The limits of easy money

When money drives markets more than fundamentals

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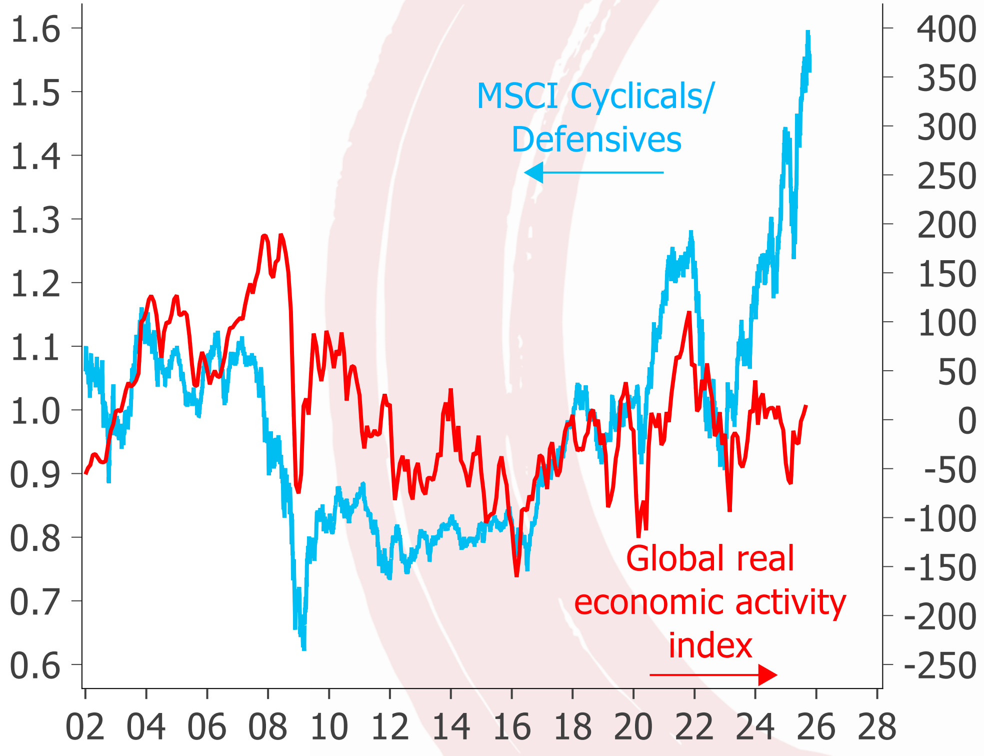
Markets seem to have found a new source of fuel

Upswing or market froth?

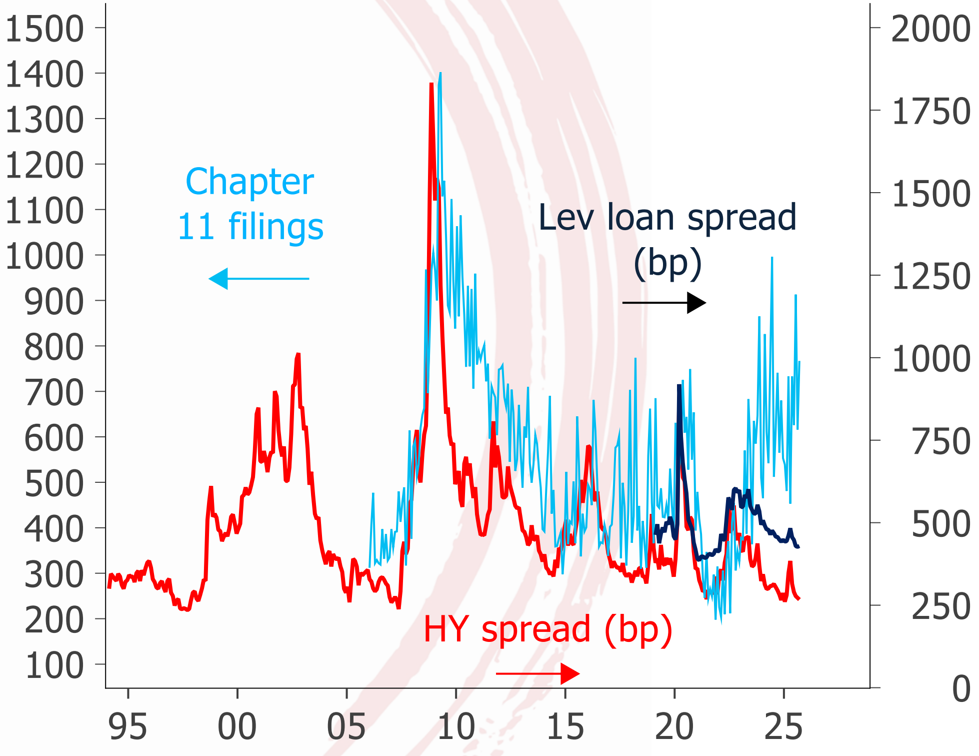
MSCI World equities vs FRB Dallas activity, indices



Source: MSCI, Bloomberg, FRB Dallas, Satori Insights.

Rising defaults yet spreads at tights

US bankruptcy filings vs spreads



Source: US Federal Courts, Bloomberg, Satori Insights.

It looks more like easy money than fundamentals

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Agenda

From credit cycle to debt supercycle

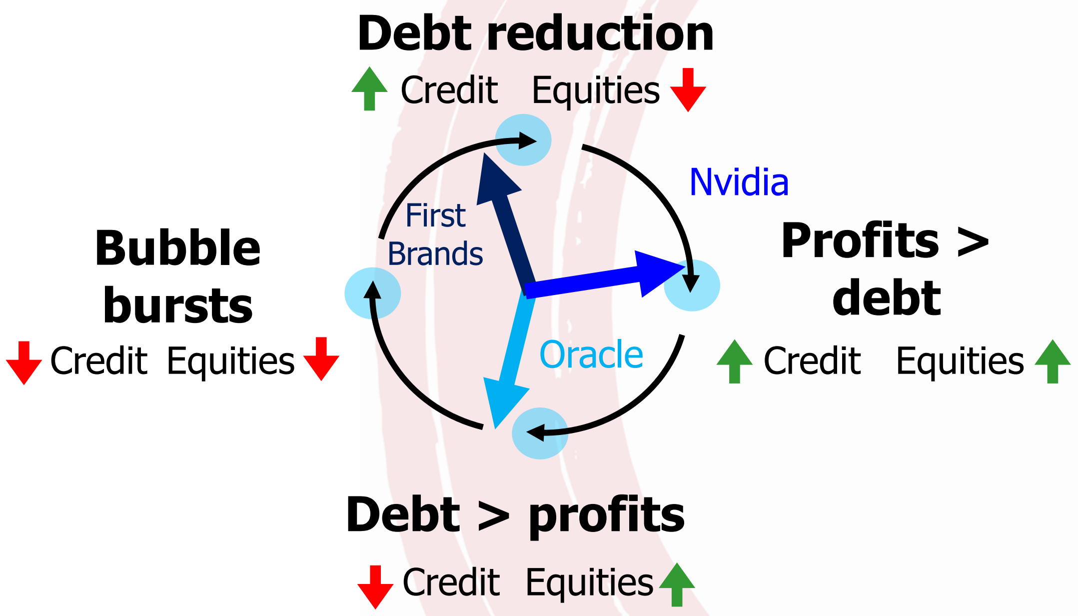
What liquidity means for credit

The limits of leveraging

What happened to fundamentally-driven cycles?

