Inflation Investing Seminar

Canadian Securities Institute
A Moody's Analytics Company

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April 28, 2022

Inflation Investing Seminar: Agenda

1. Asset Class Returns in Inflationary Time Periods
2. Fixed Income
3. Commodities
4. Equities
5. Alternative Investment Products

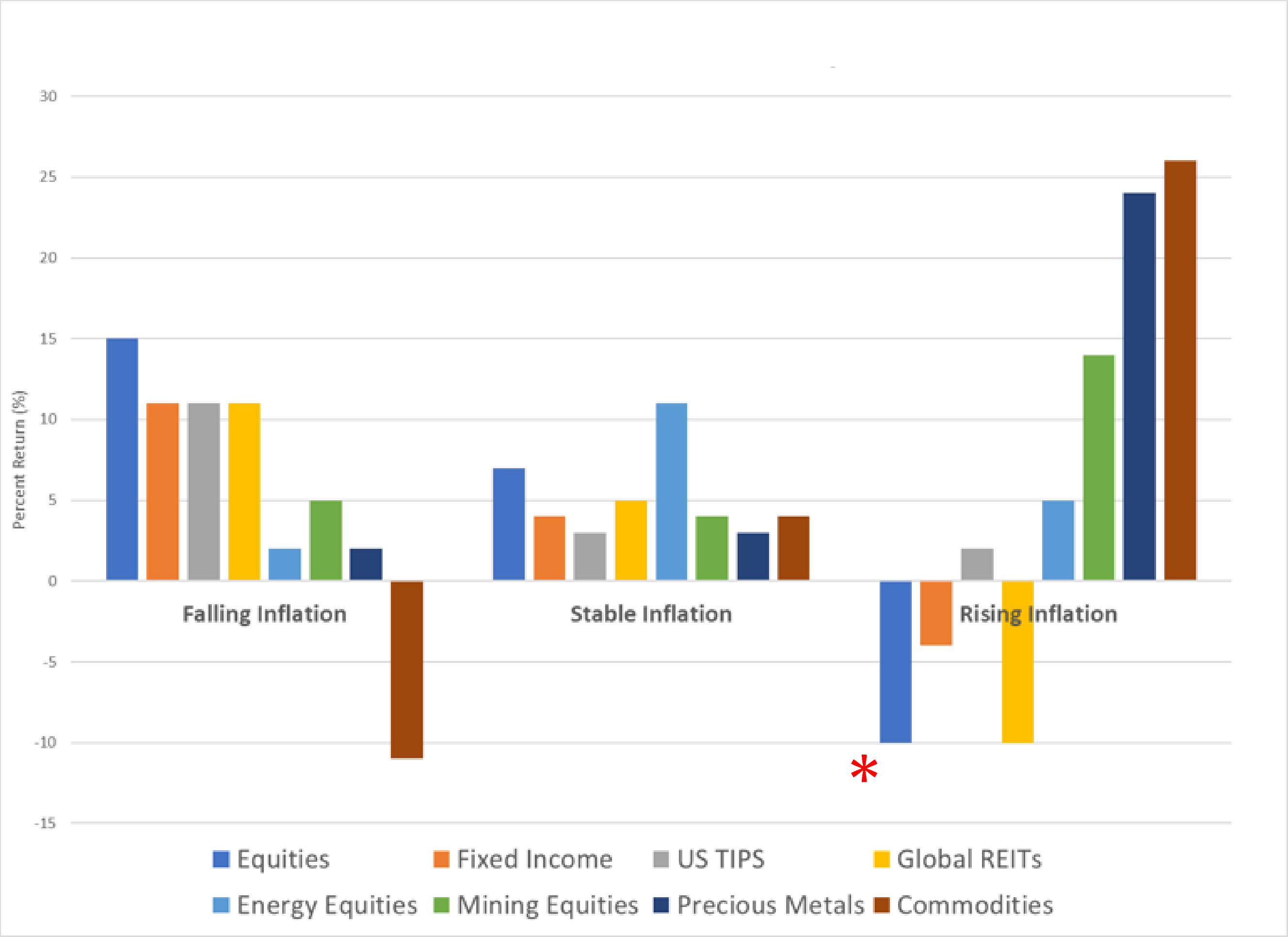
Asset Class Returns in Inflationary Time Periods

Returns over the past year ....

	Symbol	% Change
Crude oil	USO	+ 81
Energy socks	XLE	+ 69
US inflation rate	-	+ 8.5
Gold	GLD	+ 8
Large caps	SPY	+ 5
Nasdaq 100	QQQ	- 2
EAFE	EFA	- 7
US bonds	AGG	- 9
Small caps	IWM	- 12
Emerging markets	EEM	- 20
Bitcoin	BTC	- 24
ARK	ARKK	- 57

As at 4/20/22

Asset Class Returns over Various Inflationary Time Periods



Note: (*) poor performance of broad-based equity indices during periods of rising inflation

2 Fixed Income

Fixed income securities and increasing inflation expectations do not mix well …

The 'connection' between the two is as follows:

