Horizon Kinetics Inflation Beneficiaries ETF (INFL)
2025 Semi-Annual Letter

September 2025

Fire & Ice

Some say the world will end in fire,
Some say in ice.
From what I've tasted of desire
I hold with those who favor fire.
But if I had to perish twice,
I think I know enough of hate
To know that for destruction ice
Is also great,
And would suffice.

- Robert Frost

The success of modern democracies and associated institutions is underpinned by prosperity. A key to prosperity is sustained economic growth, balancing bouts of fire (growth, inflation) and ice (contraction, deflation). More on that in a moment. But first, some background.

Historically strong *real* economic growth has translated into higher wages and household wealth, which has reinforced corporate profits and created a virtuous cycle. This trend of higher living standards (wages and wealth, but also public infrastructure, safety, health care, and retirement benefits) garners public support for such policies. Thus, political leaders are universally pro-growth, with only the hierarchy of labor, capital, and social priorities varying between parties and administrations.

Inertia in economic and standard-of-living gains often leads to supply and demand imbalances driving increases in the price of financial assets and consumer goods. This process is amplified by increasing amounts of leverage that poses a risk to market stability as excesses build. Logically, central policymakers seek to govern growth and price levels to promote stable long-term economic activity and household net worth. This is implemented primarily through managing interest rates (monetary policy), government spending (fiscal policy), and less overtly with regulatory measures, including market liquidity management.

These variables are typically coordinated (implicitly[1]) to manage the specific needs of the economy (government) without being overly stimulative or restrictive. For example, in the aftermath of the Global Financial Crisis, U.S. interest rates were set effectively at zero, and the

[1] The Federal Reserve Act of 1913 establishes an independent charter, with only congressional oversight.

government spending deficit exceeded 10% of GDP. However, regulations such as Dodd Frank severely curtailed the multiplier effect of these policies into the real economy.

Similarly, the last time the U.S. ran a fiscal surplus was in 2001. This was counterbalanced by federal fund rates declining by approximately 460 basis points (a process underway well before the 9-11 attacks) and financial deregulation. These conditions set the stage for the securitization/mortgage-backed security (MBS) boom that fueled the global financial crisis. As these examples illustrate, policy levers are seldom fully aligned, whether restrictive or stimulative, except during extraordinary market dislocations (e.g. the 2020 pandemic).

Rising federal debt and spending levels have been a constant for most the past 25 years. The result is a unique situation today where labor, capital, and government are all aligned in requiring economic growth. Concurrently, fiscal policy and regulatory controls are increasingly stimulative, while monetary policy is arguably "modestly restrictive"[i] but expected to shift more accommodative in the coming months.

Market participants expect short-term interest rates to decline by over 125-150 basis points by the end of next year.[2] This all points to a higher nominal growth target—and target inflation rate—implied in this quote from the U.S. Secretary of the Treasury: "We are going to grow the GDP faster than the debt growth and that will stabilize the debt-to-GDP, which ... is the most important number."[3]

The U.S. is forecast to run a fiscal deficit of $1.7-$2.0 trillion (an average of 6% GDP)[4] annually over the next five years. This is the minimum GDP growth hurdle for the debt-GDP ratio to remain constant. The practicality of achieving such a growth hurdle will ultimately be a function of GDP inputs, which the Cobb-Douglas production function defines as labor force growth, productivity growth, and capital stock growth.[5] Demographic and immigration trends will severely limit the labor force potential for growth.

The growth will need to be a function of productivity and capital. The capital base of the U.S. economy is immense—the U.S. Bureau of Economic Analysis (BEA) estimates it to be approximately $70 trillion today, based on the historical relationship of 2.3x–2.5x GDP. Thus, even amid the enormous sums being invested into AI infrastructure and onshoring, there needs to be an incremental $3 trillion investment just to keep the ratio consistent with target GDP growth.

[2] CME FedWatch, as of August 25th, 2025
[3] Scott Bessent, CNN State of the Union, May 2025
[4] Congressional Budget Office – Baseline Budget Projections
[5] Per the Cobb-Douglas production function: Y = A * K^α * L^β

This leaves the balance of growth to come from labor productivity, which can be interpreted as technological innovation. Productivity is notoriously difficult to forecast, but to the extent that AI makes some workers obsolete—while making others more productive—the net impact on GDP growth is likely muted. Accordingly, many economists consider 2% real growth to be the long-term output potential for the U.S. economy. This leaves a "plug" for inflation to be a minimum of 3%, more likely closer to 4% to maintain the debt/GDP ratio.

There is also a reflexivity of productivity and capital investment with respect to inflation. Higher productivity and capital investment naturally lead to higher leverage for labor (wages) and demand for capital goods/raw materials, hence prices. Absent any external forces to offset these inputs, it will flow through into various components of the consumer price index (CPI), personal consumption expenditures index (PCE), and producer price index (PPI) prices. This further reinforces the inflationary impulse of targeting >6% nominal GDP growth, however it may be achieved.

An inflation rate of 3%-4% is not inherently bad or destructive, but there are preconditions. First, wages and affordability must rise along with inflation/nominal growth, otherwise there will be a continued marginalization of lower income and younger households. Additionally, the government must be able to continue funding its obligations at rates equal to—or less than—nominal growth.

A positive real funding cost, coupled with sustained deficits of this size, will inexorably deteriorate the government finances over time, even if the debt/GDP ratio is maintained. This is because, gradually, interest will consume a growing portion of the deficit, which has no direct productive output. Lastly, the populus must have confidence that this inflation rate is sustainable, thus anchoring forward inflation expectations. Rising inflation expectations not only increase funding costs for debtors (namely the government) but also incentivize consumption over saving/investing, which can only reinforce rising prices.

It is abundantly clear to us that a high nominal growth scenario (fire) is the objective of most governments worldwide. Furthermore, the historic cadence of tight monetary policy leading to a recessionary end to business cycles may be evolving. Robust government spending is likely to not only prolong business cycles, but also sustain reasonable nominal growth—even when real growth is negative.

