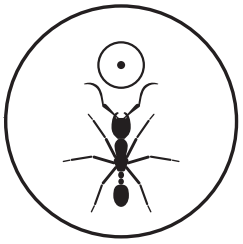

Myrmikan Research

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The Slingshot

Gold continues to sling-shot off of the mid-March panic bottom, with gold rising 2.6% in June and the HUI Gold Bugs Index increasing 7.8%.

As impressive as such gains may be, gold and gold miners were not the only assets to increase in price. In fact, the metal was trounced by Tesla, which rose 29% during the month. Microsoft increased 11.1%, Amazon rose 12.9%, Apple was up 14.8%. With the Federal Reserve's printing press whirring, any financial instrument not actually in default wants to rise. Actually, one company in default soared in price anyway: Hertz Global Holdings (which has filed for bankruptcy protection) rose 42% in June. The source of these extraordinary—and sometimes ridiculous—price increases is not hard to guess. It is called the Cantillon Effect.

Richard Cantillon made his fortune as John Law's partner during the Mississippi Bubble, the earliest and most impressive modern credit bubble. Whereas Law never saw the flaw in his design and had to flee France disguised as woman when the bubble popped, Cantillon sold shares short at the top and escaped to Italy. The experience taught Cantillon that money flows like water: those closest to monetary emissions extract the largest profit. He wrote:

> In general an increase of actual money causes in a State a corresponding increase of consumption which gradually brings about increased prices. If the increase of actual money comes from Mines of gold and silver in the State the Owner of these Mines, the Adventurers, the Smelters, the Refiners, and all the other workers will increase their expenses in proportion to their gains. They will consume … more … commodities. They will consequently give employment to several Mechanicks who had not so much to do before and who for the same reason will increase their expenses. All this increase of expense in Meat, Wine, Wool, etc. diminishes the share of the other inhabitants of the State who do not participate at first in the wealth of the Mines in question. The alteration of the Market, or the demand for Meat, Wine, Wool, etc., being more intense than usual, will not fail to raise their prices. These high prices will determine the Farmers to employ more land to produce them in another year; these same Farmers will profit by this rise of prices and will increase the expenditure of their Families like the others. Those then who will suffer from this dearness and increased consumption

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> will be first of all the Landowners, during the term of their Leases, then their Domestic Servants and all the Workmen or fixed Wage-earners who support the families on their wages. All these must diminish their expenditure in proportion to the new consumption.…

Cantillon wrote these words as a general principle, but he derived the insight from watching what happened in France during the bubble, when those nearest the central bank got the money first.

This is exactly how it functions in our modern economy. Bernanke himself explained during the first QEs: "By acquiring securities in the market and bringing them onto the Fed's balance sheet, we essentially induce investors to move into substitute securities. So, for example, an investor who sells a Treasury security to the Fed may end up buying a corporate bond instead, and so the effect will be to lower corporate bond rates and corporate spreads." To continue the logic, those holding corporate bonds may be pushed into junk bonds, and those holders will in turn be forced into equities.

No wonder the stock market is surging. The Fed has purchased net $2.8 trillion worth of assets since February. It does not matter that most of the assets the Fed purchases are senior securities because those selling to the Fed deploy the sale proceeds into other assets, which raises their prices.

There is a second locus for the emission of notes: private commercial banks. Recall that in the text book model of our fractionally reserved banking system a person deposits $100 of new money into a bank and the banking system expands its loans by $1,000. A quick remainder of how it works: banks historically had a 10% reserve requirement, so the bank that receives the $100 of new money can lend out $90. The borrower of this $90 deposits it in the same or different bank—it doesn't matter which because either way that bank is allowed to lend out 90% of this new $90 deposit, or an additional $81. And so on.

The main difference between the textbook and reality is that certain favored classes of debt, such as Treasury bonds and mortgage-backed securities, have had little or no reserve requirements, allowing banks to lever these assets nearly infinitely. Then, on March 15, 2020, the Fed announced: "the Board has reduced reserve requirement ratios to zero percent.… This action eliminates reserve requirements for thousands of depository institutions and will help to support lending to households and businesses."