Increasing inflation expectations

→ tighter monetary policy

→ tighter credit market conditions

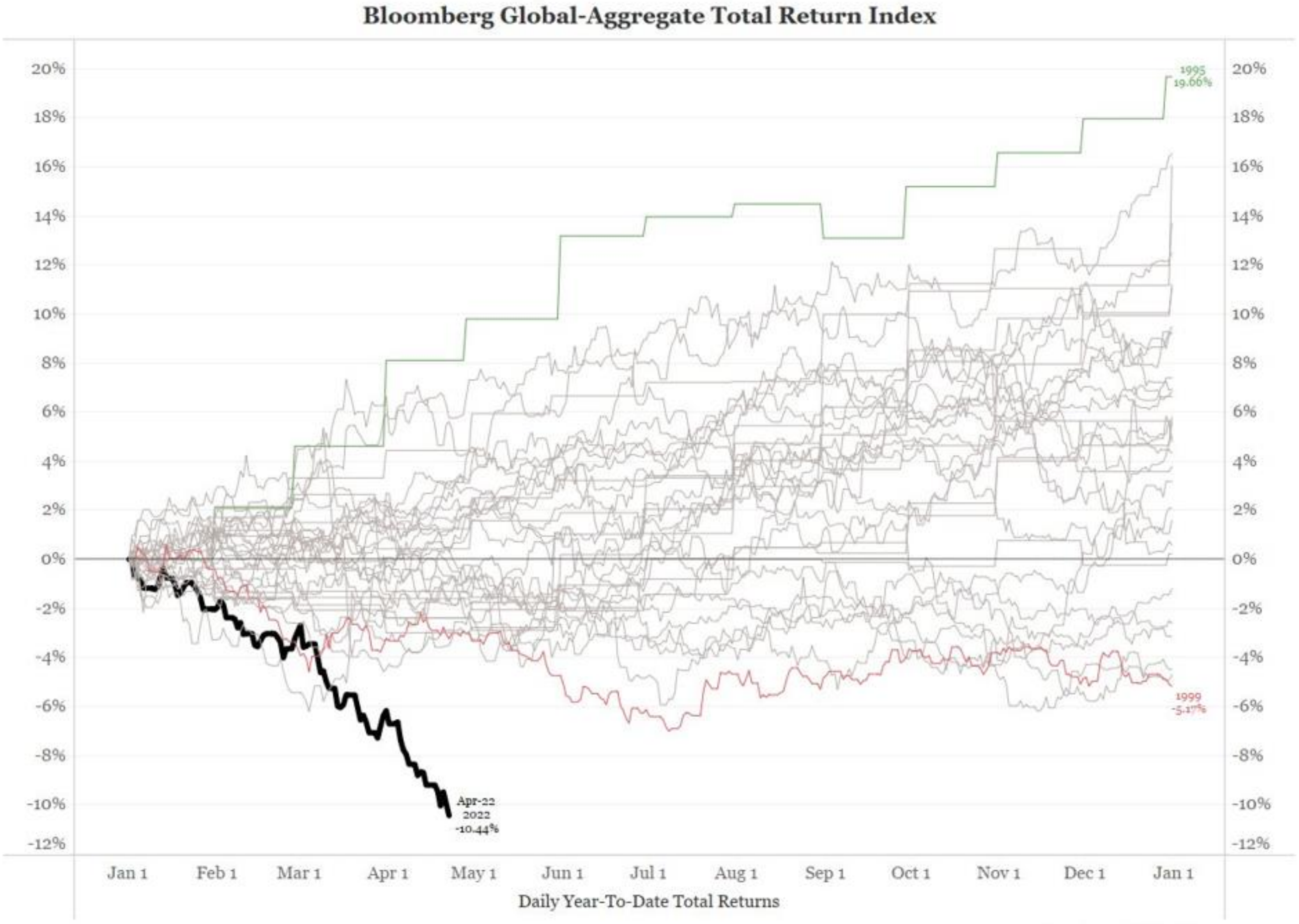
→ higher interest rates

→ higher discount rates for fixed income securities

→ lower fixed income security prices.

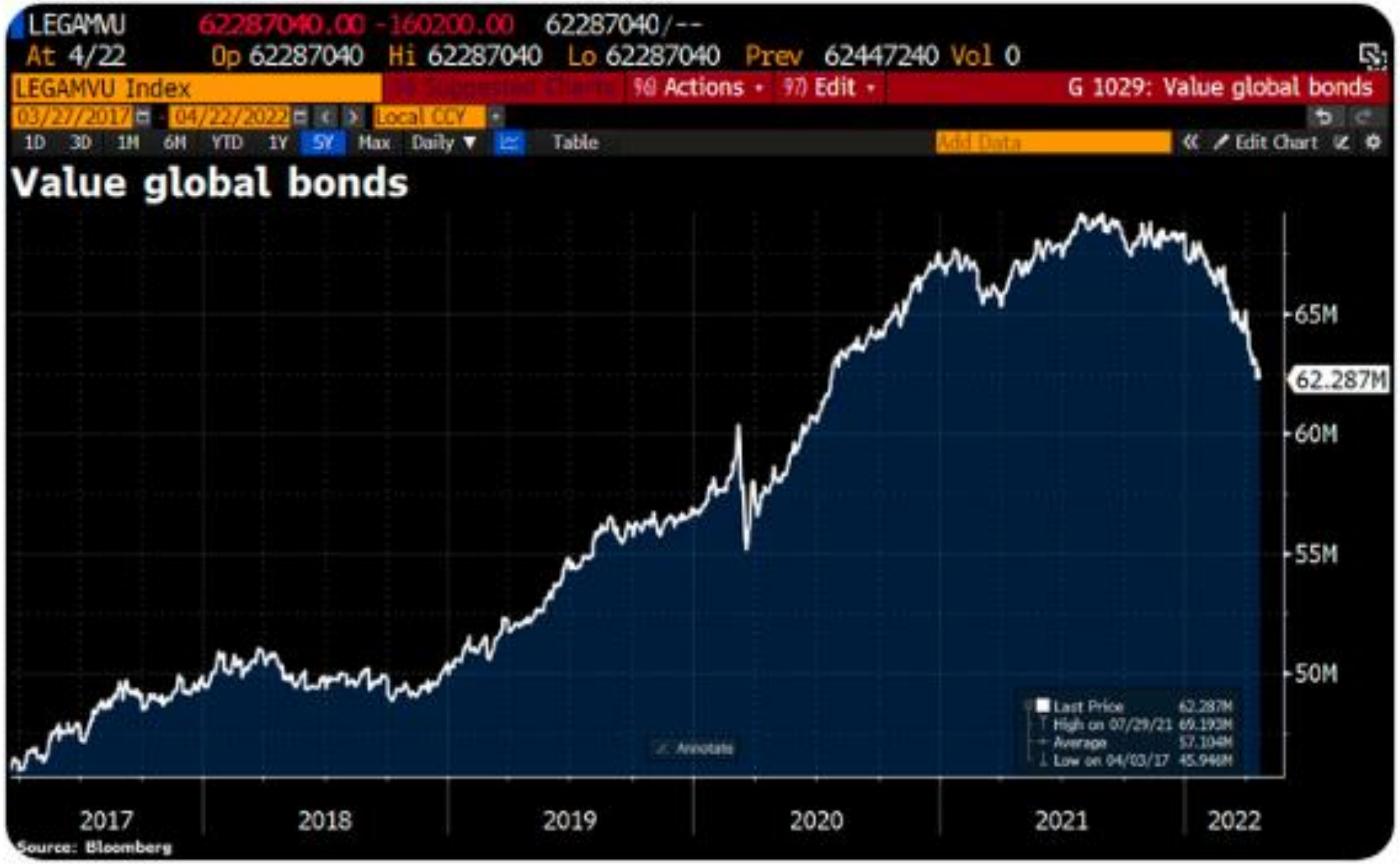
2022 YTD: Impact of Rising Interest Rates on Bond Market Value

- *The Bloomberg Global - Aggregate Total Return Bond Index* began in 1990.
- Its market value is currently US$62.3T and has over 28,000 bonds.
- Its market value is down over 10.44% (US$7T) YTD 2022.



