *The Way the World Works* (1978), Jude Wanniski narrated the mordant course of events:

> *"In December, 1930, Hoover announced that the budget had gotten out of balance. With the sharp increase in tariff rates, revenues from customs fell sharply and in 1933 hit $250 million from 1929's $600 million at the lower rates. The 1 percent [income] tax cut of the previous year was therefore allowed to lapse…Hoover proposed an increase in income-tax rates to remedy the situation."*
>
> *"Most one-term Presidents only have time for one truly disastrous decision, but Herbert Hoover squeezed in two. Having widened the international [tax] wedge [with the tariff], he proceeded to put the domestic tax wedge back where it had been when Harding took office in 1921…The personal income tax was pushed up to a 63 percent bracket at $1 million from 25 percent at $100,000, and to 4 percent at $4,000 instead of 1 percent at that income. A host of business taxes were piled on too."[15]*

[11] Barry J. Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939* (New York: Oxford University Press, 1992), 4, 392-3.
[12] Ben S. Bernanke, "The Macroeconomics of the Great Depression: A Comparative Approach," *Journal of Money, Credit, and Banking* 27 (1: Feb. 1995), 2.
[13] Ben S. Bernanke, "Money, Gold, and the Great Depression," March 2, 2004, federalreserve.gov.
[14] Bernanke, "The Macroeconomics of the Great Depression," 1.
[15] Jude Wanniski, *The Way the World Works* (Washington, D.C.: Regnery Publishing, Inc., 1998), 4, 151-2.

In our opinions, even the theoretical and logical underpinnings of the monetarist, Keynesian and other views of the origins of the Great Depression are suspect. Save for doctrinal monetarists, the idea that changes in money aggregates would lead to, after long and variable lags, changes in real output and employment is a stretch. Wouldn't efficient markets offset such a pattern? And why don't we have a quantity theory of all sorts of items?

Also, the idea that deficit spending on the part of governments would cause increases in the real economy can be bewildering and open to question. Government spending is taxation; whoever heard of an economy taxing itself into prosperity? No one! Government doesn't create resources, government redistributes resources; while the recipients of government largess may be stimulated to spend more, won't those from whom the resources are taken be de-stimulated and reduce spending? The answer is yes. Why there is a net positive effect on the economy from government spending is not clear, to say the least. The logic underpinning tax changes, however, is totally different. On a very basic level, tax change explanations of economic performance seem intuitive and straightforward. Economics is all about incentives.

In microeconomics, the role of taxes is central to the understanding of how markets function. A tax on any good, whether it be a product or a factor, drives a "wedge"—equal to the magnitude of the tax itself—between the price demanders pay for the good and the price suppliers receive for the good. The imposition of a tax will raise the price paid and lower the price received for the good. The higher price paid reduces the quantity of the good demanded and the lower price received for the good reduces the quantity of the good supplied. Equilibrium results when the reduced quantity demanded equals the reduced quantity supplied. It's as simple as that.

