May 30, 2019

10-yr T-Note: 2.22% DJIA: 25,169.88 NASDAQ: 7,567.72 S&P 500: 2,788.86 S&P 500 Undervalued: 133.2%

THE VOLCKER (PRICE) RULE OF THE 1980s

By Dr. Arthur B. Laffer, Ph.D. and Brian Domitrovic, Ph.D.1

The voluble discussion over the prospective nomination of Stephen Moore to the Board of Governors of the Federal Reserve System was undisciplined in many ways, not least in its characterization of the monetary history during the crucial decade of the 1980s. Bloggers and reporters, especially at the *Washington Post*, seized upon Moore's remarks concerning the way Paul Volcker had conducted monetary policy during the successful latter portion of his chairmanship of the Federal Reserve from 1982 to 1987. Moore contended that Volcker had followed a commodity-price rule, while Catherine Rampell of the *Post* (who led the anti-Moore charge) called this "flat-out false."²

The Moore nomination and its dramatics are behind us, but the quality of our understanding of the 1980s remains a determinant of our ability to meet the economic-policy challenges of our own age. A great noninflationary boom held for the better part of two decades after 1982. It followed upon more than a decade of horrendous stagflation. The transition that occurred in 1982 is a crucial historical comparable which we should learn from, as we try to shake off the economic sluggishness of the long aftermath of the Great Recession. What Paul Volcker did in the 1980s is a question we should be serious about getting right.

In the arena of public policy, two perspectives of inflation were ascendant in the late-1970s and early-1980s. The Philips curve postulated that inflation resulted from an over-heated economy whereby prices were bid up at ever-increasing rates whenever the economy approached "full" employment.

The monetarist view of inflation, however, had it that inflation was the result of too much money in circulation relative to the size of the economy. In the late 1970s, both views were being discredited by the existence of stagflation. A new view was welcomed with open arms.

The extensive documentary record we possess of the Volcker-era Fed validates the interpretation offered by Moore in the debate. Volcker did come to follow a price rule in the crucial transition year of 1982. The evidence supporting this finding is available, clear, and extensive. Moreover, the economic commentary at the time, concerning this transition in Fed thinking—in particular that coming from Arthur Laffer and his associates—identified this development as it was taking shape in October of 1982:

"A price rule for monetary policy—the final precondition for the roaring '80s—is being put into place."3

The arrival of a *de facto* price rule at the Fed was one of the chief reasons that this nation traded stagflation for the long Ronald Reagan-era expansion. The lessons for today are highly relevant.

Years before, Arthur's 1974 article in *The Wall Street Journal*, "The Bitter Fruits of Devaluation," had shown the real consequences of breaking a price rule (i.e. devaluing one's currency)—rampant inflation. Reagan's strong dollar policy, combined with tax rate reductions, bestowed benefits few imagined possible: falling inflation and rapid growth.⁴

What Happened in 1982

A great juncture in modern American economic history occurred in 1982. Over the previous nine years, the economic-growth rate averaged under 2% per annum, while inflation was regularly in the double digits. Unemployment also reached double digits. The "misery index," combining the unemployment and inflation rates, pushed past 20%. The real value of the stock market also hit its 16-year low in August of 1982—down over 75% in the 16-year period beginning February 1966 (Figure 1).

However, after the changes that occurred in 1982, growth reverted to a long-term level well above 3%, inflation collapsed, and the misery index settled into the single digits. This change was the hinge that swung the U.S. away from a status quo of stagflation into that of expansion and prosperity. Something significant happened in that year in terms of economic policy: the alignment, at long last, of supply-side fiscal policy with supply-side monetary policy. Figure 1 displays this dramatic shift in the economic trajectory of the U.S.

¹ Brian Domitrovic is the Richard Strong Scholar at The Laffer Center for Supply-Side Economics

² Catherine Rampell, "The op-ed that got Stephen Moore his Fed nomination is based on two major falsehoods," *Washington Post*, March 26, 2019; George Selgin, "Stephen Moore's Other Volcker Rule," March 25, 2019.

³ Arthur B. Laffer and Charles W. Kadlec, "Has the Fed Already Put Itself on a Price Rule?" The Wall Street Journal, Oct. 28, 1982.

⁴ Arthur B. Laffer, Jan 10, 1974.