Source: Bloomberg

Bond bubble continues to deflate as hawkish Fed comments shake up the global bond markets …

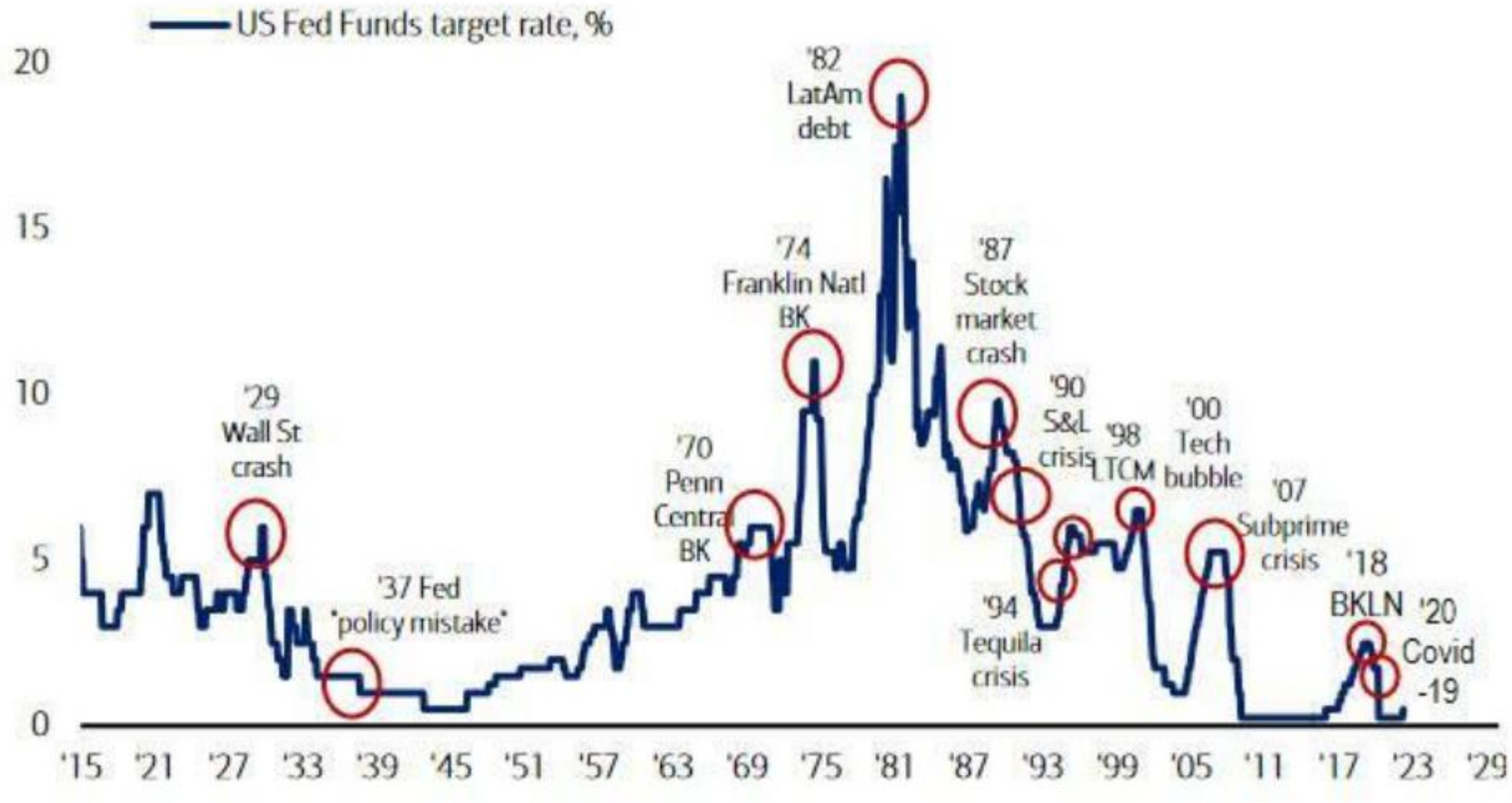


The value of global bonds has dropped by another $524B this week, bringing total loss from ATH to $7.0T

Anticipated Fed tightening apparent by U.S. treasury bond yield curve inversion

Monetary policy is most potent in the short-term part of the yield curve - so any attempt to decrease aggregate demand in the economy in order to quell inflation generally results in a marked increase in short-term interest rates – to the point of yield curve inversion

Fed hiking cycles with deflationary events …



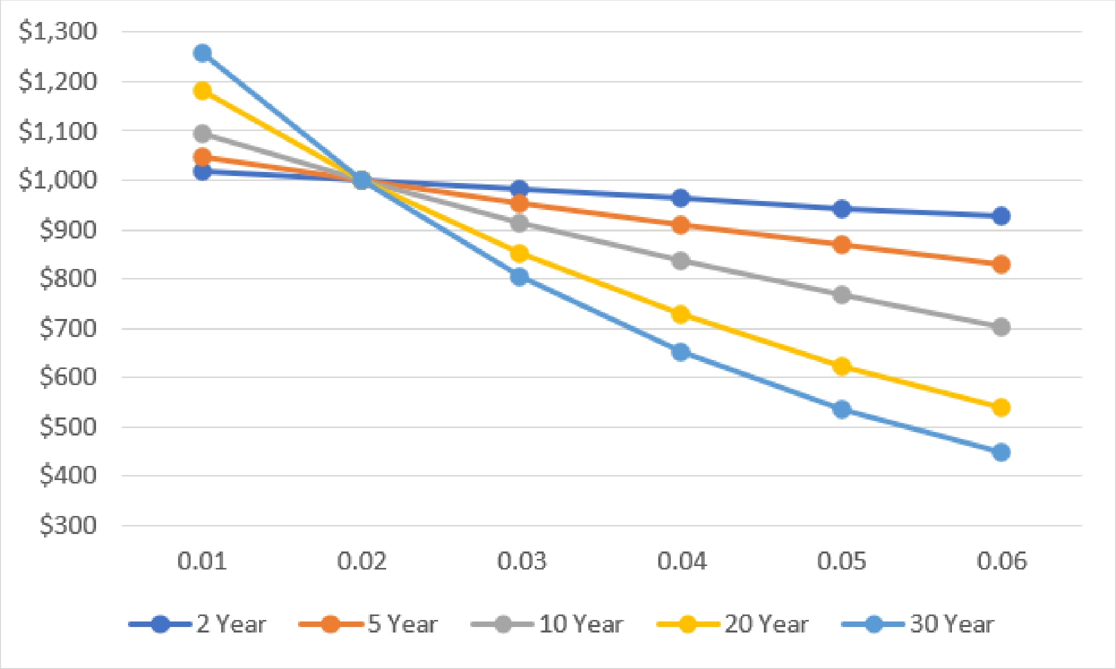
Source: BofA Global Investment Strategy, Bloomberg