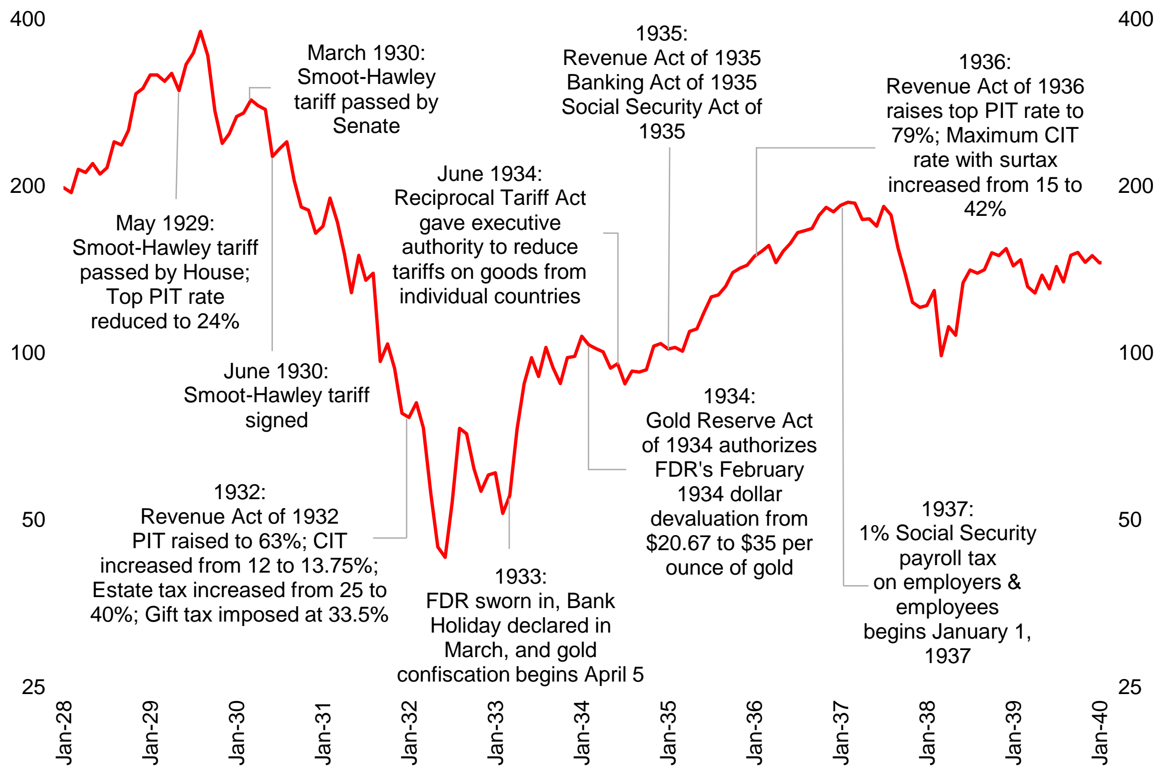
The relative impact on the price paid and the price received from the imposition of a tax determines the relative portions of the tax burden placed on suppliers and demanders. Lastly, the imposed tax rate multiplied by the resultant equilibrium quantity also determines the tax revenue generated by the imposition of the tax. Moving from a microeconomic example of a tax on a single good to the tax structure of the macro-economy including all goods takes a very small extension of economic logic and is by no means a leap of faith.

People from all walks of life, whether trained in economics or not, understand that if government taxes work output and employment and pays for non-work, leisure and unemployment, there will be less work output and employment. This, in a nutshell, is the story of the Great Depression. It is also the story of the unacknowledged elephant in the living room and why earlier economists eschewed even the slightest mention of taxes and the Great Depression. In the words of the late Irving Kristol, "sometimes it takes a Ph.D. in Economics not to be able to understand the obvious."

In Figure 1, we plot an annotated path of the U.S. stock market from January 1, 1928 through December 31, 1939 reflecting major U.S. federal policy actions.[16]

[16] One important point to make while perusing Figure 1 is that we have listed only the 1% (on both employers and employees) increase in the payroll tax on January 1, 1937. In the original legislation there were three separate payroll taxes passed into law. The first was as listed on January 1, 1937 of 1%. The second and third were an additional 1% each year for January 1, 1938 and January 1, 1939. Interestingly, Congress and the President cancelled the increases in 1938 and 1939 after seeing the consequences of the first payroll tax.

Figure 1
Dow Jones Industrial Average
(monthly, Jan-1928 to Dec-1939, eop, semi-log scale)



Source: Bloomberg

The economics of tax increases were obscure and unknown as the Great Depression unfolded. There had never been a sustained series of comprehensive tax increases in the global history of the industrial revolution. There had been occasional wartime tax increases, but these occurred as appeals to patriotism and kept output flowing at lower real wages and rates of investment return. And such tax increases were lifted soon enough with the arrival of peace. Only in the years following World War I did high peacetime tax rates come on the scene. The United States cut tax rates throughout the 1920s, but the major European countries did the opposite. Great Britain's top income tax rate went up above 50% in the early 1920s, France's went up to 50% and then past that point, and Germany's went up to 40%—all levels distinctly higher than had prevailed during World War I. There was no theory available to explain what would happen when a peacetime economy got hit with major tax rates.

Therefore, when the United States joined the international pattern and in 1930 began increasing taxes dramatically in peacetime, the real returns to economic activity were threatened as never before. What had never had occasion to be elaborated came with gale force. The totalizing tax increases decreased the net return on all work and investment, and the effects were severe. In the paradigmatic example of the American income tax, the net-of-tax return rate to a high earner went from 75% in the late 1920s to 37% in 1932, as the top income tax rate went up from 25% to 63%. The return rate—the incentive rate—in this case fell by half. And this one example had likes up and down the tax system at every level of government across the country (and in many places in the world). Output had to fall, and fall substantially. The returns to production in terms of take-home pay and take-home business profits cascaded downwards care of the huge beefing up of tax rates. This was the first time there had ever been peacetime big-government tax regime everywhere. It was a new order, and economics failed to see it as such.

