

Alternative opportunities

2024 Outlook and methodology | USD

Invesco Solutions

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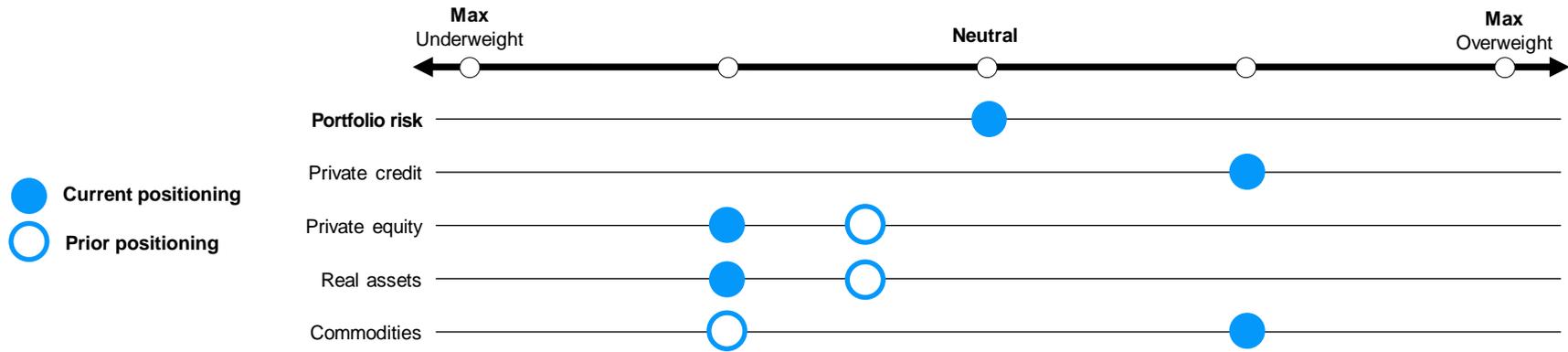
2024 Alternative opportunities: Alternatives outlook

Executive summary



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions

- Private credit:** The current environment is extremely conducive to executing conservatively structured transactions. Leverage levels on new transactions across the market have declined, while Loan-to Value (LTV) metrics have meaningfully improved. Given the improved structures, current transactions are being completed with significant equity in a first-loss position. We are anticipating an improved opportunity set with distressed and special situations debt as the \$6 trillion market across leveraged credit is quite sizable on an absolute basis. Commercial real estate debt is anticipated to remain highly attractive, especially for those with favorable sources of financing.
- Private equity:** We have seen a heightened focus on growth equity strategies, illustrated growth equity representing roughly one out of every five deals during the quarter. Growth equity deal count is on pace to potentially exceed total LBO volume if you exclude add-on transactions. This highlights the continued theme reflecting a more favorable opportunity set for companies that can rely on organic growth to drive return relative to those that require the use of leverage which comes at a high cost in the current environment.
- Real assets:** Capital markets are disrupted as yields and cap rates are increasing in reaction to elevated interest rates. While asset values continue to reprice, banks are focused on existing loan books and so offer limited new liquidity, thereby impacting the volume of real estate transactions in all key markets. Within infrastructure, while historical the level of dry powder remains elevated, and valuations, similar to those in real estate, have not backed up with base rates, near term fundamentals are strong and secular tailwinds supportive. Commodity prices remain volatile and rangebound across most sub-complexes and while our secular trend assessment is currently net attractive, we caution it is subject to sudden change.



2024 Alternative opportunities: Insurance outlook

Executive summary



Pete Miller, CFA, FSA

Head of Insurance Solutions

- **Private credit:** As previously mentioned, the current environment is extremely conducive to executing conservatively structured transactions. This aligns well with most insurers' philosophy of strong risk management on both sides of the balance sheet. Our anticipation of an improved opportunity set with distressed and special situations debt means insurers may see more opportunities for equity-like returns in their private credit bucket, which enhances capital-efficiency. Commercial real estate debt is anticipated to remain highly attractive in both economic and capital-adjusted terms as well.
- **Private equity:** Broadly speaking, we encourage insurance clients to be selective in their private equity allocations in the current environment. Strategies that rely heavily on leverage may struggle to deliver strong risk-adjusted returns in the current interest rate environment. We believe other areas such as private credit and real assets offer insurers a more compelling opportunity to source equity-like returns with stronger downside protection embedded with more attractive returns per unit of risk-based capital.
- **Real assets:** While insurers' recent hesitation to invest in real estate equity exposure is understandable, we believe we are approaching a point in the economic cycle where this will shift, particularly for U.S. life insurers with longer time horizons and lower risk-based capital requirements. Infrastructure will likely continue to be attractive for insurers outside the U.S. who are looking for higher returns in a relatively capital-efficient asset class that also diversifies from their predominant asset risk exposures.

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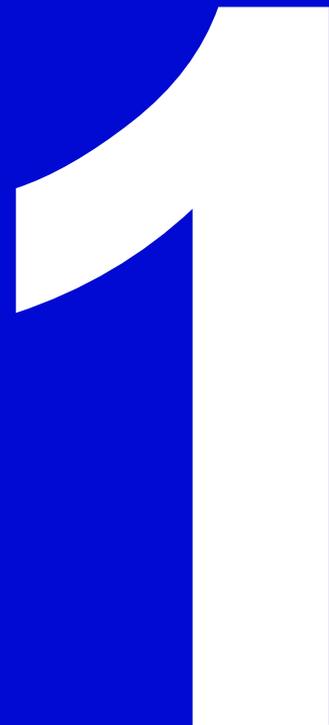
1 **Private credit**
Direct lending & real asset debt

2 **Private equity**
Large buyout

3 **Real assets**
Real estate and infrastructure

4 **Commodities**
Metals, energy, and agriculture

Private credit



2024 Alternative opportunities: Private credit



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions



Ron Kantowitz
Head of Direct Lending
Invesco Private Debt



Charlie Rose
Managing Director
Invesco Real Estate Debt

Presently overweight direct lending due to attractive valuations and terms on new vintages

Asset class	Overall	Valuations	Fundamentals	Secular trend
Direct lending	Overweight	Attractive	Neutral	Attractive
Real asset debt	Overweight	Attractive	Neutral	Attractive
Distressed / special situations	Overweight	Attractive	Attractive	Attractive

From a yield /return potential perspective, direct lending remains quite attractive. The benchmark for the floating rate asset class, Secured Overnight Financing Rate (SOFR) has risen by approximately 500 bps relative to the beginning of 2022. Meanwhile, moderately wider credit spreads and original issue discounts (OID) have also added to the overall yield opportunity. As a result, we are continuing to observe opportunities priced in the 12%+ context. While we believe macro conditions are likely to remain challenged in the near-to-medium term, it is important to recognize that these are the market conditions where alpha can be generated. The current environment is extremely conducive to executing conservatively structured transactions. Leverage levels on new transactions across the market have declined, while Loan-to Value (LTV) metrics have meaningfully improved.

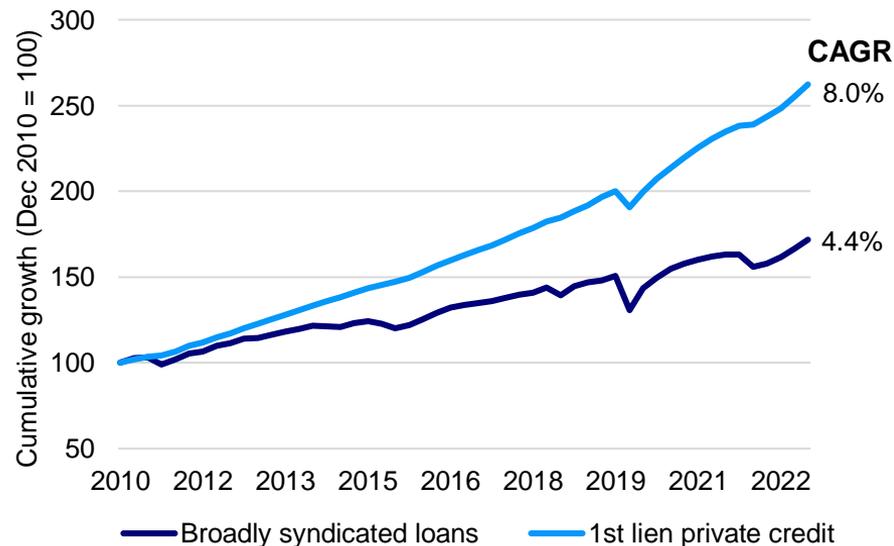
We are anticipating an improved opportunity set with distressed and special situations debt. The now roughly \$6 trillion market across leveraged credit is quite sizable on an absolute basis, such that even assuming default rates of 5% (approximately half of what occurred during the GFC) would result in a materially larger distressed opportunity than any prior cycle. Further, almost half of the senior loans and high yield bonds maturing over the next 36 months are split B-rated and below, potentially also increasing the number of company issuers experiencing distress and/or downgrades in a challenged economic environment.