Unfortunate Truth/History

Fed hiking cycles often end in severe economic/financial 'events' … due to high financial leverage that collapses under higher interest charges

Market price sensitivity for GoC bonds of various maturities

2 Year	5 Year	10 Year	20 Year	30 Year	Yield per Year
$1,020	$1,049	$1,095	$1,181	$1,259	**0.01**
$1,000	$1,000	$1,000	$1,000	$1,000	0.02
$981	$954	$914	$850	$803	0.03
$962	$910	$836	$726	$652	0.04
$944	$869	$766	$623	$536	0.05
$926	$829	$702	$538	$446	0.06



For example: A 200 bps increase in interest rates … results in:

A 16.4% decline in the market value of a 10-year maturity GoC bond, and

A 27.4% decline in the value of a 20-year maturity GoC bond

Bond portfolio: Defensive action (duration reduction)

- Action: Reduce bond portfolio's average term to maturity (duration) in order to be less sensitive to interest rate increases (and falling bond market prices)

- Pros:
  - Quick and easy to implement
  - Fully customizable
  - Low cost (small bid/ask spreads, especially if done with GoC bonds)

- Cons:
  - Can accelerate capital gains-related cash income tax payments (if done in a non-tax advantaged portfolio)

Inflation-linked bonds: Treasury Inflation-Protected Securities (TIPS)

- Issued and guaranteed by U.S. federal government
- Issued quarterly: 5-, 10-, and 30-year maturities
- Pay semi-annual interest based on ‘real’ coupon rate (currently 2.5-3.0%) applied to principal amount (that is semi-annually adjusted by CPI)

Pros	Cons
Improved total portfolio diversification (low correlation with other asset classes)	Cash income tax exposure if principal increases during the tax year
Less volatile than fixed-term UST bonds	
Deflation floor (par value floor … even if in a cumulative deflationary time period)	
Highly liquid (turnover > US$5 billion/day)	

Inflation-linked bonds: Real Return Bonds (RRBs)

- Issued and guaranteed by Canadian federal government
- Issued quarterly: 5-, 10-, and 30-year maturities
- Pay semi-annual interest based on 'real' coupon rate applied to principal amount (that is adjusted semi-annually by Canadian CPI)

Pros	Cons
Improved total portfolio diversification (low correlation with other asset classes)	Cash income tax exposure if principal increases during the tax year
Less volatile than fixed-term GoC bonds	
Returns are highly correlated with inflation index (CPI)	
Highly liquid	

Floating Rate Notes (FRNs)

- Commonly referred to as ‘floaters’
- Issuers: Corporations, banks, other financial institutions, as well as governments
- Variable coupon rate
  - Coupon set as defined (fixed) spread to benchmark rate … Fed Funds, 3-,6-month, and 1-year T-Bill rate, 2-, 5-, 10-, 20-, and 30-year US treasury rates)
- Term to maturity: Typically, the 2-year to 5-year range (although some are as long as 20-years)
- Spread is a function of:
  - Credit rating of issuer,
  - Term to maturity

Inverse Bond ETFs

- Commonly referred to as 'bear bond' ETFs

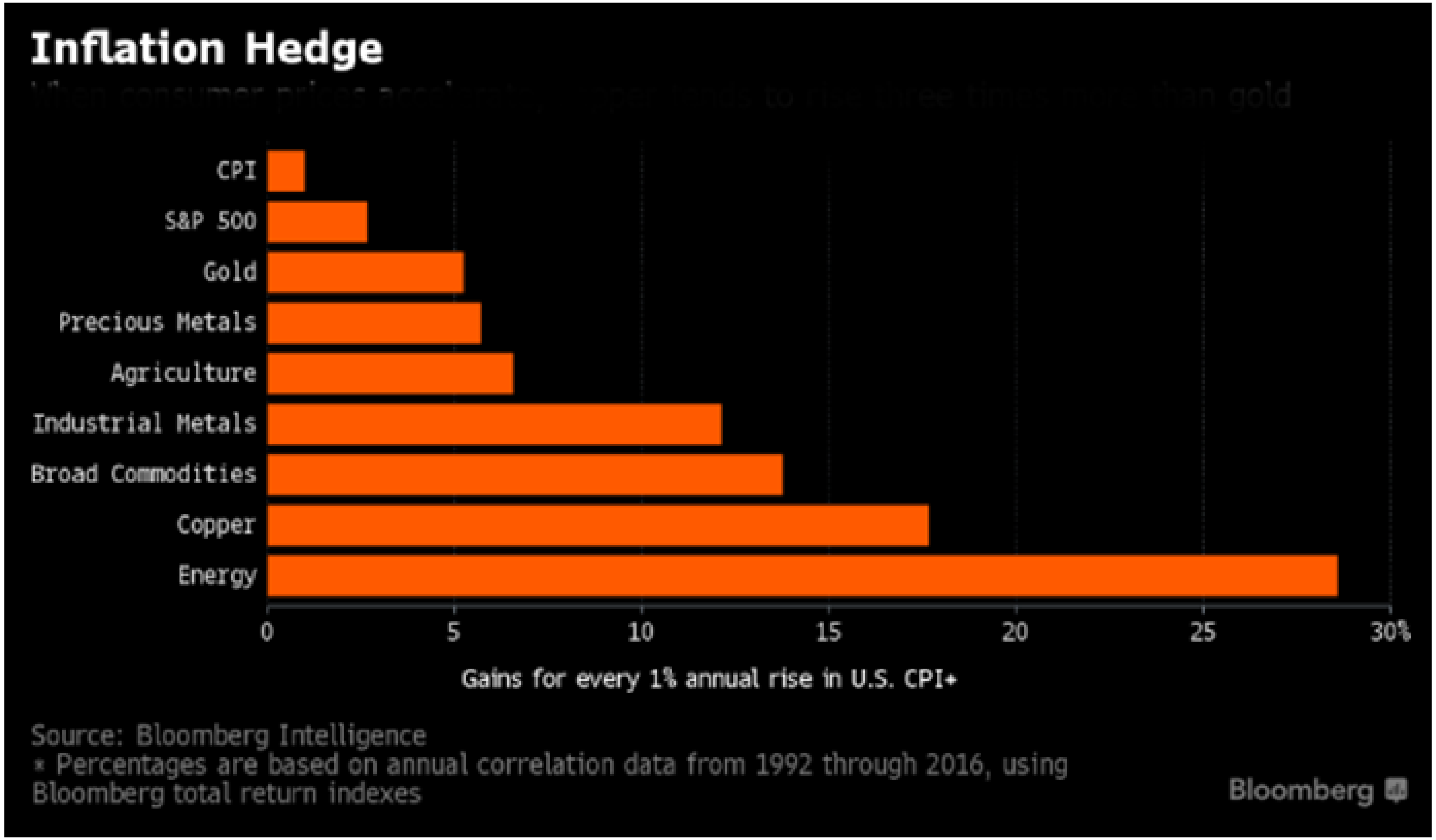
- Designed to move in the opposite direction as bond market prices

