

At the end of the second quarter of 2023, the aggregate balance of debt outstanding for domestic households was a record \$17.06 trillion. Mortgage debt is \$12.01 trillion; credit card balances were above \$1 trillion for the first time; auto loans outstanding stood at \$1.58 trillion; and student loans outstanding at \$1.57 trillion. That is just the consumer side of things. The US Treasury total public debt outstanding was \$32.33 trillion. Dunkin' Donuts got it wrong: America does not run on Dunkin', America runs on debt.

The accessibility and free movement of debt affects every part of the U.S. economy. Consumers borrow to pay for everything from houses to cars to college educations and vacations. In the United States you can finance an iPhone and now, thanks to Buy Now Pay Later schemes, you can finance the case that will protect the phone. The voracious appetite of savers in this country for yield makes it so that you can finance almost anything. This is the American way and because of this the health of the economy depends on interest rates.

Interest is the portion of a loan that is charged to a borrower by a lender. It is normally quoted in percentage terms, generally as an annual percentage rate. Put another way: Interest is the cost of money. When interest rates are low, money is cheap, and because of this the demand for credit increases and banks make more loans. When rates are high, money is expensive, and credit availability dries up. Asset prices follow: When money is cheap and credit availability high, asset prices move higher. The inverse is true when money is expensive. This relationship between interest rates, prices, and supply and demand is visible in many markets but it's especially noticeable in the housing market.

In 2005, during the height of the housing boom that led to the Great Recession existing home sales were around 7.08 million units per year. Mortgage rates were around 5.50% and the median price of an existing home sold in December 2005 was \$211,000. A 5.50% mortgage rate was considered low then because since the early 1980s interest rates had done nothing but go down. In November of 2020, when the average 30-year mortgage rate was 2.72%, the median price of an existing home was \$310,000. In 2021, as the Federal Reserve maintained zero percent interest rates, existing home sales were 6.12 million units per year, the highest number since 2006, and the median existing home sales price showed its greatest appreciation on record of 16.9% as the price reached \$346,900. Lower interest rates from the early 1980s to 2021 had led to a boom in existing home prices.

So now that the Fed is raising rates, housing prices should fall, right? In theory this is what should be happening but the reality is quite different. Mortgage rates for a conventional 30-year fixed rate mortgage averaged 7.10% in August 2023 while existing home sales volumes plunged to an annual rate of 4.06 million units in July 2023 (the latest month data is available), so far the dynamics between higher rates and lower purchase volumes are playing out as expected. This is all well and good until you look at the price of an existing home in July 2023: The median existing home sales price was \$406,700, up 17.3% from 2021 when mortgage rates were more than 4% lower.

The reason why prices haven't fallen off a cliff is two-fold. The first factor is the Federal Reserve's intervention in the market for interest rates during the onset of the pandemic. When the Fed lowered rates to zero it enabled an

entire swath of the homeownership population to refinance their existing mortgages to rates that were never before seen. These homeowners locked in historically low interest rates for 30 years, giving them no incentive to sell their homes in higher interest rate environments. The second factor is the inherent lack of affordability that higher interest rates bring with them. Once the Fed starting reversing course by lifting interest rates, it automatically eliminated a certain number of potential homebuyers from the market. These potential homeowners could no longer afford to buy a house. The Fed's actions, in aggregate, eliminated both supply and demand from the housing market by taking buyers out of the market with higher rates and taking sellers out of the market with the low rates they locked in during the pandemic. The result is a housing market that has taken out more would be sellers than potential buyers and because of this, home prices continue to rise.

You can also see this asymmetric supply and demand dynamic playing out in the market for new homes. Typically, the sales of new homes have trended in the same direction as the sale of existing homes. When existing home sales have gone up, sales of new homes have followed. Now, because of the remarkable level of intervention by the Federal Reserve in interest rate markets creating more demand for homes than supply, new homes sales are booming. Sales of new homes in July 2023 were at a seasonally adjusted annual rate of 714,000 homes, which is 31.5% higher than July 2022. The median sales price of a new home in July 2023 was \$436,700, up 33% since the Fed started its easing cycle. As potential homebuyers are unable to find houses due to lower inventory in the existing home market, they are buying new homes instead. For the first time, lack of inventory in the existing home market is a driver of growth for new home sales.

This relationship between asset prices, supply and demand, and interest rates is important for us to understand as stock market investors. In the 30 years leading up to July 2020, interest rates have done nothing but go down. We can see this by looking at the historical yield of the U.S. 10-year Treasury note, which yielded 8.41% in July 1990 and bottomed out at 0.53%, 30 years later in July 2020. This means that every time this Treasury note matured, assuming the proceeds were reinvested in the same note with a later maturity, the investor always earned less. In this same 30-year time period the S&P 500 returned 817%. One could make an argument that lower interest rates are tremendously beneficial to stock market returns.

But by doing so we'd be missing one crucial piece, most likely the most important ingredient for stock market returns, and that is the strength of the U.S. consumer. The U.S. consumer is the unsung hero of our economic dominance and through periods of low inflation, high inflation, lower growth, higher growth, the consumer has always been there to pull us through. This is precisely what is happening now, so even though we are in a period of higher interest rates, strong U.S. consumer spending is accelerating our economy and powering the stock market higher.

The era of lower interest rates is over. As different markets adjust to this new reality, we as investors must adjust our expectations too. Historical dynamics, like the relationship between interest rates, prices, and demand are being redefined as we enter a period of time where new forces are acting upon markets in ways never seen before. Our

focus will always be on the fundamentals of the businesses that we own and in most cases those fundamentals depend on the health of the U.S. consumer. The U.S. consumer runs on debt, so as long as interest rates aren't punitive, and credit flows freely, the economy, and stock market, should continue to grow.

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