Within commercial real estate debt, we anticipate the risk-adjusted return profile of CRE bridge lending will remain highly attractive, especially for those with favorable sources of financing that allow alternative lenders to generate returns in the low-to-mid teens, percentage range. There remains opportunities in certain sectors like multifamily and industrial driving the largest portion of new loans, despite terms not being as favorable as they were 12-18 months ago. In a higher-for-longer interest rate environment, loan metrics and the borrower/lender relationship is expected to continue to be put under pressure and a return to peak conditions are not expected until the dynamic between cap rates and interest rates flips from negative to positive leverage.

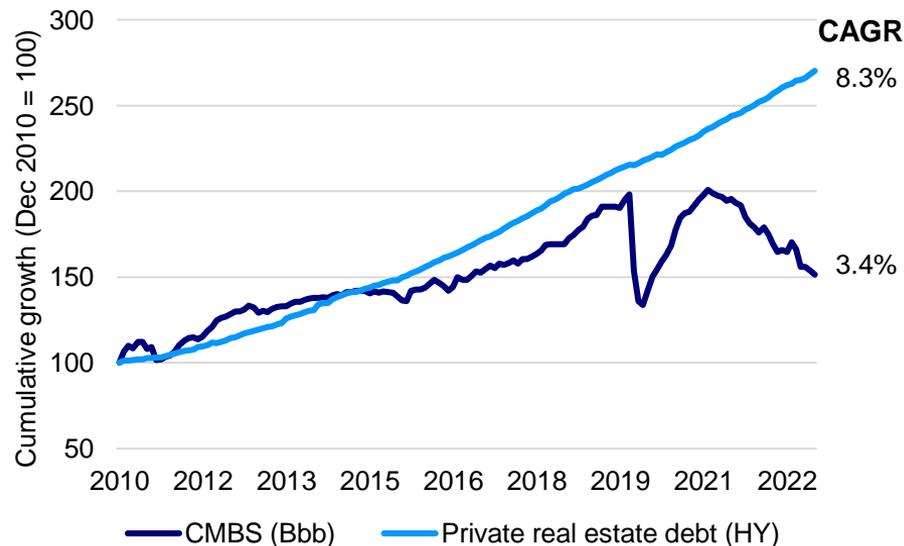
Source: Invesco Solutions, views as of Sept. 30, 2023.

Cumulative growth of private credit vs. public credit

1st lien private credit and broadly syndicated loans



Real estate debt and CMBS



Source: Investment growth of 100; 1st lien private credit represented by the Cliffwater Direct Lending Index Senior and broadly syndicated loans represented by the Credit Suisse Leveraged Loan Index quarterly from Dec. 2010 to June 2023; CMBS (BBB) represented by Bloomberg Non-Agency Investment Grade CMBS: Bbb Total Return Unhedged index and private real estate debt (HY) represented by the Gilberto-Levy High Yield Commercial Real Estate Debt Index (G-L 2), monthly from Dec. 2010 to June 2023. Private credit is net of normative fees, while loans are gross of fees. **Past performance does not guarantee future results.**

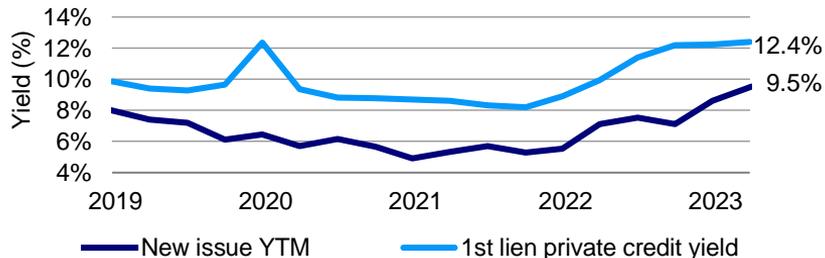
Views on private assets: Private credit

Investment type	Spread (SOFR+)	Allocation range			Comments
		Underweight	Neutral	Overweight	
Direct Lending Senior (1st Lien)	650-900 bps				<ul style="list-style-type: none"> Anchor for diversified debt private debt portfolios Favorable environment for creditors, with strong covenants and call protections Strong pipeline of opportunities with limited competition from the syndicated loan market
Direct Lending Junior (2 Lien or Mezz)	800-1200 bps				<ul style="list-style-type: none"> Borrowing that occurs behind senior / 1st lien private corporate debt Potential for opportunistic financing with attractive risk/reward Typically, junior to broadly syndicated 1st lien loan
Real Estate Debt (Whole loan / Mezz)	350-500 / 600-800 bps				<ul style="list-style-type: none"> Mortgage secured by a lien on a commercial property High single-digit, low double-digit returns available with conservative lending standards and modest LTVs Combination of limited CMBS issuance and a pullback from US regional banks is driving an improved opportunity for private capital
US Infrastructure Debt (HY)	550-850 bps				<ul style="list-style-type: none"> Current environment allows for 1st lien secured Opco loans Long-term contractual cash flows, CPI linkages, and lower defaults/higher recoveries Secular trends driving growth in digital and renewables sectors combined with limited competition from regional banks drives favorable supply demand dynamics
Alternative Credit	800-1200 bps				<ul style="list-style-type: none"> Non-traditional markets such as loans, leases and other receivables Asset-backed nature of collateral and amortization schedules enhances protection Provides diversification and relies on current income
Opportunistic Credit	1000+ bps				<ul style="list-style-type: none"> Focus on dislocations in credit markets High levels of economic and market volatility may create attractive opportunities
Venture debt (First Lien)	1000+ bps				<ul style="list-style-type: none"> Loans to well-capitalized venture-backed borrowers LTVs typically below 20% Limited access to IPO markets and increased cost of capital for venture equity drive more favorable pricing & higher creditor protections
Distressed debt / special situations	1000+ bps				<ul style="list-style-type: none"> Focus on dislocations in credit markets High levels of economic and market volatility may create attractive opportunities

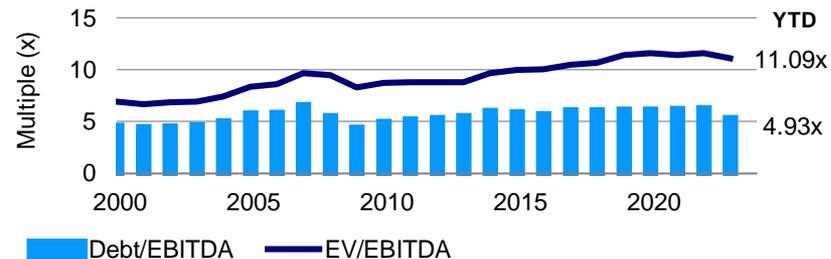
Valuations and fundamentals: 1st lien private credit – new issue YTM and leverage ratios

Spreads on offer to 1st lien lenders are attractive on an absolute, relative, and risk-adjusted basis