No longer clear what time it is

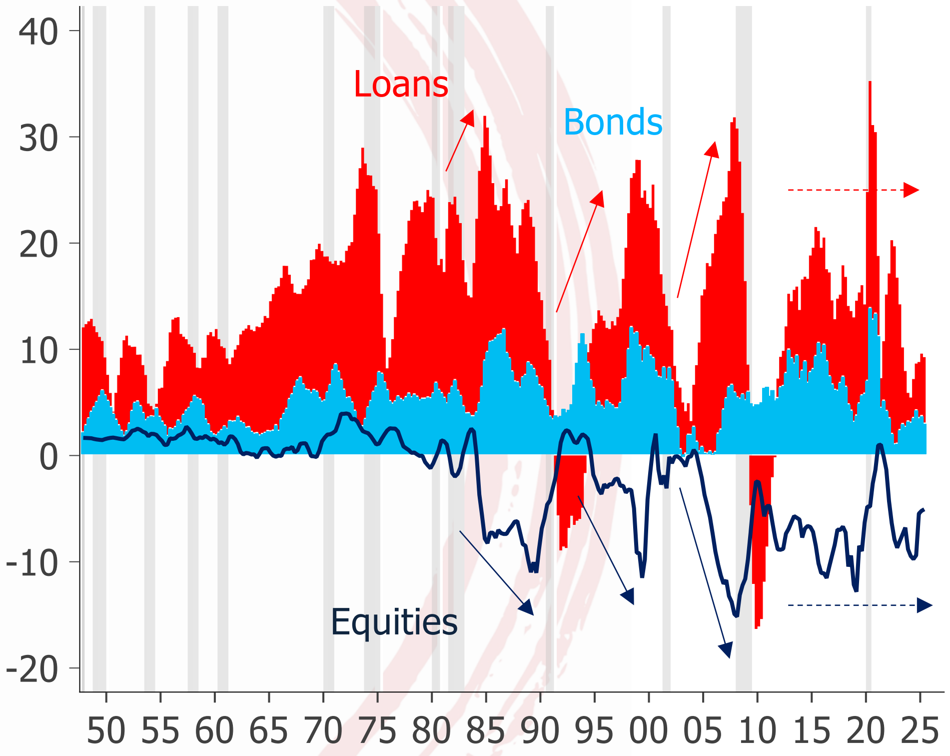
The corporate leverage cycle / clock



Source: Satori Insights.

There used to be a clearly defined cycle

Net issuance, rolling 4Q, US nonfin, % GDP



Source: Federal Reserve, Macrobond, Satori Insights.

Today's cycles are longer – and less driven by corporates

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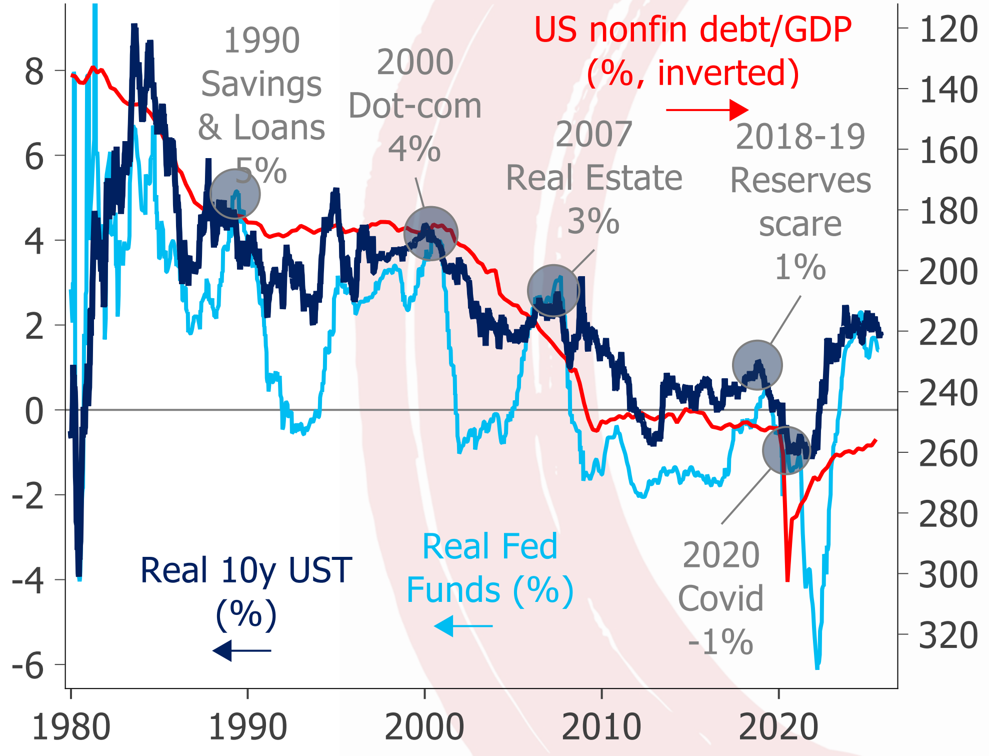
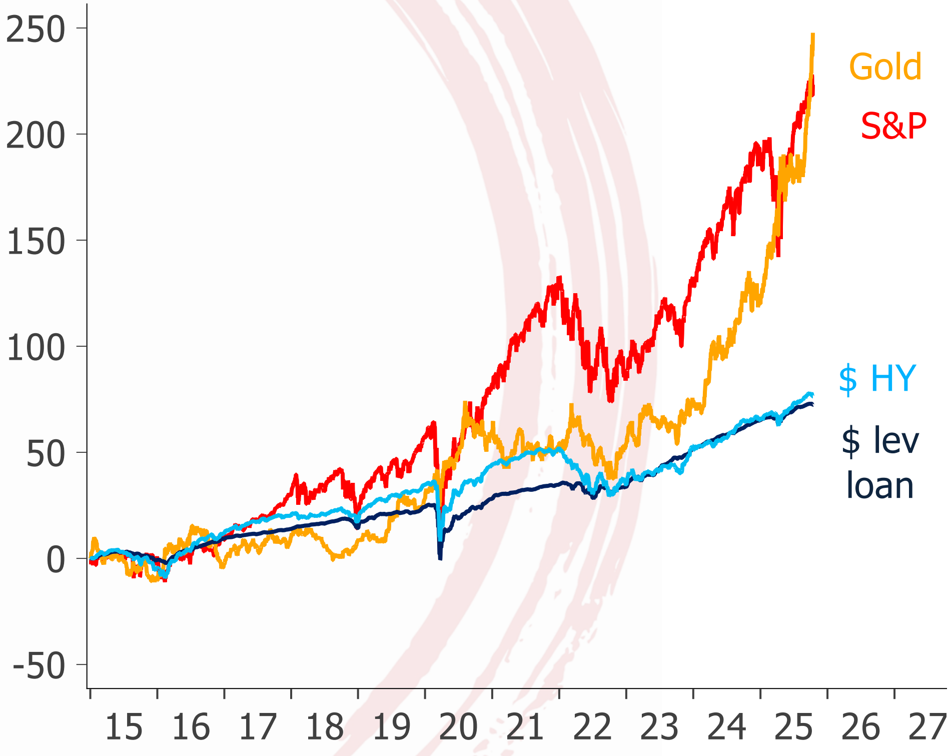
What ended the last few cycles was a downturn in asset prices

Recent cycles ended by asset price falls
US peak real rates by cycle vs debt



Source: U.S. Treasury, Fed, BLS, BEA, BIS, Bloomberg, Satori Insights.

The only way is up
Performance since 2015, %



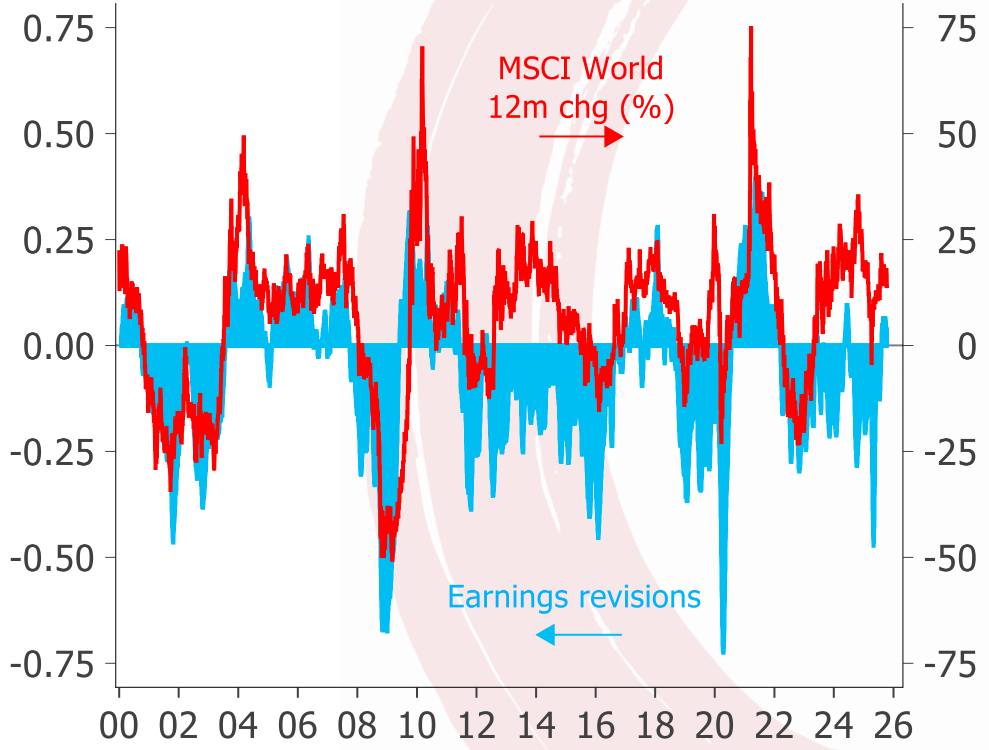
Source: S&P, Macrobond, Morningstar, Bloomberg, Satori Insights.