- ETF is essentially a 'short' position on the bond market
  - Fund is either: short the underlying bonds, and/or through (OTC) interest rate swaps
  - Expected to increase in value in an inflationary environment … as interest rate increase … and bond market prices fall

- Involves KYP and KYC DD standards related to inverse (and leveraged) ETFs
  - Tactical application (short-term hedge) … rather than strategic commitment for long term

3 Commodities

Commodity correlation with inflation



Good news:

Commodities generally correlate positively with inflation

Bad news:

They do so … but often with high volatility

Strongest start to any year since 1915 for commodity prices …..

Source: BofA Global Investment Strategy, Bloomberg, Datastream
*2022 YTD annualized

April 2022 YTD annualized total return = 144%

In addition to inflation hedging benefits ….. commodities appear historically cheap relative to equities

Commodities have essentially been 'ignored' post the 2008 Great Financial Crisis

Commodities: Investment vehicles

- Direct (physical) investment
- Derivatives (futures)
- Equity investments linked to commodities:
  - ETFs: Directly-linked to underlying commodities (single or basket)
  - Commodity sector funds (mutual fund and ETF)
  - Individual commodity-related equities

4 Equities

Equity performance in an inflationary environment

Two key issues (often not emphasized):

- Ability to pass through rising costs to customers (and therefore maintain operating margins)
  - Revenue growth source: Number of units versus sales $/unit

- Multiple compression (both overall stock market and industry specific)

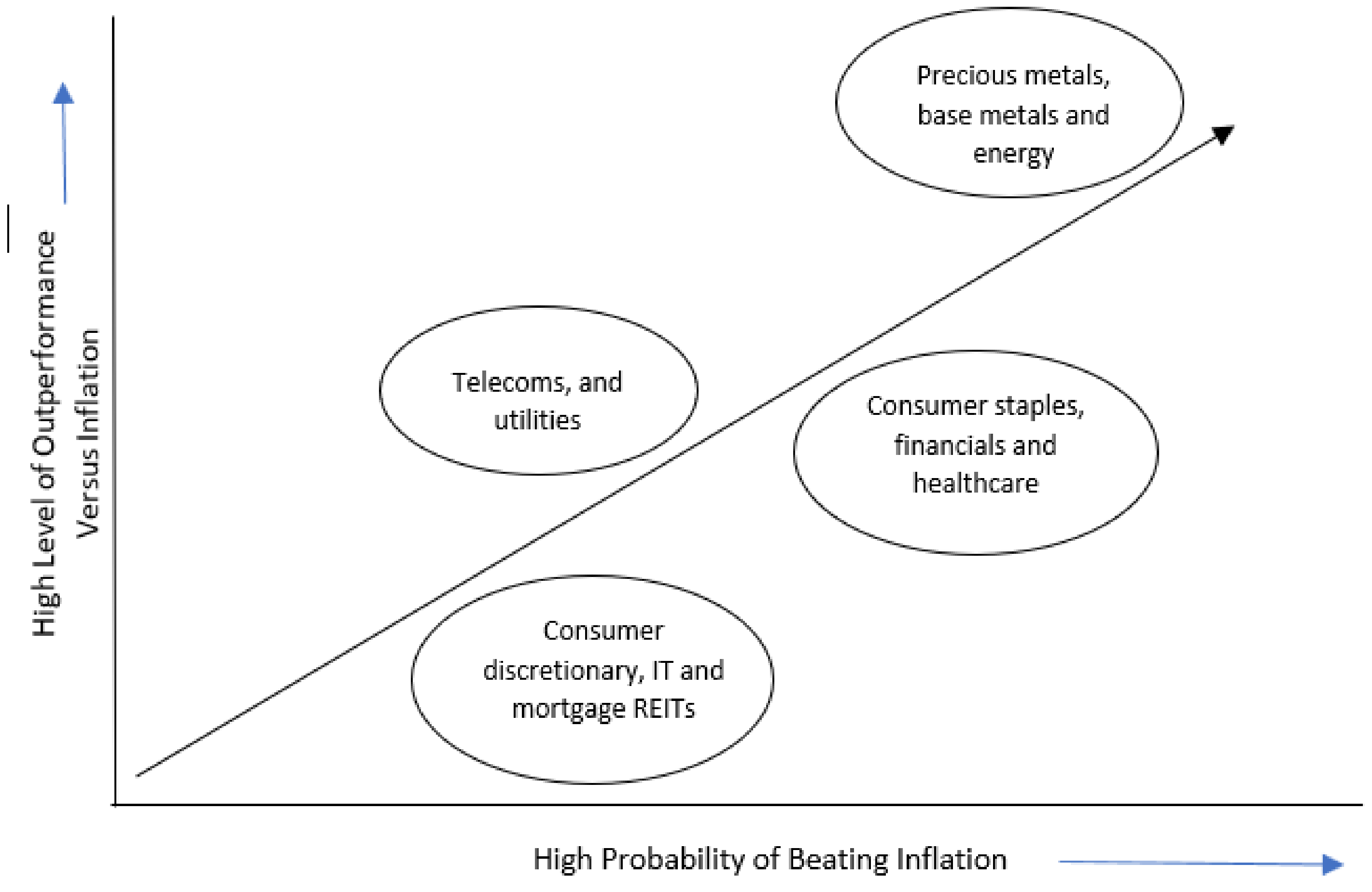
NOTE: Focus on higher top-line (revenue) performance can mask/de-emphasize deterioration in operating margins

Equity performance in an inflationary environment: Sector selection

- Sector selection is <u>critical</u> to provide greater inflation protection
  - Can offer returns sometimes far in excess of the rate of inflation – and providing superior (after-inflation) returns to the client's overall equity portfolio