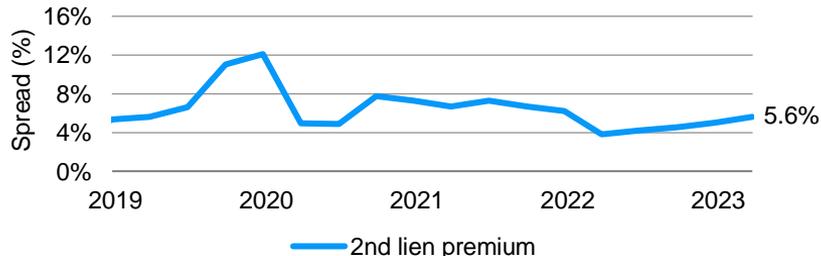
Yields on new issues



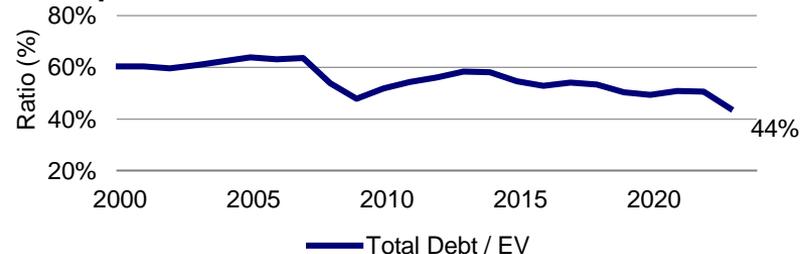
Global private credit multiples



Spreads on 2nd lien debt to public proxies



Global private credit LTV

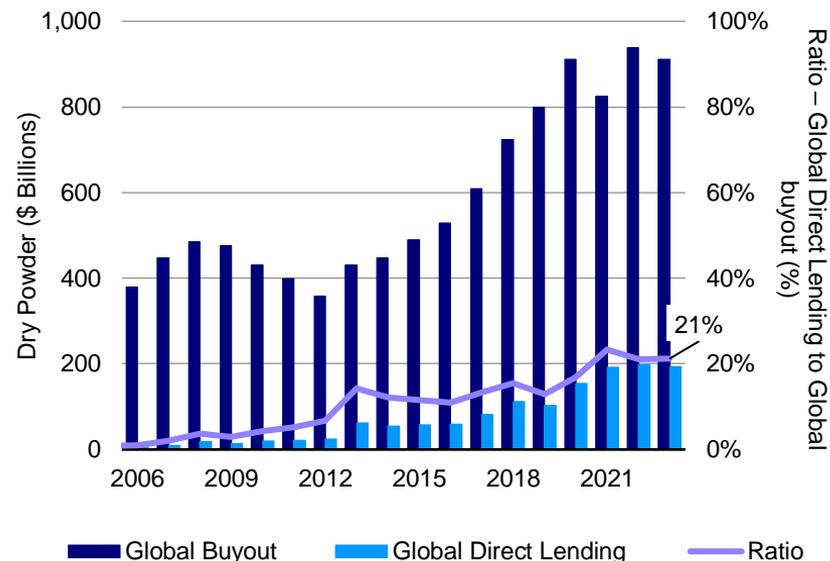


Source: Pitchbook, LCD Leveraged Loan, SEC EDGAR, JPMorgan, Bloomberg L.P., as of June 30, 2023. New issues refer to bonds issued within the quarter. 1st lien spread over LIBOR estimates are based on SEC filings by a representative sample of BDCs, and the spread is calculated by subtracting a broadly syndicated loan yield based on Spread-to-Maturity on JPM Lev Loan Index. 2nd lien spread over LIBOR estimates based on SEC filings by a representative sample of BDCs and is calculated by subtracting an HY corporate bond yield based on Option-Adjusted Spread on BBG US Corp HY Index.

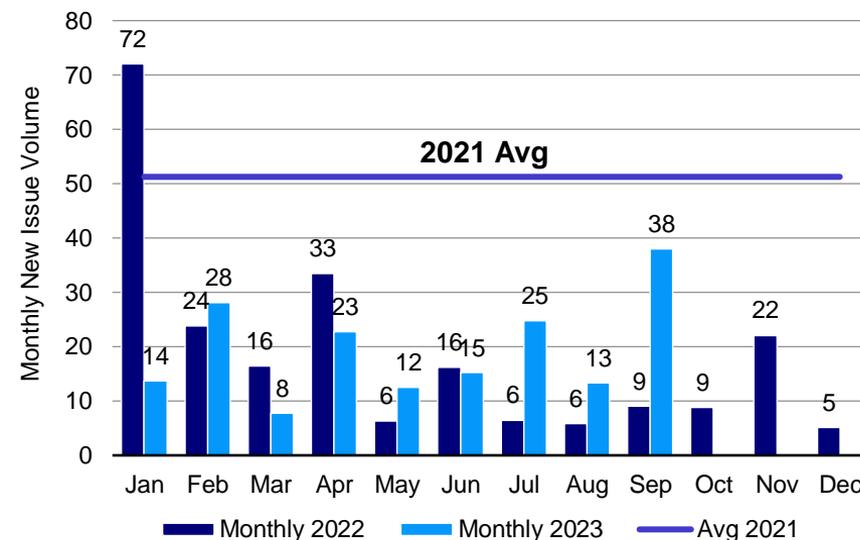
Supply demand dynamics: Direct lending and buyout dry powder and loan issuance

Supply demand dynamics support a robust environment for lenders with available dry powder

Ratio of direct lending to buyout dry powder



US new-issue broadly syndicated loan volume

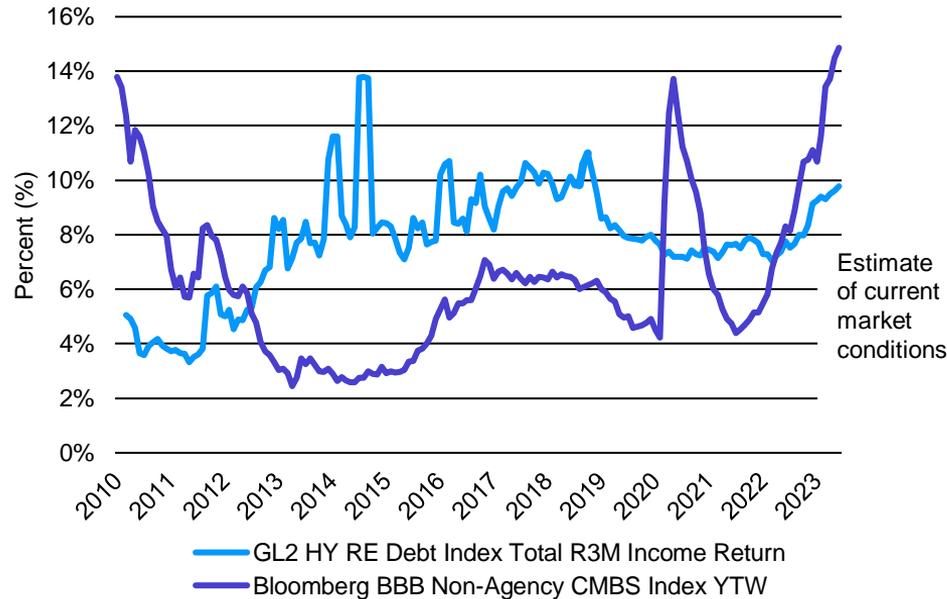


Source: Invesco Solutions, Preqin, Pitchbook LCD, data as of April 30, 2023

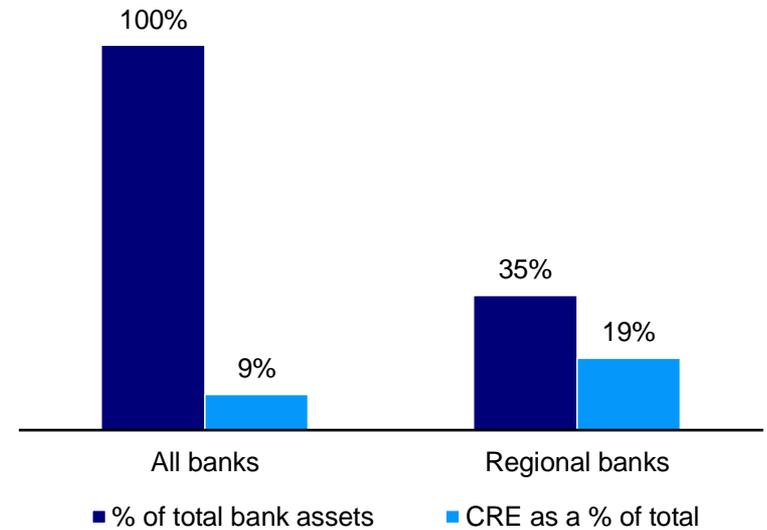
Valuations and fundamentals: Real estate credit

High absolute yields and “illiquidity premium” supported by reduced supply of loans from regional banks

Real estate credit yields compared to proxy CMBS YTW



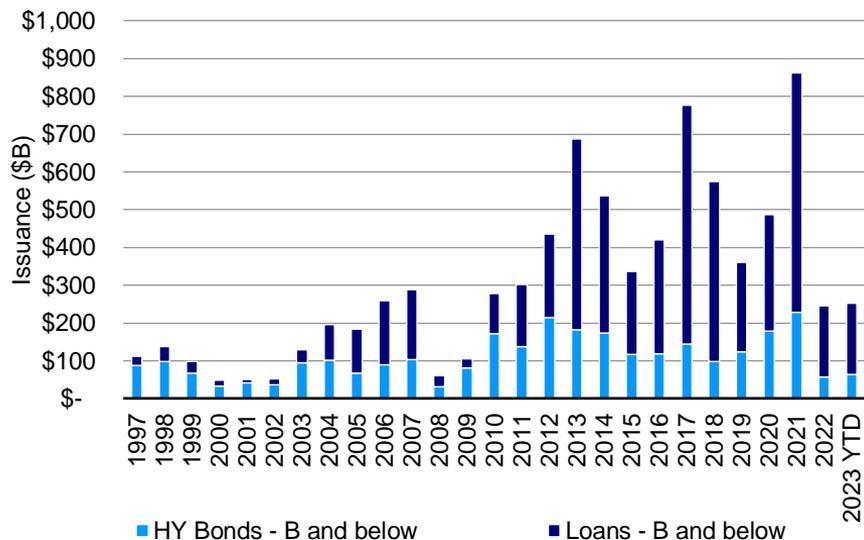
Regional banks as a percentage of CRE loans



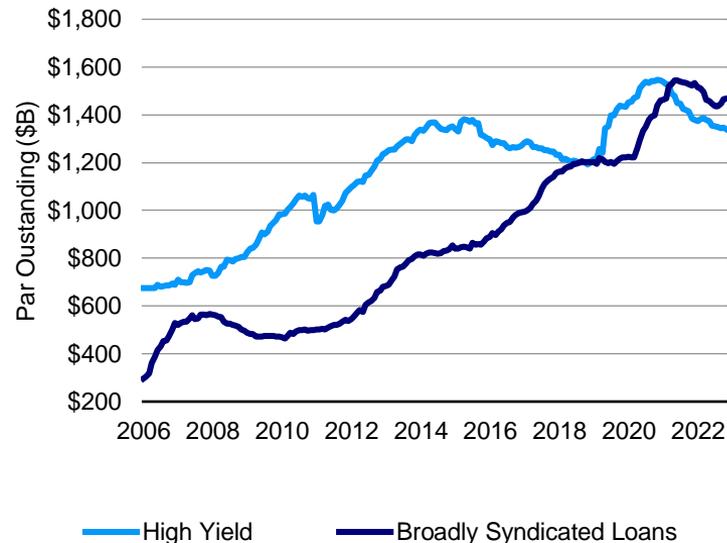
Source: Invesco Solutions; Gilberto-Levy, FDIC, Bloomberg L.P., as of June 30, 2023.