In addition to a sequence of federal tax increases, we noted the profusion of new state-level income and sales taxes, which arose in the 1930s as supplements to property tax systems that had caused the foreclosure crisis of the Great Depression years.

In 2009, as the Federal Reserve, with Ben Bernanke as chair, took on extraordinary monetary measures to deal with the Great Recession, Arthur Laffer wrote a paper on how we should correct our views about the Great Depression. Eleven years ago, it was commonplace to state that the Fed was trying to fend off another Great Depression via its monetary expansionism. Here is an extended excerpt of Laffer's paper from that time:

"While Fed policy was undoubtedly important in the 1930s, it was not the primary cause of the Great Depression or the economy's relapse in 1937. Instead, the Smoot-Hawley tariff of 1929 / 1930 was the catalyst that got the whole process going. It was the largest single increase in taxes on trade during peacetime and precipitated massive retaliation by foreign governments on U.S. products. Huge federal and state tax increases soon followed thus doubling down on the initial decline in the economy caused by the Smoot Hawley tariff. Additional large tax increases in 1936 were the proximate cause of the economy's relapse in 1937.

In the years 1930 and 1931, there was a very slight increase in tax rates on personal income at both the lowest and highest brackets. The corporate tax rate was also increased from 11% to 12%. But beginning in 1932 the lowest personal income tax rate was raised from less than one half of one percent to 4% and the highest rate was raised from 25% to 63% (that's not a misprint!). The corporate rate was raised from 12% to 13.75%. All sorts of federal excise taxes too numerous to list were raised as well. The highest inheritance tax rate was also raised in 1932 from 20% to 45%, and the gift tax was reinstituted with the highest rate set at 33.5%.

In 1934 the highest estate tax rate was again raised from 45% to 60% and then to 70% in 1935. The highest gift tax rate went from 33.5% in 1933 to 45% in 1934 and 52.5% in 1935. The highest corporate tax rate was raised to 15% in 1936 and 1937 with a surtax on undistributed profits up to 27%. Finally, in 1936 the highest personal income tax rate was raised to 79%.

Because of the number of states and their diversity, I am going to aggregate all state and local taxes and express them as a percentage of GDP. This measure of state tax policy truly understates their contribution to the tragedy we call the Great Depression, but I'm sure you will get the picture. In 1929 state and local taxes were 7.2% of GDP and then rose to 8.5%, 9.7% and 12.3% for the years 1930, '31 and '32 respectively.

The damage caused by high taxation during the Great Depression is the real lesson we should learn. A government quite simply cannot tax a country into prosperity. If there were one warning I'd give to all who will listen, it is that U.S. federal and state tax policies are on an economic crash trajectory today, just as they were in the 1930s."[17]

Today, academic celebrity economists Piketty, Saez, and Zucman wax nostalgic for the huge tax increases of the Great Depression era. "Modern Monetary Theory," contending that the government can issue enormous amounts of debt without concern for paying it off, is in the air as emergency federal spending lurches into the several trillions of dollars. All this testifies to the misapprehensions we let persist about the Great Depression. And as we noted in our previous paper, in 1939 Franklin Roosevelt's Treasury Secretary Henry Morgenthau noted that after six years of New Deal initiatives, "we have tried spending money. We are spending more than we have ever spent before, and it does not work."

The Macabre Tax Carnival of the 1930s

The Great Depression was a carnival of tax increases without like or comparison in American, if not modern global economic history. The federal story is so large that it can shoulder aside a no smaller story of tax increases—and new tax impositions—at the level of the states and localities. In Newark, New Jersey, a third of property owners did not pay their taxes in 1933 because rates were sticky high, up in real terms because of deflation. The figures were similar in Chicago, where an organized "tax strike" took place against static property taxes when prices were falling and legions were unemployed. The foreclosure crisis affecting farms, places of businesses and homes can be conveniently attributed to falling prices and bank failures—but property taxes that stayed at the high 1929 par were central to the major outbreaks of foreclosure. As we noted in our previous paper, the tax revolts of the early 1930s make the California Proposition 13 movement of the 1970s look like kids' play in comparison.[18] But in all fairness, the tax revolt in the 1970s following Proposition 13 looked like child's play because it was successful. The tax revolts of the 1930s were losers.