- Sector performance is heavily influenced by the ability to pass-through higher input costs to customers
  - Ability to do so varies by sector – and by company within a sector

Equity market sector: relative performance in inflationary environments



Commodities tend to be top performers in inflationary environments: Two main contributing factors

- Selling prices of current production increases with higher commodity prices
  - Leads (typically) to operating margin <u>expansion</u> (assuming operating/input costs do <u>not</u> increase proportionately)

AND

- Net asset value (NAV) of their reserves increases due to their higher value

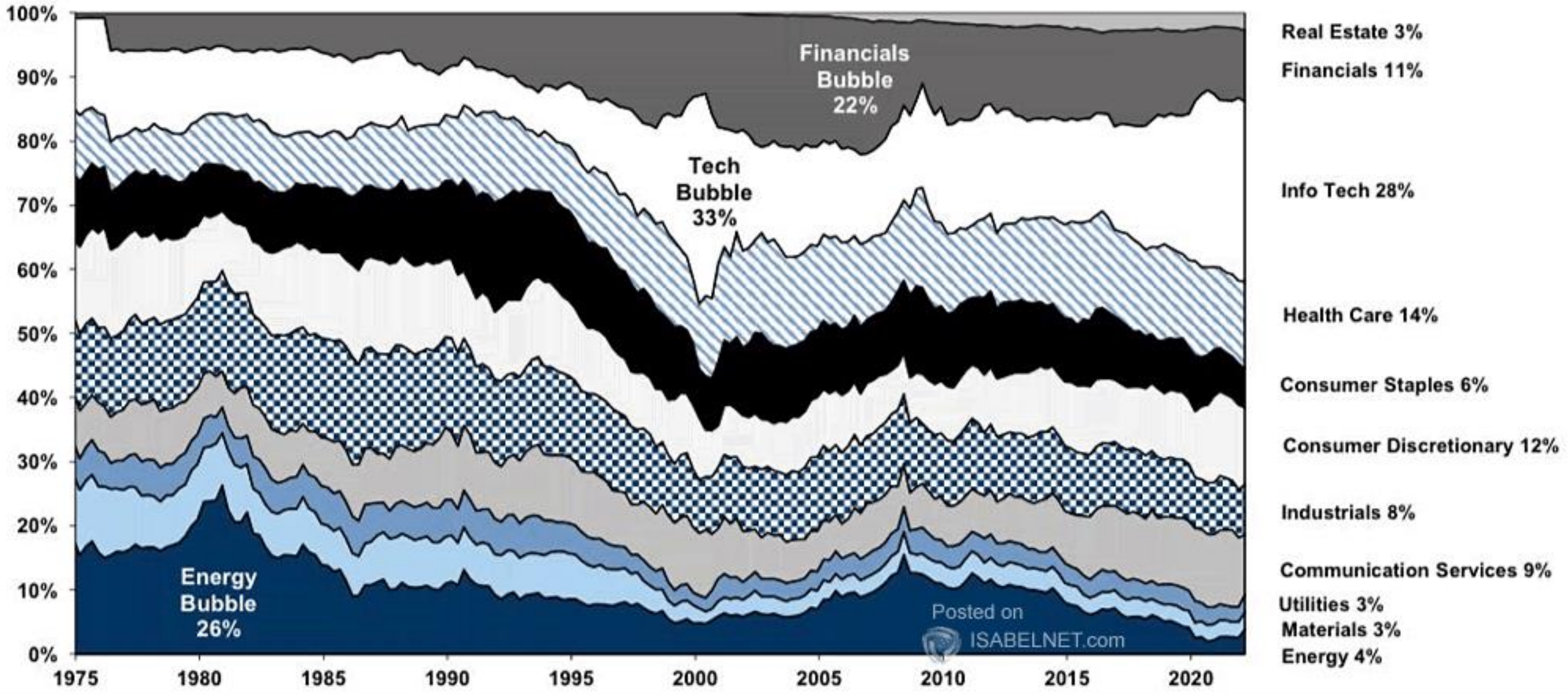
Note: Sell-side analysts derive share price targets for commodity producers based on two key fundamental factors:

- P/NAV (of reserves and resources), and
- Short/medium term market multiples (P/CF, EV/EBITDA)

Materials and Energy form only 7% of S&P 500 Index weighting: March 2022

Commodities were 27% of US equity index weighting in 1975.

In 2022, the 'role' of commodities in the US stock market is marginal



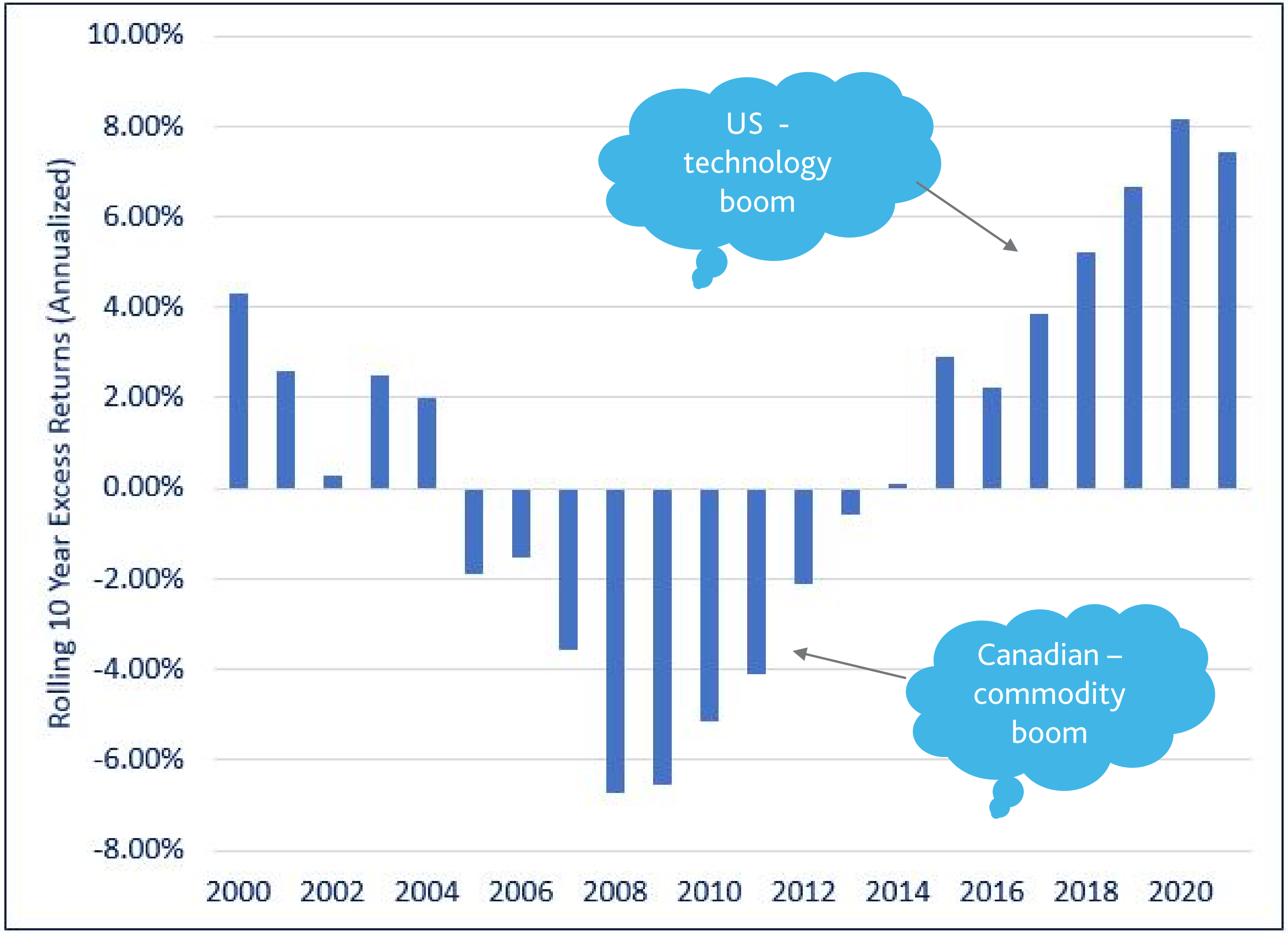
Source: Compustat, FactSet, Goldman Sachs Global Investment Research