Valuations and fundamentals: Distressed

Significant issuance in the loan market rated single B and below, showcasing the opportunity set relative to history
HY and loan annual issuance



HY and loan par amount outstanding



Source: Invesco Solutions; ICE BofA, JP Morgan, as of Oct. 31, 2023.

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2024 Alternative opportunities: Large buyout



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions

Underweight PE as valuations are moderating, with pockets of opportunity in private-to-private transactions

Asset class	Overall	Valuations	Fundamentals	Secular trend
Private equity: LBO	Underweight	Unattractive	Neutral	Neutral
Growth equity	Neutral	Neutral	Neutral	Attractive

Private equity has historically provided outsized returns relative to both public equity investments as well as other private asset classes. In monitoring the current environment a few themes emerge:

Declining purchase multiples: While we continue to see evidence that transaction multiples continued to moderate, with material declines in EV/Revenue multiples and more moderate declines in EV/EBITDA multiples, the declines have been more than offset by increasing interest costs.

Improving financing environment: The broadly syndicated loan market has continued to recover at the same time as terms available from private lenders have eased slightly, albeit for deals being financed at near record low leverage levels which reflect historically conservative lending standards. The impact of slightly tighter spreads is still modest relative to the rapid rise in base rates seen over the past two years.

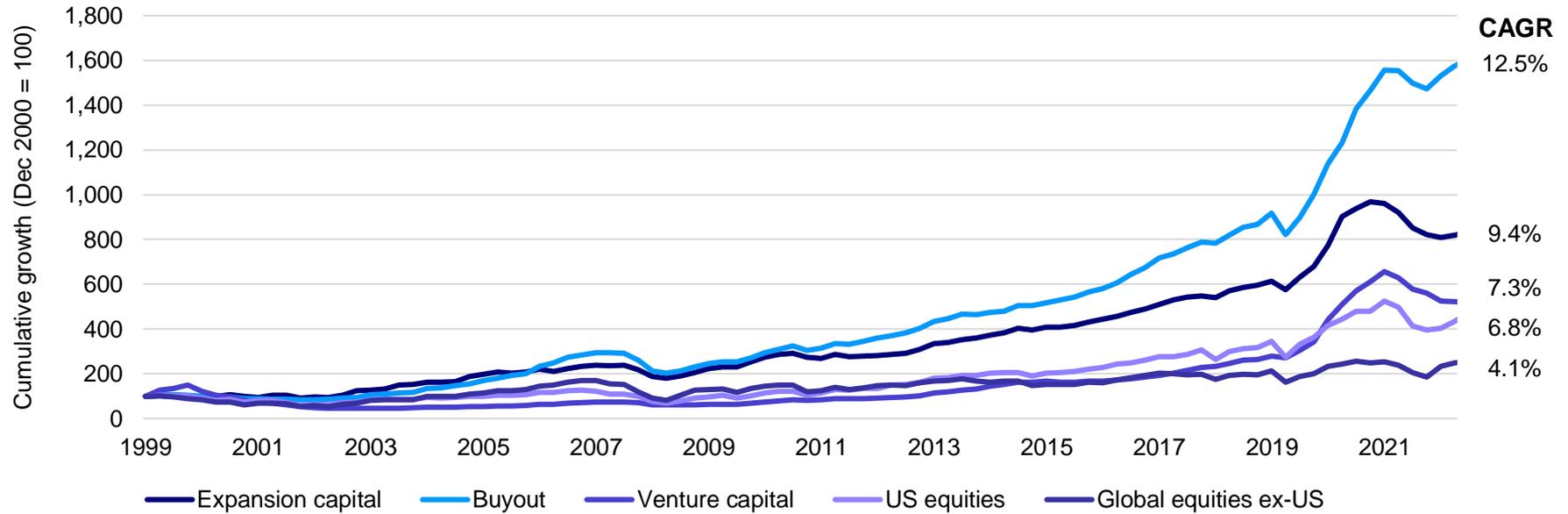
Heightened focus on growth: We have seen a heightened focus on growth equity strategies, illustrated growth equity representing roughly one out of every five deals during the quarter. Growth equity deal count is on pace to potentially exceed total LBO volume if you exclude add-on transactions. This highlights the continued theme reflecting a more favorable opportunity set for companies that can rely on organic growth to drive return relative to those that require the use of leverage which comes at a high cost in the current environment.

Limited exit opportunities: PE exit activity declined roughly 40% from the prior quarter and at its lowest level outside of the global financial crisis or pandemic lock down. This coupled with the combined impact of an investor base in need of distributions to fund future capital commitments and an ever increasing number of funds approaching the end of life continues to favor those with dry powder relative to existing exposures in the space.

Source: Invesco Solutions, views as of Sept. 30, 2023.

Cumulative growth of private equity versus public equity

Private equity vs. public equity investment growth



Source: Investment growth of 100; Private asset index return data (large buyout, expansion capital, and VC / growth equity) from Burgiss and are net of fees; US equity returns represented by Russell 3000 TR index; Global ex-US equity returns represented by MSCI ACWI ex USA net TR index are gross of fees, quarterly from Dec. 1999 to June 2023. **Past performance does not guarantee future results.**

Views on private assets: Private equity

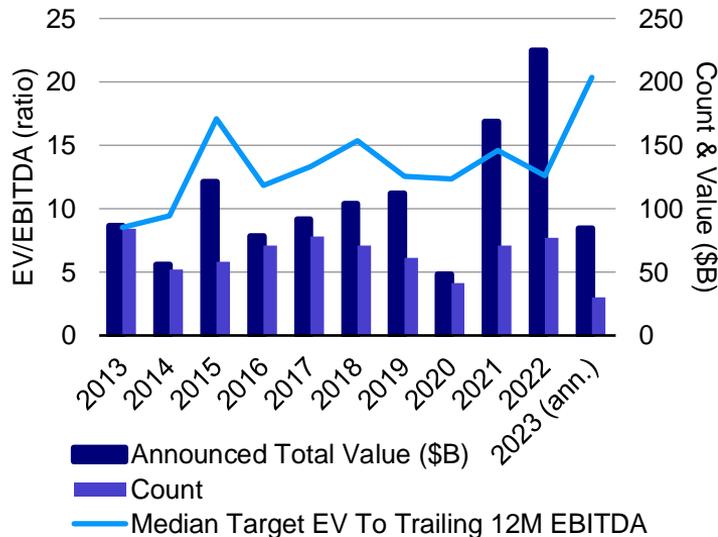
Investment type	Allocation range	Comments
	Underweight Neutral Overweight	
Large buyout		<ul style="list-style-type: none">• Exposure to high quality companies backed by strong management teams• Renewed opportunity for take-private transactions and private-to-private exits at favorable valuations balanced by headwinds from an increasing cost of debt
Growth/expansion equity		<ul style="list-style-type: none">• Profitable franchises exposed to secular growth themes• Less competition for deals from the IPO or SPAC markets• Heightened focus on platforms
Venture capital		<ul style="list-style-type: none">• Exposure to a broad variety of disruptive technologies and secular growth themes at an early stage• Challenging exit environment with the potential for a sustained period of “down rounds”

Source: Invesco Solutions views as of Sept. 30, 2023. For illustrative purposes only.