The potential for exogenous shocks that result in temporary disinflation or deflation is omnipresent, but if this were sustained (ice), it would jeopardize the solvency of governments and financial market stability worldwide. The reaction function of government under such conditions is to aggressively stimulate, which paradoxically will only exacerbate the eventual inflation (fire).

A fire scenario may result in a reorganization of the global financial system, with some calling for the end (or adjustment) to the post-Bretton-Woods monetary system. This may be an eventual

outcome, which is supported by a historical precedent of transient monetary regimes. However, in the interim, there will be disparate returns across asset classes and industries.

In fact, while equities are the clear asset class of choice in a fire scenario, certainly relative to fixed income, corporate profit margins may well be the biggest casualty of such a realignment. Our challenge as fundamental investment managers is to identify corporates that can persist, and ultimately prosper in such an environment. Our choice remains capital-light real asset businesses—with a specific focus on secular growth opportunities within real asset industries.

Real Assets: Financialized vs. Physical

Equities

Financial market augmentation and innovation has resulted in many asset classes becoming highly liquid and readily accessible to public market investors. This is a constructive development, in the sense that liquidity and transparency result in lower risk premiums and higher prices (benefitting corporate issuers and asset holders alike). However, financialization can also make assets overly sensitive to macroeconomic factors such as interest rates, as well as market structure factors like fund flows and sentiment. It can be argued that once an asset class approaches mature financialization, there is diminishing diversification and outperformance potential.

Real assets have become increasingly financialized, led by real estate, which benefits from the tax-advantaged real estate investment trust (REIT) structure Public real estate investors can now isolate investments in various types of properties—including multi-family, industrial, office, hospitality and retail/malls—and target specific geographic concentrations around the globe. REITs were once the purview of active real estate fund managers, but the asset class has been further equitized/commoditized by being embedded in largely passive ETFs.

The index allocation approach for real estate requires scale and liquidity, and hence is predominantly capitalization weighted. This results in index concentration of large, diversified properties focused on health care, warehousing/logistics, cell towers, datacenters, and retail/malls. This is not necessarily a reflection of the U.S. property market, but simply a weighted representation of the *public* real estate companies in the United States.

The Dow Jones U.S. Real Estate Capped Index (USD) has delivered a compound annual return of 6.23% (235% cumulative return) for the past 20 years ended June 30th. This return can be compared to 10.73% (668% cumulative return) and 8.18% (382% total) for the S&P 500 Index and MSCI All Country World Index.

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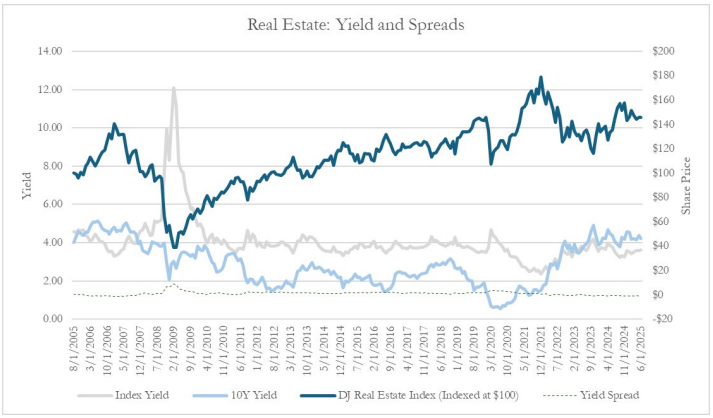
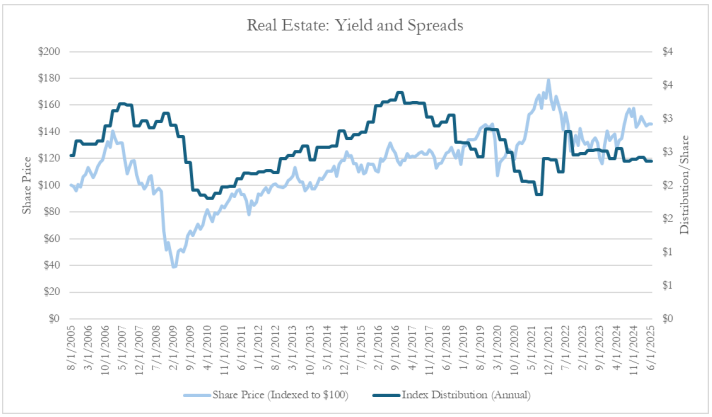
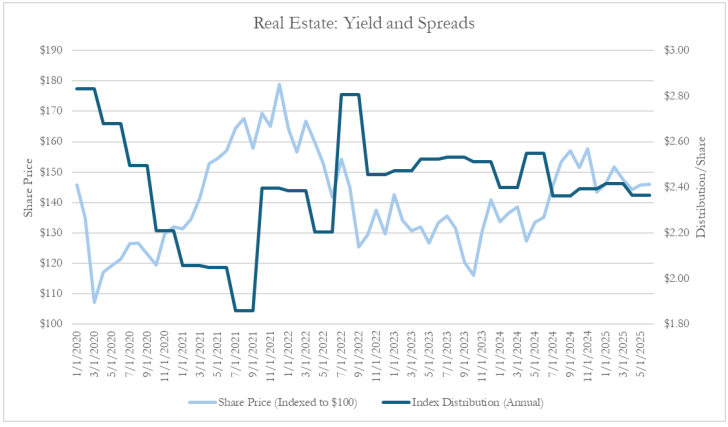
Real estate investments are evaluated on standardized financial "operating" figures that exclude the impact of non-cash items (depreciation and amortization) and interest expense. Ultimately, these figures drive the distribution, as REITs are required to distribute 90% of taxable income. Thus, it is consistent to analyze the asset class based on trailing distribution yields.



At the outset of the 20-year investment period, in June 2005, the index traded at a 4.59% trailing dividend yield, just above the 10-Year Treasury yield of 3.94%. This compares to a 3.68% trailing yield and a 10-Year Treasury yield of 4.23% today. In fact, despite the oscillations in the 10-Year Treasury yield over the past 20 years, the index has traded at an average yield of 4.06%, with an average spread of +118 basis point over the 10-Year Treasury. This highlights the return sensitivity of the asset class, tightly anchored to long-term rates. Furthermore, with a negative yield spread today of (55) basis points, the market is either implying robust distribution growth and or an imminent decline in the 10-Year Treasury yield. We question whether many passive allocators are conscious of this exposure.