Now they only ever seem to go up

Fundamentals no longer seem to matter much

Until 2012, equities followed earnings

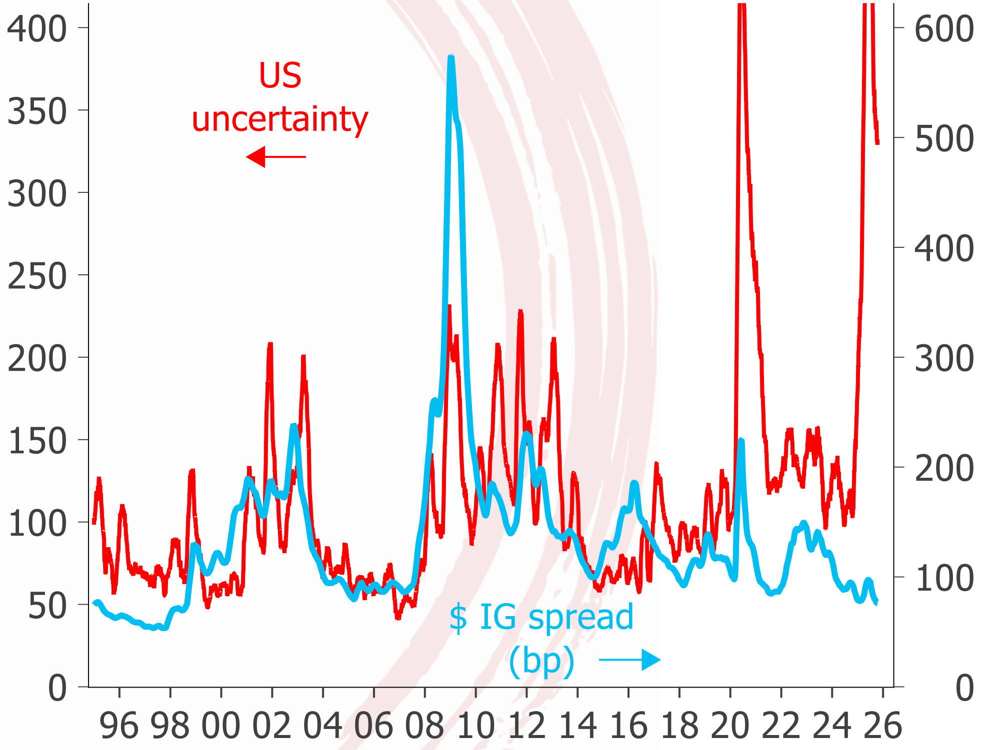
Global net earnings revisions (4wk mov avg) vs equities



Source: Citi, Bloomberg, MSCI, Satori Insights.

Spreads & vol used to track uncertainty

News-based uncertainty vs credit spreads, 3m mov avg



Source: Economic Policy Uncertainty, Bloomberg, Satori Insights.

Many valuation metrics broke down around 2012

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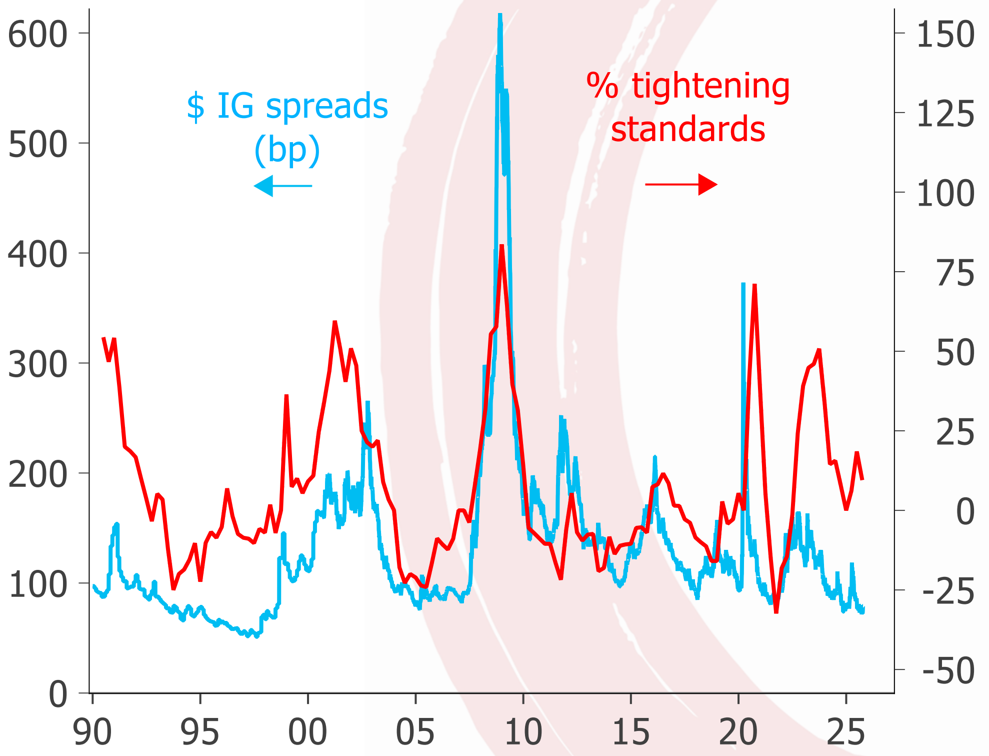
Another change occurred at the same time

Spreads used to lag; from 2012 they led

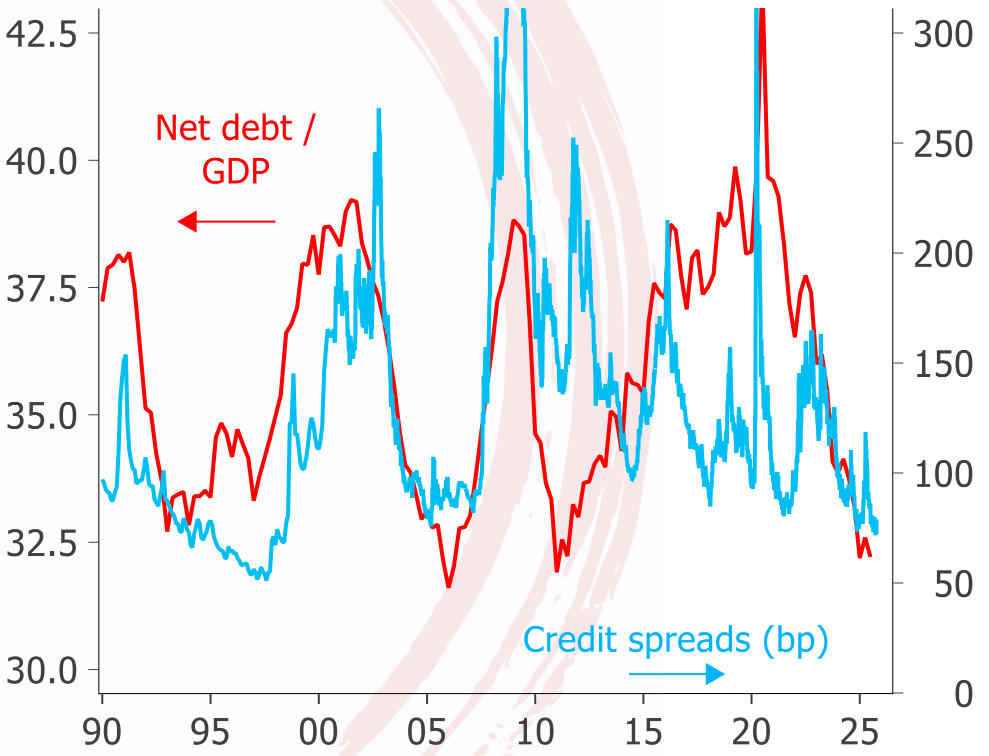
US senior loan officer survey vs credit spreads



Source: Fed, Macrobond, Bloomberg, Satori Insights.