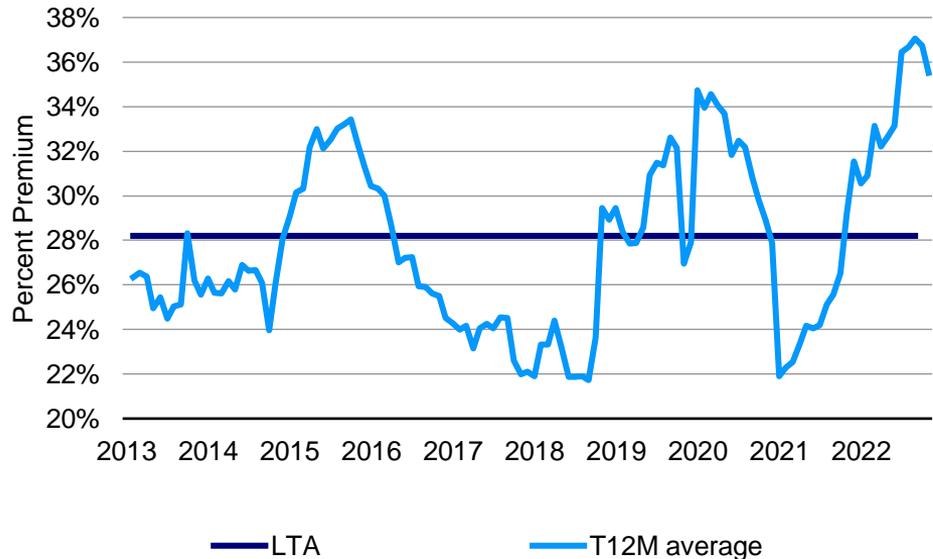
Valuations: US large buyout take-private volume and EV/EBITDA valuations

Multiples and premiums are at the high end of their historical range

Take private deal volume compared to EV/EBITDA



M&A deal premium vs. long-term average

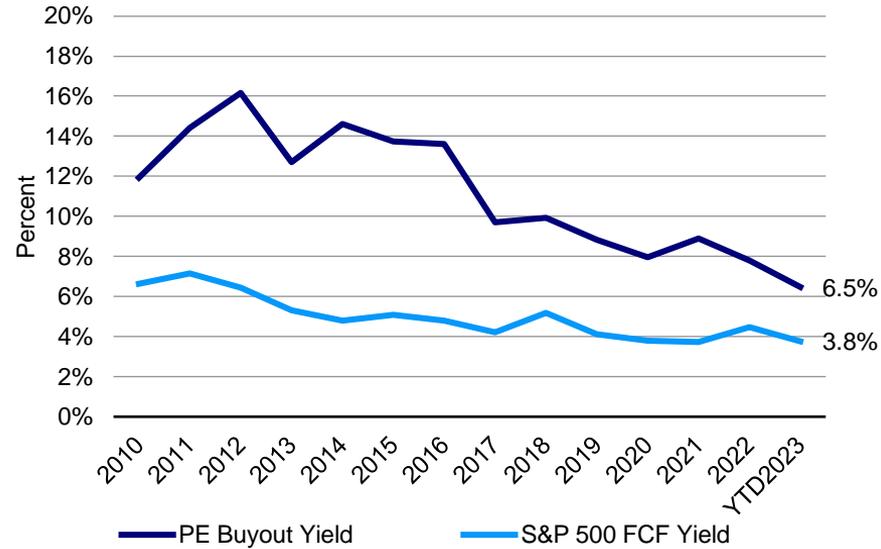


Source: Invesco Solutions, Pitchbook, Bloomberg L.P., as of March 31, 2023.

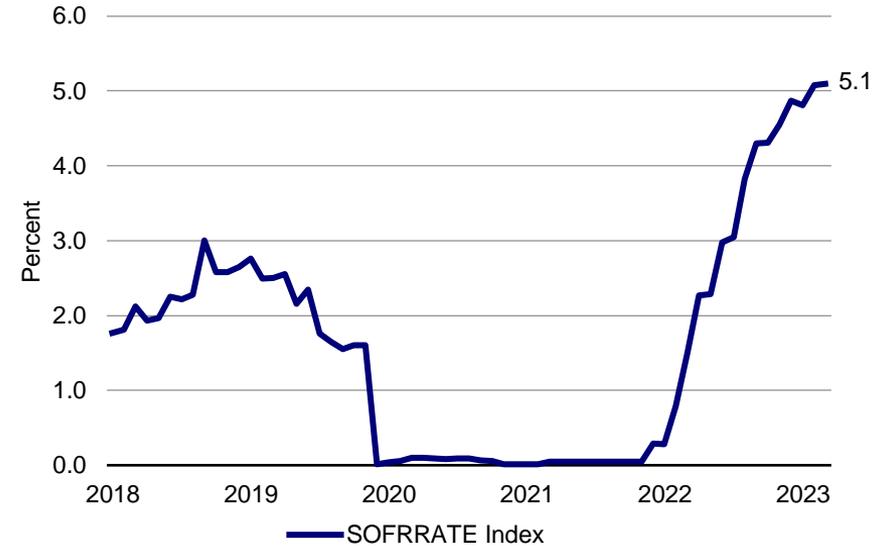
Valuations: US large buyout vs. equity market yield

While purchase prices have moderated slightly, this is more than offset by rising financing costs

Buyout yield vs. US equity market yield



Financing rates (SOFR)

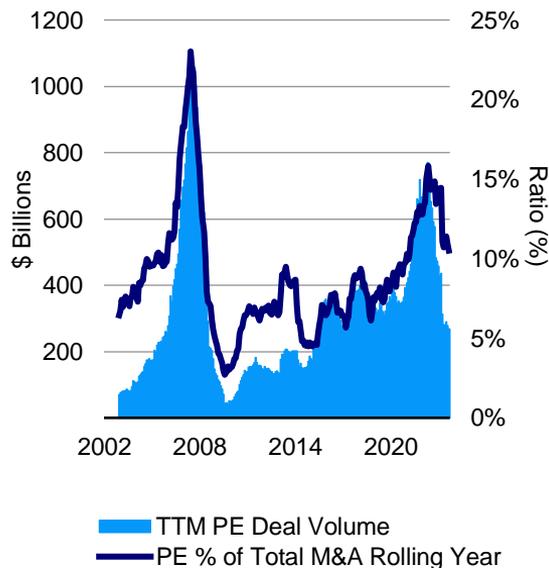


Source: Invesco Solutions, Pitchbook, Bloomberg L.P. as of June 30, 2023.

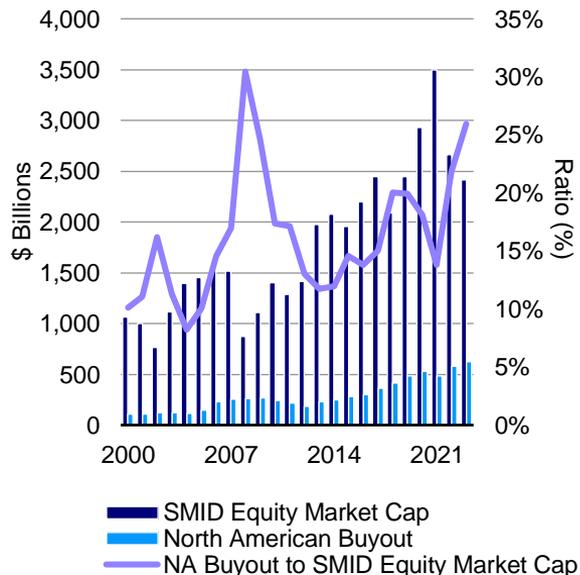
Fundamentals: Buyout and IPO deal volume

Limited exit opportunities favors those with dry powder and should drive an increase in private-to-private deal activity

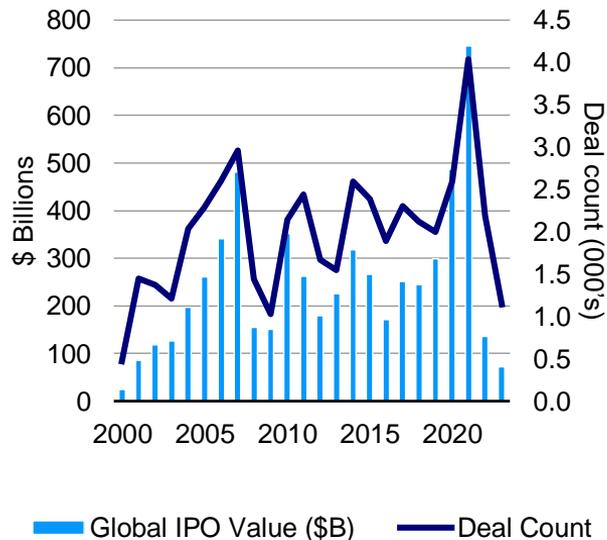
PE deal volume



PE dry powder to target's market cap



Trailing year IPO activity



Source: Invesco Solutions, Pitchbook, Preqin, Bloomberg L.P., latest data available, as of July 20, 2023.

