

## Quarterly Economic and Market Comments December 31, 2022

Interest rates, the price of money, are at the heart of modern economies and financial markets. Of course, when 10-year U.S. Treasuries are trading quietly around their long-term average yield of 5% or so and 1%-2% more than short-term rates (i.e., the yield curve is positive), interest rates are not a big part of the conversation. However, when interest rates are abnormally high or low or are rising or falling at an abnormally rapid rate, or when short-term rates are higher than long-term yields (i.e., the yield curve is inverted), financial markets sit up and take notice. So it was that, in December 1961, the Dow Jones Industrial hit the record high of 750 (!). Two decades later, it was still at 750 and, taking inflation into account, stock prices had lost more than two-thirds of their value. Why? Well, no one reason, obviously, but the relentless rise in interest rates to the highest levels in history by far was undoubtedly the biggest factor. Over the next four decades, it was the flip side of the coin. Howard Marks, a seasoned investment professional who we have cited before, in a recent memo discusses the reasons behind “investors’ success over the last 40 years”. He concludes that, while there have been a number of factors, “I’d be surprised if 40 years of declining interest rates didn’t play the greatest role of all,” as the federal funds rate fell from 20% to almost zero and 10-year U.S. Treasury yields from 15.68% to 0.52%. Although rates declined more or less steadily throughout the four decades until 2022, prior to the Global Financial Crisis in 2008-09, they generally traded within the historic bell curve. For example, in May 2000, as the dot.com bubble was bursting, 10-year Treasuries were yielding 6.5%, ultimately bottoming out at 3.1%, and, in July 2007, on the eve of the financial crisis, yields were 5.1%.

The 2008-09 financial crisis led to an unprecedented interest rate era. Short-term interest rates were pegged at zero and in some cases even less by the world’s central bankers who, at the same time, were buying up billions of dollars of sovereign debt. When the public sells bonds to the central bank, it receives money which, for most of the past decade, was earning nothing. By December 2020, more than \$18 trillion worth of bonds worldwide were trading with a negative yield. The result was massive yield-seeking speculation which came to an abrupt halt in 2022 as the monetary authorities began belatedly to increase interest rates to try and stem the pace of consumer price inflation which had reached multi-decade highs. Financial markets rallied in the fourth quarter, but it was not nearly enough to change the basic picture for the year as a whole. The Wall Street Journal noted, “U.S. stocks closed out their worst year since 2008, capping a brutal year in markets that saw bonds suffer their worst selloff ever and crypto get eviscerated.” There were few places to hide. Of Deutsche Bank’s non-currency assets, only 6 of 38 were up for the year (in U.S. dollar terms). The Global Market Index, a passive, unmanaged, market-value weighted index of all the major global asset classes (excluding cash), had a return of minus 17.8% and the return for global equities was minus 18.4% (in U.S. dollar terms). The only U.S. sector in the green was energy, with oil and gas stocks outperforming the overall stock index by 78%, more than double its previous best year in 1980. This, even though oil prices ended the year below where they were when Russia invaded Ukraine. The standout performance of energy was good news for the Canadian economy and markets where the production of fossil fuels is particularly important. U.S. T-bills outperformed all the major equity and fixed-income benchmarks in a major way, the latter by a record amount, and returned more than 2% in nominal terms for only the second time since 2007.

The performance of assets other than T-bills and commodities can be broken into four broad categories. The first is the questionable stuff with minimal (or no) fundamentals. The carnage in this

