Murray's Musings

INFLATION AND ECONOMIC THOUGHT

Historians write about inflation in a very different way than economists.

Historians view inflation as a destabilizing force, whatever the cause. For instance, historians agree that a salient cause of demise of the Song Dynasty of China (960-1279) was the fact that it issued paper money, the first government to do so. The successor Yuan Dynasty lasted until 1368, and the inflation caused by fiat currency issuance is generally cited by historians as a factor in its demise. Similarly, the inflation caused by the influx of gold and silver into Spain from Spanish colonies in the New World in the 16th and 17th centuries is known to historians as "the price revolution." The repercussions of the inflation caused by this dramatic rise in the supply of gold and silver undermined Spain's international economic standing. There were other historical debasements, such as King Henry VIII of England continually reducing the gold and silver content of the coinage to pay for his lavish lifestyle. In British history, this is known as "the Great Debasement."

None of these events or any of the many other historical debasements have seemed to attract the interest of even the greatest economists. Many financial experts regard John Maynard Keynes as the greatest economist of all time, yet in his magnum opus, *The General Theory of Employment, Interest and Money* published in 1935, the index shows only seven mentions of inflation in the entire book. Of these mentions, one simply states the fact of inflation in the Central Europe of the postwar era. The other references are largely definitional and used as foundations upon which the theory of employment is placed. Inflation basically is defined as the point beyond which monetary expansion does not produce increases in output. The word *debasement* is never used in the book. Keynes might be forgiven for such a view, since *The General Theory of Employment, Interest, and Money* was written in a period of history during which the challenge was to increase output and thereby increase employment.

In the magisterial three-volume biography of John Maynard Keynes by Robert Skidelsky, there are no references to inflation in the index to Volume I, only six references to inflation in the index to the 635-page Volume II, and a single reference in the index to Volume III, which is about as long as Volume II.[1] Ironically, Keynes became very wealthy by speculating on the decline of the German currency in the aftermath of the First World War. In other words, Keynes became wealthy because of German inflation and his understanding of it. He was very interested in inflation as an investor. He appears not to have been vitally interested in the subject as a scholar.

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[1]Robert Skidelsky, John Maynard Keynes, *Vol. 1: Hopes Betrayed, 1883-1920* (New York: Viking, 1983); *Vol 2: The Economist as Savior, 1920-1937* (New York: Viking, 1983); *Vol 3: Fighting for Freedom, 1937-1946* (New York: Viking, 2001).

A similar phenomenon is observed in *A Monetary History of the United States 1867-1960* by Milton Friedman and Anna Jacobson Schwartz.[2] Since the book is about monetary issuance, one might expect some discussion of the subject of debasement. The word is not mentioned once in the index to this book that is 700-pages long excluding the appendixes. There are five references to inflation in the index. This should not be surprising. The object of the book is to study the optimal rate of currency issuance with a view to economic stimulus. Some degree of currency issuance makes government and individual debt more manageable, so used properly and in moderation, inflation is just a policy tool to increase economic growth.

In neither the Keynes book nor the Friedman book is there any advice as to what an investor might do to protect wealth from inflation's destruction of purchasing power. Of course, neither book is designed for an investor. These books were written for policymakers and other economists. It would never have occurred to either economist that the policymakers be deprived of the power or policy tool to create money and, thereby, inflation.

Friedrich Hayek is unique among the major economists of the 20th century in that he advocated that national governments be deprived of the money creation function, which he describes in *The Denationalization of Money* (1976).[3] The basic idea of the Hayek book is that governments cannot be trusted not to abuse the money-creation function. Therefore, Hayek advocates the creation of "private money." The problem is that one cannot necessarily trust those in control of private money either, and as a consequence of this obvious objection, the Hayek book remained in obscurity until rediscovered by the proponents of cryptocurrency.

In the world of cryptocurrency and blockchain, it is possible that users of the currency can continually verify its issuance status. As an example, if bitcoin will issue slightly less than 2.5 million coins between the time of this writing and the year 2140, that is objectively verifiable as a fact by means of the blockchain, which forms the permanent public record of every bitcoin transaction since its creation. Bitcoin ease of transfer has yet to rise to the level of being accessible to the average person, but that function is constantly improving. Private money might be the solution to the inflation problem. Unfortunately, it is not yet ready for mass usage. In any case, the community of academic scholars tends to avoid the subject of cryptocurrency.