More recently, the Dow Jones U.S. Real Estate Capped Index peaked in December 2021. Since then, it has delivered a total-return of approximately -10.5%, including a peak draw-down of over 30%. This period included a nearly 20% increase in distributions by the index. However, the 10-Year Treasury yield rose from approximately 1.5% to a high of nearly 5%, and 4.23% today.



Source: FactSet, Federal Reserve Bank of St. Louis

The decline(s) can be attributed to the interest rate sensitivity of financialized real estate, which is primarily traded as a yield-bearing asset. But there is another subtle rate vulnerability of these assets. As previously mentioned, REITs are required to distribute 90% of taxable income. Thus, they can only retain 10% of taxable capital, plus whatever is protected by depreciation and interest, net of capital expenditures.

To the extent that these businesses seek to grow net asset value (NAV) through capital investment, it must be achieved primarily via equity or debt issuance (due to limited ability to retain capital). This creates another rate sensitivity—first, to the long-term interest rate, and second, in the form of the company's cost of capital versus the ability to reinvest the proceeds at a positive spread.

This is neither an indictment nor endorsement of REITs, but rather a realistic analysis of the return drivers in financialized real asset markets. There are similar examples with global listed infrastructure, natural resource extraction, utilities, and financial service indexes. The commonality being that as real assets are financialized, there is an increase in market sensitivity that is a function of both risk-free rates and funding costs. Furthermore, as the asset class matures and becomes indexed, the ability to achieve the historical diversification benefits from real asset investment is diminished, particularly when valuations are robust relative to risk-free rates and historical spreads.

Capital-Light Equity

Brookfield Corporation is an adjacent but distinct company bridging the hyper-financialized and idiosyncratic real asset markets. Brookfield is a leading global alternative real asset manager with over $1 trillion in assets under management (AUM), of which $563 billion is fee-bearing capital.

Brookfield can trace its real asset investing roots to 1899, with the founding of the Brazilian utility São Paulo Tramway, Light & Power Co. However, its modern incarnation is more associated with opportunistic distressed real estate investing, including the acquisition of the premier New York City assets of Olympia & York in 1996. Notably, these included properties in lower Manhattan that were devastated in 2001. This enabled the company to increase its investment when capital fled the area. This is indicative of the contrarian, opportunistic culture that enables Brookfield to achieve differentiated (outsized) returns.

At its core, Brookfield is an asset management company that earns close to 60% operating margins on its base "fee-related earnings" (FRE). As such, despite being co-invested with clients across real estate, infrastructure, renewable power, private equity, and credit assets, its general partner (GP) interests are exceptionally capital light. To this end, the primary value lever for the asset

management business line is growth in asset value (both appreciation and investor flows). The company earns high-margin FRE plus carried interest based on performance.

The underlying real assets managed by Brookfield are subject to the same interest rate and spread dynamics discussed in the REIT section. However, there are critical distinctions. Chiefly, Brookfield is focused on opportunistic assets in private markets. These are typically transitional assets in various stages of development and or repositioning. Further, the long-term private structure of the funds facilitates capital retention for accretive reinvestment. This creates an asymmetric opportunity to compound value in real terms, particularly for the GP (Brookfield shareholders) who leverages this via base and carried-interest fee streams.

It is essential to understand that Brookfield is not a conventional private equity manager. Private equity is hyper-financialization writ large and essentially a high fee, leveraged exposure to rates and spreads ("leveraged beta"). This doesn't preclude the managers (GPs) from accumulating enormous funds with high recurring base fees. Further, we genuinely believe that Brookfield has exhibited a distinct ability to extend its investment horizon and build an enduring real asset platform. The company is also uniquely focused on shareholder value creation.

In pursuit of shareholder value recognition, Brookfield separated its asset management company via the distribution of a 25% interest to shareholders in 2022. This elucidated the capital-light recurring fees and upside leverage to carried interest of the asset management business. Brookfield Corporation retains a 75% stake in the asset manager, along with carried interest on legacy funds ranging from 33%-100%, depending on the vintage. The corporation also holds direct private investments, a $25 billion property portfolio, the nascent wealth solutions/retirement business, and interests in the publicly traded permanent capital vehicles. This NAV, and its drivers, can be summarized as follows:

i. Asset Management Fees ($563 billion fee-bearing AUM)
    a. Capital Appreciation
    b. Fundraising
ii. Carried Interest ($246 billion carry eligible capital)
    a. 33%-100% carry, depending on vintage
iii. Capital Appreciation ($55 billion)
    a. Co-invested capital

The organization's complexity partially obscures a coherent NAV calculation, now provided by the company in quarterly supplemental disclosures.[ii] Public market input values and International Financial Reporting Standards (IFRS[6]) accounting metrics deliver a value of $101.52 per share as

[6] As a Canadian issuer, Brookfield is subject to international accounting standards (not GAAP)

of June 30th (compared to a market price of $61.85). This value includes approximately $34 billion (~20% of gross capital) ascribed to unrealized carried interest in existing funds and future carry based on target returns. Despite Brookfield's historical track record of exceeding these targets, if we take the draconian measure of valuing this carry at zero, the NAV is still over $80/share.

An investment in Brookfield today can be summarized as asymmetric, capital-light exposure to high-quality, growth-oriented real assets. At the current price, we are paying a negative stub value for the considerable carried interest in existing funds. This also doesn't consider management's targeted growth of distributable earnings of 20% annually through 2027.[7] Should management achieve this target, and the shares fail to re-rate (despite an ongoing repurchase program), the price should track this growth, at a minimum.

It should not be surprising that Brookfield is not included in any major U.S. indexes, if only because it is a Canadian company. The quality and breadth of its various real asset business lines, accessed via capital-light fees and carry, is superior to any number of "diversified" financialized real asset indexes.

