

## Equity wealth and inflation: What would Milton Friedman say?



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### IN A NUTSHELL

- How would Milton Friedman think about the effect of equity wealth on inflation?
- Inflation is a monetary phenomenon, so he'd likely consider availability of money
- Equities aren't money, they're an asset; but they are a store of wealth and liquid
- Consider M2 and S&P market cap relative to GDP and their rates of change
- Can a surge in money supply spike equity valuations? Maybe, it's very uncertain
- A Fed Funds rate cut in March would be a giant leap of supply-side faith

### How would Milton Friedman think about the effect of equity wealth on inflation?

It's fascinating to ask ChatGPT (Chat Generative Pre-trained Transformer) to answer questions the way a specific person might. Asking it to opine on topics with detailed reasoning based on all that is accessible about a particular expert's known views on a topic. We asked chat GPT what Milton Friedman (Milton Friedman was an American economist and statistician who received the 1976 Nobel Memorial Prize in Economic Sciences for his research on consumption analysis, monetary history and theory and the complexity of stabilization policy) would likely say about how today's surging equity market might affect inflation. We didn't find the answer fully satisfying, so we expand on it here.

### Inflation is a monetary phenomenon, so he'd likely consider availability of money

Friedman famously said, "inflation is always and everywhere a monetary phenomenon." It certainly is when the supply and use of money toward purchasing goods and services exceeds an economy's ability to produce such. While Friedman focused on how money supply affects inflation via demand, we know for certain that he also understood that supply-side factors also affect inflation. We're confident that he would acknowledge the uncertain supply-side outlook today, both downside risks from global conflict and upside potential from innovation. Yet he would likely note that supply-side forces are usually slower moving and difficult for policy makers to influence and monetary policy setters must align monetary conditions to whatever supply prevails. After such reminders, we think he'd evaluate today's inflation using his theories and examine all types of monetary aggregate measures.

### Equities aren't money, they're an asset; but they are a store of wealth and liquid

Money is a medium of exchange and a store of value. Equities also store value. Cash is legal tender, liquid and should be stable in purchasing power. Whereas equities have no certain value against debts, are volatile, but quite liquid. Equity trading commissions are often lower than charge card fees. But such nuances aside, as we don't consider equities money but rather an asset expected to generate returns, we do think equities can act like a very broad monetary aggregate to influence demand. Like cash in circulation, deposits and money market funds, equities are a readily accessible store of wealth. Changes in equity

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sum values relative to gross domestic product (GDP) or personal disposable income (PDI) likely has influence on household spending via wealth effects, especially when the aggregate is large and significant in size relative to the economy. Treating equities as a monetary aggregate isn't correct per strict monetary definitions, but that doesn't really matter given the imperfect definitions of money supply beyond cash in circulation. As Friedman would likely argue, a monetary aggregate however measured shouldn't affect the real economy except when unusual changes occur. Big moves can affect real growth, inflation, interest rates and probably the valuation of assets. Given historically high S&P 500 market vs. GDP, we think recent outsized S&P 500 gains will add to the challenges facing the U.S. Federal Reserve (Fed) in further lowering inflation to its 2.0% target.

## Consider M2 and S&P market cap relative to GDP and their rates of change

A rising equity market is normal and shouldn't be thought of as an inflation accelerating force. First, it's similar to how cash in circulation normally climbs as GDP rises over time. It's more the cash/GDP ratio that matters and there can also be significant variation in cash/GDP at times without affecting inflation. Second, and more importantly, S&P/GDP can climb over the long-term without affecting inflation. A continuous rise in S&P/GDP can occur from S&P earnings growth. And S&P earnings as a share of GDP can indeed continuously rise over time owing to companies reinvesting profits and contributing to a capital deepening of the economy, which justifies a higher profit share of GDP. We know the opposing views here, but we know that Friedman knew why such views are wrong. It's return on capital that matters for evaluating profit share norms of GDP and labor share is driven separately. But what can make a climb in S&P/GDP contribute to inflationary pressure is when a jump in valuation causes it. Like a jump in the price-to-earnings (P/E) on normalized earnings or a jump in price-to-book value. Even if the jump in valuation is justified upon a lower cost of capital or expectations of strong earnings growth in the future, a rapid jump in valuation can still contribute to inflationary forces in the near-term. Worse, if a valuation jump is inappropriate and companies fail to deliver forecasted superior earnings growth, i.e. companies misallocate capital, future supply-side conditions could suffer and boost inflation or even bring deflation if bad enough to cause widespread bankruptcies. That said, we stress that it's not high or rising S&P/GDP that's an inflation force (and it's not a meaningful equity valuation metric either), but when S&P/GDP is high and jumps higher on valuation, it can materially contribute to inflation near-term, in our view, and raise economic risk in general for the intermediate term.

