

www.Hoisington.com

Quarterly Review and Outlook Third Quarter 2020

Forty Years

To recognize Hoisington Investment Management Company's fortieth anniversary, this quarterly economic letter reviews the shifting dynamic of economic conditions over the past forty years.

The conclusions of this analytical review are five-fold:

1) A very powerful secular downdraft has occurred in major measures of economic performance.

2) The U.S. is caught in a debt trap, a term originated by the Bank for International Settlements. A condition where too much debt weakens growth, which elicits a policy response that creates more debt that results in even more disappointing business conditions.

3) The secular decline in economic conditions and the debt trap preclude the textbook conditions for powerful monetary policy measures to stimulate economic activity. Further, debt financed fiscal programs only boost the economy in the very short-run, but ultimately reduce growth.

4) The secular deterioration in economic growth has created a condition of excess resources and disinflation.

5) The workings of the Fisher equation, which have brought Treasury bond yields lower, have been reinforced by a sharp decline in the marginal revenue product of debt.

Secular Erosion

Real per capita GDP, employment, population and productivity have all exhibited pronounced secular deterioration. From 1980 through 2019, real GDP per capita grew 1.7% per annum, sharply lower than 3.1% in the prior forty years, 1940-1979 (Table 1).

Real per capita GDP stood at \$58,113 in 2019, up from \$30,104 forty years earlier. However, if the growth rate in real per capita GDP, the standard of living, had compounded at the 3.1% pace of the prior forty years, the level would have been \$102,087 in 2019, or nearly 75% higher.

Another key macroeconomic indicator, employment growth, also reflects these broader trends. Payroll employment grew by 1.3% per annum in the past four decades, down from 2.8% from 1940 to 1979. Thus, employment growth was reduced by slightly more than half while real per capita GDP was pared by less than one-half.

| | | Real Per Capita GDP | Nonfarm Payroll Employment | Population | Productivity |
|----|----------------------|------------------------|-------------------------------|------------|--------------|
| | | Α | В | С | D |
| 1. | Average 1940-1979 | 3.1% | 2.8% | 1.4% | 2.4% |
| 2. | Average 1980-2019 | 1.7% | 1.3% | 1.0% | 1.9% |
| 3. | Average 1980's | 2.2% | 1.9% | 1.0% | 1.5% |
| 4. | Average 1990's | 2.0% | 1.8% | 1.2% | 2.1% |
| 5. | Average 2000's | 0.9% | 0.2% | 1.0% | 2.7% |
| 6. | Average 2010's | 1.6% | 1.4% | 0.7% | 1.2% |

Table 1

This difference is reflected in productivity change. Productivity growth slowed but held up better than economic output. Nonfarm productivity expanded 1.9% per annum in the past forty years, down from 2.4% in the prior period.

Debt Trap

The concept of the debt trap is consistent with scholarly research, from the 19th century to present, which indicates that high debt levels undermine economic growth. This causality is supported by the law of diminishing returns, derived from the universally applicable production function. Historical declines in economic growth rates have coincided with record levels of public and private debt. Total public and private debt jumped from 167.2% of GDP in 1980 to 364.0% in 2019, with an estimated record 405% at the end of this year. Gross government debt as a percent of GDP accelerated from 32.6% in 1980 to 106.9% in 2019 to an estimated 127% by the end of this calendar year.

As proof of this connection, each additional dollar of debt in 1980 generated a rise in GDP of 60 cents, up from 54 cents in 1940. The 1980's was the last decade for the productivity of debt to rise. Since then this ratio has dropped sharply, from 42 cents in 1989 to 27 cents in 2019.

Asymmetric Central Bank Powers

Economic scholars have long argued that for monetary policy to be able to stimulate economic growth, four basic conditions must be met. First, the Fed must be able to control the monetary base by increasing its liabilities, which are assets of the depository institutions. The Fed can create these liabilities at will electronically. In the old days, textbooks said that these IOUs were created at the "stroke of the bookkeeper's pen." These liabilities, however, do not meet the definition of money which must be a medium of exchange, store of value and unit of account. These Fed liabilities are an asset of the depository institutions with an overnight maturity that remains on the books of the Fed. These liabilities can be used to trade with other banks, the Fed and the Treasury, but they cannot be used to directly purchase goods and services. When the Fed buys Treasury paper, which has an approximately seven-year average maturity in the public market, the private sector's holdings go down and the Fed's holdings of Treasury paper rise. The depository institutions are now holding an overnight liability of the Fed for which they currently earn 10 basis points. The second requirement of the Fed's power to stimulate economic conditions is a stable relationship between the monetary base (a consolidation of the Fed and Treasury balance sheets) and the money supply, M2. The money multiplier, which is defined as M2 divided by the base, is the measure of that stability. Third, the velocity of money (V) must be stable, although not constant. If V is stable, then changes in M2 will control swings in nominal GDP. Fourth, the Fed must have wide latitude to lower the short-term policy interest rate. It had been long recognized that if short-term rates approached the zero bound, monetary capabilities would be diminished.