*Commodities**

Physical commodities have become increasingly financialized, with explosive growth in commodities futures and options in recent years. CME Group and Intercontinental Exchange—the largest global commodity exchanges by volume—trade an average daily volume ("ADV") of 5.6 million and 5.8 million per day in their energy, metals, and agricultural business lines. However, unlike equity markets that can remain unanchored from fundamental value indetermination amounts of time, commodities are ultimately reconciled by physical users.

For example, commodity trading advisors and other speculative market participants can temporarily distort physical (spot) trading markets via futures and options (paper markets). However, there must be end users willing to take delivery of oil, natural gas, copper, iron etc. at the prevailing prices. To the extent that supply/demand dynamics are not reflected in the paper markets, the supply chains will adjust to correct these imbalances. This is not to suggest that commodities cannot be severely detached from fundamentals for extended periods of time, but rather that there is an eventual physical market reconciliation.

Generally, these markets are highly efficient, and distortions relative to fundamentals are rapidly exploited by highly specialized trading firms (Glencore, Trafigura, Vitol, Mercuria, et al). Gold

[7] Source: Brookfield Corporate Profile 2023

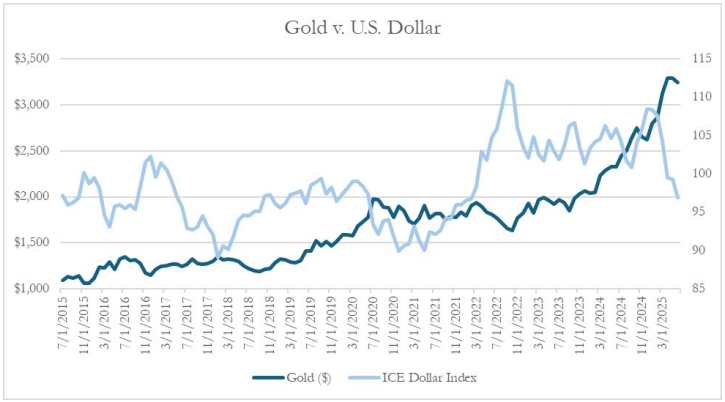
and Bitcoin are distinct from other commodities[8] because their demand is mostly driven by investment purposes (remaining in circulation versus being consumed), while the marginal supply (mining, in both instances) is a small fraction of the supply already in-circulation. This results in these assets having higher sensitivity to "paper" markets and macroeconomic factors such as the U.S. dollar, real bond yields, and inflation break-evens.

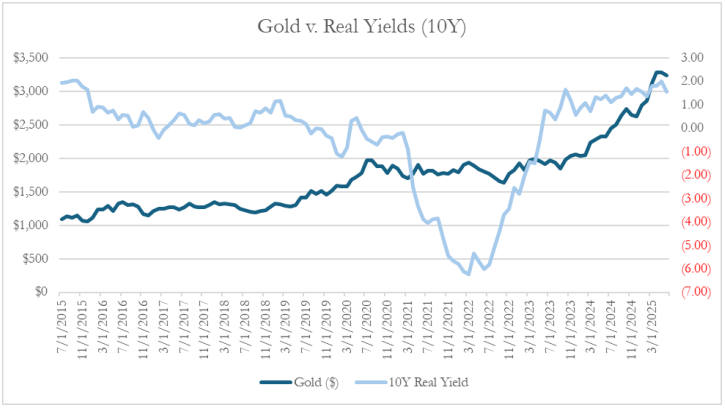
Admittedly, this may sound like hyper-financialization. According to the World Gold Council, gold traded an average daily volume of $232 billion in 2024. This included $128 billion in physical/OTC markets (namely London Bullion Market Association). Similarly, data from Glassnode indicates that Bitcoin traded $57 billion of ADV, on the blockchain (physical market). These figures exclude the various exchange-traded options, futures and other financial derivatives that are related to gold and Bitcoin prices.

This period included approximately $50 billion in total creation/redemption activity for Bitcoin Exchange Traded Products. These funds hold physical Bitcoin, the majority of which is executed on the blockchain (as opposed to secondary market), however the entire year equates to less than 1 day of blockchain ADV. For reference, NVIDIA is the largest company in the world by market capitalization ($3.85 trillion, as of June 30th) and trades approximately $30 billion of stock per day. Clearly, gold and Bitcoin are immensely liquid assets that would lend themselves to financialization.

[8] The asterisk in the commodity section header is a reference to the ambiguity of crypto as an asset class. We present gold/bitcoin as "real asset commodities" for comparative purposes only.

Historically, gold and—to a lesser extent—Bitcoin have traded with a tight relationship to the ICE U.S. Dollar Index and the 10-year real bond yields. This is logical because gold and Bitcoin do not have a yield. They are commonly used to express views on the U.S. dollar and inflation expectations. Paper traders could rely on the inverse relationship between the dollar/real yields and gold to trade "ranges." However, this relationship began to break down in late 2022/early 2023 when gold and bitcoin surged despite a strong dollar and high/rising real yields.

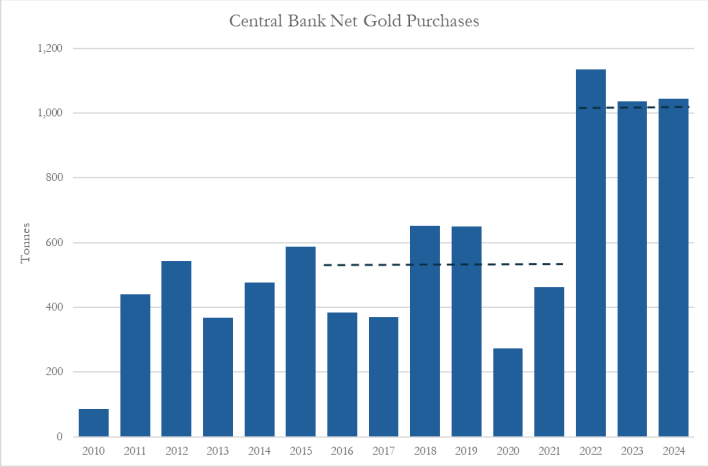




Source: FactSet

There is an old trading adage to "listen when markets speak." This can be interpreted in many ways, but we take the objective approach of seeking a lucid explanation when long-held market relationships change. In this case, there is a clear catalyst: the physical market.