In 1975, the economist John Kenneth Galbraith wrote a popular account of the history of money entitled *Money, Whence It Came, Where It Went*.[4] Given the era in which the book

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[2] Milton Friedman & Anna Jacobson Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton, N.J.: Princeton University Press for the National Bureau of Economic Research, 1963).

[3] Friedrich A. Hayek, *Denationalisation of Money: The Argument Refined – An Analysis of the Theory and Practice of Concurrent Currencies* (London: The Institute of Economic Affairs, 1976).

[4] John Kenneth Galbraith, *Money: Whence It Came, Where It Went* (Boston: Houghton Mifflin, 1975).

was written, the author could hardly avoid discussing the subject of inflation. Galbraith strongly advocates for government wage and price controls or, alternatively, wage and price guidelines that are informal requests with which government pressure might force compliance even if they are not formal controls. Even a book that is directed towards the general public is really a call for action by policymakers.

The common factor among economists of a variety of philosophical orientations is that inflation is something that must be controlled by government action of some sort. The underlying assumption is that the inflation problem has nothing to do with existing government policy. Moreover, inflation is not considered to be a problem that can be confronted by the individual on behalf of the individual.

The problem with a government policy is that its effects on individual circumstances differ from person to person. As an example, consider a pension adjusted annually to a national consumer price index. Even if it is calculated in a manner to properly measure and account for inflation, it might not properly measure the increase in expenses of a given pensioner if that individual's expenditure is weighted heavily towards items experiencing above average inflation, such as health insurance or education.

The economic consequences of inflation, the historical documentation of which spans well over 2,000 years, are such that it merits its own asset class in investment planning. It should be self-evident that one cannot simply assume that common stocks *sui generis* are efficient or are a sufficient hedge against inflation. Labor is the most significant operating expense for most members of the popular stock indexes. Many people assume that a business can maintain profit margins by increasing wages at the same rate as general inflation. However, a wage increase of X% in a progressive tax system does not necessarily become an after-tax wage increase of that same X%, because in a progressive system, higher wages are taxed at a higher rate. The U.S., of course, follows a progressive tax structure. As a generalization, one requires a pre-tax wage increase *above* inflation to obtain an after-tax increase *equivalent to* inflation. Most businesses, under a condition of persistent inflation, are not able to maintain their margins once wage rates begin to inflate.

A good argument can be made for gold as an inflation hedge in a portfolio, but it must be remembered that gold can be highly idiosyncratic for very long periods of time. For example, from 1980 to 2000, gold actually declined, although inflation clearly existed during this period; the price of gold was unchanged from 1934 to 1967, as a consequence of government action, although price levels increased by 2.5x.

The Federal Reserve Bank of Minneapolis calculates inflation in the United States back to 1800 and the data illustrates the same point.[5] The First World War years in the U.S. were highly inflationary, as is evident in the following figures

Table 1: U.S. Inflation Rate, 1916 - 1920

Year	Inflation Rate
1916	7.7%
1917	17.8%
1918	17.3%
1919	15.2%
1920	15.6%

Source: Federal Reserve Bank of Minneapolis

The gold prices for those same years are as follows; clearly, the gold price did not keep pace with inflation at that time:

Table 2: Gold Prices, 1916 - 1920

Year	Gold Price
1916	$18.99
1917	18.99
1918	18.99
1919	19.95
1920	20.68

Source: piketty.pse.ens.fr

As a matter of historical curiosity, in 1717, during Isaac Newton's tenure as Warden and Master of the Royal Mint of the United Kingdom, he set the gold price at 3 pounds 17 shillings. It was still at that price in 1914, on the eve of the First World War.

On the other hand, one could have purchased gold in the year 2000 for $279.11 an ounce and it now trades at $1,908.07 an ounce. This is about a 10% annualized increase, considerably above most estimates of inflation for this period. If one can tolerate the idiosyncratic behavior of gold, it can be a good protection against inflation.