Four decades ago, the consensus view was that all of these conditions prevailed, and monetary policy was a potent tool of not only restraining economic growth, but also stimulating economic growth. Currently, of these four conditions, only the first one prevails, and it is the least important of the four. The Fed can control the monetary base by increasing its liabilities (bank reserves). The three other, and far more critical, conditions are no longer present due to the extreme overindebtedness of the U.S. economy. Thus, monetary policy is left with one-sided capabilities i.e., they can restrain economic activity by reducing reserves and raising rates, but they are not capable of stimulating economic activity to any significant degree. The Fed can stabilize distressed financial markets through their powerful lending abilities.

Countries in a debt trap like the U.S., Japan,

the U.K., and the Euro Area have experienced a fall in short-term interest rates to the zero bound, and in some cases into the territory of negative rates, thus eliminating the fourth criterion for monetary policy to play a stimulative role in supporting the economy.

Debt Financed Fiscal Programs

Debt financed fiscal policy can provide a short-term lift to the economy that lasts one to two quarters. This was the case with the debt financed stimulus packages of 2009, 2018 and 2019. However, the benefit of these actions in 2009, 2018 and 2019, even when the amount of the funds borrowed and spent were substantial, proved to be very fleeting and the deleterious effects of the higher debt remain. Substantial econometric evidence indicates that government debt as a percent of GDP in all of the major economies are well above the levels where these detrimental effects occur. The multi-trillion dollars borrowed for pandemic relief in the second quarter encouraged the beginnings of a "V" shaped recovery, but this additional debt will serve as a persistent restraint on growth going forward. When government debt as a percent of GDP rises above 65% economic growth is severely impacted and becomes very acute at 90%.

Current research indicates that the government expenditure multiplier is negative after about three years, compared with estimates from forty-year old textbooks that suggested a positive four to five range spending multiplier existed.

Disinflation

Secular deterioration in economic growth, a large amount of unused resources and negative foreign conditions have led to a dramatic fall in the inflation rate. The constant debate over the preferred inflation gauge proved to be of no consequence over the sweep of the past four decades and the Fed's targeted inflation rate of the past twelve years proved to be equally inconsequential. Three of the broadest measures of inflation fell, with the CPI, the PCE and the Core PCE dropping to 3.2%, 2.8% and 2.8% in the past forty years, respectively, down from 4.3%, 4.2% and 4.1% in the previous forty years (Table 2). The 2010's produced the lowest inflation rate for all these measures, 1.8% for the CPI, 1.6% for the PCE and 1.6% for the Core PCE. In spite of targeting the Core PCE at 2% for the past decade, the Fed missed its target.

The Fed is now using average rather than point targeting, but it's still just another form of targeting. The key to determining inflation is not Fed policy statements but the general equilibrium conditions that simultaneously determine the aggregate price level, real GDP and nominal GDP. This occurs when the Aggregate Demand (AD) and Aggregate Supply (AS) curves intersect. The output gap is real GDP minus potential real GDP divided by real GDP. Potential GDP is designed to reflect the trend rate of growth in economic activity. When the output gap is negative, economic theory terms this condition a deflationary gap. When deflationary gaps persist, the AS curve tends to be highly elastic, remain elastic and tends to shift downward. When the AS curve shifts downward, this leads to lower aggregate prices and increased aggregate demand. In the past four decades of disinflation, the output gap was -1.60%, with a negative reading in 79%

| | | СРІ | PCE | Core PCE | % of Ouput Gap Negative for Decade | Average Output Gaj for Decade |
|----|----------------------|------|------|----------|------------------------------------------|-------------------------------------|
| | | Α | В | С | D | Е |
| 1. | Average 1940-1979 | 4.3% | 4.2% | 4.1% | | |
| 2. | Average 1980-2019 | 3.2% | 2.8% | 2.8% | | |
| 3. | Average 1980's | 5.6% | 5.0% | 5.3% | 100% | -2.2% |
| 4. | Average 1990's | 3.0% | 2.3% | 2.4% | 65% | -0.9% |
| 5. | Average 2000's | 2.6% | 2.1% | 1.8% | 75% | -1.3% |
| 6. | Average 2010's | 1.8% | 1.6% | 1.6% | 78% | -2.0% |



of the quarters. Even in the record long expansion from 2010-2019, the average was -2%, with 77.5% of the quarters negative.