According to the World Gold Council, global central banks averaged net purchases of approximately 120 tons per quarter in the five years preceding the second half of 2022, when net purchases rose to approximately 420 tons (+250%). This trend has been sustained, with quarterly net central bank purchases of approximately 283 tons per quarter over the previous three years. This is unprecedented in terms of volume (tons) but particularly so in value terms, considering the rising gold price.



Source: World Gold Council

Similarly, while the surge of bitcoin ETF assets ($129 billion, as of June 30th) has garnered most the media coverage, these outlets seldom recognize the growing impact of direct market participants. Investment products that hold bitcoin must transact in physical markets. However, the total net flows into these products amounts to only approximately 1.6 days of physical market volume. This suggests that while the nascent investment funds (and treasury companies) may influence the price of Bitcoin at the margin, they are far from a dominant factor.

Bitcoin is unlike any other commodity or currency, and must be analyzed accordingly. It is transferable and transparent, running on a native blockchain that is a payment and record system. It can be sent peer-to-peer, and coins seemingly out of circulation can be brought to a platform for trading within minutes. The 24/7 nature of the network means that, typically, it is the first asset class to respond to off-hours news. This helps explain how an asset viewed as a global store of value can trade down during periods of geopolitical stress. It is available for trading at a moment's notice when other risk assets are off the clock.

Financialization for Bitcoin has been represented by the proliferation of Bitcoin ETFs and Bitcoin Treasury Companies, which together hold nearly 12% of all the bitcoin that will ever exist.[9] And while the market ascribed values of Bitcoin Treasury Companies deviate from their book values, the actual price of Bitcoin is determined in the spot markets.

Each purchase of these vehicles is ultimately settled in the spot market (on exchange or through the blockchain), where demand of the marginal buyer is weighed against the mining economics and the predictable, limited supply issuance. In recent months, this demand has far outpaced the issuance rate, providing rational reasoning for the price appreciation. Similar to other commodities, and in opposition to those who see this merely as a speculative asset, it is grounded in real supply and demand economics over the long term.

Gold and Bitcoin may be widely viewed as speculative vehicles, but further analysis suggests that these markets are in fact being largely driven by physical (fundamental) purchasers. Conversely,

[9] BitcoinTreasuries.net, Horizon Kinetics calculations

real estate is commonly referenced as a stable, cash-flowing asset that is primarily driven by sophisticated financial investors, but hyper-financialized public markets indicate otherwise. Investors can draw their own conclusions regarding the portfolio utility of holding these respective asset classes.

Real Assets: Secular Growth

In financialized real-asset markets, investors are generally satisfied earning a requisite cash flow yield that has an organic growth profile consistent with or above inflation. There is an obvious appeal to earning a yield with inflation-linked growth, particularly if our nominal growth (fire) forecasts are correct. However, due to the macroeconomic environment of the past decade, coupled with financialization of these assets, they are currently broadly priced such that the return profile is compressed. Our solution to this predicament is to seek secular growth within broader real asset markets unappreciated by the market.

Water Infrastructure

Throughout its history, the Inflation Beneficiaries Fund has maintained a consistent energy sector exposure that has focused on oil and gas royalty businesses. These companies have been able to grow production in excess of U.S./global supply growth, while controlling margins throughout the volatility of the commodity prices.

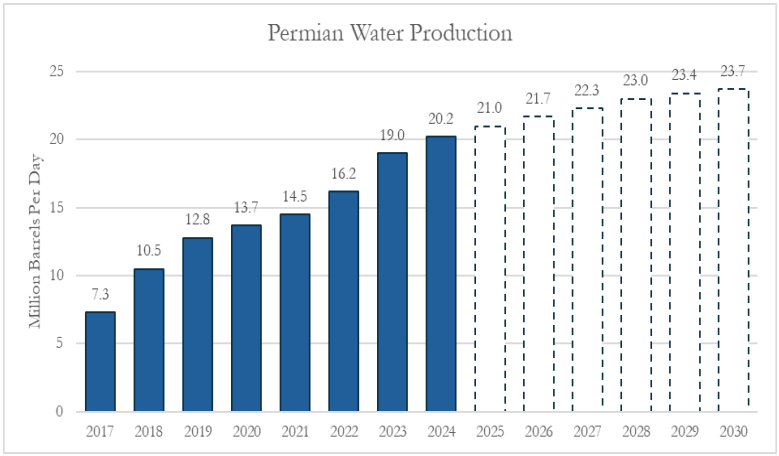
These investments remain very well-positioned to participate in the next commodity price cycle; in the interim, they earn robust cash flow yields. Ultimately, the long-term return of these companies has a sensitivity to oil and gas prices—a dynamic we embrace. However, there is a sub-sector of "energy adjacent" companies that have secular growth and minimal exposure to oil and gas prices: water infrastructure.

The extraction of oil and gas produces water as a byproduct. This "produced water" is mixed in with the hydrocarbons, and must ultimately be separated and remediated. Conventional oil and gas wells can re-inject this water back into the well bore, which helps maintain pressure and enhance ultimate oil recovery. However, the amount of water produced from unconventional wells (fracking) is magnitudes higher compared to conventional wells; critically, it cannot be reinjected into the well. As a result, it must be separated, transported, and either injected into disposal wells, or treated for reuse.

Produced water is the most prominent in the Permian Basin, which is also the largest oil producing region in the U.S., accounting for nearly 50% of oil production in 2024. However, in addition to being the largest oil-producing region, the Permian also has the highest ratio of water related to oil and gas production. The "water cut," or water-to-oil ratio in the Permian currently runs in the range

of two to four barrels of water for every barrel of oil equivalent produced. It follows that the Permian Basin requires infrastructure to handle 2-4x the amount of water compared to oil and gas. This currently equates to over 21 million barrels per day.[10]

At the outset of the shale drilling boom, over a decade ago now, drillers simply injected produced water into rock formations below the oil-bearing shale rock (deep injection). This was the most logical choice because there was minimal risk of interfering with hydrocarbon formations. However, this resulted in increasing subsurface pressure, and ultimately seismic activity in and around the regions with high levels of deep-water injection.