3

2024 Alternative opportunities: Real assets



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions



Mike Bessell, CFA
Investment Strategist
Invesco Global Real Estate

Underweight real assets as higher interest rates are pressuring valuations

Asset class	Overall	Valuations	Fundamentals	Secular trend
Core RE	Underweight	Unattractive	Neutral	Neutral
Value add	Neutral	Neutral	Neutral	Attractive
Infrastructure	Neutral	Unattractive	Attractive	Attractive

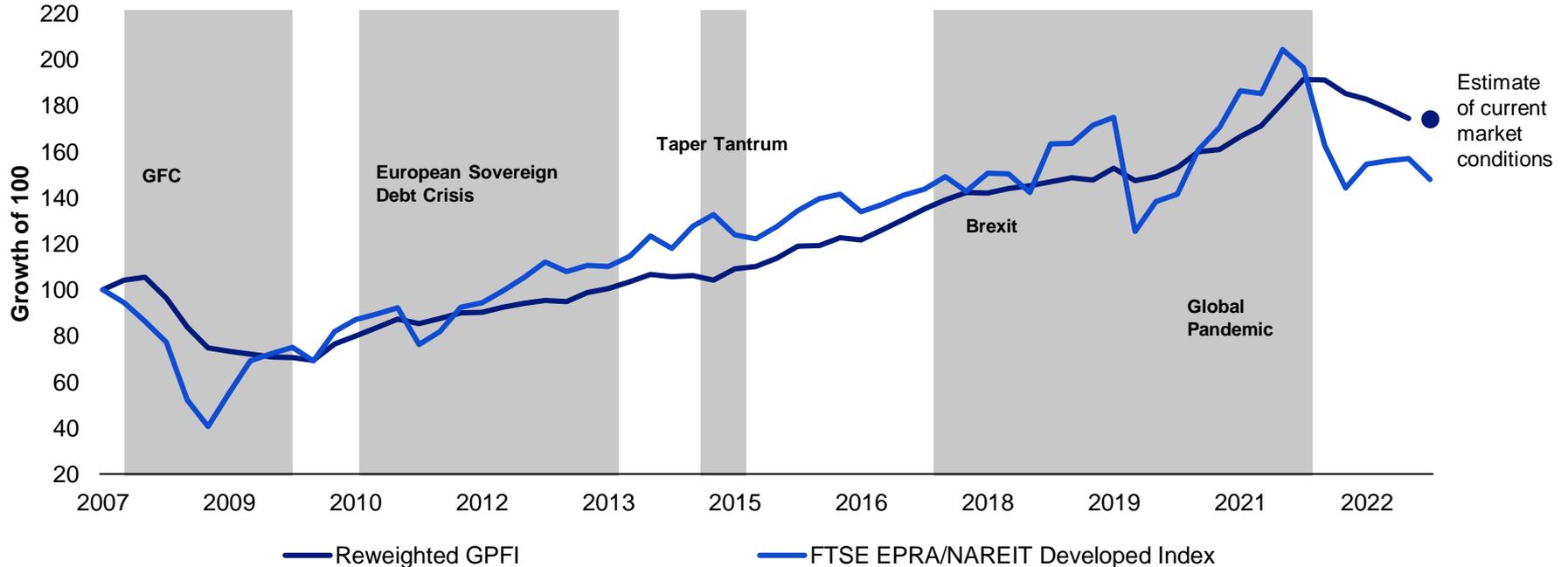
Real estate capital markets are disrupted as yields and cap rates are increasing in reaction to elevated interest rates. While asset values continue to reprice, banks are focused on existing loan books and so offer limited new liquidity, thereby impacting the volume of real estate transactions in all key markets. For real estate occupational markets, while the combination of weak growth and cautious sentiment is likely to dampen some tenant demand, fundamentals should remain healthy for markets without excess supply. We note however that we are seeing clear fundamental weakness in markets with excess supply. Demand is bifurcating towards Grade A space and weaker assets are less supported. Supply pipelines vary, however liquidity challenges and elevated debt costs are expected to limit further new project starts. Secular trends, like return to office, ecommerce, mixed-use developments, and ongoing demographic shifts differentiate the rental growth outlook and hence sector performance, while sector preferences vary by country and between regions.

Within infrastructure, while historical the level of dry powder remains elevated, and valuations, similar to those in real estate, have not backed up with base rates, near term fundamentals are strong and secular tailwinds supportive. Tailwinds include but are not limited to (1) the estimated domestic and global need for infrastructure investment over the next decade supported by the Infrastructure Investment and Jobs Act as well as the Inflation Reduction Act; (2) the strong fundamentals within the transportation sector in part driven by the post-pandemic rebound in travel and commerce; (3) energy infrastructure in the wake conflict in the Ukraine; and (3) continued secular tailwinds in both the digital and energy transition/renewables sectors. We are watching for any impact on financing availability in the wake of the turmoil which has occurred in regional banking sector which historically served as a significant source of capital for the fiber, data center, and renewables sector.

Source: Invesco Solutions, views as of Sept. 30, 2023.

Cumulative growth of listed real estate vs. unlisted real estate

Listed and unlisted global real estate performance 2007-2023, Dec. 2007=100



Note: MSCI Global Quarterly Property Fund Index (GPF) was reweighted to 25% Asia Pacific, 25% Europe and 50% North America. All returns shown in USD. Source: Invesco Real Estate based on data from MSCI Global Quarterly Property Fund Index, as of June 30, 2023, and Macrobond as of Sept. 30, 2023. Listed real estate is gross of fees while unlisted is net of fees.

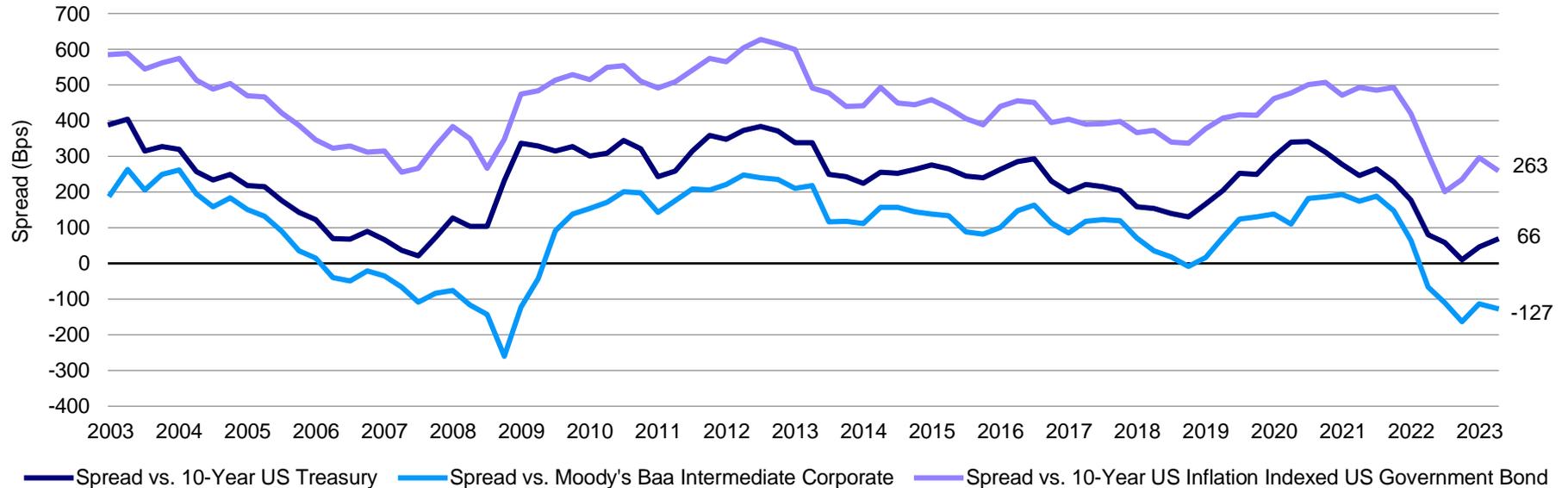
Views on private assets: Real assets

Investment type	Allocation range	Comments
	Underweight Neutral Overweight	
Real estate core		<ul style="list-style-type: none"> • Exposure to high quality real estate assets with stable current income • Potential headwinds to existing cap rates resulting from rapid rise in interest rates • Mixed outlook varies by sub-sector
Real estate value add / opportunistic		<ul style="list-style-type: none"> • Focus on dislocations in credit markets • High levels of economic and market volatility may create attractive opportunities
Infrastructure core		<ul style="list-style-type: none"> • Exposure to current inflation-linked income backed by long-term contracts and/or concessions • Broad-based fundamental tailwinds across sub-sectors balanced by high valuations
Infrastructure value add / opportunistic		<ul style="list-style-type: none"> • Includes exposure to brownfield and greenfield projects • Tailwind from secular growth themes (renewables, digital) and increased government support (IIJA)

Source: Invesco Solutions, views as of Sept. 30, 2023. For illustrative purposes only.