area is standard operating procedure following a speculative binge like we saw in 2021. As one astute observer has noted, "Panics do not destroy capital. They merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works." Take Special Purpose Acquisition Companies (SPACs), which raise money to invest in as yet-undefined entities, a phenomenon really only seen during speculative manias such as 1720, 1873, 1929, and now 2021. Bloomberg's De-SPAC Index, which tracks SPAC IPOs, is off 88% from its highs. As one market strategist told Bloomberg recently, the SPAC boom "only existed because there was excess liquidity in the system". Then there are non-fungible tokens (NFTs). Total NFT spending in November was \$442 million compared to a monthly average of \$6.3 billion in the first quarter. Jack Dorsey's first tweet was turned into an NFT which sold for \$2.8 million in March 2021 and by April 2022 was worth \$280. Celebrities, such as Gwyneth Paltrow and Jimmy Fallon, behind the BAYC (Bored Ape Yacht Club) are being sued as part of a class action lawsuit. So-called "meme" stocks have been crushed with Bed Bath and Beyond contemplating bankruptcy. Robinhood, the brokerage firm that facilitated the retail trading boom in meme and other stocks during Covid and which went public at a \$32 billion valuation, lost \$862 million in the first nine months of 2022 on \$978 million in revenue. Companies that became household names during Covid - Peleton and Zoom - and which were investor favourites - Zoom briefly had a market capitalization greater than Exxon - have seen their stock prices fall by about 90%. The ARK Innovation ETF, the flagship vehicle for so-called disruptive technology-focused ARK Investment Management and which achieved virtual cult-like status in 2021, traded at its lowest level in 5 1/2 years, down 89% from its 2021 peak. Tesla's stock price suffered a 65% decline on the heels of its bizarre 743% run-up on a 28% increase in sales. The S&P Kensho Electric Vehicles Index is down 68%. Nearly a quarter of the roughly 600 firms that undertook conventional IPOs in 2020-21 were trading at less than \$2 a share near year end. Last, but not least, there's the crypto space where 2022 undid every dollar that cryptocurrencies and stablecoins added in 2021. Two-thirds of the names in the Binance universe of 80 coins are down 90% or more from their peaks and half of the top ten crypto funds going into 2021 are no longer operative. The big daddy of crypto, Bitcoin, was down 64% in 2022. Perhaps the following quote from Sam Bankman-Fried, who is facing serious jail time for his role in the FTX bankruptcy, illustrates the craziness of what was going on in the crypto space and the other speculative areas of the markets, "I did have ultimate responsibility in the sense that I was ultimately responsible." One experienced international investment manager noted, "This has been a train wreck waiting to happen. Now, money has a cost. You just can't throw money at unprofitable businesses." An Aussie investment executive added, "There's a collective sigh of relief that the stupidity is over."

The second broad asset class - and the most important by far - negatively affected by rising interest rates is long duration stocks and bonds, in many cases of the highest quality, that nonetheless got bid up to unsustainable levels as interest rates hugged the zero-bound. Indeed, what made 2022 unique was the carnage in the bond market. Sure, 2022 was a tough year for U.S. equities, but there have been 9 years out of the past 115 that were worse. In the case of bonds, 2022 was a year for the record books and not in a good way. U.S. investment grade corporate bonds had a negative return of almost 16%, roughly twice as bad as the next worst year -1969- of the past 100. For bonds, and generally for equities too, the longer the duration, the worse the return. Long-term U.S. Treasuries topped the list, off an incredible 29.3%. Nothing remotely like it has been seen since reliable data has been collected in 1872. The dynamic at play is perhaps best illustrated by Austria's century bond which came to market sporting a yield just over 2%. This seemed unappealing, but, as central bankers pushed yields into the sub-basement of history, the bonds traded well above \$200. Good news for those who sold, but, for those who didn't, some gruesome returns lay ahead in 2022 as interest rates headed north. Thus, international diversification in the fixed-income area did not help as there were record losses everywhere and the Global Fixed Income Aggregate Index was off 16.2% compared to 13.0% in the

U.S. It was only the fifth time in the past century that both bonds and stocks declined in the same year and the first time they both fell by more than 10%.