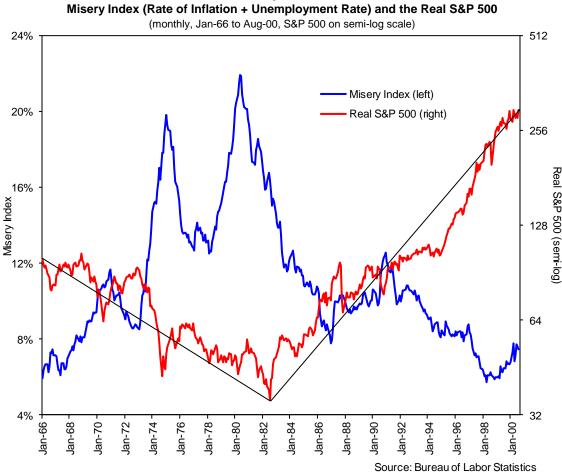


Figure 1

Fiscal Policy

The major development in fiscal (namely tax) policy had been set in motion the year before. In August 1981, seven months into office, President Reagan signed his first tax cut into law. It provided for rate reductions spread over five years, from 1981 to 1985. There would be income tax rate reductions of 5% in October 1981, 10% in July 1982, and 10% in July 1983, followed by indexing all tax brackets for inflation beginning in 1985.

In late 1981 and early 1982, as the initial measures of this law were being implemented, the United States experienced an exceptionally sharp recession. Growth went negative at a 2% semi-annual rate, and the delayed effect on unemployment would top out near 11% in November and December of 1982, the highest level since the 1930s (Figure 2).

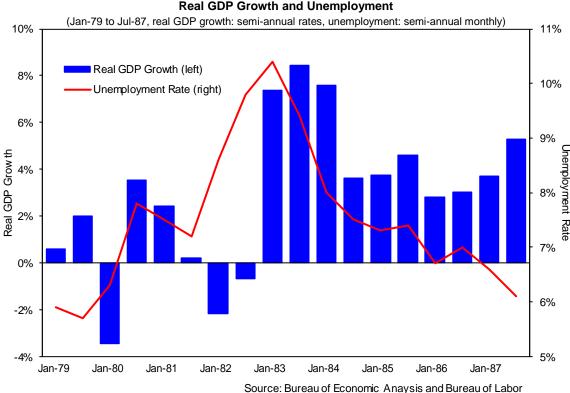


Figure 2

Real GDP Growth and Unemployment

The pattern of the recession followed in lock step the effective tax rate reductions. To wit, a 5% cut for October through December 1981 (1/4 of a year) really was a 1.25% (1/4th of 5%) cut in tax rates for the full twelve months of 1981. The IRS only measures income for calendar years. Also the tax rate cuts were based on the prior year's tax rates, not on the levels in 1980.

Likewise, the 10% legislated tax cuts for July 1982 and July 1983 ended up being effective tax-rate cuts of 4.75% and 4.25% for their respective calendar years. In all, effective tax-rate cuts from their 1980 levels totaled 1.25% for calendar 1981, 9.75% for calendar 1982, 18.75% for 1983, and 23% for 1984. Match these effective tax rates to GDP growth, and you have what amounts to a glove/hand fit. It is amazing how tax cuts don't work until they actually take effect.

As the recession hit in late 1981, a movement gathered within Congress to cancel the tax rate cuts that had yet to be phased in. Reagan insisted otherwise and left himself open to concessions on other tax fronts. He reluctantly agreed to a series of excise tax increases and the elimination of certain business deductions in the Tax Equity and Fiscal Responsibility Act (TEFRA), which the President signed in September 1982.

The TEFRA was a tax increase during a recession—a violation of all schools of economic policy. However, given how the tax bill was structured, the TEFRA also functioned as security that the central elements of the 1981 tax cut law that were staying, were guaranteed. As the TEFRA battle closed with Reagan's signature, it was assured that the 10% income tax rate cut of 1982 would not be rescinded, the 10% cut of 1983 would come as scheduled, and the indexing of the tax schedule for inflation slated for 1985 would occur.

It was not coincidental that the real value of the stock market hit its 16-year low in August 1982 (Figure 1). The Dow Jones Industrial Average established this low on August 12th, three days before the House-Senate conference confirmation of the TEFRA. It was clear for the first time over the long stagflation episode, as 1982 entered its final quarter, that tax rates were going down and staying there.