TSX Composite Index versus S&P 500 Index: Sector Weights (12/31/21)

Sector	Weight in TSX Composite Index (%)	Weight in S&P 500 Index (%)	Difference (TSX – S&P 500) (%)
Financials	32.2	10.7	21.5
Energy	13.1	2.7	10.4
Materials	11.5	2.6	9.0
industrials	12.0	7.8	4.2
Utilities	4.6	2.5	2.1
Real Estate	3.1	2.8	0.3
Consumer staples	3.7	5.9	-2.1
Communication Services	4.7	10.2	-5.4
Consumer Discretionary	3.6	12.5	-8.9
Health Care	0.8	13.3	-12.5
Information technology	10.7	29.2	-18.5

TSX (and ASX) offer superior commodity sector exposure versus the S&P 500 Index

S&P 500 vs. TSX Composite: Rolling 10-year excess returns (2000-2021)



The underperformance of the TSX Composite vs. the S&P 500 over the past several years has been extreme from a historical perspective.

Canadian stocks have suffered one of their worst 10-year periods of underperformance since 2000.

Equity investment products for commodity exposure

- Specialty (sector) equity mutual funds/ETFs
  - Can improve inflation-efficiency of client's portfolios – with a degree of diversification within the commodity sector

- Individual stocks
  - Offer superior returns to the managed funds – but requires superior analytical skills
  - OF course, commodity producers involve exposure to numerous risks (both common and unique) which can lead to losses/inferior returns should these risks arise

Streaming/royalty companies: Shine in an inflationary environment (1/2)

- Very small stock market sector: Only listed in Canada, Australia and the U.S.
  - 7 listed in the U.S.: Primarily oil and gas-related
  - 10 listed in Canada (and U.S.): Primarily precious metals, and base metals

- Purpose: Provide capex/development funding alternative to bond market/bank borrowing, and/or secondary stock offering

- Not considered as debt or equity on balance sheet

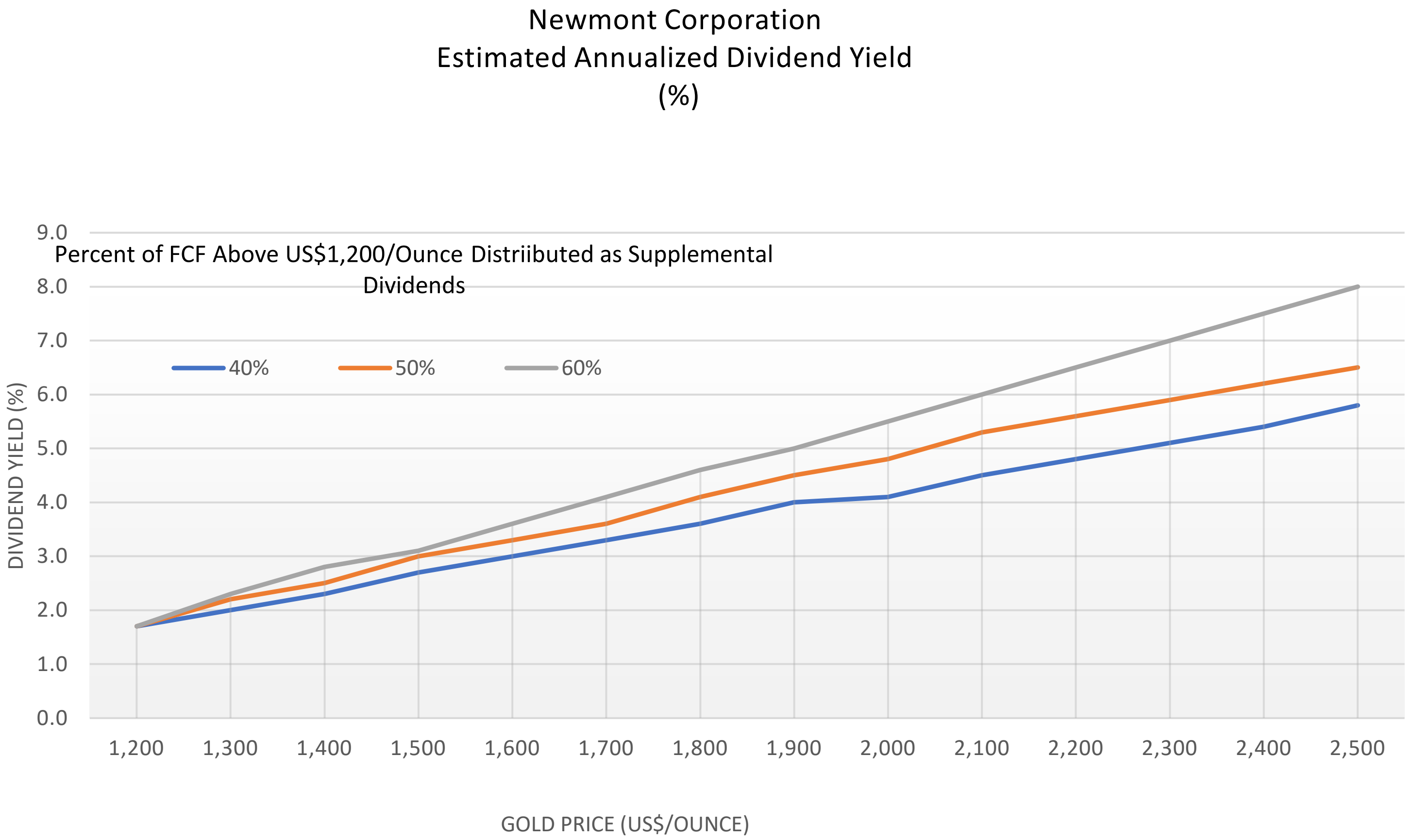
- Own the rights to receive a percentage of revenues (or production) generated by the extraction of commodity reserves/resources

