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# Inflation policy, 2022: Background

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**Abstract.** By mid-2022, if not earlier, it was clear that the Federal Reserve's inflation policy had failed. Not only did the Fed not focus on broad monetary aggregates (M2, M3, etc.), it also was not responsive to changes in end variables –an accelerating CPI indicator or Nominal GDP (NGDP). The Fed's failing here reflects neglect by many non-Fed economists – eg, Krugman – of the same factors. The Fed has fitfully introduced average inflation targeting (AIT) over the last few years, which allows some flexibility depending on other economic variables, hence some counter-cyclicality in its methodology; it is a step toward NGDP targeting. But here too, the Powell Fed seemed not to notice cautionary signals. By early 2022, however, monetary indicators had turned flat–just as the Powell Fed accelerated rate increases. Similarly, the dollar was rising against most other currencies, more presumptive evidence that US monetary policy is now contractionary. If we consider normal lag times, the Fed is likely to be over-doing it, so that an unnecessary recession may be in the works for 2023 or early 2024. One argument says that US pandemic and other spending in 2020 contributed to the inflationary surge in late 2021 and 2022. That is not likely: the world's demand for treasury securities is quite robust. The US central bank does not need to monetize debt, which is the channel through which deficit spending would become inflationary. The Fed policy of paying interest on excess reserves (IOER) contributed to deflationary results during the decade following the 2008-2009 recession, a consequence of which was zero-bound interest rates. IOER, combined with the Fed's policy of quantitative easing, resulted in a greater public sector role in resource allocation.
**Keywords.** John Maynard Keynes; Milton Friedman; Stephen Hanke; Broad money targeting; Nominal GDP (NGDP) targeting; Average inflation targeting (AIT); Foreign exchange rate targeting; Jerome Powell; Matthew Klein and Michael Pettis; George Selgin; Scott Sumner; Modern Monetary Theory; Interest on Excess reserves (IOER) policy; Zero-bound interest rates.
**JEL.** E00; E32; E52; E58; F21; F32.

## 1. Introduction

The intent here is not to predict an inflation level, but to identify some monetary and market dynamics now driving investment, international capital flows and income distribution. We have some red flags that were not waving at this time last year. We should also consider that the worst of this inflation cycle may be behind us, and that it is time to begin to take counter-measures against a more-serious-than-necessary downturn.

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## 2. Monetary targets

Just as after the financial crisis and subsequent Great Recession of 2007-2009, many commentators, including some professional economists, predicted a damaging level of inflation to result from Central Bank policy, combined with deficit spending, in the wake of the 2020-2021 pandemic. Forecasts in 2009 of inflation to come turned out to be wrong. While Fed critics in the earlier case cited sharp increases in the monetary base (currency and bank reserves), current monetarists, including Steve Hanke and Tim Congdon, cite increases in much broader money supply indicators (eg, M3 or M4 – which includes most short-term, liquid assets). M3 and M4 were indeed up sharply during most of 2020 and 2021, and price increases gathered steam in late 2021 and in the first half of 2022; critics are thus far more correct this time.

Federal Reserve Chair Jerome Powell and Treasury Secretary Janet Yellen commented publicly in the Spring 2021 that they believed inflationary pressures were manageable, and might even aid in recovery from the slowdown. Paul Krugman (2021a, 2021b) argued that price jumps could be attributed to pandemic-linked supply bottlenecks and other temporary factors. And *Bloomberg* reported on May 20, 2021:

> **For a sign that accelerating inflation** may be fleeting, look to the housing industry, Conor Sen writes for Bloomberg Opinion. Rising prices are starting to cool demand, anecdotal evidence suggests builders are starting to take a pause, and lumber prices have responded. A start-and-stop growth environment is unlikely to sustain a higher level of inflation (*Bloomberg*, 2021).