Monetary Policy

Monetary policy also entered into a new period of clarity at this very same time. The ways of the previous dozen years, in particular the previous three years, were to be reassessed and departed from. Paul Volcker had become Fed chair in August 1979, and thereupon he set out to wrestle inflation lower by means of three major strategies, each of which was in the category of monetary tightening. He tried to raise interest rates (Figure 3), limit monetary quantities, and control access to credit. Success was not forthcoming. Inflation was in the double digits three years in a row, from 1979 to 1981—an unprecedented

peacetime occurrence. Furthermore, there were recessions in three successive years, from 1980 to 1982, making for the most acute experience of stagflation yet.

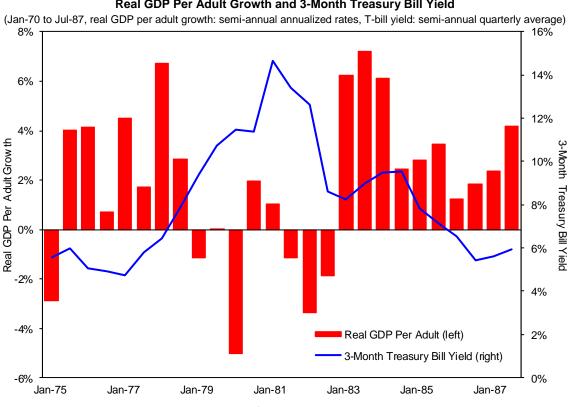


Figure 3

Real GDP Per Adult Growth and 3-Month Treasury Bill Yield

Source: Bureau of Economic Anaysis and The Federal Reserve

In late 1982, as the deep recession persisted, a new set of economic developments unfolded. The stock market went up, unemployment fell, business inventories dwindled, and inflation abated for the first time in recent memory (Figure 1). Federal Reserve officials responded by outlining a new plan for monetary policy. At a supply-side economics conference organized by Atlanta Fed Chairman William A. Fickling, Jr. in March, Boston Fed president Frank E. Morris put it this way:

"The time has come to design a new control mechanism for monetary policy, one which targets neither on interest rates nor on the monetary aggregates."

Morris suggested using a steady expansion of total liquid assets as the new Fed goal.5

Other prominent Federal Reserve officials, including New York Fed president Anthony Solomon and Fed Governor Henry Wallich, signed an international Group of 30 statement in April that included the following language: "the U.S. should pay more attention to exchange-rate considerations in framing its domestic policies." Shortly afterward, Arthur Laffer and Charles Kadlec commented on this statement:

"Stabilizing the exchange rate of the dollar is just another form of a price rule. It uses as its focal point the value of the dollar instead of a change in the quantity of dollars." 6

Over that summer, it became increasingly apparent that the Federal Reserve was exploring dropping its traditional adherence to quantity and interest rate targets. Quantity ceilings were being hit (if not breached) while interest rates were being set such that these quantity violations were able to happen. Fed officials, including Volcker, courted and all but confirmed these impressions. The typical reasons given were that quantity aggregates such as "M1" had not incorporated recent banking innovations and that the recession had led to an excess of precautionary saving.⁷

⁵ Frank Morris, "Do the Monetary Aggregates Have a Future as Targets for Federal Reserve Policy?" *Supply-Side Economics in the 1980s: Conference Proceedings*, Sponsored by the Federal Reserve Bank of Atlanta and the Emory University Law and Economics Center (Westport, Conn.: Quorum Books, 1982), 85.

⁶ Charles W. Kadlec and Arthur B. Laffer, "A Choice for the Eighties," A.B. Laffer Associates, May 20, 1982, 5.

⁷ See Kenneth H. Bacon. "Don't Count on Early Interest-Rate Drop from a Budget Accord, Reagan is Warned," The Wall Street Journal, May 21, 1982.

The Fed's explanations for the quantity-ceiling testing of the summer of 1982 may have been rationalizations—a cover for a switch to a price rule that for whatever reason the Fed did not feel comfortable spelling out as such. Laffer and Kadlec were encouraged by the course of events, writing in August:⁸

"The Fed's adherence to a quantity rule has been the bane of the economy's existence."