Far better than gold are the royalty companies that finance gold production by the purchase of revenue interests, or some effective equivalent, in precious metals mines. The two most successful are Franco Nevada Corp. (FNV) and Wheaton Precious Metals Corp. (WPM). Once the investment is made, the return is greatly enhanced if the price of the commodity rises, since the royalty companies experience no increase in expenses; theirs is simply a contractual relationship, and they require none of the capital equipment or physical field operations of a mining company. Other examples of gold royalty companies, are:

Table 3: Additional Gold Royalty Companies

[5] See minneapolisfed.org

RGLD	Royal Gold, Inc.
SAND	Sandstorm Gold Ltd.
OR	Osisko Gold Royalties Ltd.
MMX	Maverix Metals Inc.
MTA	Metalla Royalty & Streaming Ltd.

This is an example of a "hard asset" business model. The revenue is a contractual commitment by the producer of the commodity to the company providing the financing. The inflation beneficiary aspect is that the royalty company's operating expenses do not increase in the event of inflation; in the event of inflation, a revenue increase is essentially a pre-tax profit increase.

The challenge to asset allocators and other investors is that an insufficient number of such hard asset companies exist to form an index. Also, the aggregate market capitalization is very small in relation to the great amount of assets in the world that require some inflation protection.

Many investors in the practical world, therefore, are compelled to use leverage as an inflation hedge, on the premise that the cost of debt capital is low and, in any case, even modest inflation will eventually erode the purchasing power of the obligations that must one day be repaid. That is, for investors employing leverage, paying back 'in cheaper money': the amount of the bond or loan due on the maturity date in five years or 10 remains the same as on the first day of the loan, but the nominal income of the borrower has presumably inflated over time.

John Maynard Keynes did not write extensively about inflation, but his personal portfolio was structured in such a manner to benefit from consistent inflation inasmuch as he made use of copious leverage. The following table, taken from *Keynes' Way to Wealth* by John F. Wasik, will illustrate the point.[6]

[6] John F. Wasik, *Keynes's Way to Wealth: Timeless Investment Lessons from the Great Economist* (New York: McGraw Hill Education, 2014).

Table 4: John Maynard Keynes Leverage and Net Worth, 1919-1945

	Loans	Net Assets		Loans	Net Assets
1919	£15,498	£16,315	1933	£78,859	£55,222
1920	20,837	(1,837)	1934	165,343	146,007
1921	N/A	N/A	1935	188,271	220,619
1922	2,720	21,558	1936	299,347	506,522
1923	1,200	34,364	1937	190,035	215,244
1924	1,200	63,797	1938	106,470	181,547
1925	1,200	43,610	1939	109,136	199,495
1926	2,200	40,800	1940	60,655	171,090
1927	46,900	44,000	1941	28,753	205,281
1928	25,790	13,060	1942	19,720	254,073
1929	14,000	7,815	1943	31,643	312,271
1930	65,000	12,525	1944	46,167	355,310
1931	11,965	15,100	1945	38,886	411,238
1932	19,774	21,722			

Source: John F. Wasik, Keynes' Way to Wealth *(New York: McGraw Hill Education, 2014), 119*

There were years where Keynes was enormously leveraged. For example, in 1920, Keynes had £20,837 of borrowings, and his net assets were negative £1,837. One could say technically he was insolvent. Similarly, in 1928 on the eve of the stock market crash, he had £25,790 of leverage and £13,060 of net assets. In the year 1929, it was £14,000 of leverage and £7,815 of net assets. One can see this involves a fairly large multiple. In 1930, he had £65,000 of loans, and £12,525 of net assets, he was over 5x leveraged. It was only near the end of his life, during the war years, that Keynes had fairly modest leverage in relation to his net assets. The last full year of his life, 1945, he had only £38,886 of borrowings against net assets of £411,238.

It should be noted that Keynes drew living expenses from his personal account, so that the years of decline in net assets are not entirely from investment depreciation. The net asset values are not meant to illustrate investment performance. In any case, it is obvious that Keynes frequently made use of enormous leverage relative to his net assets.

This process has continued among investors and business people to this day. The contemporary world might be the most leveraged society in history. That means that the constituency supporting debasement of debt and money is very large. Inflation is the potential savior of the debt leveraged. Therefore, it is prudent to develop inflation hedges.

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