Long duration bonds were not the only asset class to benefit mightily from the monetary craziness between 2009 and 2021, only to be hit hard when the central bankers changed course in 2022. Higher earnings in thirty years are worth a lot more today when interest rates are 2% than when they are 5%, so growth stocks, in particular the big U.S. technology companies commonly referred to as FANMAG, consistently outperformed their slower growing, but cheaper, brethren, typically called value stocks, to a record extent. Ned Davis Research compared the performance of the six FANMAG stocks in the five years leading up to their peak at the end of 2021 with what they call their historic bubble composite which includes the Dow Jones Industrial Average in 1929, Gold in 1980, Japan's Nikkei in 1989, and the NASDAQ Composite in 2000. Amazingly, the 5-year gain per annum was almost identical, up 34.2% for the FANMAG and 33.3% for the Bubble Composite. So, it shouldn't come as a shock that, when interest rates started to rise in a meaningful way, the FANMAG stocks, and growth stocks in general, would be more vulnerable than value stocks that had lagged throughout the cycle. Four FANMAG stocks (Meta, Amazon, Netflix, and Google) were off 47% in 2022 compared to 16.5% for the S&P 500 (excluding these stocks). Despite the drubbing taken by these stocks in 2022, it is worth noting that their rate of return over the past eight years is still double the return on the S&P 500. Of course, in the case of the FANMAG stocks, unlike bonds, it's not just about interest rates. Other factors are important and size is certainly one of them. Apple being the first company to hit a \$3 trillion market capitalization should perhaps have been a cautionary sign that it was going to be hard for these companies to sustain their historic growth rates. When Facebook (now called Meta Platforms) bought Instagram for \$1 billion, the company had eleven employees. Now it's pushing 20,000. When Amazon peaked during the dot.com bubble on its way to a more than a 90% decline, its market capitalization was \$36 billion. It lost more than \$30 billion on a number of days in 2022 and \$840 billion for the year. These are not the same companies they were ten years ago.

The third broad asset class affected by rising interest rates is residential real estate, not just in the United States, but in a number of countries, especially Canada. In the U.S., the wealthiest 10% of households own 90% of the equities, but only 45% of the real estate, which is currently valued at \$46 trillion compared to \$34 trillion prior to the pandemic and \$25 trillion prior to the Global Financial Crisis. Other than the direct dealings with banks, the central bank has no greater influence than on the housing market which happens to be where most people have most of their net worth. The S&P/Case-Shiller U.S. National Home Price Index rose 50% in the four years leading to the peak of 184 in 2006. The index now stands at a record 300, once again up 50% over the past four years and roughly 65% higher than it stood at the apex of the great real estate bubble. In Canada, prices were more than 140% over their 2008 peak. Household real estate in the U.S. is valued at 165% of GDP today compared to the record 175% in 2005. On the other hand, the median home price today stands at a record 5.1 times the median family income compared to 4.2 times in 2006. With mortgage rates climbing above 6% from the previously unheard of 2.7% low in 2020, home ownership affordability is the worst in at least 35 years. At current interest rates, annual mortgage payments for a median-priced home in the U.S. represents 46% of median income. With the median sale price for a home in the Greater Toronto Area well over \$1 million, buyers have been looking at a \$250,000 down payment and \$200,000 in pretax income. These metrics have led to a 13% decline in prices in Toronto to date and home prices are also falling in Australia, New Zealand, the U.K. and Germany and, in December, prices fell in China for the sixth straight month. In Canada, average house prices dropped by 7.7% from May to October, the biggest five-month drop in the history of the Teranet Index which starts in 1997. Oxford Analytics estimates that "home prices in Canada could fall 30%". In the U.S., from June to October, national home prices fell at a 10.9% annual rate, the weakest performance since 2009. The Housing

Market Index, a measure of homebuilder confidence, fell for the 12th consecutive month to its lowest level since April 2020. Pending home sales decreased 37.8% over the previous year to their second-lowest monthly reading in 20 years.