Quantity—or money supply—targeting was, by definition, indifferent to monetary demand. Yet monetary demand was surely undergoing a transformation as inflation abated and after-tax returns to work and enterprise rose. Real monetary demand was increasing in the latter part of 1982, and the Fed appeared to be adjusting policy accordingly. Laffer and Kadlec continued:

"Telltale signs point to the incorporation of a price rule into monetary policy."

They identified two such signs. First, "commodity prices have been stabilized." After Volcker's hints in May that he was losing faith in monetary aggregates, "the Dow Jones spot commodity index has become progressively more stable....During the tumultuous moves in the financial markets evident since June, the index has remained within a trading range." In addition:

"The Fed intervened on foreign exchange markets to slow an increase in the value of the dollar....[T]he U.S. may have purchased up to \$1 billion in foreign exchange in an effort to slow the rise in the value of the dollar. Such a move is equivalent to an open market operation—it increases U.S. monetary reserves and supplies dollars to the financial markets. Efforts to stabilize the value of the dollar...would be a price rule based on the foreign exchange value of the dollar. It would complement efforts to stabilize commodity prices."

This past March in the *Washington Post*, Catherine Rampell wrote that Stephen Moore made a claim that was "flat-out false....Volcker never created the imaginary 'rule' Moore is now attributing to him." However, ample documentation shows that in 1982 Volcker unambiguously dropped the rule he had been following—quantity targeting—and conducted policy that contemporary commentators including Laffer and Kadlec identified, with clear justification, as consistent with a price rule.

Laffer and Kadlec were still not ready to say, late in the summer of 1982, that the Fed was committing itself to a price rule. In particular, there was not sufficient evidence that quantity ceilings were being breached. They proposed that three things could take place to prove the point. The dollar and commodities could continue to stabilize, and a recent increase in the price of gold could be arrested, all as quantity targets were topped over. As each of these things came to pass, these economists had their evidence. The Fed had put itself on a price rule.

⁸ Charles W. Kadlec and Arthur B. Laffer, "Guideposts for Growth," A.B. Laffer Associates, August 20, 1982, 1-2.

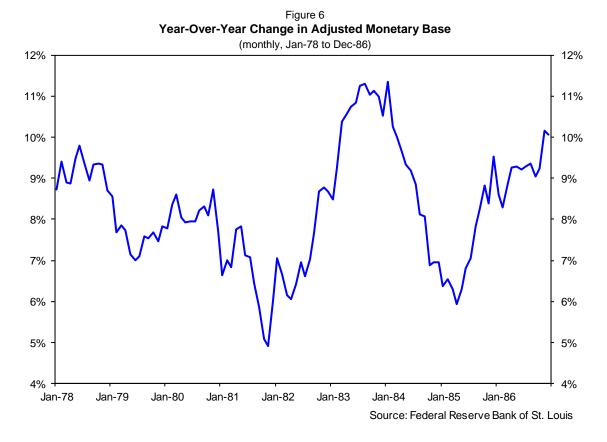
⁹ Ibid.

U.S. Dollar Index and Dow Jones Spot Commodity Index (monthly, Jan-75 to Dec-88) 0.014 240 Major Currencies Index (Dollars / Foreign Currencies) (left, inverse scale) Dow Jones Spot Commodity Index (right) 0.013 220 U.S. Dollar Weaker 0.012 200 U.S. Dollar Stronger 0.011 Major Currencies Index 00.00 60000 Jones Spot Commodity Index 0.008 120 0.007 100 0.006 0.005 80

Figure 4

Source: Federal Reserve Board, Laffer Associates, Haver Analytics





In September and October, the dollar, which had jumped by 20% against major currencies during 1981 and the first half of 1982, conformed to a 3% trading range that had been established over the summer. This range held with few exceptions until 1984. The commodities index also held to a range, with peaks corresponding to lows in the federal funds rate and troughs to fed funds highs (Figure 7). The stratospheric level that gold had hit in late 1980 (Figure 5) was not seen again for the rest of the century—nor was the high of January 1983. Meanwhile, the monetary aggregates, true to form, went beyond previously suggested targets (Figure 6).