Valuations: Real estate cap-rate spreads

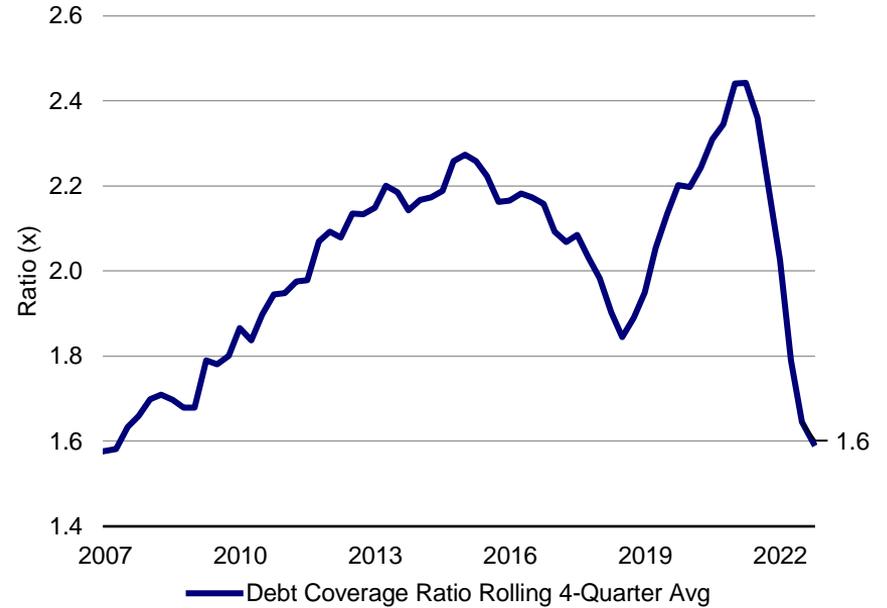
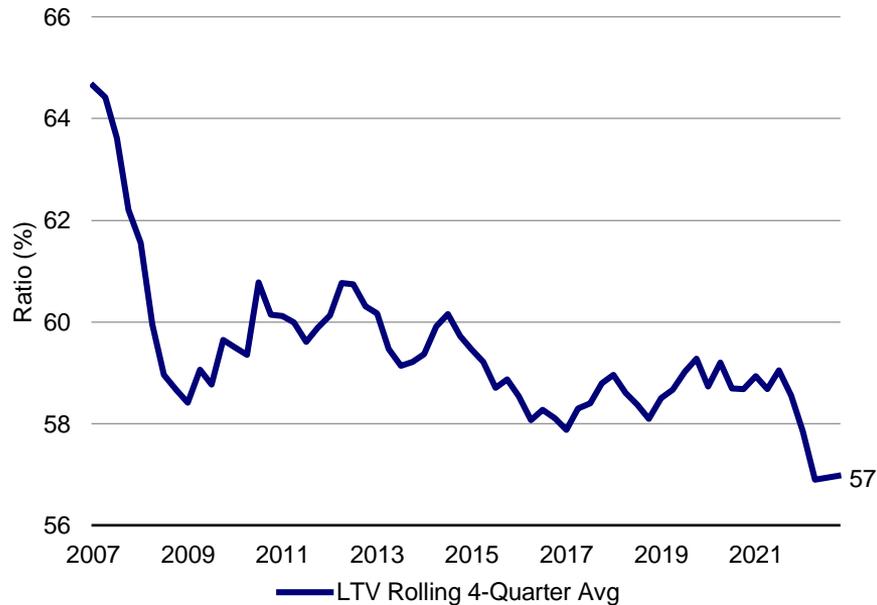
Direct real estate valuations remain elevated relative to other income-generating alternatives



Source: Invesco Solutions, NCREIF, Moody's Analytics, as of June 30, 2023.

Fundamentals: Real estate leverage (LTV) and debt coverage ratio

Modest levels of leverage in the system post-GFC should moderate systemic risk, currently monitoring interest coverage ratios

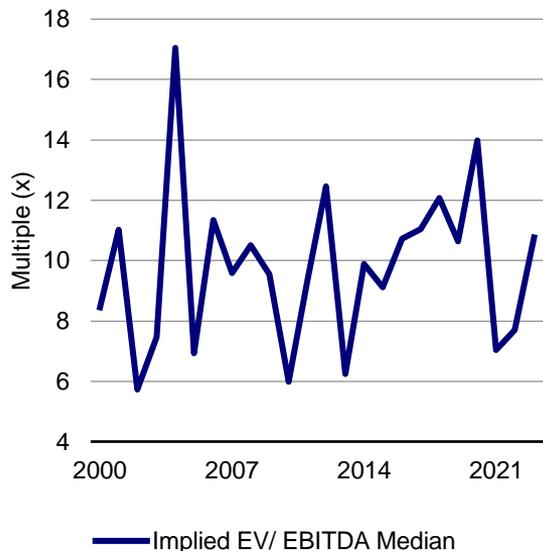


Source: Invesco Solutions, NCREIF, Moody's Analytics, as of June 30, 2023.

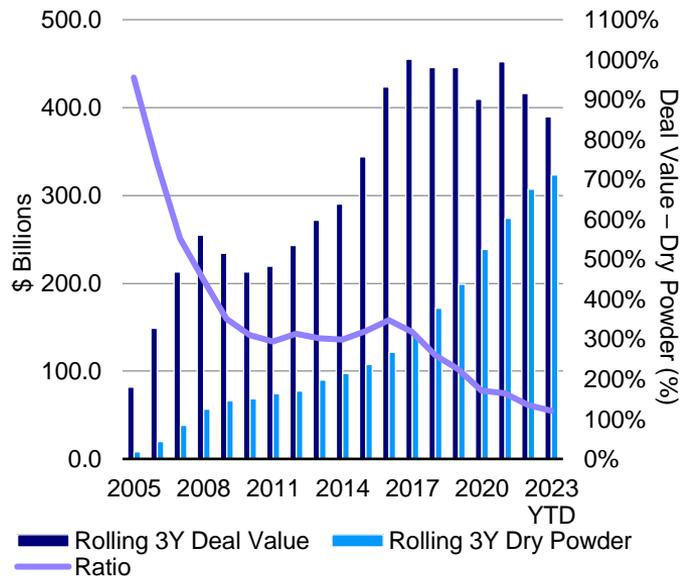
Valuations and fundamentals: Infrastructure

Relatively high valuations combined with robust dry powder are offset by an expanding opportunity set with long-term secular tailwinds

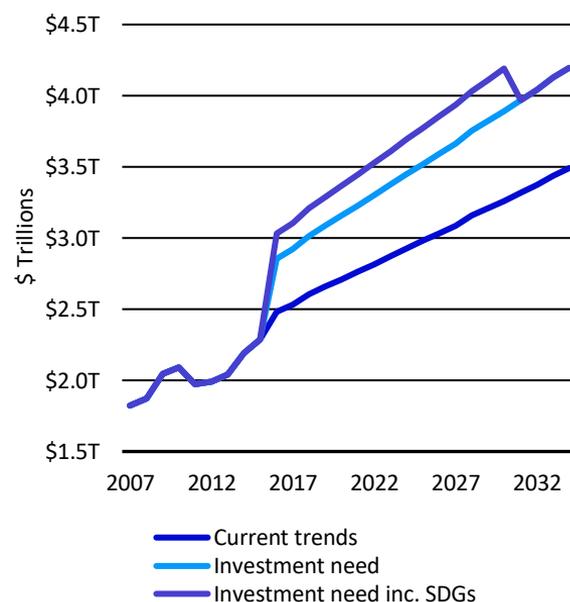
Infrastructure EV/EBITDA



Deal value to dry powder ratio



Investment need in infrastructure



Source: Invesco Solutions, Pitchbook, Preqin, Global Infrastructure Hub, as of Oct. 31, 2023.

4

2024 Alternative opportunities: Commodities



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions



David Gluch, CFA
Client Portfolio Manager
Invesco Global Asset Allocation

Current attractive bias due to agriculture and energy despite weakness in metals

	Overall	Secular trend	Valuations	Fundamentals
Asset class	Attractive	Attractive	Attractive	Unattractive
Agriculture	Attractive	Attractive	Attractive	Attractive
Energy	Attractive	Attractive	Attractive	Unattractive
Industrial metals	Unattractive	Unattractive	Attractive	Unattractive
Precious metals	Unattractive	Attractive	Unattractive	Unattractive

Commodity prices remain volatile and rangebound across most sub-complexes and while our secular trend assessment is currently net attractive, we caution it is subject to sudden change. After being the worst performing sub-complex for 2023 thru May, energy staged a fierce rally from June thru September that saw Brent crude test its key \$100 per barrel psychological level. OPEC production cuts coupled with lower Russian exports and rising margins on refined products drove prices higher pulling the sub-complex out of its wide, rangebound trading pattern that formed in late 2022. The summertime rise in long-term interest rates against a broad central bank pause further hindered industrial metals that remain under pressure from a tepid Chinese economy and weaker demand for green energy manufacturing. Gold is the benchmark's top holding and has been impressively resilient given rising real yields and the strong dollar. The outbreak of conflict in the Middle East boosted the yellow metal due to safe-haven demand. El Niño's impact on tropical soft commodities including sugar has supported agriculture's overall attractive trend.