Source: B3 Insights, HK Research

As a result, drillers shifted to shallow injection in rock and sand formations above the hydrocarbon shales. The complication with shallow injection is that it sits above the hydrocarbon formations, necessitating drilling thorough a water reservoir to access the oil. Furthermore, gravity and pressure can force water into oily shales, impeding production. The owners of the oil reserves are understandably opposed to water injection above their reserves. Nonetheless, as of the most recent data, approximately 75% of water-injection wells are shallow, and this has resulted in marked improvements in seismicity.

The shallow wells quickly revealed additional unintended consequences, both in the form of surface disturbances (e.g. sinkholes) and interference with abandoned, capped wells posing an environment hazard. More recently, there have been disputes regarding whether shallow disposal wells have penetrated oil formations, thus inhibiting the extraction of the reserves. To the extent that injection water compromises oil reserves, the well operator can be liable for damages and/or ordered to cease operation.

The issues related to both deep and shallow water disposal are a primarily a product of pressure, which can only be managed by less water being injected, at a slower rate. The porosity of the rock, or "pore space," ultimately determines how quickly sub-surface pressure builds, hence how much water can be injected on a daily basis without disturbances.

[10] B3 Insight

Despite the vast footprint of the Permian Basin, the water injection pore space is reaching it pressurization limits, particularly the areas in closest proximity to high drilling density. This has prompted increased regulatory scrutiny of new disposal wells (in both Texas and New Mexico) with large shortfalls of disposal capacity emerging as soon as 2026.

Thus arises the complexity of managing pore space and its attendant surface land access, in addition to thousands of miles of gathering, processing, and disposal pipelines/wells. Water has shifted from being a minor nuisance and cost for unconventional oil producers, to rapidly becoming the largest portion of lease operating expense—and possibly a limiting factor in achieving oil production targets (not only for individual operators, but for the U.S. as a whole).

Water has historically been managed internally by oil and gas producers, and mentioned only in passing on earnings calls as part of operating expenses (if at all). The development of independent oilfield water management (infrastructure) is both nascent and niche. It is not uncommon that even energy industry analysts have only a cursory understanding of the business.

As such, the limited universe of public companies with exposure to water infrastructure are commonly dismissed as capital-intensive and cyclical. Accordingly, they command multiples consistent with oilfield service companies (at worst) and midstream gathering and processing companies (at best). This misunderstanding is the root of opportunity for the discerning investor.

It is imperative to comprehend the lifecycle of oilfield water, and how it relates to oil and gas production. Principally, produced water is generated for the entire life of the well, which spans decades. Even as shale wells experience a notoriously high decline rate of oil produced in the first several years of production, the water cuts increase as the wells age.

Furthermore, as shale fields mature and producers target deeper shale formations, these too have higher water cuts. This combination of growing water as wells age—and "wetter" shale zones being exploited—results in stable, growing, multi-decade water management requirements, even in the absence of total oil and gas production growth.

This means recurring, long-term contracted water volumes, often with inflation-indexed pricing escalators, largely insulated from oil and gas prices. Furthermore, total volumes are growing while capacity is unable to respond due to pore space limitations. This will drive market share and pricing power further to third-party infrastructure providers that hold much of the dormant capacity today. Future capacity additions are likely to include "out of basin" options that aren't subject to the same pore space and operator hurdles, but this will come at a cost.

The profile of water management cash flows resembles those generated by traditional infrastructure assets and waste management companies, but with arguably superior returns on invested capital, growth, and pricing dynamics. However, the lack of familiarity and appreciation of these businesses results in marked discounts for the water infrastructure companies.

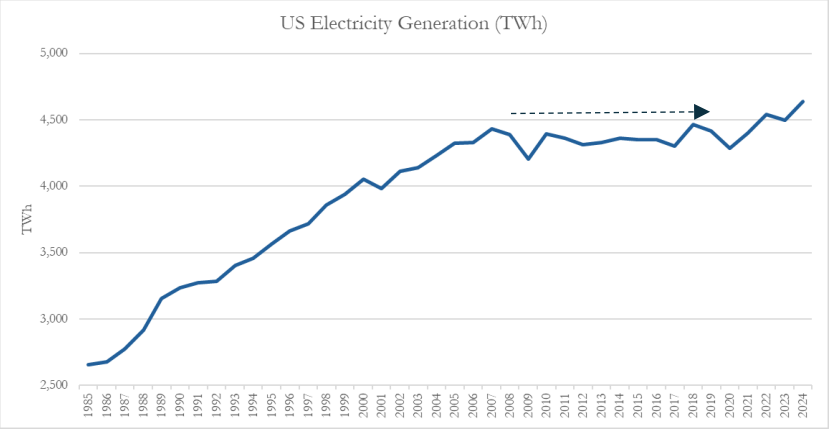
Aris Water Solutions traded at less than 8x our estimate of 2025 EBITDA, despite having grown EBITDA at a five-year compound annual rate of 43% through 2024. Comparable waste management and global-listed infrastructure companies regularly trade at 16x–20x and require enormous amounts of capital investment to sustain growth.

This valuation discount did not appear to be sustainable, and it wasn't. Western Midstream Partners (a $20 billion Permian pipeline company) agreed to purchase Aris for a ~25% premium in the first week of August. The Western merger presentation[iii] highlights "volumetric visibility," "revenue stability," and "quality long-term contracts" underpinning the transaction.

Aris shareholders have the option of receiving Western shares as consideration for the merger. Water will contribute approximately 16% of pro forma revenue, with natural gas comprising the majority of the balance. Fundamentals of the gas pipeline business aside, the water business has become heavily diluted (pun intended) in the combined entity.

A benefit of drafting this "halftime" letter later than usual this year—attributable to an unusually productive summer schedule—is that we can refence the registration statement for WaterBridge,[iv] filed several weeks after the Aris/Western merger announcement. The market presence of WaterBridge, and its symbiotic relationship with LandBridge, may help explain the rationale for Aris to seek a business combination as opposed to competing directly with WaterBridge.