That view, despite its association with prominent economists, seems not to recognize quantitative monetary factors that have usually been understood to determine price trends. Krugman (2021b) notes that demand for cash increases as interest rates decline toward zero, and cites evidence that narrow money indicators do not correlate well with changes in prices or income. Krugman does not acknowledge that monetarism has evolved, and now uses broader money quantity indicators – for which price and income correlations are much better.

In the 1920s, John Maynard Keynes argued that inflation was a monetary phenomenon. Keynesian economists – often over-simplifying Keynes' message -- have focused on interest rate management as the essential policy tool for managing inflation and growth. The "Taylor rule," proposed in 1992, has similarly deployed interest rate management to stabilize price and growth performance. Highlighting a different policy lever, Milton Friedman argued in the 1950s and 1960s that changes in money supply would lead "with long and variable lags" to changes in price levels. By the 1980s and 1990s, however, many or most international monetary authorities were targeting an inflation level directly – an end-variable -- rather than locking into interest rates or tracking money supply indicators. Late in his life,[2] Friedman adapted his view to agree that central

[2] Friedman died in 2006.

banks could target inflation directly rather than seek to stabilize an intermediate variable (Svensson, 2008; p.3).

It has long been clear that central banks could target an outside standard as an end-variable, hence that a currency's value could be fixed to another currency or to a gold or silver price – whereby we get a sterling standard, a gold standard, a bi-metallic standard, etc. We know now that monetary policy can also target an inflation indicator; and we can ask, still more recently, if we can target a price indicator, why not a growth indicator? An advantage to targeting end-variables is a shorter time lapse between policy action and end-variable results. For example, rather than wait for a change in the quantity of money, or in short term interest rates, to impact upon inflation or growth, monetary authorities can act as soon as they see a change in an inflation or growth indicator. Closely related, economist and central banker Lars Svensson summarizes that monetary authorities should base policy on a forecast of where inflation and growth trends are leading:

> Inflation targeting is in practice always flexible inflation targeting. That is, it aims to stabilize not only inflation around an inflation target but also the real economy. Furthermore, because inflation and resource utilization respond with considerable lags to monetary-policy actions, it is necessary to rely on forecasts. Flexible inflation targeting then boils down to what I have called "forecast targeting" (Svensson, 2008; p.3).

What drives macroeconomic performance is the relationship between the cost of capital (including interest rates) and expected returns on investment, what Keynes called the schedule of marginal efficiencies of capital (MEC), which we can never do more than estimate.[3] And MEC is highly variable, contingent on the whims of finance market fashion, usually much more so than is the rate of interest (Keynes, 1936; Ch.11[4]). Consequently, an interest-rate guided monetary policy is likely to lead either into a slump (where MEC collapses to a level below prevailing interest rates), or to over-heating (where investors become excessively bullish on prospects).

A frequent confusion merits a few words. One often hears that, to be effective, interest rates must be higher than the rate of inflation, or higher than the rate of nominal growth. In fact, the relevant relationship for heating or cooling economic prospects is between interest rates (or other measures of the cost of capital) and the marginal efficiency of capital. Relationships between interest rates and other variables are incidental, and matter less. In a rising economy, the volatile MEC will move above the cost of capital; in a falling economy, MEC will fall below the cost of capital. In

[3] Equity prices reflect MEC, the cost of capital, and the expected growth rate of profits into the future.

[4] In fact, much of Keynes (1936) and his earlier *Treatise on Money* (1930) were constructed cognizant upon the relationship between the cost of money (called the market rate in the *Treatise*) and the marginal efficiency of capital (called the natural rate in the earlier book.) Indeed, it is the same relationship that MBA students are taught to recognize in corporate finance classes.

the US in June 2022, MEC appears to be falling sharply relatively to rising interest rates. Given more money growth, interest rates must be higher in order to have a cooling effect – and to close any gap with the marginal efficiency of capital. If money growth is less, then a lower interest rate can be sufficient to have a slowing impact. To put it differently, interest rates are endogenous to other factors (especially money growth) – changes in interest rates are half-blind in their impact on other factors. It is more useful to target changes in end-variables – price indexes or nominal income.