The property tax was particularly nasty during the early years of the Great Depression, as it was a specific, unit tax, rather than an ad valorem tax. The property owner owed a specific amount of money on the property owned, say $100 on a house assessed at $5,000. However, severe deflation set in during the early 1930s. In 1933, the consumer price index was 20% below its 1929 level. A $100 tax bill static in nominal terms from 1929 to 1933 went up in real terms proportionately—all while nominal incomes fell and unemployment soared. An ad valorem tax, in contrast, is taxed at a fixed percentage, so fluctuations in the exchange price of a good do not affect the real burden of the tax bill relative to the value of the good. Given deflation,

[17] Arthur B. Laffer, "Lessons from the Great Depression," Laffer Associates, Sept. 10, 2009, p. 2.
[18] Arthur B. Laffer and Brian Domitrovic, "The Great Depression and the Wages of High Tax Rates," Laffer Associates, May 13, 2020.

static ad valorem rates decrease in nominal terms. The specific property taxes stay sticky high in such circumstances, and they come yearly by virtue of property ownership, even if the exchange that produced that ownership had come long before. In the early years of the Great Depression, specific property taxes coupled with major deflation rocked the economy and pushed the horrible slump into unprecedented depths.

Then, in addition to property tax increases, came the surge in the imposition of new state and local taxes, of the income and sales variety, in the early and mid-1930s. These sales and income tax impositions confirmed that the received property tax system had become so onerous and dysfunctional that it had lost its ability to haul in revenue. The bloated property tax systems at the state and local levels went past the tipping point and into the prohibitive range of the Laffer curve during the Great Contraction of 1929-1933. But the lesson went unlearned. Instead of cutting property tax rates and accepting the results, states and localities countered by imposing other forms of comprehensive taxation: the income and sales taxes. Between 1929 and 1937, 20 states enacted either a personal income tax, a corporate income tax, or both, and 22 states enacted sales taxes. How was the country to recover in the face of tax increase and tax imposition punishments at every turn, and from every authority up and down the forms of government in the United States? The Great Depression was proof that there was no path to recovery in such an environment.

Table 1

Personal Income Taxes, Corporate Income Taxes and Sales Taxes Enacted by State

(1929-1937, ordered by year of enactment)

Personal Income Tax			Corporate Income Tax			Sales Tax		
State	Year	Top Marginal Rate	State	Year	Top Marginal Rate	State	Year	Sales Tax Rate
Arkansas	1929	5.0%	Arkansas	1929	2.0%	Mississippi	1930	2.0%
Georgia[19]	1929	N/A	California	1929	2.0%	Arizona	1933	2.0%
Oregon	1930	5.0%	Georgia[20]	1929	N/A	California	1933	2.5%
Idaho	1931	4.0%	Oregon	1929	5.0%	Illinois	1933	2.0%
Tennessee[21]	1931	5.0%	Idaho	1931	4.0%	Iowa	1933	2.0%
Utah	1931	4.0%	Oklahoma	1931	N/A	Michigan	1933	3.0%
Vermont[22]	1931	4.0%	Utah	1931	3.0%	New Mexico	1933	2.0%
Alabama	1933	5.0%	Vermont	1931	2.0%	North Carolina	1933	3.0%
Arizona	1933	4.5%	Alabama	1933	3.0%	Oklahoma	1933	1.0%
Kansas	1933	4.0%	Arizona	1933	5.0%	South Dakota	1933	2.0%
Minnesota	1933	5.0%	Kansas	1933	2.0%	Utah[23]	1933	2.0%
Montana	1933	4.0%	Minnesota	1933	5.0%	Washington	1933	2.0%
Iowa	1934	5.0%	Iowa	1934	2.0%	West Virginia	1933	2.0%
Louisiana	1934	6.0%	Louisiana	1934	4.0%	Missouri	1934	0.5%
California	1935	15.0%	Pennsylvania	1935	6.0%	Ohio	1934	3.0%
Kentucky	1936	5.0%	Kentucky	1936	4.0%	Arkansas	1935	2.0%
Colorado	1937	6.0%	Colorado	1937	4.0%	Colorado	1935	2.0%
Maryland	1937	0.5%	Maryland	1937	0.5%	Hawaii[24]	1935	N/A
						North Dakota	1935	2.0%
						Wyoming	1935	2.0%
						Alabama	1936	1.5%
						Kansas	1937	2.0%

Source: Significant Features of Fiscal Federalism

The tax increase and tax imposition history of the 1930s is marked by two salient characteristics. This history was both *manifold* and *multifold*. The new taxes were manifold in that they were everywhere and deep in extent. A prime example is when the federal income tax schedule jumped from a low marginal rate of 1.5% and a high marginal rate of 25% in 1931 to a low marginal rate of 4% and a high marginal rate of 63% (with lower thresholds and exemptions) in 1932. The new taxes were, in turn, multifold in that they were innumerable and arose everywhere. To list them consecutively at the federal, state

[19] Georgia's 1929 personal and corporate income taxes were assessed at rates equal to one-third of the federal personal income and corporate income tax rates. In 1929, the top marginal federal personal and corporate income tax rates were 24% and 11%, respectively. In 1931, Georgia's top marginal personal income tax rate was set at 5%, and the top marginal corporate income tax rate was set at 4%.