LandBridge and WaterBridge are both portfolio companies of Five Point Infrastructure, an early mover in developing third-party water infrastructure assets over a decade ago. As such, the company has built a dominant water (and land) market position spanning the Permian Basin.



Source: Energy Institute

The emergence of WaterBridge as an independent water infrastructure company will

replace Aris (post-merger closing) as the only pure play public water management company. It will join LandBridge and Texas Pacific Land Corporation in public markets, which operate distinct capital-light water businesses within broader land management operations. Suffice it to say, we are very constructive on the water infrastructure industry and are confident that markets will appreciate the business quality in due course.

Power Infrastructure

U.S. electric power consumption has not experienced secular growth in recent history—or any growth, for that matter. In fact, total U.S. power consumption declined between 2010 and 2020 despite nominal GDP growth of over 44%. Even adjusting for the pandemic disruptions, using 2019 figures, the total growth for the nine-year period was 2.65%, or 0.3% per annum.

This all changed with the introduction of ChatGPT and the commencement of the artificial intelligence (AI) development cycle. Hyperscale data centers used to train advanced AI models can exceed 1 gigawatt of power usage, and industry enthusiasts forecast some will eventually require over 5 gigawatts of power. To put this into perspective, New York City currently consumes between 5-6 GW of power.

Grid Strategies estimates that U.S. power demand will grow by nearly 16% by 2029, with certain grids—such as ERCOT in Texas—experiencing demand growth of over 50%.[11] This is well-recognized by the market, as evidenced by the >500% three-year total return for a basket of the largest U.S. independent power producer (IPPs).[12]

IPPs are non-utility generation companies that sell power on a merchant basis when regulated utilities or direct customers require additional load. It was not uncommon for these companies for run their plants for only several days per year during peak demand loads, on which they can command prices sufficient to cover all idle plant time. Now that there appears to be stable, long-term demand for this excess power, the IPPs are forecasted to provide much of the incremental power to the nascent AI build out.

IPPs serve as an insurance policy to the regulated utilities, as they have excess power available for purchase at a moment's notice in the event that grid reserve margins are breached. If this power is being committed to data centers and other industrial users, though, it will not be available for the broader grid.

[11] Grid Strategies: https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf
[12] Vistra, Constellation and NRG. (Talen was restricted and not public 3-years ago)

Regulators have yet to determine a framework to facilitate grid reliability while still powering data centers, and many communities have already contested various co-location agreements. In any event, the market believes that there will be a power shortage by 2028, and has priced IPPs accordingly. The pricing of these stocks is now "how large is the deficit," as opposed to "will there be a deficit."

Regulated utilities (as opposed to IPPs) are granted monopolies to operate local power grids, which include regulated rates and returns on equity. These rates are generally related to a return on investment for capital required to meet grid reliability and demand growth. It has become a fairly predictable process that lends itself to large amounts of leverage, with the net cash flows (after reinvestment) of most utilities being paid to shareholders. Not unlike the earlier real estate section, regulated utilities are hyper-financialized and generally equity proxies for interest rates and growth.

There are rare exceptions, though, when a regulated utility has an exogenous event that decouples the stock from the hyper-financialized market. These are generally adverse events, which are regrettably becoming far too common with devastating wildfires in California as an example. The oversight of regulated utilities includes federal agencies such as FERC.

However, the operations, rate schedules, and liabilities are primarily managed at the state level. California has taken an adversarial stance to utilities, holding them liable for damage associated with fires caused by faulty power transmission equipment. This is an ambiguous definition that fails to consider extreme weather conditions and increasingly arid regions (once lush) traversed by the transmission equipment.

An Un-Broken Utility – Hawaii Electric Industries

Hawaii stands in juxtaposition to California with a coordinated response to the 2023 Maui wildfires. Hawaii Electric Industries (HEI) operates the regulated utility that provides most of the state's power. The company operated the transmission lines in Lahaina that were ultimately found to be the source of the fires. HEI agreed to culpability even though responding firefighters left the scene without securing the surrounding brush that was ultimately identified as the source of the conflagration. The acceptance of liability (as opposed to a protracted litigation) expedited getting relief to fire victims, while also cultivating a strong relationship with the local government to restore the business over time.

HEI will pay approximately $2 billion (which is in addition to another $2 billion provided by the state) across four annual payments. The company has already funded the first payment with a successful equity capital raise in 2024, and will likely fund the balance through a combination of cash flow, equity, and debt. HEI also sold a majority (90.1%) of its interest in American Savings

Bank (ASB) for approximately $405 million late last year. Thus, the company has ample liquidity for the foreseeable future and can assess the best strategic options for meeting the future settlement obligations.

The company suspended its dividend to preserve capital following the fires, resulting in the prompt sale of shares by hyper-financialized utility investors, who are increasingly passive. As a result, the shares finished the quarter approximately 75% lower than pre-fire levels. The market is clearly pricing in a permanent impairment in earnings power, and/or a further material dilution of the existing equity holders. While there is likely to be some additional dilution, there seems to be a path to restoring much or all of the legacy utility earnings power.

HEI has a regulated return on equity of 9.5%, although it earned less than 8% even after accounting for non-recoverable expenses. The forward analysis involves the following assessment questions:

1.) What is the likelihood that a major loss event can recur and at what liability to the company?
2.) What are the remaining liabilities related to the wildfires (not part of the settlement)?
3.) What are the future investment requirements (assumed ROE)?
4.) What is the dilution over the next four years?
5.) What is the ~2029 earnings power of the company?

It is impossible to forecast catastrophic events, although reinsurance companies have created an enormous industry attempting quantify such risks. However, an objective review of what contributed to the Maui fires reveals a highly idiosyncratic series of events. As previously mentioned, the downed utility wires were initially addressed by local fire officials. However, this region was particularly arid, both seasonally and due to crop switching over time. Thus, the location was not ideal for power lines, nor was the pole and monitoring equipment up to modern standards (more on this later).