In view of these results, in October, Laffer and Kadlec wrote:

"A price rule for monetary policy—the final precondition for the roaring '80s—is being put into place. Evidence of this change has been mounting since early June. Federal Reserve actions in July and August supported the possibility of such a shift in policy. But it was not until Oct. 4 that the Fed has to choose between stabilizing commodity prices and keeping within its target range for money supply growth."¹⁰

¹⁰ Arthur B. Laffer and Charles W. Kadlec, "Has the Fed Already Put Itself on a Price Rule?" The Wall Street Journal, Oct. 28, 1982.

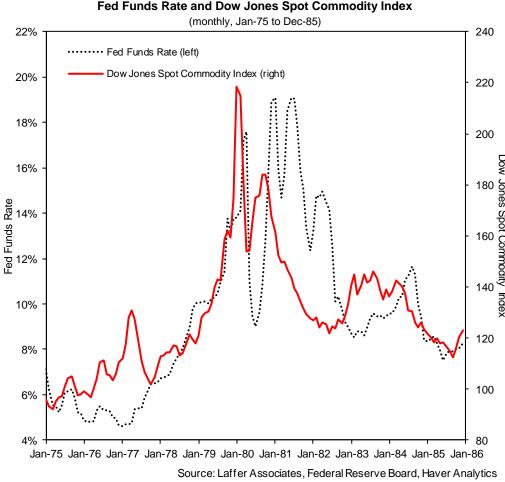


Figure 7 Fed Funds Rate and Dow Jones Spot Commodity Index

It was widely perceived, in the fall of 1982, that Volcker's Fed had moved beyond quantity and interest-rate targeting. Laffer and Kadlec had spoken up about and detailed the development, but the conclusion was becoming inescapable. The Fed's open market committee minutes kept showing the interest that Volcker in particular had in arresting the upward movement of the dollar, no matter the impact on quantity ceilings. Inflation hawks on the Fed board opposed Volcker on this criterion, but found themselves outvoted. Moreover, on September 29, 1982, Rep. Jack Kemp of New York, with 30 co-sponsors, introduced a bill that would require the Fed to consult the spot commodity-price index of the Commodity Research Bureau. 11

Throughout the press that October, commentary (often on the front page) was that Volcker had made a major shift. In the Washington Post:

- Jude Wanniski wrote that "Monetarism, as we have come to see it practiced by the Federal Reserve Board, died on Tuesday, Oct. 5. The event was celebrated on Wall Street with euphoric leaps in the value of the nation's stock....the M1 target is going into the Smithsonian."
- An article titled "Economic Winds Cause Force the Fed to Change Course" observed that "one Fed official said last week's meeting may turn out to have been 'momentous,'" and quoted a Boston bank economist who said, "The Fed has taken a large step and maybe a giant one."
- A page-one headline referred to the Fed Chair's efforts to remonstrate against the new emerging consensus about the Fed: "Volcker Says New Emphasis No Great Shift." Another story supported this counter-narrative (and thereby buttressed the idea of the new consensus): "Some Doubt Fed Changed Monetary Policy." 12

12 Wanniski, "Monetarism Died Last Week, And the Markets Are Celebrating," Oct. 13; John M. Berry, "Economic Winds Force the Fed to Change Course," Oct. 10; Rudolph A. Pyatt Jr., "Volcker Says Emphasis No Great Shift," Oct. 10, and "Some Doubt Fed Changed Monetary Policy," Oct. 9, 1982, Washington Post. Also see Brian Domitrovic, "Volcker Did Make a Big Switch Towards a Price Rule in 1982," Laffer Associates, April 2, 2019.

¹¹ Congressional Record, September 30, 1982, pp. 26389-26291.

In The Wall Street Journal:

- An article cited the future hedge fund titan about what was happening at the Fed: "Raymond C. Dalio of Bridgewater Associates claimed to see nothing but a complete shift in priorities."
- A column by Irving Kristol asked: "What is this new monetary policy? Well, it is pretty much summed up in the Kemp...bill (now, one assumes, unneeded)....The Fed will be looking at real interest rates, at the relative strength or weakness of the dollar in the international currency markets, at the price of commodities (including gold), and at nominal GDP...."
- An editorial asked, "how can anyone judge whether Chairman Volcker is suspending M1 but retaining an anti-inflation stance...? Well, we ourselves are going to watch prices....Of course, to stay ahead of the game you have to watch the most sensitive prices, the likes of commodities and precious metals."¹³

And lastly, in *The New York Times*: articles were published titled "Volcker Suggests Federal Reserve May Shift Tactics" and "The Fed Takes a Risky New Path;" an editorial writing of the Fed's "mid-course correction." ¹⁴

In 1983, the economy took off. Growth totaled an amazing 12% in a year and a half, 1983 through mid-1984. Growth of 3-4% then stayed the norm for the remainder of the century. Inflation fell for the duration to about a quarter of the stagflationera average. Stocks had foretold these developments. The Dow Jones Industrial Average, which had been nominally stable for 16 years (and highly negative against the price level), rose by 30% over the last four-and-a-half months of 1982, presaging the great bull run to 11,000 at the turn of the millennium.