[20] Ibid.

[21] Tennessee's 1931 personal income tax was limited to interest and dividends and was called the Hall Tax. By 2021, the Hall Tax will have been repealed.

[22] Vermont's 1931 top marginal personal income tax rate was 4% on unearned income and 2% on earned income.

[23] In 1933, Utah imposed a temporary 0.75% sales tax. The bill featured a 1935 sunset date, but the sunset date was repealed during a special session held a few months after the passing of the original bill. A permanent 2.00% sales tax replaced the previous 0.75% sales tax.

[24] Hawaii's 1935 sales tax was in the form of a general excise tax, with varying tax rates imposed by industry.

and local levels, as they came on the scene year after year beginning in 1930, is to get involved with a hydra-headed beast in metastasis.

As Saez and Zucman wrote approvingly of the tax history of the 1930s, "America pioneered some of the key progressive fiscal innovations in world history, paving the way for other countries." America did do so in the 1930s. The result was the bitter entrenchment of the Great Depression.[25]

What can the rationale have been for the deafening drumbeat of tax increases and new tax impositions in the 1930s? The evidence we have of rationales is not inspiring. In May of 1932, the Chicago Board of Education's Strayer Report recommended that the city's schools not open for the fall term. The reason was twofold. The tax strike prevented school authorities from having the funds necessary to pay the teachers, and there was so much unemployment that school-age children could be tended to and instructed at home. The school system quickly buried the report on the understanding that a break from the school system would bring to light its uselessness and spark reform or closure.[26] Chicago's response was not to close the schools, but to take the tax strikers to court as Illinois imposed a sales tax.

The rationale behind the Revenue Act of 1932 was just as dispiriting. This was perhaps the pivotal tax increase in the development of the Great Depression. The Tariff Act of 1930 had started the process rolling, and then state and local property taxes rose in real terms with the 20% consumer-price deflation of 1929-1932. Onto this developing bonfire came the Revenue Act of 1932. It lowered the threshold of income taxation to $1,000—as unemployment grew and income became scarce—upping the bottom rate to 4% and taking the top rate up an astounding one-and-a-half times, from 25% to 63%.

Why do this? The record shows that the Treasury Secretary, Ogden Mills, felt that *monetary factors* required him to call for this tax increase. As Mills testified to Congress in favor of his big tax proposal in April 1932:

> *"We have had, certainly since last September, what may be called a credit crisis. In other words, up to last September I think that on the whole the liquidation of credit did not proceed quite as fast as the liquidation of prices and the rapid restriction in industrial activity. But certainly after England went off the gold standard we had a very real credit crisis in this country, and from September to the present time credit in this country has been deflated much more rapidly than either prices or industrial activity…*
>
> *What does that mean? It means that the public credit must be kept beyond all question; and so it happens that after you have had a deficit of almost a billion dollars, then one of more than $2.5 billion if you are so improvident that you simply say, 'What of it?' and do nothing about it, the mere fact that you do not take it seriously necessarily creates in the public mind the apprehension that the public credit may be impaired…You impair the value of your Government securities and later the value of private securities. The day you permit the Government credit to become impaired you bring into question the whole credit structure…"*[27]

Mills contended here, in calling for more tax revenues by way of a tax rate increase, that Great Britain's going off the gold standard in September 1931 was the turning point in the credit crisis. Only after that explicit event did he see that credit was getting hard to obtain in the United States.

This is perfectly understandable. If a major country's currency, in this case the British pound, is suddenly subject to depreciation care of delinking it to gold, there will be a greater demand for gold-backed money. "Credit" will be harder to come by, in that lenders will be wary of making loans that will be paid back in a currency that might not be defined in gold. Lenders will gain a "portfolio preference" for holding gold themselves.

All perfectly reasonable. What was unreasonable was reacting to this problem by urging a dramatic decrease in the net-of-tax return rate on income, in particular that of the highest earners, the investment class. If credit is getting hard to come by, care of Britain's going off gold, lowering the value of investment returns through tax increases could only exacerbate the credit shortage.