Another disinflationary force is that growth in the Euro Area and Japan has been even more disappointing than in the United States. In 1995, the first year of comparable data, real GDP was 4% percent greater in the U.S. than in the Euro Area. By the second quarter of 2020, the U.S. was 37% greater (Chart 1). In 1995, U.S. real GDP was 120% greater than in Japan, but by the spring quarter of this year, 194% greater than in Japan (Chart 2). The underperformance of the Euro Area and Japan, which reflects their greater debt overhang, has contributed to strength in the dollar which has diminished inflationary pressures in the U.S. In addition, the weak growth in these



©2020 Hoisington Investment Management Co. (please see disclosures on last page)

two major areas has forced their businesses to send more goods to the U.S., thus detracting from U.S. output.

The Fisher Equation and Marginal Revenue Product (MRP) of Debt

Falling real yields and inflationary expectations, via the Fisher equation, force government (risk-free) bond yields lower. But full application of the law of diminishing returns is also at work. Diminishing returns occur when a factor of production, such as debt capital is overused. This observation is confirmed by the decline in the marginal revenue product of debt. Economic theory demonstrates than when the MRP of a factor declines, the price received for that factor also declines. If, for example, labor is overused to the extent that its MRP declines, so do wages, the price of labor. Thus, the decrease in MRP of debt due to its overuse, indicates that interest rates, the price of debt, should fall. This is exactly what is happening in all the major economies of the world that are suffering from a debt overhang. Thus, considering decreasing interest rates as an inducement for governments to spend more borrowed funds will add to the severity of the debt spiral. If policy makers are incentivized to borrow more because interest rates are low, then the MRP of debt will fall, leading to even weaker growth. Moreover, interest rates are lowered indirectly by poorer growth and inflation. and by a further fall of the MRP of debt. Thus, the whole premise of Modern Monetary Theory is flawed at the core. The low interest rates are not a potential benefit for the economy, they are a result of the overuse of debt.

Tail Risks

We identify two tail risks for long term Treasury investors: (1) a huge new debt financed fiscal package and (2) a major change in the Fed's *modus operandi*. The first risk would change the short-run trajectory of the economy. This better growth, although short lived, could place transitory upward pressure on interest rates in a fashion that has been experienced many times. Over the longer run, disinflation would prevail and the downward trend in Treasury yields would resume.

The second risk would bring a rising inflationary dynamic into the picture, potentially becoming much more consequential. General disappointment with trying to solve economic underperformance by more indebtedness may crystalize along with the realization that debt will not work any better in the U.S. than in Japan, the Euro Area and many other countries. As this dissatisfaction intensifies, either de jure or de facto, the Federal Reserve's liabilities could be made legal tender, or a medium of exchange. Already, the Fed has taken actions that appear to exceed the limits of the Federal Reserve Act under the exigent circumstances clause, but so far, they are still lending and not directly funding the expenditures of the government in any meaningful way. But some advocate making the Fed's liabilities spendable and a few central banks have already moved in this direction. If the Fed's liabilities were made a medium of exchange, the inflation rate would rise and inflationary expectations would move ahead of actual inflation. In due course, Gresham's law could be triggered as individuals move to hold commodities that can be consumed or traded for consumable items. This would result in a massive decline in productivity, thus real growth and the standard of living would fall as inflation escalates. Lower and moderate income households would be the most adversely effected. Velocity would rise dramatically. This would make Treasury bills and inflation adjusted Treasury securities far more preferable compared to longer dated Treasury bonds.

As long as the federal government's policy prescription is ever higher levels of debt, the path toward disinflation will hold and long Treasury bonds will be the preferred area of the curve. The continuing shift in economic conditions over the past forty years has necessitated several dramatic changes in our yield curve positioning. That flexibility remains constant.

> Van R. Hoisington Lacy H. Hunt, Ph.D.

Disclosures

To receive more information about HIMCo please contact V.R. Hoisington, Jr. at (800) 922-2755, or write HIMCo, 6836 Bee Caves Road, Building 2, Suite 100, Austin, TX 78746.

Hoisington Investment Management Company (HIMCo) is a federally registered investment adviser located in Austin, Texas. HIMCo is not registered as an investment adviser in any other jurisdictions and is not soliciting investors outside the U.S.

HIMCo specializes in the management of fixed income portfolios and is not affiliated with any parent organization. The Macroeconomic Fixed Income strategy invests solely in U.S. Treasury securities.

Information herein has been obtained from sources believed to be reliable, but HIMCo does not warrant its completeness or accuracy; opinions and estimates constitute our judgment as of this date and are subject to change without notice. This memorandum expresses the views of the authors as of the date indicated and such views are subject to change without notice. HIMCo has no duty or obligation to update the information contained herein. This material is for informational purposes only and should not be used for any other purpose. Certain information contained herein concerning economic data is based on or derived from information provided by independent third-party sources. Charts and graphs provided herein are for illustrative purposes only.

This memorandum, including the information contained herein, may not be copied, reproduced, republished, or posted in whole or in part, in any form without the prior written consent of HIMCo.