Why It Worked

The scheduled marginal tax cuts along with oil decontrol (as Laffer and Kadlec had emphasized in a *New York Times* article in 1979) that survived the TEFRA episode of the summer of 1982 ensured that every additional dollar earned would soon come with a higher take-home residual. This, along with lower interest rates, prompted the sharp increase in the demand for money in the latter half of that year. People wanted to invest, now that tax rates were assured of both falling and staying reduced, and now that inflation had at last slowed to a crawl.¹⁵

A quantity-oriented monetary policy would have been helpless in the face of this development. Such policy would have had to guess how much money the sudden and long-absent attractiveness of investment would incur. The chance of being right was vanishingly small. Therefore, the Fed chose to have market signals of monetary demand assume a greater role in its decision-making.

It is possible that commodity-price targeting played a part; the behavior of commodity-price indexes with respect to Fed policy in 1982 supports this proposition. It is *certain* that the Federal Reserve chair, Volcker, was explicit about stabilizing the dollar against foreign exchange (Fed minutes, etc. make this clear); and the trade-weighted exchange rate of the dollar moved in a range for two years after the summer of 1982.

As Charles Kadlec wrote that October:

"...the choice between a price rule and a quantity rule is one that permeates the day-to-day running of every business. A quantity rule is analogous to a company producing and selling the same number of widgets each and every day. As the demand for widgets fluctuates, the price...would rise and fall....Most companies, however, choose instead to stabilize the price of their output." 16

Indeed, most companies are price takers that adjust their supply of product to the demand offered by the market.

In switching from quantity targets to the strong semblance of a price rule in 1982, the Federal Reserve finally chose to conduct itself like the classic economic institution: a business. Throughout the 1970s and early 1980s, as quantity targeting was in its ascendance, the supply of money wildly missed the real demand for it. The evidence was stagflation. Inflation represented money produced that nobody had any use for, and recessions reflected the lack of confidence in the means of exchange and high taxes or deferred tax rate cuts.

¹³ Lindley Clark, "What Is the Federal Reserve Doing Now?" Oct. 19; Irving Kristol, "The Big Question," Oct. 14; "What Has Paul Wrought?" Oct. 12, 1982. *The Wall Street Journal.*

¹⁴ Peter T. Kilborn, "Volcker Suggests Federal Reserve May Shift Tactics," Oct. 10; Karen W. Arenson, "The Fed Takes a Risky New Path," Oct. 17; "Credit for Mr. Volcker," Oct. 13, 1982, *The New York Times*.

¹⁵ Charles W. Kadlec and Arthur B. Laffer, "Does Oil Decontrol Mean Lower Prices?" The New York Times, Sept. 2, 1979.

¹⁶ Charles W. Kadlec, "The Price Rule: A Small Step for the Fed; A Giant Step for Economic Growth," Laffer Associates, Oct. 11, 1982, 1.

The Federal Reserve's operations became much easier with the passage of the marginal tax-rate cut in 1981. Under this new circumstance, it was clear that people would want more money and that the use for that money was productive—as opposed to an inflation hedge. The increase in after-tax returns for every additional dollar earned, per the rate cut, gave a definition to monetary demand which it had lacked prior to 1981.

Because the 1981 tax-rate cuts were phased-in, however, it took some time for them to bring about an increase in the demand for money. This break in economic activity, which took the form of the 1981-82 recession, in turn called forth the TEFRA, which, for all its misguided tax increases, somehow left the rate-cut schedule intact. This desideratum is all the mass of economic agents in the economy needed to know. When the big income-tax-rate cuts of 1982 and 1983 were both assured and proximate in the latter half of 1982, money was demanded like had never been the case in the stagflation era.