The correlation between "broad" money supply and prices and nominal income occurs, in Friedman's phrase, with "long and variable lags."[5] Consider the underlying money equation MV = PT[6]: In the shorter period changes in velocity of money (which measures approximately what Keynesians call "liquidity preference") will often upset an immediate correlation between the quantity of money and nominal income. The best target is usually the one with *the shortest time lapse between policy adjustment and effect upon end-variable.* The last could be nominal GDP (NGDP), some inflation indicator, or even the exchange rate against the dollar or euro. Central banks, politicians and almost everyone else care mostly about end-variables. Regardless of the choice of target, monetary policy uses the same levers: open market operations, discount rate adjustments, or in some cases foreign exchange market interventions. Indeed, the choice of target can be independent of any premise about the direction of causality among money, velocity, and changes in prices and NGDP.

In August 2020, the Federal Reserve announced that it would revise its "fixed" inflation target (set for at least the previous decade at 2 percent annually, a target usually undershot in practice,) to an "average" inflation target (AIT), still set at 2 percent annually. By some early months of 2021 – using the Fed's preferred indicator of "core inflation" – growth in the US price index exceeded 2 percent, and perhaps also the 3 percent rate. *The Economist* challenged Fed officials in April 2021 on the implementation of AIT:

> A new monetary-policy framework it adopted in August dictates that it should push inflation temporarily higher than its target after recessions, to make up lost ground. The problem is that nobody knows by how much or for how long it wants inflation to overshoot after the pandemic. With the risks of an inflationary episode greater than they have been in years, the ambiguity is an unfortunate additional source of uncertainty (*Economist*, 2021).

Announcing an NGDP target would in fact overcome the ambiguity implicit in an AIT. As the real growth component of NGDP's growth increased, the Fed would be committed to tightening, hence to reducing the

[5] Tim Congdon explains in a recent email to me, "the relationship is between [broad] money and nominal GDP over the medium term." I understand the medium term to be measured in years.

[6] MV = PT: (money quantity) (velocity) = (price level) (real transactions).

inflation component of nominal growth.[7] NGDP targeting thus has two advantages:

1. a relatively short time lapse between policy adjustment and impacting end-variable; and
2. it is counter-cyclical, unlike targeting money and more so than targeting interest rates.

But the Fed resists announcing that NGDP is an important policy target – perhaps because it was not so many years ago that it formally announced an inflation objective, and it hopes not to appear inconstant? Plausibly, the Fed is now working with an implicit NGDP target.

The Fed pumped the money pedal quite hard early in the pandemic, often through quantitative easing (QE), or aggressive purchases of treasury and agency securities. Broad money in the US – measured as M3 – increased by 26 percent in the year up to June 2020, and by 19 percent in the year to March 2021 (Congdon, 2022). Given nearly unprecedented public spending in 2020 and 2021 to maintain activity during the pandemic, the Fed should perhaps have slowed money expansion to brake private sector demand. On monetarist logic, the US economy was in for a burst of inflation as 2021 unfolded. But two contexts should be highlighted. First, the economic dimension of uncertainty in early 2020 was comparable to what happens in a major war. Cautionary liquidity preference rose, velocity of circulation fell; a determined rise in the quantity of money was likely necessary to prevent a collapse in economic activity – in which goal the Fed certainly succeeded. Second, indeed, the Fed succeeded too well, as aggregate demand rose by enough to bring measured unemployment to the lowest level since the 1960s; this was the flip side of growing demand pressure.