Mills did not recognize this problem. Rather, he said that the budget balance of the United States was the necessary substitute for Britain's going off gold. If Britain's move would make people lose faith in currencies, the United States had to counter by ensuring faith in the dollar—via a balanced budget. Roosevelt said this, too. He sought to balance the country's budget by unbalancing the budgets of its citizens. Unfortunately, he succeeded in the latter and failed in the former.

[25] Emmanuel Saez and Gabriel Zucman, *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay* (New York: W.W. Norton, 2019), 25.
[26] This is reminiscent of what the new homeschoolers in the coronavirus crisis have been feeling in 2020.
[27] Revenue Act of 1932, Senate Finance Committee Hearings, April 6-21, 1932, pp. 47-49.

Most unfortunately, Mills was not terribly clear about how a balanced American budget somehow would compensate for Britain's going off gold, in terms of setting up conditions in which credit flowed well in the private economy. What he neglected to consider is that huge drops in the net-of-tax return rate for private citizens and companies would itself lead to a restriction of credit. Credit is offered by lenders who get a return in the form of interest payments and so forth. If these payments—these returns—become distinctly less valuable because they are subject to much higher taxation, credit will become tighter. This is exactly what came about with the big tax rate increase of 1932.

And crucially, as credit becomes tighter, the demand for gold becomes greater. Robert Mundell stated the position classically in 1971, when he was on the University of Chicago faculty with his protégé and understudy Arthur Laffer:

> *"The money-balance schedule…relates the values of real gold balances the world community…would wish to hold at various rates of interest; it is assumed to have a negative slope because the opportunity cost of holding real gold balances increases with the rate of interest."*[28]

By "rate of interest" we can read "rate of return." If the rate of return on real investment made with currencies goes down, there will be an increase in the demand for alternative monetary vehicles that are not as usable for investment. The chief of these alternatives is gold. In 1931-1932, the United States responded to Britain's going off gold by raising taxes, which dramatically decreased the return rate on private investment. Therefore, the demand for gold soared.

Since 1963, we have heard at increasing levels of sureness and smugness that monetary causes were the culprits in the 1930s. Monetary causes of the Great Depression supplemented and, in part, replaced the Keynesian view that savings were too high, taxes on the rich were too low and government spending was not sufficient. First came Friedman's interpretation of the Fed's lack of judiciousness in managing the money stock. Then came the still utterly *au courant* view that staying with the gold standard caused the Great Depression.

Yet the whole while, during that terrible event, and most certainly from 1930-1932 when the monetary crisis was at its most acute, the tax increases and new tax impositions were at every step manifold and multifold. Every one of these tax increases and new tax impositions lowered the return rate on using savings and capital as investment—on providing it to others with economic plans in exchange for a dividend, interest or an equity share. This necessarily increased the demand for gold, cash withdrawals from the bank, etc. If the return rate on savings goes down, the demand for money that cannot be used as a lending vehicle goes up.

The long, strange experiment in blaming monetary and gold causes for the Great Depression has a corollary in the previously long, strange experiment in accepting Keynesian aggregate demand and "paradox of thrift" interpretations of the Great Depression. These warhorse arguments about what happened as the economy collapsed in the 1930s have diverted attention from tax increases and tax impositions. Yet never was there a period in which these dread things roared to life as in that terrible, depressed decade.

Economist Jean Baptiste Say had never really encountered a world in which taxes played such an important role in the macro economy/policy context. As such, the idea that the U.S. economy was at full employment during the 1930s, at a point where aggregate demand and aggregate supply were both inelastic, appeared ludicrous.

But once high tax rates and huge government are introduced into the equation, the modified Say's Law doesn't look so bad. Supply is based upon net-of-tax prices incentivizing suppliers, and demand is based upon prices—including all taxes—motivating buyers. The difference between the price suppliers receive and the price demanders pay is literally the tax wedge. In the 1930s, one didn't have to imagine a regime with taxes so high that demanders are totally put off from buying and, at the same time, suppliers receive so little for what they produce that neither party wants to engage in commerce with the other.

It's not unlike a casino where the house takes so much that if you win, you only get your money back. No one, under any circumstance, would gamble at that casino. U.S. governments at all levels took so much of each transaction that suppliers and demanders withdrew from the market.

[28] Robert A. Mundell, *Monetary Theory: Inflation, Interest, and Growth in the World Economy* (Pacific Palisades, Calif.: Goodyear, 1971), 80.

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