The same happened with leverage

US nonfin corp debt (% GDP) vs spreads



Source: Federal Reserve, Bloomberg, Satori Insights.

Markets seemed to start *driving* fundamentals rather than just anticipating them

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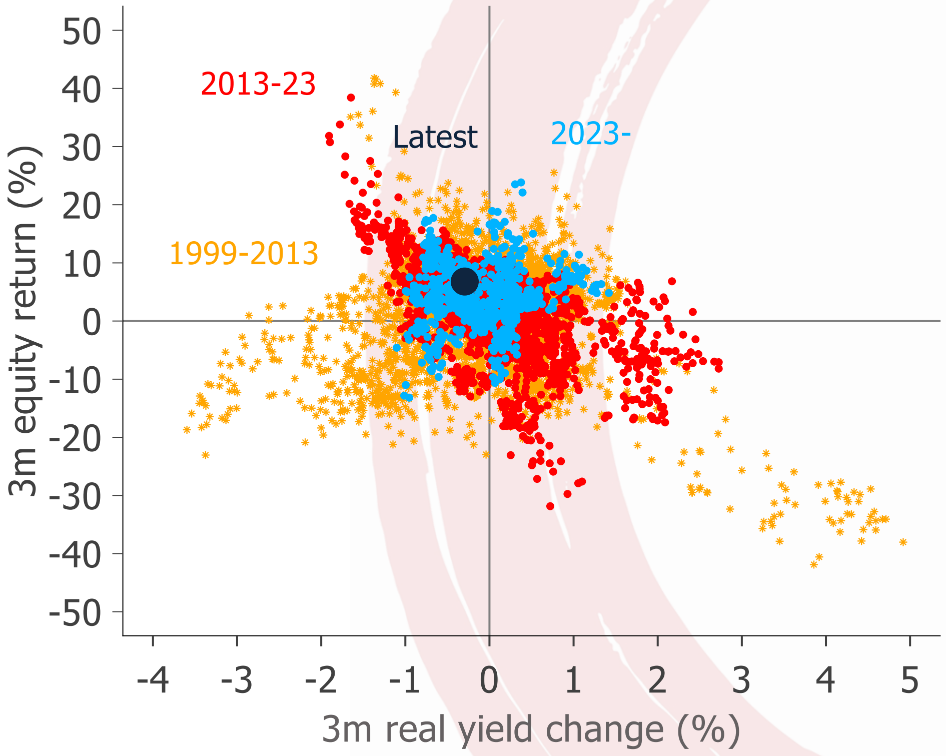
Real yields are only a partial explanation

Real yields: once explanatory, now not

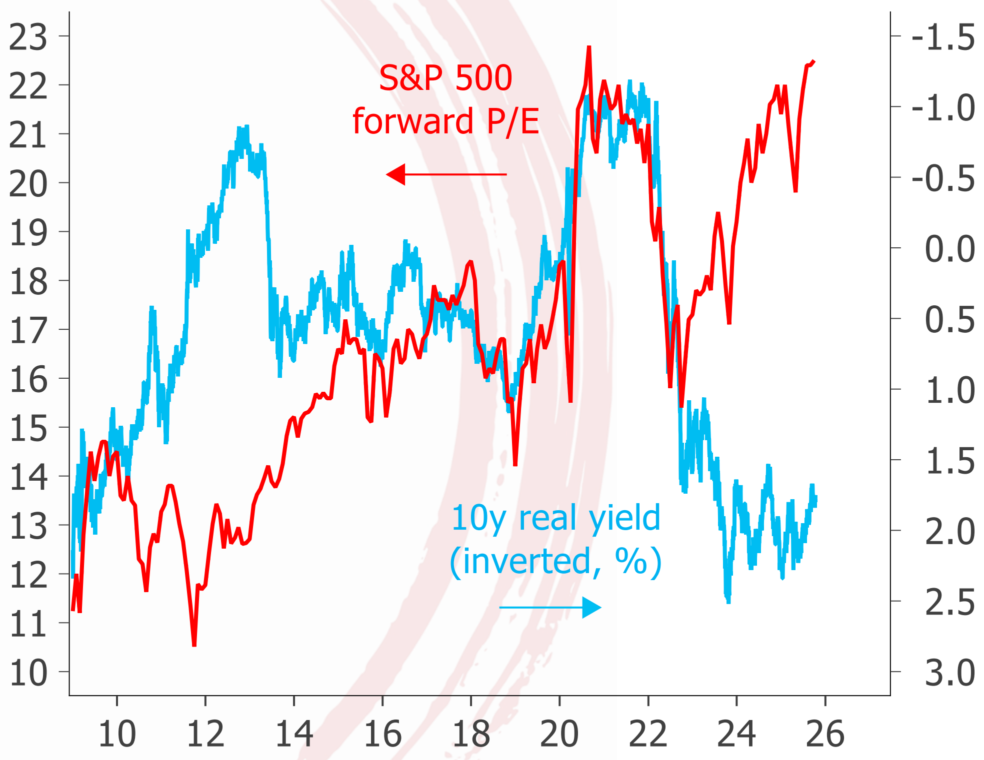
US 2y TIPS 3m chg vs MSCI World 3m chg



Source: Macrobond, Fed, Satori Insights.

Risk stayed on when yields went up!

US price/earnings vs TIPS



Source: S&P Global, Fed, Federal Reserve Bank of New York, Satori Insights.

Low real yields drove money into risk –
but when real yields went up it never came out

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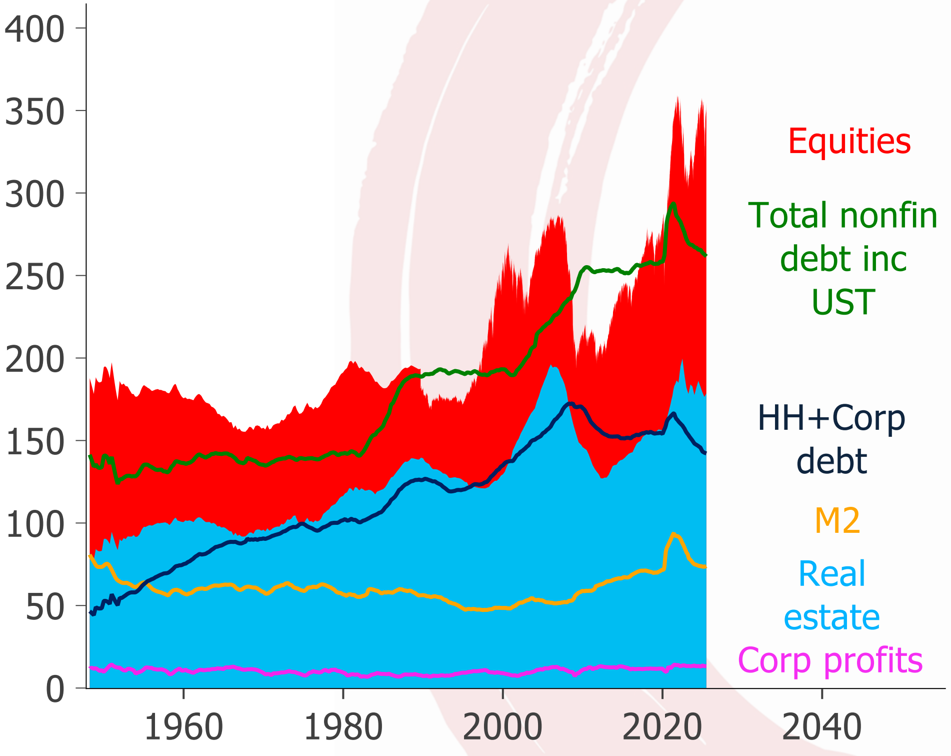
The real driver was always credit creation & money flow