The last category of assets negatively affected by rising interest rates includes a broad range of equities, many of which get tagged as “value” stocks. While there were losses throughout this space in 2022, the outperformance relative to many other areas was significant. As one example, the Value-oriented Dow Jones Industrial Average outperformed the Growth-oriented Nasdaq by the widest margin since the Dot.com bubble burst in 2000. Money flowing out of riskier and long duration assets had to go somewhere. Some of it went to commodities, but commodities are perceived as risky. Some of it went into cash, but less than you might think as most investors were not prepared to become that defensive. Some of it went into “value” stocks which in many cases have decent dividends and relatively decent valuations.

The past year was almost all about the interest rate shock and investors are hyper-sensitive to datapoints that suggest either that interest rates will continue to be a problem for the markets or the opposite. Yet for all the short-term volatility, there is an overwhelming consensus regarding the likely path of interest rates in 2023. Partly this is because the central bankers have told us what their plans are in no uncertain terms. The most recent minutes of the U.S. Federal Open Market Committee noted, among other things, “Participants generally observed that a restrictive policy stance would need to be maintained until incoming data provided confidence that inflation was on a downward path to 2 percent, which was likely to take some time.” In addition to what the Federal Reserve wants to do, in every meeting since 2009, the Fed had typically done what the market expected it to do. The market expects two increases of 25 basis points in February and March, a pause, and then a series of rate cuts beginning in November. On the one hand, there is no suggestion that the Fed is about to start cutting interest rates anytime soon, nor is the market expecting it; on the other hand, the rate-hiking cycle is about over if the Fed and the markets are to be believed.

There are other reasons to think we have seen most of the increases in interest rates that we are going to see. A year ago, when the Fed funds rate was effectively zero, so-called “Taylor-Type” rules indicating where rates should be were pointing between 4% and 7.5%, a wide range, but far above zero. The Fed was way behind the curve, as the expression goes. They have been rushing to catch up ever since and two 25 basis point increases to 4.75 - 5.00% would put them at the bottom of the ‘sufficiently restrictive’ zone deemed appropriate by the Taylor statistical models. Another reason to think we are near the end of rising rates is a peak in inflation, signs of which are everywhere. Gas prices, down 37% from their peak; used car prices, down 19%; global freight rates, down 81%; fertilizer prices, down 45%; lumber, down 79% to its lowest level since June 2020; housing prices falling, as noted above, and rents down for three consecutive months. U.S. import prices, which were up 13% year-over-year in March, are now up 2.7% year-over-year, the eighth consecutive monthly decline in the rate of change and the lowest since January 2021. One fly in the ointment is the tight labour market and resulting wage inflation which the central bankers are watching closely. Even here, however, average weekly earnings in the U.S. increased by a mere 3.1% year-over-year in December, down from 3.6% in November, and well below the rate of inflation. Meanwhile, the number of jobs created on a monthly basis, although still positive, continues a declining trend.

Barring an unforeseen disruption in the supply of food or energy, it is difficult to make a case for higher inflation or higher interest rates in 2023. It is, however, easy to make a case for economic weakness which could well cause inflation and interest rates to be lower than the markets are currently expecting. The global economy ended 2022 on a downbeat. A global composite indicator of economic activity

contracted in December for the fifth straight month to its second lowest reading since the initial Covid lockdowns in 2020. In the U.S., in November, overall trade flows (imports and exports) fell 4.5% from the previous month, something seen only three times in the past two decades - in each of the past three recessions. Vendor delivery delays, a proxy for global supply bottlenecks, dropped in December to the lowest level since the bottom of the Global Financial Crisis in 2009. So, there are plenty of signs that the world and U.S. economies are weak, but, more importantly, indicators of future economic activity are pointing to even further weakness. When 55% or more of U.S. yield curves are inverted, a recession has always occurred. The current reading is 87%. The Conference Board's Leading Economic Indicator is at a level that has always indicated or led to a recession. The growth of the U.S. money supply has turned sharply negative after its explosive growth in 2021. This list goes on. Just how weak the world and U.S. economy will be in 2023 remains to be seen, but whatever the challenges are, rapidly rising interest rates, unlike 2022, seem unlikely to be foremost among them.

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