The Fed should have reacted in 2021, perhaps later in the year, by withdrawing liquidity, hence by ending asset purchases and aggressively raising the overnight rate target. This would have been true whether the central bankers were tracking a broad money indicator, an inflation indicator or NGDP. Whatever the Fed was targeting, it missed. More alluring tasks beckoned:

> [T]he Fed's failure also reflects an insidious change among central bankers globally... around the world many are dissatisfied with the staid work of managing the business cycle and wish to take on more glamorous tasks, from fighting climate change to minting digital currencies. At the Fed the shift was apparent in promises that it would pursue a "broad-based and inclusive" recovery. The rhetorical shift ignored the fact, taught to every undergraduate economist, that the rate of unemployment at which inflation takes off is not something central banks can control.
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> In September 2020 the Fed codified its new views by promising not to raise interest rates at all until employment had already reached its

[7] On NGDP targeting, *inter alia*, see Selgin (2018b), and Sumner (2012).

> maximum sustainable level. Its pledge guaranteed that it would fall far behind the curve....
>
> The result was a mess which the Fed is only now trying to clear up. In December [2021] it projected a measly 0.75 percentage points of interest-rate rises this year. Today an increase of 2.5 points is expected (*Economist*, 2022).

Bluntly, as *Economist* (2022) then summarized, the Fed made "a historic mistake." Not only does the US now have to contend with a serious round of morale-sapping price increases; from a monetary economist's perspective, damage has been done to the mostly valid concept of AIT, in large part due to its inept application. And the US central bank's anti-inflation credibility, reinforced over decades since Paul Volcker's reign as Chair (1979-1987), has been damaged. The honorable step for Fed Chair Powell might be to resign, as a step toward restoring institutional reputation.

Yesterday's mistakes do not reliably set up today's do-overs. Broad money growth in the US during the first half of 2022 has slowed to low single digits, and may even go into reverse for months at a time before the year is out (Congdon, 2022). Just as the Fed has been late in combating inflation, there is reason to fear that it will continue to counter excessive liquidity just when it should again loosen the reins. How do we decide when to shift from expansion to contraction, and back to expansion? Sumner has proposed that we establish an NGDP futures market, so that monetary policy might be linked to and adjusted in line with market expectations. We can get some of the same information from implied forward prices on government bonds. But there is a dilemma involved in basing policy on forward market prices: only in part does the forward price anticipate where current policy is leading. Forward prices are also a bet on whether, or how much, monetary authorities themselves will adapt current policy. Sumner intends that the link between the NGDP futures market and adjustments to monetary policy should be automatic, hence eliminating the central bank's discretion, something like the way monetary action is taken under a genuine currency board. I suggest a smaller step -- get monetary authorities to take expectations into account, via use of AIT or NGDP targeting.

Surely relevant in estimating near-term inflation prospects is another end-variable: the dollar exchange rate. Prior to the Great Recession, the dollar: euro value dropped by nearly 30 percent from November 2005 to July 2008. It was followed by a rapid dollar recovery of more than 20 percent from that date into November 2008. The strengthening from 1.60/euro to 1.25/euro in less than four months was evidence of sharp contraction in dollar liquidity, which turned what had been a financial crisis into a deep monetary recession. The Fed, acting in conjunction with other central banks and treasuries – or, if necessary, acting alone – should

have bought up treasuries, or even used FX to buy up dollars, to brake the dollar appreciation, presumably around 1.40 or 1.45 to the euro.[8]

Nothing very unusual happened in foreign exchange markets during the first year or more of the Covid pandemic. But since May 2021, the dollar has risen by more than 10 percent against each of the euro, pound and yen, including a rise against the euro from 1.21/euro to 1.07/euro at the end of May 2022, and (since only December 2021) an even sharper rise against the yen from 103/USD to 127/USD. The movements are surely driven in part by Fed tightening, and the prospect of continuing US interest rate increases. It is also plausible that exchange markets are reacting to the sharp brake on US money expansion in 2022, and hence to the prospect of a squeeze on dollar liquidity and perhaps a US recession. There are grounds here for moderating the program by now in place to end the US inflation, and for taking steps to slow or to stop US dollar appreciation against other leading currencies.