Asset prices follow debt more than GDP

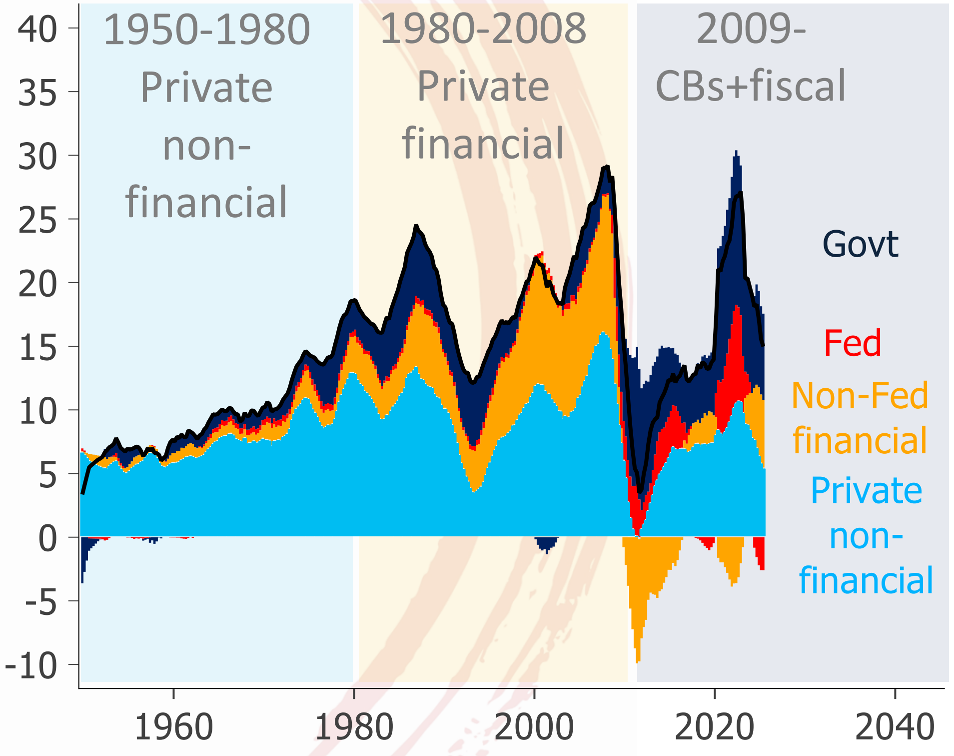
US real estate+equity mkt cap vs debt & profits, % GDP



Source: Federal Reserve, Macrobond, Satori Insights.

Borrowing now driven by public sector

US borrowing by sector, 3y mov avg, % GDP



Source: Fed, Macrobond, Satori Insights.

But post-GFC changes in credit creation have been dominated by the public sector

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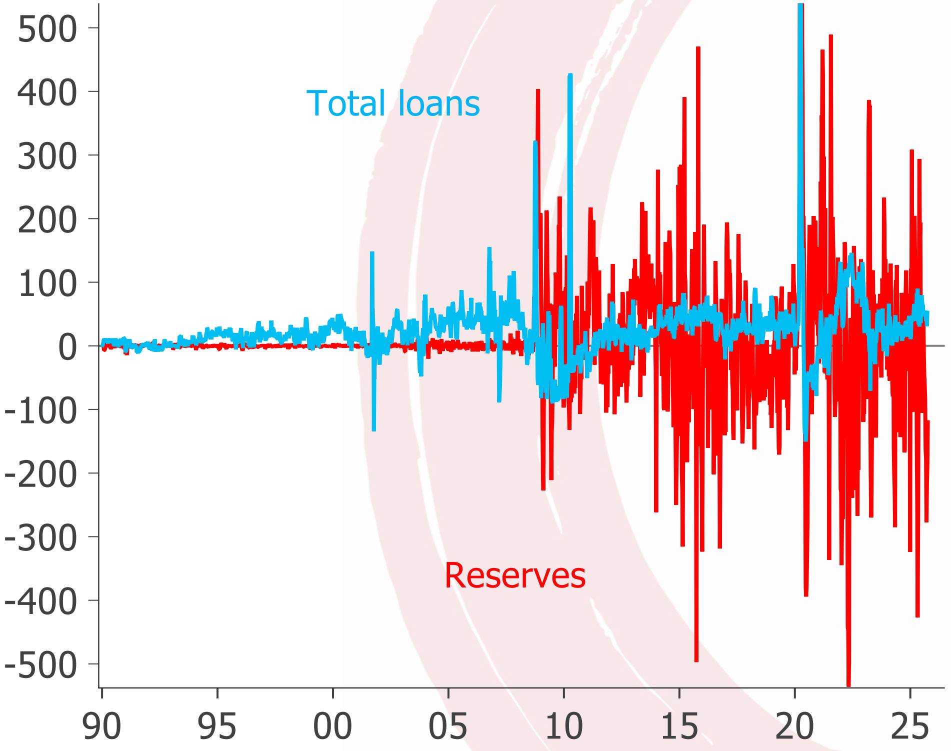
This explains why rates now seem to do so little

Reserves swings are remarkable

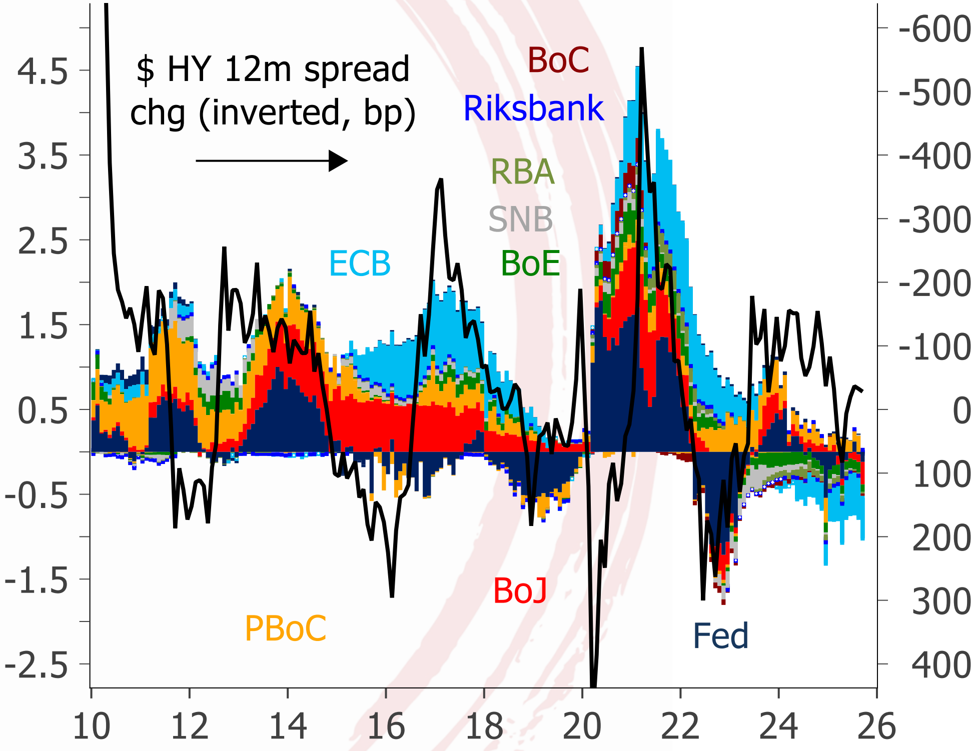
US monthly loan growth vs reserves chg, $bn



Source: Federal Reserve, Macrobond, Satori Insights.