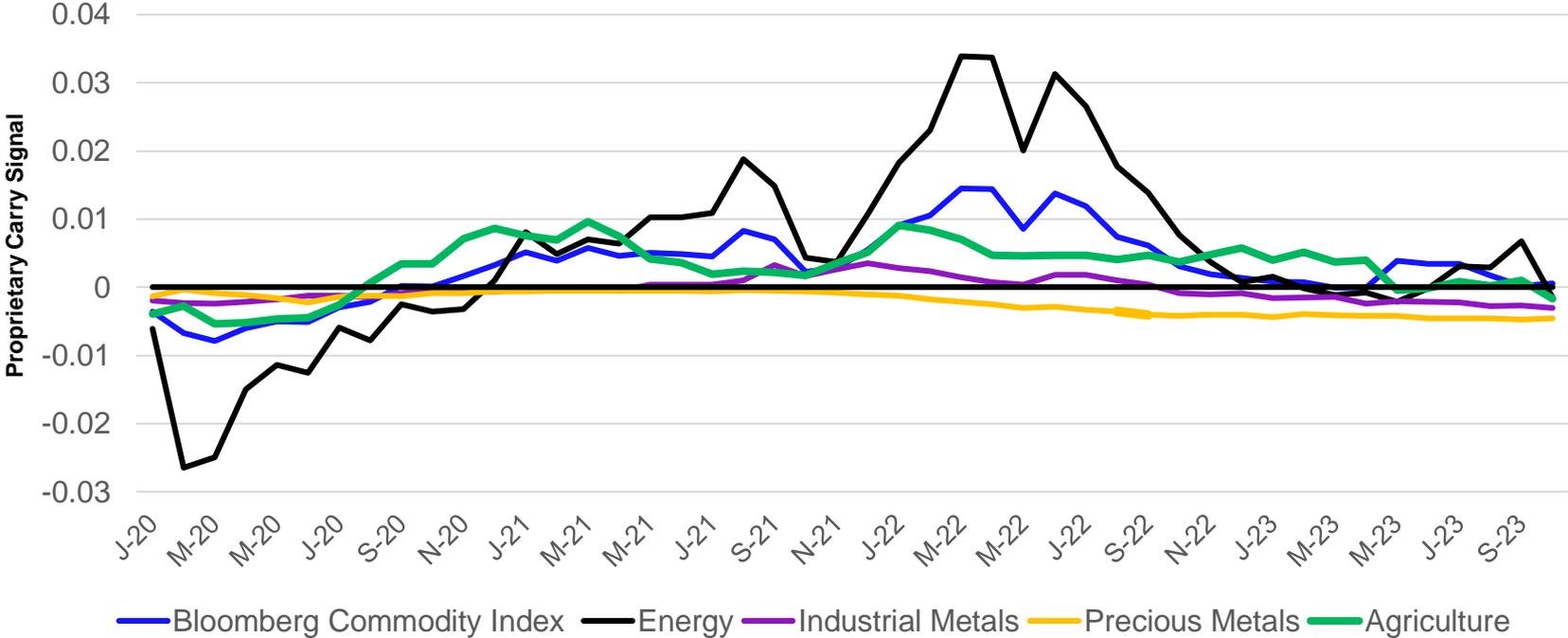
For valuation, a comparison of spot prices to an exponentially weighted five-year average price is utilized, and while scores are currently net attractive, they are only so by a small degree. Gold's price resiliency not only hurts precious metals but also the broader index as gold is the top holding in the Bloomberg Commodity Index. Energy valuation remains attractive but to a lesser degree after a summer rally, while plummeting wheat prices allow agriculture to reach net attractive. Industrial metals have seen the most improvement due to broad price declines.

Fundamentals, as measured by annual carry, are net unattractive mainly due to the Bloomberg Index's large weight to natural gas and its top holding gold, whose carry is unattractive given a persistently inverted yield curve. Carry remains highest in refined products and oil, as well as soybean meal, soybean oil, sugar, and coffee.

Source: Invesco Solutions, views as of Oct. 31, 2023. Views reflect the Bloomberg Commodity Index and do not translate directly to any Invesco commodity strategy.

Fundamentals: Carry has weakened since 2022's cycle peak

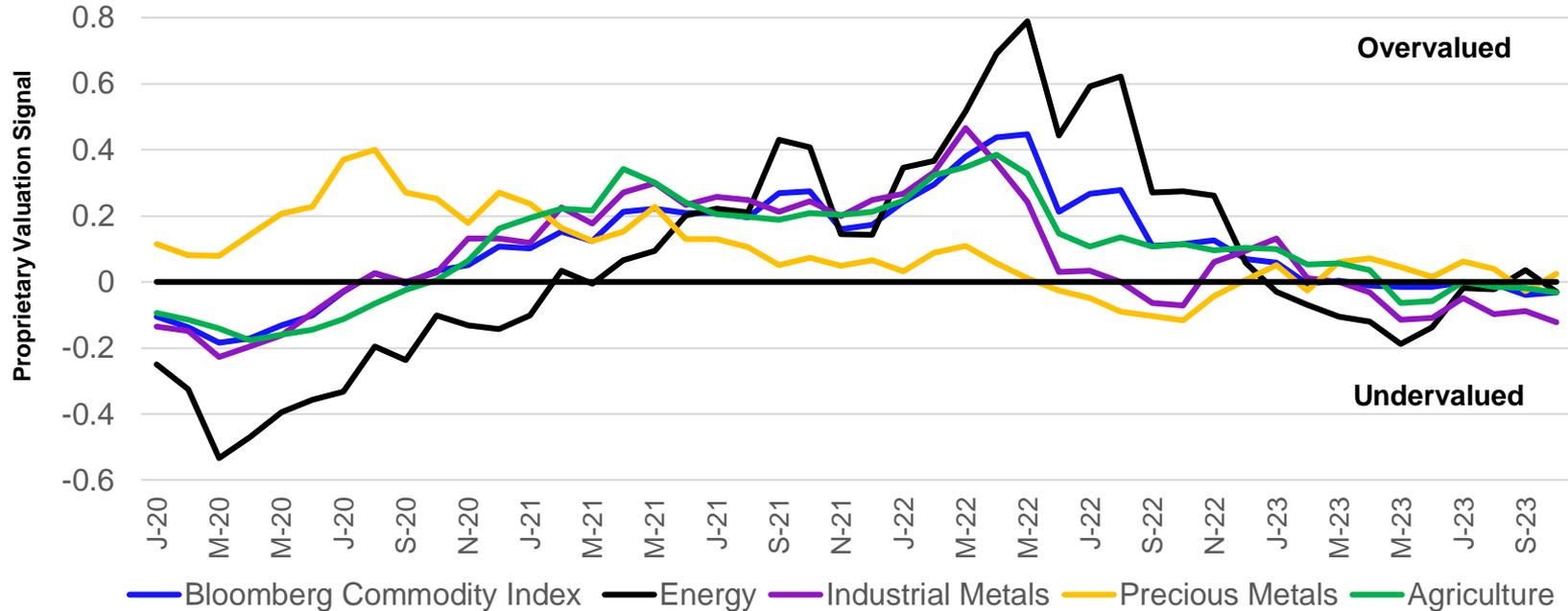
Carry has transitioned to mildly unattractive mostly due to the Bloomberg Commodity Index's top two holdings: gold and natural gas. Industrial metals' carry continues to fade with rising inventories of nickel and copper.



Source: Invesco Investment Solutions.

Valuations: Improving versus 2022's overvaluation

Industrial metals have improved valuation based on recent price declines while energy's summer rally has removed most of its undervaluation.



Source: Invesco Investment Solutions.

Outlook For Commodity Markets

Uncertainty and volatility will likely persist

2024 Major Themes

- 1 Underinvestment remains a positive long-term catalyst for commodities, but an inverted yield curve and a slowdown in global manufacturing provide near-term downside risks as China remains in a deleveraging process.
- 2 Potential central bank policy reaction to a more severe slowdown in the global economy and resulting spillover effects into the dollar and real interest rates. Lower real interest rates and a lower dollar are positive catalysts for precious metals.
- 3 Geopolitical risks have expanded beyond the conflict in Ukraine to include the Middle East and China/Taiwan with the most direct price effects likely to impact oil and gold.
- 4 The El Nino weather pattern poses a risk to grain crops after propelling soft commodities prices including cocoa to a 45-year high and sugar to a 12-year high in 2023.
- 5 Protectionism measures have been increasing since weather-related supply issues have impacted commodity markets over the past few years. As an example, India has recently implemented a sugar export ban, while Thailand has limited sugar exports.
- 6 Green energy remains a primary source of long-term metals demand, while underinvestment and mature geology restrain supply, but recent demand for solar panels and wind turbines has declined due to rising costs.

Invesco Solutions

Contact

Danielle Singer
Head of North America and EMEA Client Solutions
212 652 4264
danielle.singer@invesco.com

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Authors



Jeff Bennett, CFA
Head of Manager Selection
Invesco Solutions



Meirambek Idrissov
Analyst, Investment Research
Invesco Solutions



Drew Thornton, CFA
Head of Solutions Thought Leadership
Global Thought Leadership



Joseph Hubner
Associate, Investment Research
Invesco Solutions



Yu Li, PhD
Quantitative Research Analyst
Invesco Solutions

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