## 3. Capital flows and fiscal deficits

In an important book, *Trade Wars are Class Wars* (2020), authors Matthew Klein and Michael Pettis argue that current account surplus countries, led by China and Germany, under-consume relatively to national income because of the way income is distributed domestically. This argument is a reversal of the conventional view that the US current account deficit reflects over-consumption and under-saving in the United States. But Klein & Pettis are on solid ground inasmuch as trade deficits -- including for the US over several decades -- and surpluses are "nearly always" induced by financial transfers (Mundell, 1992; p.49); this was also Keynes' premise at Bretton Woods in 1944 (Klein & Pettis, 2020; pp.189-190). The authors bring together consideration of growth and inflation on one side with discussion of damage from income inequality ("class wars") on the other. Based in part on their study, I offer a conclusion and an inference.

The volume of cross-border capital flows has much to do with an open economy's capacity to finance fiscal deficits. When China or Germany, or other surplus countries, consume less than they produce, large amounts of savings look abroad for placement and safe harbor, just as large amounts of surplus product look for markets. (The accounts' imbalance was aggravated following the Asia Crisis, as the world's currency reserves grew during 1999-2013 from $1.9T to 11.6T (*Statica*, 2022). To grow reserves at such a rate required constraint on domestic expenditure in surplus countries – that is, in much of the world.) As the US dollar is the *de facto* world currency, the equivalent of hundreds of billions of dollars of foreign savings seek refuge every year in US dollar instruments – preferably in

[8] Mundell, at his Santa Colomba, Italy, conference in July 2009 (which I attended), was explicit about the connection between the dollar-euro appreciation and the 2008-2009 slump. He argued that the dollar should have been stabilized at around 1.40 or slightly lower. I have not seen the link between the strengthening dollar and the subsequent Great Recession asserted so clearly anywhere else.

low-risk treasury or government agency issues. The inflow of finance to the US (and, to a lesser extent, to other deficit countries Britain, France, Canada and Australia) makes it inevitable that these countries will consume more than they produce. This has been called America's "exorbitant privilege," among others by Charles DeGaulle. But Volcker, in a 2018 interview, captured the flip-side of consequences for the provider of the world's currency: "The top dog pays the price." (Klein & Pettis, 2020; p.224.) Problematic fallout for deficit countries have included: 1) a flood of manufacturing imports;[9] 2) a decline in manufacturing as a share of US GDP, from 16 percent in 1997 to below 11 percent in 2021 (World Bank, 2022a) – while Germany's manufacturing ratio is around 18 percent of GDP (World Bank, 2022b), and China's around 26 percent (World Bank, 2022c); 3) skewing of income toward financial sectors that manage the capital transfers; and 4) lots of private capital sloshing around – looking for borrowers -- that will increase debt-to-income ratios in deficit countries, and be drawn into speculative vehicles, eg subprime mortgages in the US prior to 2008.

To fix this global imbalance would require structural change in China, Germany and elsewhere to redistribute more income down to households. For China, Klein & Pettis suggest increased dividends from state-owned enterprises to be paid to employees, a wealth fund, recognition of property rights, an income tax for higher-earners, lower consumption taxes, and an end to the *hukou* system (which restricts movement and re-location.) For Germany, they recommend higher inheritance taxes to de-concentrate wealth, lower taxes on most labor, and regulatory integration with the European Union – including with what have been deficit countries within the bloc. For both, the authors recommend fiscal deficits that should be used to direct heretofore exported savings to domestic purposes. (The authors propose having an international conference, call it Bretton Woods II, and dusting off a variation of Keynes' bancor proposal, from Bretton