Streaming/royalty companies: Shine in an inflationary environment (2/2)

- Most have little to no debt
- Most are always profitable (with very low breakeven)
- Constantly generate free cash flow (FCF)
- Actually, built-in counter-cyclicality: They can deploy FCF in new royalty streams when commodity prices are low (and traditional financing for resource companies is limited/expensive)
- Very small fixed costs (15-40 employees), resulting in some of the highest market cap/employee retios of any S&P 500-listed companies

- **Attractiveness (especially in an inflationary environment)**
  - **No exposure to inflating mine costs, and essentially a free perpetual call option on:**
  - **Commodity price growth, and**
  - **Future production growth from referenced asset**

Newmont: Introduced ‘supplemental’ dividend policy in mid-2021



Constructed to payout 40%-60% of NEM's incremental FCF as a ‘supplement’ to its ‘base’ dividend of US$1.00/sh. (sustainable at US$1,200/oz. Au)

Annual supplemental dividend component currently equal to US$0.60/sh. (based on a 40% FCF payout rate and a US$1,500/oz. Au price)

Would be great to see more commodity-producers develop payout strategies tied to underlying commodity prices – so that investors could participate in a pre-defined manner with commodity price inflation!

Equity exposure versus inflation: Risks and misconceptions (1/2)

- Equities (as represented by broad-based indices) are generally <u>not</u> good inflation hedges
- In inflationary times … broad equity weighting should be reduced to minimum strategic allocation level, and
  - Within allocation shift to more commodity sensitive sectors should be emphasized
- Keep in mind that higher <u>volatility</u> is associated with commodity investing

Equity exposure versus inflation: Risks and misconceptions (2/2)

- Popular misconception:

"Investors should increase their exposure to high dividend paying stocks and/or preferred shares when entering inflationary time periods"

- History proves this is exactly the 'wrong' thing to do

- Underperformance will likely occur due to their 'fixed income'-like characteristics

5

Alternative Investment Products

Alternatives: Real Estate (equity-related exposure)

- Direct investment
- Pooled investment
- Individual equities

Alternatives: Hedge Funds, and Managed Futures/CTAs

- Hedge funds are typically structured to offer:
  - Absolute returns, and
  - Low correlation with traditional asset classes

Although these goals (if attained) are normally considered desirable – they do not necessarily result in superior inflation-adjusted returns

- Meanwhile managed futures and CTA's (when managed properly) can offer attractive inflation-adjusted returns

Alternatives: Crypto, Collectibles

- Cryptocurrencies
  - Short history does not permit rigorous analysis regarding performance of cryptocurrencies during different (high) inflationary time periods

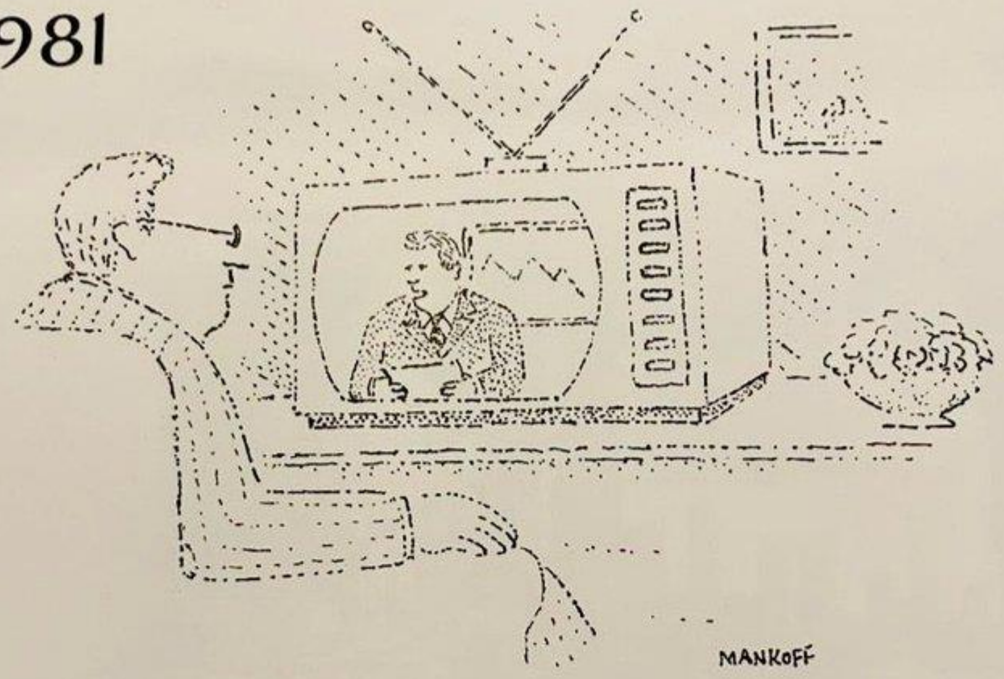
- Collectibles
  - Limited anecdotal history regrading price performance during inflationary time periods
  - Lack of thorough analysis by academic and/or investment communities
  - Numerous investment challenges (valuation/appraisal, forgery, storage, insurance, liquidity etc.)

The End

Thank You

The New York Times: 41 years ago …

1981



"On Wall Street today, news of lower interest rates sent the stock market up, but then the expectation that these rates would be inflationary sent the market down, until the realization that lower rates might stimulate the sluggish economy pushed the market up, before it ultimately went down on fears that an overheated economy would lead to a reimposition of higher interest rates."