There were also unusually strong katabatic winds off the hillside above Lahaina that were amplified by a high-pressure atmospheric system, resulting in gusts up to 90 mph absent a storm. Finally, Lahaina, the epicenter of the damage, can trace its history as a fishing/whaling hub back to the early 1800s. As such, the dwellings were constructed in extremely close proximity, with older materials (devoid of modern fire safety systems).

Critically, the state has actively engaged with HEI to develop a framework to ensure reliable, safe electric power for the population. This includes recent Hawaii legislation such as Act 258 (capping future utility liabilities), Act 301 (establish a state wildfire recovery fund) and Act 191 (protect clean energy procurement). These developments illustrate state support to facilitate a constructive operating environment for HEI.

The company received a critical order from the Hawaiian Supreme Court in February of this year that effectively limited the scope of insurers subrogation claims, which leaves Second Circuit Court approval as the final hurdle to finalizing the settlement. Upon final approval of Second Circuit Court, the prior claims can be considered fully litigated, and the payment process will begin. This will be critical in establishing a timeline for restructuring the company—and putting it on a path for sustainable operations.

Looking forward, the company has already identified nearly $400 million of capital investment primarily targeted at hardening and modernizing the grid. This will include replacing or updating wood poles, replacing fuses, upgrading conductors, and adding weather stations and grid monitoring equipment.

Furthermore, despite the abundance of wind and sun in Hawaii, it has one of the most carbon-intensive fuel mixes due to a lack of infrastructure to source natural gas. HEI maintains its commitment to optimizing the fuel/renewable mix in conjunction with updating and hardening the grid. These measures should all be viewed very favorably by regulators if and when the company proposes a new rate case to fund this development.

Excluding ASB and other subsidiaries, HEI generated $578 million of EBITDA in 2022, the last calendar year unaffected by the fires. This corresponded to an 8.2% average return on equity and generated over $500mm of pre-tax cash flow (net of interest expense). This can be used as a baseline for evaluating the cash flow generation of the company, along with its ability to reinvest in the grid and manage the remaining settlement claims.

As previously mentioned, the company has approximately a $2 billion settlement liability, with and initial payment of $479 already funded and placed in a settlement subsidiary, leaving a balance of approximately $1.44 billion. This will be paid in equal installments over the next three years, beginning with the resolution of the second circuit court, and delivery of the first payment. If this transpires in early 2026 as expected, the payments will be due in January 2027, 2028, and 2029.

HEI will require additional capital to settle these claims. However, it appears the market underappreciates the potential to partially fund a portion of these claims from internal cash flow generation. Based on a variety of cash flow and debt/equity issuance scenarios, we can envision most of the earnings power being reestablished by 2028/2029.

To the extent that the market places a regulated utility multiple on the earnings, there is highly asymmetric upside from current levels. The dividend reinstatement will be a decisive development in reestablishing the company as a stable, rate-based utility investment (with obvious index inclusion implications).

Outlook & Conclusion

The prioritization of high nominal growth to address the structural growth of government debts and interest obligations is becoming abundantly clear. The pace of this process is accelerating but remains gradual. The timing of the broader recognition of this reality is uncertain, but once it becomes consensus, it will possibly be too late to shift meaningful capital appropriately. In the interim, many investors remain allocated to conventional "growth" and "value" equity indexes, oblivious to the profound changes happening.

Real assets have yet to adjust, although gold and Bitcoin appear to be early in recognizing a structural change. Despite our conviction in our theses on certain water and power infrastructure assets, these too will be gradual processes. The lack of immediate recognition of the "catalyst" or market realization of value is what creates the discounted prices for us today.

If we are directionally correct in these theses, there will not be sufficient supply of these types of high-quality real asset businesses when the consensus arrives. We, along with many of the other dedicated long-term shareholders of these companies, do not expect to be willing sellers when that happens.

High quality (capital-light) real asset businesses priced at low or reasonable valuations are sound investments in nearly all environments. The propensity to own these businesses waxes and wanes with the broader market. During periods of robust equity market growth—particularly when driven by the more speculative facets of the market—investors may lose interest in the stable, compounding nature of these companies. However, in market dislocations, these businesses should decouple from the markets and the once-boring stability becomes a defining feature.

Our fund is positioned for the long-term, in businesses that we believe can prosper in a multitude of environments—fire, ice, or both—over the next decade or decades. It happens that our views of the world (fire) and the broader market are particularly supportive of these positions today. As ever, we always endeavor to find even better positions than the ones we own today. The fact that it is hard to find many proves the enduring value of capital-light, real-asset business models.

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[i] FOMC - July Meeting Minutes: https://www.federalreserve.gov/monetarypolicy/fomcminutes20250730.htm
[ii] Brookfield Second Quarter Supplement: https://bn.brookfield.com/sites/brookfield-bn-v2/files/brookfield-bn/reports-filings/quarterly-reports/q2-2025-bn-supplemental-f.pdf
[iii] Western-Aris Merger Press Release: https://investors.westernmidstream.com/2025-08-06-WESTERN-MIDSTREAM-TO-ACQUIRE-ARIS-WATER-SOLUTIONS
[iv] WaterBridge Registration Statement: https://www.sec.gov/Archives/edgar/data/2064947/000095017025111048/wbi-20250822.htm

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Definitions:

CPI: Refers to the Consumer Price Index (CPI), a measure of the average change over time in the process paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographical areas.
PCE: Refers to the Personal Consumption Expenditures Price Index. A measure of the prices that people living in the United States, or those buying on their behalf, pay for goods and services. The PCE price index is known for capturing inflation (or deflation) across a wide range of consumer expenses and reflecting changes in consumer behavior.
PPI: Refers to the Producer Price Index. A measure of the average change over time in the selling prices received by domestic producers for their output.
The S&P 500 Index represents a stock market index that measures the performance of 500 widely held stocks in US equity market.

The MSCI ACWI captures large and mid-cap representation across Developed Markets (DM) and Emerging Markets (EM) countries. The index covers approximately 85% of the global investable equity opportunity set.
The U.S. Dollar Index is a geometrically-averaged calculation of six currencies weighted against the U.S. dollar.

Risks:
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