[9] Take a stylized example. Imagine a world with two countries, US and CH, each with 100 units of production (50 each of goods and services) and 100 units of consumption. CH then draws on savings to export 100 units of capital to US – which absorbs the capital and increases its purchasing power to 200. Now imagine that CH doubles production to 200 units, but its domestic consumption stays at 100 units. It is easier for CH to export goods than to exports services, so most of the increased capital in the US will go to consuming imported goods. The US as a whole is better off; it consumes more goods, and, because it has expanded purchasing power, also demands more services. Consequently, a portion of the 50 units of production capacity in the US that previously went to producing goods will shift to providing services. Some US workers who previously produced goods will have lost their manufacturing jobs. The magnitude and composition of these shifts will vary from one situation to the next. Also, see MacKinnon (2013). To understand the political consequences of such capital movements, consider evidence that 89 of the 100 counties in the US most affected by Chinese competition went for Donald Trump in the 2016 Republican primaries, Klein-Pettis (2020, p.2). (One reader pointed out to me that many US counties went for Trump in the 2016 primaries, and other common trends in those counties might have been more important than losing production orders to Chinese competitors. True enough about data analysis – but I suspect that job losses to trade were an important electoral motivator that year.)

Woods I, to force surplus countries to reduce capital exports.[10]) If we do not see the kind of reform that would fix systemic imbalances, the US might sooner or later look for other ways to discourage or block massive capital inflows. Current trade imbalances are a consequence of these capital movements – so any effort to address the problem through the usual trade negotiations, or imposition of tariffs, will fail.

Absent such reform, the US could explicitly provide more of the debt instruments that are in such international demand (including for the purpose of augmenting national reserves across much of the developing world); that is, the US might run larger budget deficits. Very low, even sub-zero interest rates, for a post-2009 decade or s, on US and several European treasury securities suggest that supply of such securities scarcely met global demand. Klein-Pettis note that there are now redundant funds for corporate or other private sector outlays, and indeed that corporations, net, are spending less than they generate in cash flow, and are often using excess cash to repurchase stock. They cite evidence that US private equity firms are unable to deploy trillions of dollars (Klein & Pettis, 2020; p.79-80). Hence, they argue, this is not the time to funnel massive international savings into private sector projects in deficit countries. It would be more stabilizing, and better for longer term growth, were the US to run larger fiscal deficits and use proceeds – as suggested above for China and Germany -- to upgrade infrastructure, boost education, and counter growing income inequality.

Some imagine massive fiscal deficits as a harbinger of inflation to come (*Washington Post*, 2021); the claim is also a staple of partisan discourse, usually hurled at Democrats by the GOP. Indeed, as noted, the longer-term impact of growing deficits is problematic. In the meantime, the US can pay for much of government by borrowing, often from abroad – that is, by deploying the capital put aside in surplus countries. The choice is in how much of that incoming capital will be cycled to the US private sector, and how much will be used to finance US public sector deficits. Either boosts US aggregate demand, with similar monetary consequences. And both imply a current account outflow. If the Federal Reserve wants to expand its balance sheet – to "monetize the debt" -- there are $trillions of existing treasuries or agencies to purchase, apart from any new issue of either. Similarly, the Fed can sell off assets if the purpose is to drain market liquidity. US fiscal deficits should not force expansion upon US monetary policy over plausible time horizons.

A word on Modern Monetary Theory, which essentially recapitulates a closed-economy Keynesian argument that public sector deficit spending is not inflationary – not for as long as the economy is in a high-

[10] (Klein & Pettis 2020, pp.189-190, 228). Keynes intended that IMF member countries in deficit would be able to draw on bancor balances to support their currencies – and, symmetrically, that surplus countries would either reduce surpluses or forfeit bancor balances. US negotiators rejected the bancor proposal, seemingly acting on the confused premise that the US would always be a surplus country.

unemployment (partial) equilibrium (Coats, 2019). That is, MMT tries to replace monetary stimulus as a policy instrument with fiscal expansion. Its premise was that financial markets could absorb a great deal more government debt – without over-heating, and without generating price inflation. It was an old argument, one essentially rejected for closed economy contexts by most macroeconomists decades ago. Yet it gained recent plausibility because debt issue was expanding during the previous decade, without causing obvious distress. In fact, the logic of borrowing during the previous decade had little to do with closed-economy Keynesianism, or with MMT. The US is an open-economy, and – at the same time as it was losing manufacturing jobs -- it was absorbing savings from abroad. Much of the foreign savings was going directly into purchase of US government debt, in what may have seemed an infinite virtuous cycle.