In the face of these developments, the Fed made an easy call. It let the market, via a price rule, tell it how much money to produce. Sticking to quantity targets in this environment would have been impossibly doctrinaire. The economic results would have been the quintessence of frustrating. Just as money finally became useful, the Fed would have been playing keep-away with it. It is to Volcker's great credit that, at just the right moment (and no matter how obvious the call looks in retrospect), he took the lead on his board to downgrade the priority of monetary aggregates in favor of real-world indications of how much money the economy in its entrepreneurial mode desired.

As for obviousness, the Fed's new orientation in the latter half of 1982 was the talk of the nation when it came to economic policy affairs. The innumerable comments in that vein in the press, among pundits, on Wall Street, and in business were everywhere. Volcker was switching up how he conducted monetary policy, away from quantity targeting—this had been news repetitiously since the spring.

Here is where the faux-studious opponents of the Stephen Moore pick disappointed so badly. The *Post's* Rampell "honestly had no idea" what Moore was talking about concerning Volcker and a price rule, and proceeded to research the question in a way that validated her initial judgment. Of necessity, she did not cite anything from the great monetary-policy debate of 1982.

Graver were the sins of omission and commission of the Cato Institute's George Selgin, whose blog posts on the matter fed Rampell's enthusiasm. Somehow Selgin misread the Laffer and Laffer/Kadlec writings from 1982 and 1983 to mean that Laffer was the lone wolf urging the price rule upon Volcker, as the Fed chair demurred. There is no legitimate reading of the sources than can result in this judgment. In fact, it was just the opposite: as Laffer clearly has recalled, Volcker himself described to Laffer the Fed's new price rule.

Arthur had worked closely with Paul Volcker from late 1970 through late 1972. Overseen by the Troika, (Budget Director George P. Shultz, Council of Economic Advisers Chairman Paul McCracken, and Treasury Secretary John Connally) Volcker was head of the "Volcker group" which included Laffer and CEA's Hank Houthakker. Both Laffer and Volcker were united in their concern over breaking the link between the dollar and gold.

Ten years later, in 1981 and 1982, Laffer's relationship with Reagan was as obvious as the fact that Volcker had been appointed by Carter. It is clear that Volcker took the initiative to invite Laffer to Volcker's office to explain his view of a price rule because he knew Laffer would be a natural ally. It is important to recognize that in 1982, Laffer was closer to Reagan, indeed that Volcker was on shaky ground with Reagan as the recession of 1981-82 unfolded while the Fed kept money tight via its monetarist quantity ceilings.

In May 1983, in *Reason* magazine, Laffer related how Volcker had given him a "response to our October 1982 article suggesting that the Fed was following an implicit price-stabilization rule."

"Chairman Paul Volcker pointed out the difficulty of focusing on commodity price indices at a time when many commodity prices have been severely depressed by the recession. Until the economy recovers, the Fed will have to monitor what Volcker calls 'various indicators of inflationary pressures.' The recent fall in the price of gold"—from the January 1983 high—"decline in commodity price indices and long-term interest rates, and the strength of the dollar on foreign exchange markets all suggest continued success in the Federal Reserve's efforts to stabilize the price level." ¹⁷⁷

Thus, Volcker was indicating to Laffer that he was, in effect, cyclically adjusting commodity and other leading prices as he and his board guided monetary policy. Volcker's reappointment as Fed chair the next month, in June 1983, came after the Fed had definitively walked away from quantity-aggregate monetarism and financed the booming growth with policy that was indistinguishable from a price rule.

¹⁷ Arthur B. Laffer, "Supply-Side Boom," Reason, May 1983.

It was telling that when his heavy-handed reading of the evidence was challenged by other bloggers, Selgin responded with a raft of citations from the ever-middling secondary literature on Fed priorities in the 1980s. Anything but cite the sources from 1982. Time was when everyone knew that this was the year in which Paul Volcker loudly dropped quantity targets in favor of responding to the best market signals of how much an economy, in strong recovery and growth mode, really wants and needs. May this memory, which the Moore-appointment fiasco somehow served to resurrect, indicate to us how necessary a price rule is to prosperity in in the 21st century.¹⁸

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¹⁸ George Selgin, "Stephen Moore's Other Volcker Rule," March 25, and "More on Commodity Price Targeting," April 9, 2019, www.alt-m.org.