Eliminating reserve requirements removes the limit to which commercial banks may create money and credit. To illustrate, let's say someone who owns a house outright agrees to sell it for $500,000. A commercial bank will lend the buyer 97% of the purchase price at a fixed rate (currently 2.85%) for thirty years (only because the bank can flip the mortgage to Fannie Mae in a matter of days). The buyer puts up $15,000 and at closing the seller receives a $500,000 deposit in his checking account. The difference, $485,000, is nothing more than a balance sheet entry of a privately owned bank; yet this new money behaves the same as if it were issued by the U.S. Treasury because it is accepted at face value in the payment of taxes.

The seller is likely not going to leave the sale proceeds in an account yielding zero percent interest, sharply negative in real terms. He might buy a $1 million house, for which he would have to deposit 10%, or $100,000 (mortgages above $510,000 cannot

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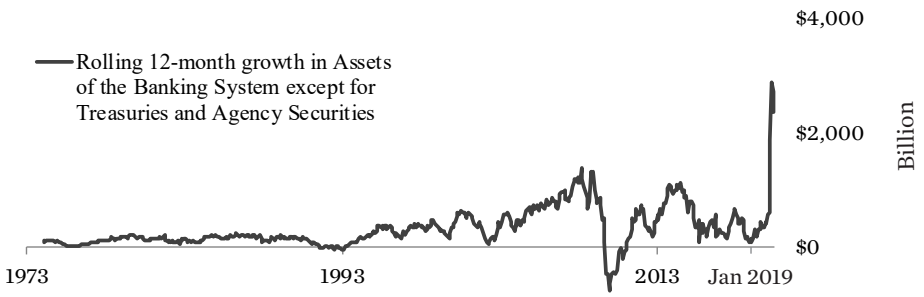
be sold to Fannie Mae, so terms are slightly worse). He's now bought twice as much house with newly issued credit, allowing him to outbid others who are not near the locus of monetary increase, exactly as Cantillon described. And he still has $400,000 left to deploy into the liquid asset markets or to spend on consumables. The seller of the million dollar house now also has newly minted money to deploy. And because asset prices have risen generally, banks will lend more against them.

Housing is usually a locus of private credit creation because government incentives have enticed banks to make real estate (both commercial and residential) two-thirds of bank assets. But there are others: sometimes internet or biotech stocks or crypto currencies or commodities or levered loans (sub-prime corporate debt). Whatever the banks finance can become a spigot of credit and money creation.

The chart below shows the rolling 12-month increase in assets of the banking system excluding Treasury bonds and securities of quasi-government entities. In other words, it shows the amount of money creation that has flowed to private actors as opposed to the state.



The 2008 financial crisis stands out clearly, with the banking destroying private credit money—this is why the Fed panicked and launched the QEs. The relatively mild recessions of 2001 and 1993 also stand out, although only in the sense that the rate of growth paused briefly.

The Wuhan virus lockdown crisis, however, never saw any shrinkage in private sector credit creation. Credit creation began to lurch higher in January 2019, more than a year before the virus hit. In the past twelve months, the banking system has created $2.3 trillion of new money and given it directly to private actors. Meanwhile, the federal government has borrowed $3.5 trillion since February to fund bailouts and expenditures in the face of plunging tax revenue (and Congress is working on another $1–$2 trillion stimulus bill). M2 money supply has exploded by 23% over the past year. Those standing near these emissions have done very well indeed. But, as Cantillon pointed out, for everyone else: "All these must diminish their expenditure in proportion to the new consumption."

One of the fatal flaws in our system, however, is that it creates money in the form of debt. The lower the interest rate gets pushed by the massive emissions of credit, the easier it becomes to maintain debt, and the more debt rational actors will take on. But, then, the more burdensome interest payments become.