Klein & Pettis (2020; p.81) argue that growing income inequality is often accompanied by growing debt ratios – and they begin with evidence from the US in the 1920s. The premise is that those with higher incomes did more saving, and – as a portion of income – less consumption. Evidence from the past decade similarly suggests that a savings glut at the top of the income and wealth pyramid in the US has financed growing indebtedness among the "lower 90 percent" (Stropoli, 2021). The problem, given growing inequality, is that the only way growth in consumption can keep pace with growth in national income is by having higher-propensity consumers take on new debt – indeed by increasing debt-to-national income ratios, and hence increasing susceptibility to financial crisis. (By the same reasoning, were economic growth instead to be led by the lower 90 percent – by those with higher propensities to consume – consumption could increase while the ratio of consumer debt to national income would decline.) Monetary stimulus (hence, national income expansion) under conditions of high, or growing, inequality will give impetus to financial breakdown – as the authors believe it did in 2007-2008. Redistribution of income and wealth in the US and elsewhere would reduce consumer debt, and hence contribute to financial stability.

Back to inflation, my *conclusion* is that US government deficit spending need not be, and is likely not to be, a separate factor boosting price increases now, or in the foreseeable future. Indeed, given massive inflows of foreign capital to the US, for the US to run fiscal deficits and issue such debt is essentially wise. The world wants to hold US government debt! A liquidity squeeze in the near future, as suggested in the previous section, would contract economic activity, reduce tax revenue, and increase pubic sector borrowing; but the new borrowing would certainly *not* cause a general increase in prices. My *inference* is that weak economic growth for the past decade or more is, in part, a consequence of contractionary monetary policy on the part of the Federal Reserve, the European Central Bank (ECB) and other central banks. A bit of price inflation, perhaps consistent with the Fed's AIT guidelines, might have been a necessary (or,

at least, collateral) complement to boosting demand during 2020 and part of 2021. But as noted earlier, the Fed allowed AIT guidelines to be far exceeded during much of 2021 and into 2022, which has damaged the central bank's credibility.

## 3. IOR and deflation

Understanding current monetary policy demands a moment of attention to the consequences of paying interest on excess reserves (IOER) – that is, commercial bank deposits, held at the central bank.

The Federal Reserve, ECB and Bank of England now operate with "floor" systems, rather than a corridor system, for guiding overnight interest rates.[11] In a corridor system, the unsecured overnight market rate (called the fed funds rate in the US) is higher than whatever interest rate banks can earn by placing funds on reserve at the central bank. The difference between the market rate and the reserves rate is the "corridor." In a floor system, the IOER is as high or higher than the fed funds rate. The Federal Reserve had used a orridor system since its founding in 1913; it began to pay IOER at a level as high as or higher than the fed funds rate only in October 2008, thereby collapsing the corridor into a floor system – and it has kept the IOER rate a few basis points above the fed funds rate ever since. The unsecured interbank market, which used to be the venue for banks to meet their reserve requirements on a day-to-day basis, is now much shrunken. Banks can earn as much or more by placing reserves with the Fed – all with zero credit risk and no need to monitor activities of interbank counterparts.