Central banks crowded investors in/out

CB reserves chg ($tn) vs $ HY spreads, rolling 12m

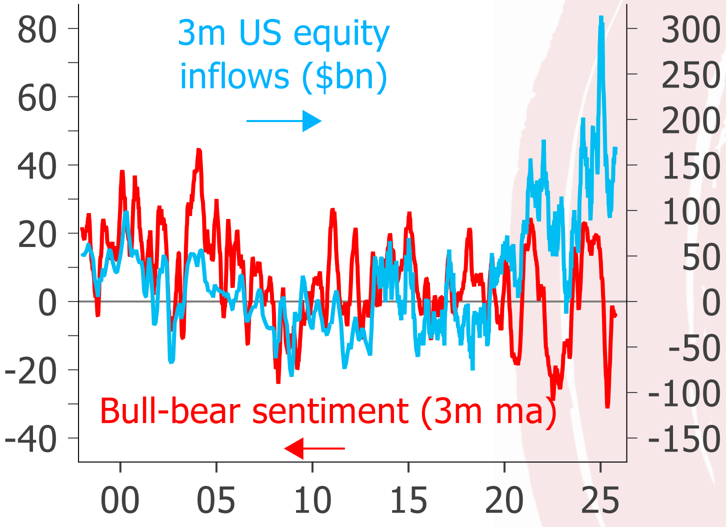


Source: national central banks, Macrobond, Satori Insights.

Rates are no longer driving swings in aggregate credit growth

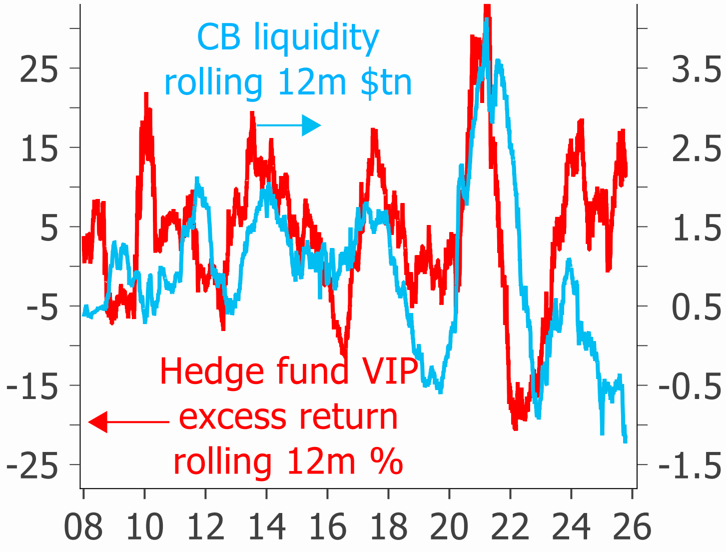
Since 2024, the fuel source is no longer central bank balance sheets

Even with -ve sentiment
US equity fund+ETF inflows vs sentiment



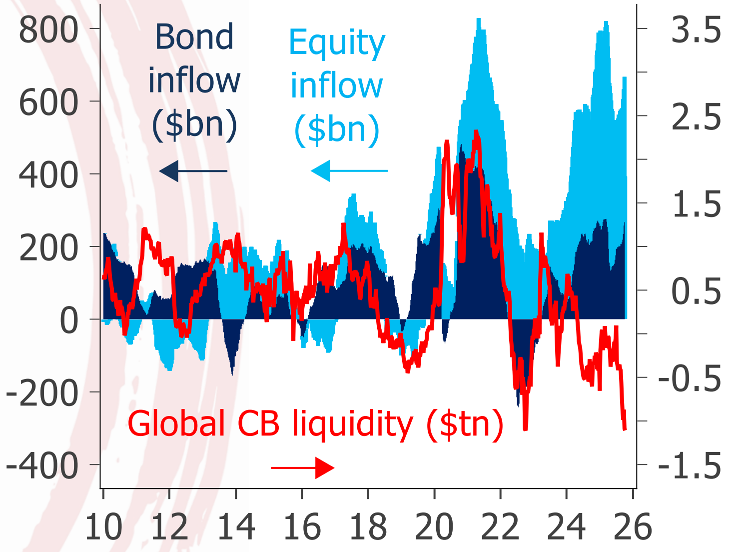
Source: AAII, ICI, Satori Insights.
Uses ETF inflows only from 2019 as ICI data exclude CITs.

An invisible hand pushes up
HF VIP index return-S&P, %, vs CB res



Source: national central banks, GS, Bloomberg, Satori Insights.

Inflows keep powering ahead
CB res vs mut fund+ETF flow, rolling 6m



Source: national central banks, ICI, Macrobond, Satori Insights.

It feels like more easy money.
But where's it coming from –
and just how powerful and durable is it?

Agenda

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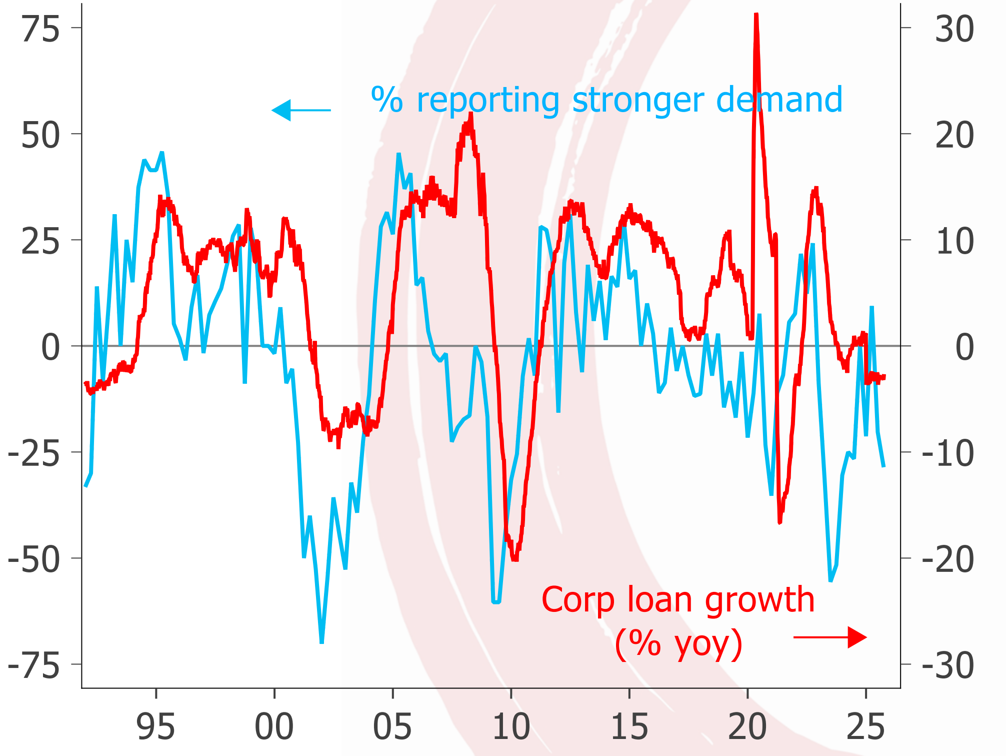
What liquidity means for credit

The limits of leveraging

What's remarkable is how little demand to borrow there is

Demand to borrow surprisingly weak

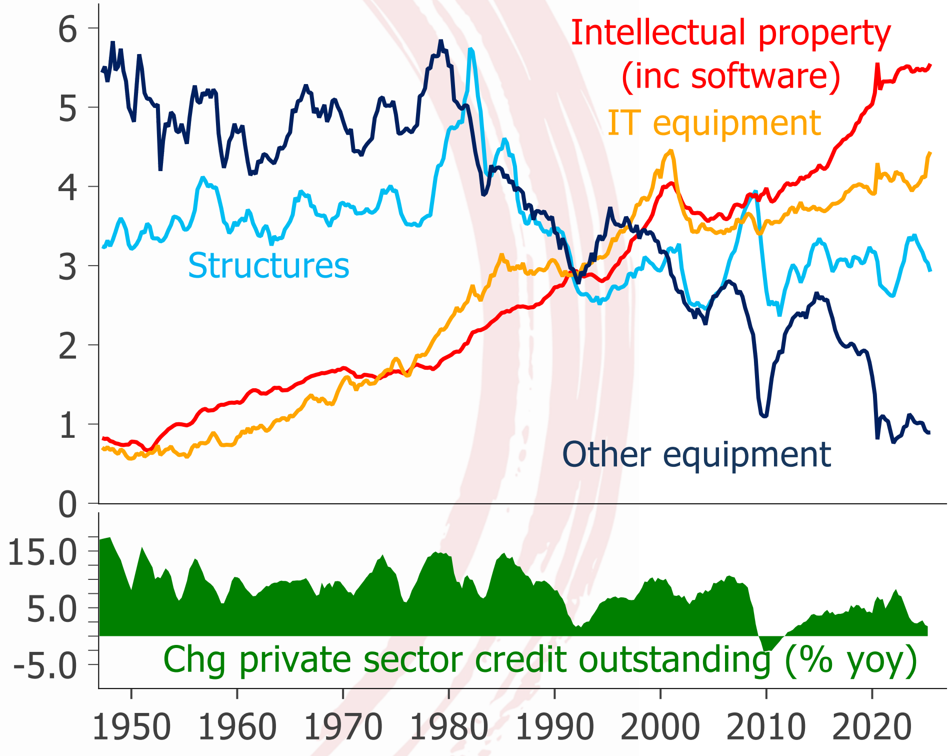
Fed loan survey, large & medium corp



Source: Federal Reserve, Satori Insights.