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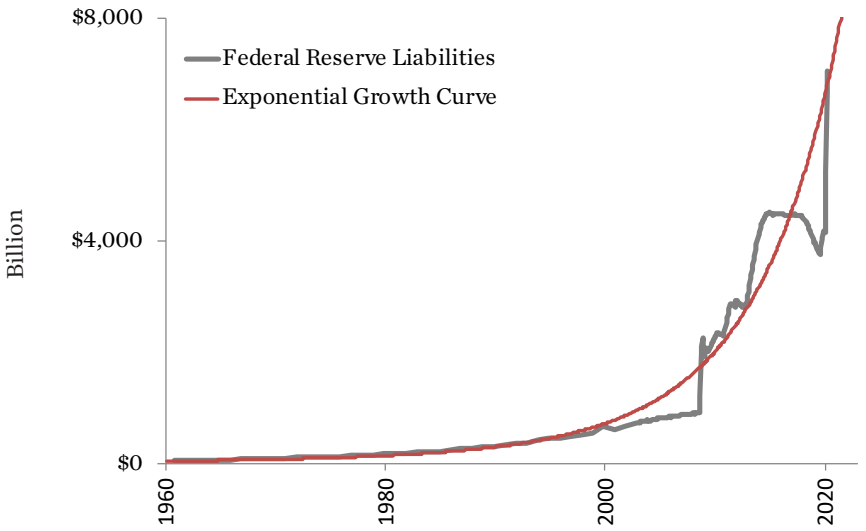
To illustrate, imagine an economy with $100, which is issued and owned by the banks. The banks lend it out at 10% per year, so that a year later the borrowers owe the banks $110. But we already stipulated that there is only $100 in the economy. The borrowers cannot repay $110 when only $100 exist. It does not matter how productive they have been, for they cannot tender their productions in repayment of their debts. They must sell them first to get the money and then repay the money.

Most debts, of course, do not come due every year, so the imbalance between the amount of dollars owed and the amount that exists grows larger at an exponential rate: the second year there are $121 demanded against $100 in existence; the fifth year there are $161 owed. When the crisis arrives, whether because of overcapacity engendered by the boom or a virus lockdown, mass defaults ripple through the economy.

Unless, of course, there is a central bank that can print up the missing dollars and hand them to the banks and borrowers. The problem here, though, is that the central bank *lends* these dollars into existence, and so they come with their own exponentially-growing interest rate burden. In order to fend off the crisis, therefore, the money supply must increase at an ever faster rate.

The chart below shows that the Fed has followed an exponential growth curve since the 1960s (when the Keynesians took control of government).



The Fed tried to hop off of the curve in the early 2000s. As long as the banks were happy to roll debts, to allow interest to be paid with more credit, the market didn't need the raw dollars. But, when someone finally asked to be paid, the credit structure collapsed, and the Fed jumped back on the curve in a hurry.

Then they tried it again. This time it was a virus and not overcapacity in housing that popped the bubble, but the bubble was going to pop one way or another: the Fed has to keep printing at a faster and faster rate to provide borrowers with the money to pay interest.

The exponential growth curve shown on the chart was increasing at 10% per year in 2000. It is now growing at nearly 14% per year. There is nothing magical about

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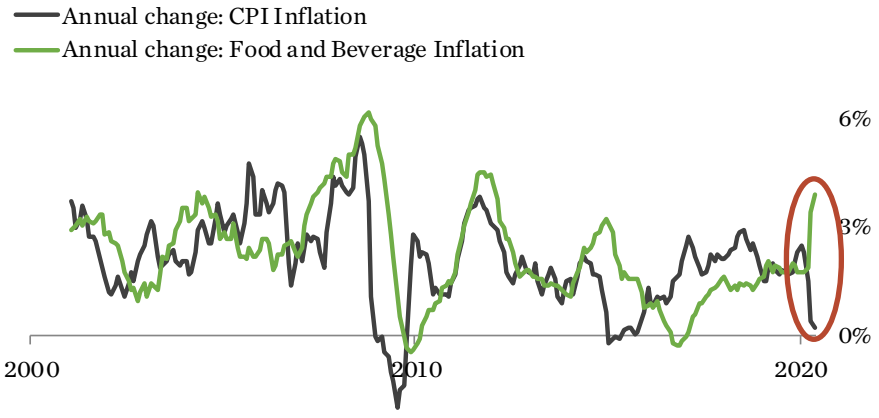
these numbers—the curve is simply a best fit of what the Fed has had to issue over the past six decades in a falling interest rate environment; there is no reason why the Fed will not be forced to accelerate printing faster than this curve suggests, especially if rates start increasing.