The Federal Reserve balance sheet grew from less than $1 T in 2008 to nearly $9 T by June 2022, the last doubling from March 2020. The gross increase reflects QE – the Fed's aggressive open-market purchase of treasury and agency securities. But much of the increase in central bank assets has been matched on the liability side by increases in excess reserves. Placing deposits at the central bank stops the reserve multiplier (and hence monetary expansion) in its tracks; the impact on market liquidity of placing commercial bank deposits with the Fed is the equivalent of performing a central bank open-market sale – it is deflationary. What is the purpose of an open market purchase if it anticipated ahead of time that it will be offset by a commercial bank deposit at the Fed? Answer: it would allow the Fed to change the maturity structure of the federal debt, for example by replacing 20-year bonds with 6-month bills. Or it could replace treasuries in its portfolio with mortgage-backed or other agency securities – thereby giving a boost to the mortgage-backed market (Bernanke, 2013).

Consequences of the floor system have thus included giving the central bank a larger role in the allocation of credit than was ever intended. Quantitative easing involved Fed purchase of treasury and agency (usually mortgage-backed) securities – hence removing them from the market –

[11] Selgin (2018a) is the outstanding reference on IOER.

while IOER then took much injected money out of circulation. In consequence, far more treasuries and mortgage-backed securities were purchased by the Fed than were needed to boost liquidity. As this is written, the Fed holds approximately two-and-a-half $trillion of mortgage-backed agencies, approaching 30 percent of the central bank's balance sheet.

In immediate context, the link between Fed balance sheet management and monetary policy is more tenuous than it was before October 2008; that is, much of the purported expansion evaporates. By most accounts, implementation of IOER slowed the recovery from the 2008 -2009 nadir (Selgin, 2018; pp.90-91). Indeed, IOER was presented in 2008 as a contractionary policy – a way to keep the fed funds rate from sinking. (That was misguided; in October 2008, the US should have had an expansionary monetary policy to move beyond the financial crisis.) These consequences of the floor system have been disappointing. The main reason central banks have maintained it appears to be that reducing balance sheets to pre-October 2008 size would require recording losses on their ever-growing inventory of government security assets.

What did *not* happen in 2008-2009 was a "helicopter drop" of new money.[12] Much of the money injected through QE has been placed on deposit at the Fed and effectively withdrawn. But ongoing QE operations during 2020 and 2021 have led to increases in narrow and broad money indicators despite the floor system. Expansionary fiscal and monetary policy during the first year or more of the pandemic (2020-2021) generated enough stimulus to overwhelm built-in brakes from policy of paying IOER.

But IOER remains clumsy policy. Future monetary expansion will be easier to manage if the IOER is reduced to a level well below the market fed funds rate, thereby restoring a corridor system. Restoring an active fed funds market would boost banking sector allocative efficiency and end the deflationary mechanism implicit in current IOER policy.

## 4. Conclusion

1. Central banks are able to target inflation rates, or nominal GDP growth, without long lead times; the Federal Reserve is capable of responding if, and when, unexpected price trends appear. This time, however, it did not respond adequately, or on-time, to evidence of surging money quantities or of price trends. The consequence has been a burst of price inflation in 2021-2022, and to damage to the Fed's anti-inflation reputation and to the credibility of its AIT operating premise. The Fed Chair should consider resigning. There are reasons now to caution against anti-inflation zeal; this is not the time to move from over-heating to slump.

[12] A "helicopter drop" has more technical definitions, but is generally an aggressive, deliberate increase in the quantity of money. The reference is to a metaphor introduced by M. Friedman.

2. US current account deficits reflect excessive savings abroad, especially in China and Germany, and consequent massive capital flows to the US. US government debt issuance can provide securities demanded nationally and internationally; inflationary consequence, or not, will depend on monetary policy, not on the mix of private and public US spending.

3. The Fed's current operating method – use of a floor system for interest rate management – carries a deflationary bias that has slowed economic growth since its adoption in 2008. It also undermines functionality of the interbank funds market, and has given the central bank a larger role in the distribution of credit than it ever should have obtained. and should be discontinued.

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