## Can a surge in money supply spike equity valuations? Maybe, it's very uncertain

Defining and measuring liquidity is imprecise. Assessing how liquidity, defined as a proper monetary aggregate, affects inflation in the real economy and valuation of financial assets is very uncertain. Usually there are no effects when the change in any monetary aggregate isn't giant. For the real economy consider Friedman's famous:  $M*V=P*Q$ . If velocity (V) is a constant then money (M) affects price (P), as quantity (Q) is independent or supply-side driven over the long-term to determine GDP. But velocity is complicated and never constant, especially for incremental money often hoarded. Likewise, consider this expression for the financial economy:  $M*E=A*X$ . M is money supply, E is the efficiency of capital markets, A is asset book values and X represents observed valuation multiples. If we assume market efficiency holds, then liquidity or M has no effect. But giant changes in M might distort efficiency.

## A Fed Funds rate cut in March would be a giant leap of supply-side faith

A cut in March is not supported by the data to date. It would be a huge leap of faith in the supply-side and robust productivity emerging to handle the remaining inflation battle. Outside of big wars and since 1960, the Fed never cut with unemployment rate (UE) < 4% and S&P at record highs. Inflation isn't below target and service inflation remains hot because the job market is tight and workers unsatisfied with real wages. A small recession is less long-term damaging than bond market losing confidence in the Fed's inflation target.

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## Glossary

**Artificial intelligence** is the theory and development of computer systems able to perform tasks normally requiring human intelligence

**ChatGPT** (Chat Generative Pre-trained Transformer) is a chatbot developed by OpenAI and launched on November 30, 2022. Based on a large language model, it enables users to refine and steer a conversation towards a desired length, format, style, level of detail, and language.

In business administration, the **cost of capital** is the cost incurred by a company in using equity capital for investments or in obtaining debt capital for them.

**Deflation** is a sustained decrease in the general price level of goods and services.

**Disposable income** is the amount of money that is available for spending after taxes and social security charges are deducted.

The term **federal funds rate** refers to the target interest rate range set by the Federal Open Market Committee (FOMC). This target is the rate at which commercial banks borrow and lend their excess reserves to each other overnight.

The **gross domestic product (GDP)** is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

**Inflation** is the rate at which the general level of prices for goods and services is rising and, subsequently, purchasing power is falling.

**Liquidity** refers to the degree to which an asset or security can be bought or sold in the market without affecting the asset's price and to the ability to convert an asset to cash quickly.

**M2** is a money-supply measure that includes physical money, bank deposits as well as other less liquid funds like savings that can quickly be converted to money.

**Milton Friedman** was an American economist and statistician who received the 1976 Nobel Memorial Prize in Economic Sciences for his research on consumption analysis, monetary history and theory and the complexity of stabilization policy.

**Monetary policy** focuses on controlling the supply of money with the ulterior motive of price stability, reducing unemployment, boosting growth, etc. (depending on the central bank's mandate).

**Price-to-book (P/B)** ratio or multiple compares a stock's market value with its book value.

The **price-to-earnings (P/E) ratio** compares a company's current share price to its earnings per share.

**Productivity** measures how much economic output is produced for a given level of inputs (such as capital and labor).

The **S&P 500** is an index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

The **U.S. Federal Reserve**, often referred to as "the Fed," is the central bank of the United States.

The **velocity of money** (also called the velocity of the circulation of money) refers to how fast money passes from one holder to the next.

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