IT not financed by conventional credit

US private investment by type, % GDP



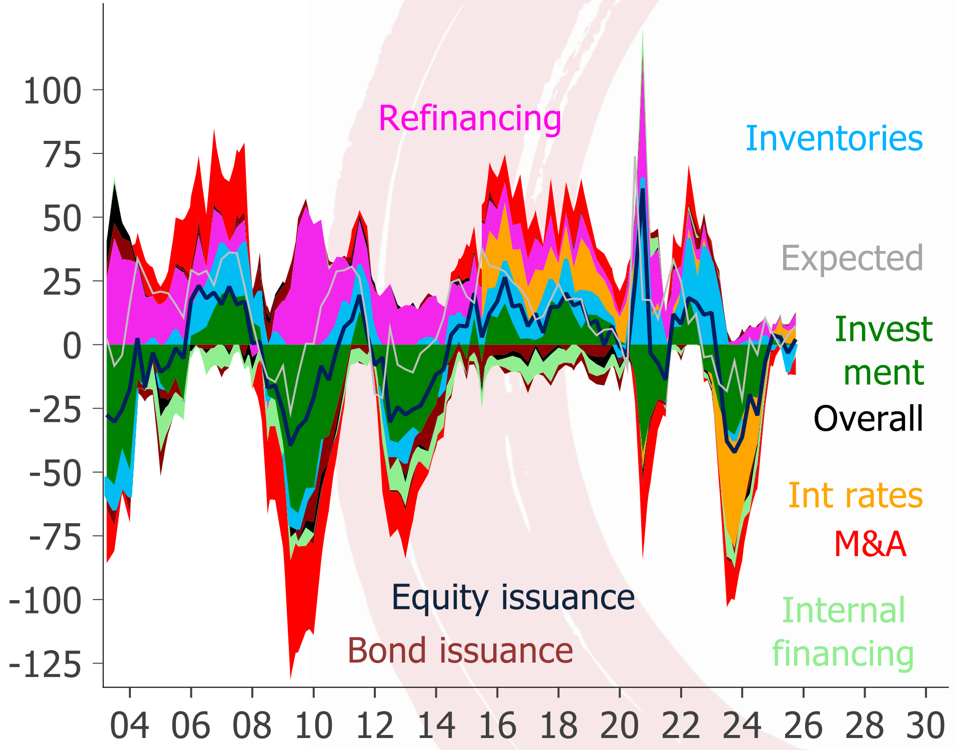
Source: BIS, BEA, USCB, Macrobond, Satori Insights.

It has nothing to do with banks' supposed reluctance to lend

Look at which companies are borrowing, and what for

More for refinancing than investment

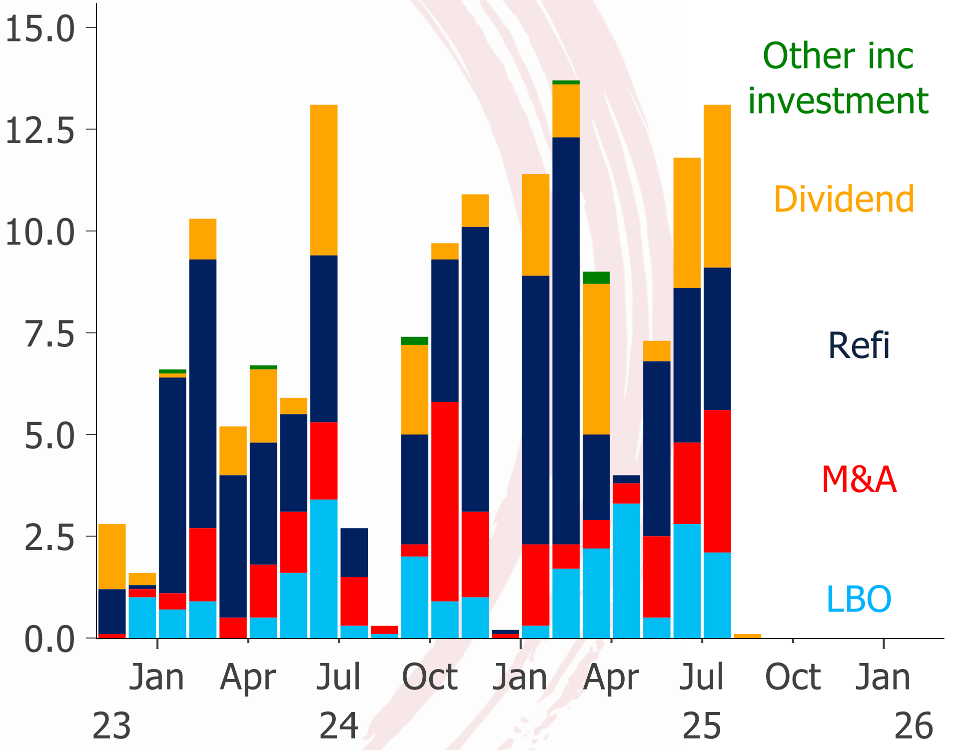
Reasons for € corp loan demand, % reporting increase



Source: ECB, Satori Insights.

When financial activity dominates real

€ lev loan issuance by use of proceeds, €bn



Source: PitchBook LCD, Satori Insights.

Borrowing driven more by financial activity than real

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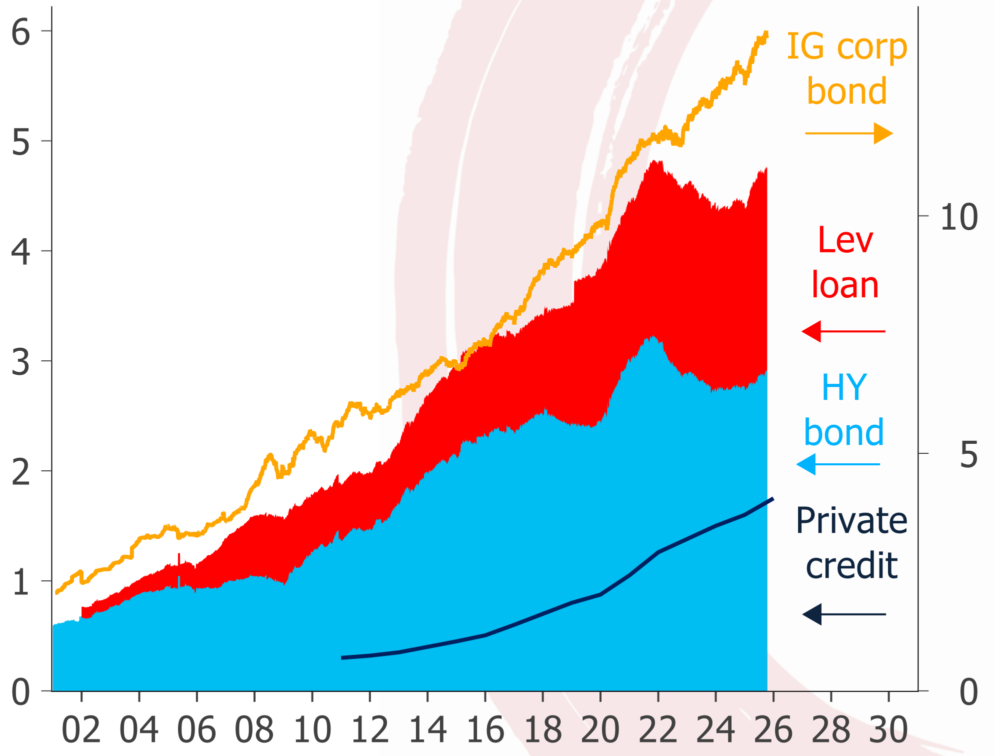
This has led to a pronounced imbalance in credit markets