The Fed must print to allow debts to be paid to maintain the financial system, the mechanism by which the government funds itself (and that enriches financial intermediaries). But, as discussed in Myrmikan's January 2020 letter, the Fed prints by buying assets of ever worse quality. For the moment, the value of the dollar is kept aloft by a short squeeze: there are now roughly $7 trillion of base money with which the market must maintain $90 trillion in debt and associated interest payments. Once the short squeeze breaks, however, the market will look at the Fed's balance sheet to see what backs the dollar.

In January 2020, when Myrmikan previously addressed this issue, the Fed had $4.2 trillion in liabilities, which were 10% backed by the gold on the Fed's balance sheet with gold trading at $1,550/oz. Gold at $5,000/oz would have been needed to reach the one-third backing (the level the market demanded of the Bank of England for centuries) and $8,500/oz to reach 54% backing (the level the Fed maintained from inception to 1933, when F.D. Roosevelt made holding gold a felony).

With the new QEs, gold at $1,800/oz backs Fed liabilities by only 6.8% (NB: gold in 1971 at $35/oz backed the Fed by 12.9%). Gold would need to reach $8,800 to back the Fed by a third and, as explained in January's letter, given the worsening quality of the Fed's assets, that ratio will reach far higher than one third when the market decides to stage a run on the Fed.

And the Fed will print more. The sudden influx of $5.5 trillion into the market has, of course, stabilized financial conditions. But inflation is finally rising as well. Not inflation as measured by the Federal Reserve. The widely cited CPI number has a 42% weighting for housing, which reflects asset prices. Transportation is another 15%. But people can't eat their house or their car or an airplane. Real living expenses are already shooting higher, as the chart below shows.



Of course it is. The Fed has been printing money so the government can give it to people who are forbidden to work but must continue to consume. It would be impossible for such a program not to create inflation in consumables. At some point,

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investors will demand higher interest rates to compensate them for cost of living increases. The economy cannot withstand higher rates, of course, so the Fed will be forced to act more forcefully.

In May, the president of the New York Fed John Williams alerted the market: "Yield-curve control, which has now been used in a few other countries, is I think a tool that can complement—potentially complement—forward guidance and our other policy actions. So this is something that obviously we're thinking very hard about. We're analyzing not only what's happened in other countries but also how that may work in the United States."

Yield-curve control is not new. In 1942, the Fed committed to the Treasury that it would buy enough bonds to cap rates at 0.5% for short-term bills and 2.5% for long-term bonds in order to fund World War II. In a paper written during the 2008 panic, the Fed concluded: "The period 1942-47 provides some evidence that the Federal Reserve can lower long-term rates by committing to keeping short-term rates low. The brief period from 1947 to 1948 may also provide additional evidence that long rates can be reduced by direct interventions in the market for long-term Treasuries."

Completely lost on the Fed is the fact that in 1942 the Fed's liabilities were 84% backed by gold, one quarter of the world's total supply. It could spend its capital controlling bonds yields if it so chose. Not so today. If inflation breaks out and market rate for Treasuries jumps above the Fed's targets, it will have to purchase the entire stock to control rates. There is no doubt the Fed can do this, but it would herald the final end of the dollar.

For the moment, the Fed is actually shrinking its balance sheet: from $3.8 trillion a year ago, the balance sheet hit $7.17 trillion on June 10 and now stands at $6.92 trillion. The governors are probably spooked by soaring asset prices and money supply growth. In the past, a shrinking balance meant fewer reserves, and reserve requirements meant fewer reserves contracted credit. No longer. There are no reserve requirements. The only things that can constrain lending growth are cash withdrawals or actual cash losses. Soaring money supply lessens the risk of the latter, and the expense and risk of holding cash in quantity limits the former (and if cash hoarding does become a problem, policy makers have already laid the foundation to ban cash altogether).

Monetary debasements obviously raise prices, but less known is that volatility also increases. It is unlikely (though possible) that gold will simply leap into the multi-thousand dollars per ounce without some sickening lurches lower, throwing some off the trade. Those who weathered the trough and are playing with profit are well positioned to withstand the emotional trials that such volatility brings.

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