What at first appears plenty of assets…

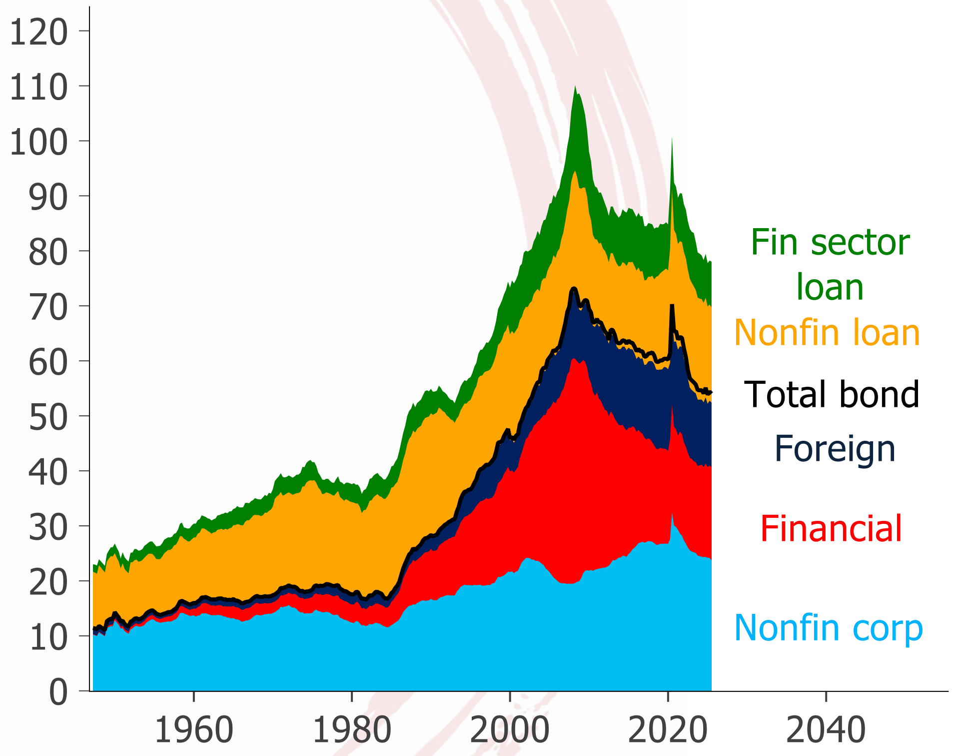
Global corporate credit outstanding, $tn



Source: Bloomberg, LSTA, Preqin, FT, Alternative Credit Council, Satori Insights.

…has in fact been outpaced by demand

US corp bond+loan outstandings, % GDP



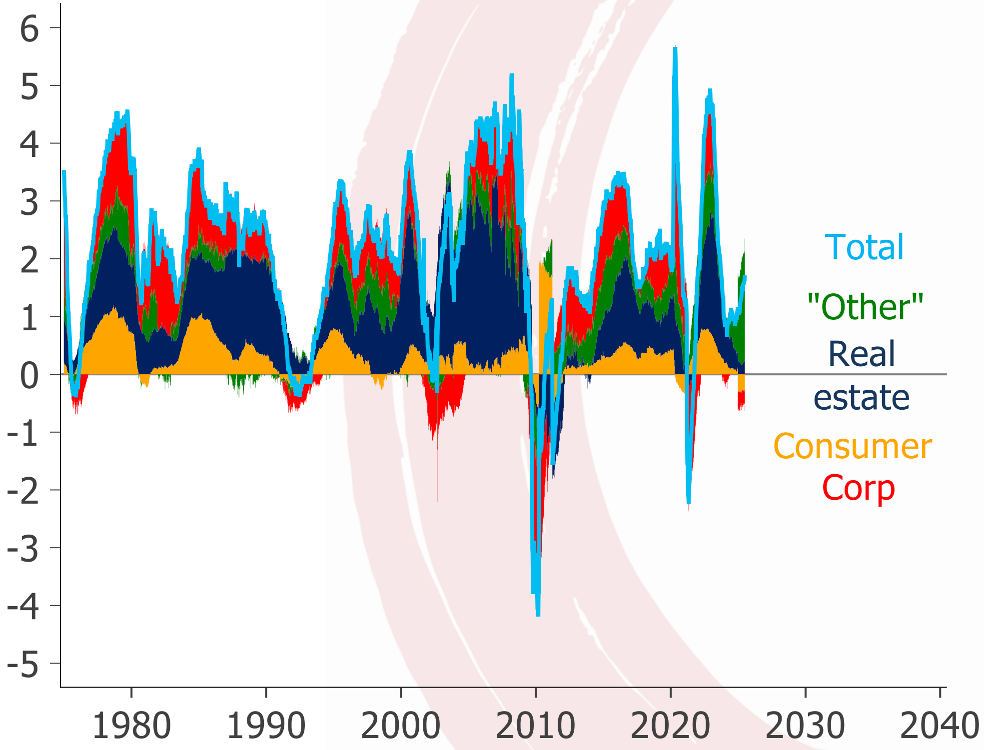
Source: BEA, Fed, UNCTAD, Macrobond, Satori Insights.

Too much money chasing too few assets

You can only lend to those who wish to borrow

US loan growth is to the financial sector

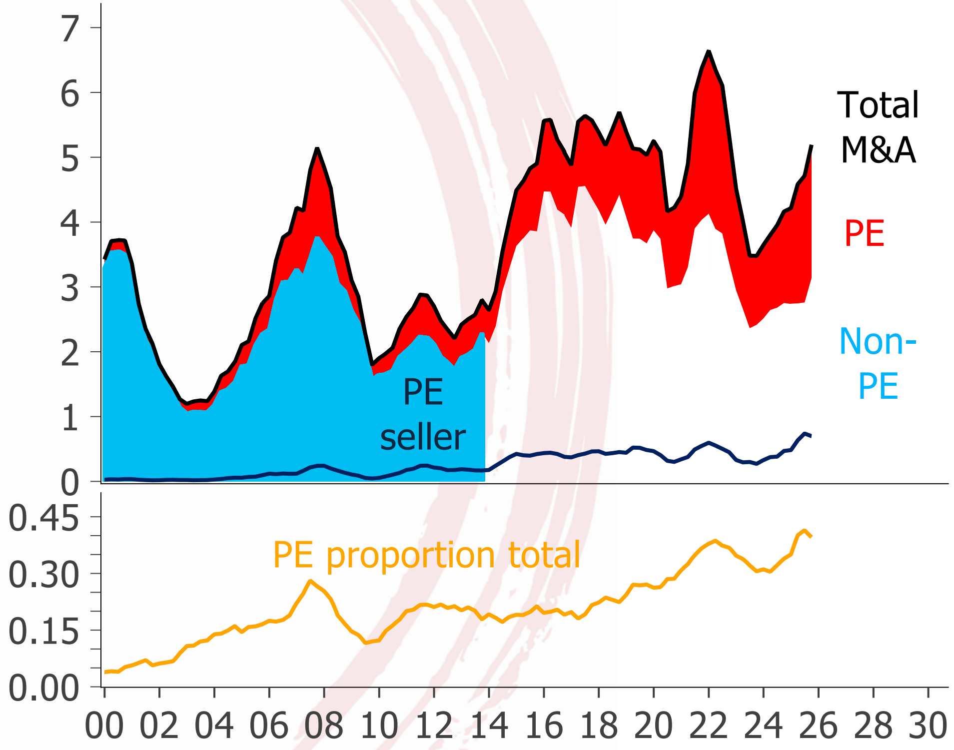
New loans by sector, rolling 12m, % GDP



Source: Federal Reserve, BEA, Macrobond, Satori Insights.

M&A is dominated by them too

Global M&A transactions (rolling 12m, $tn) vs equities



Source: Bloomberg, Satori Insights.

Increasingly, that means private equity

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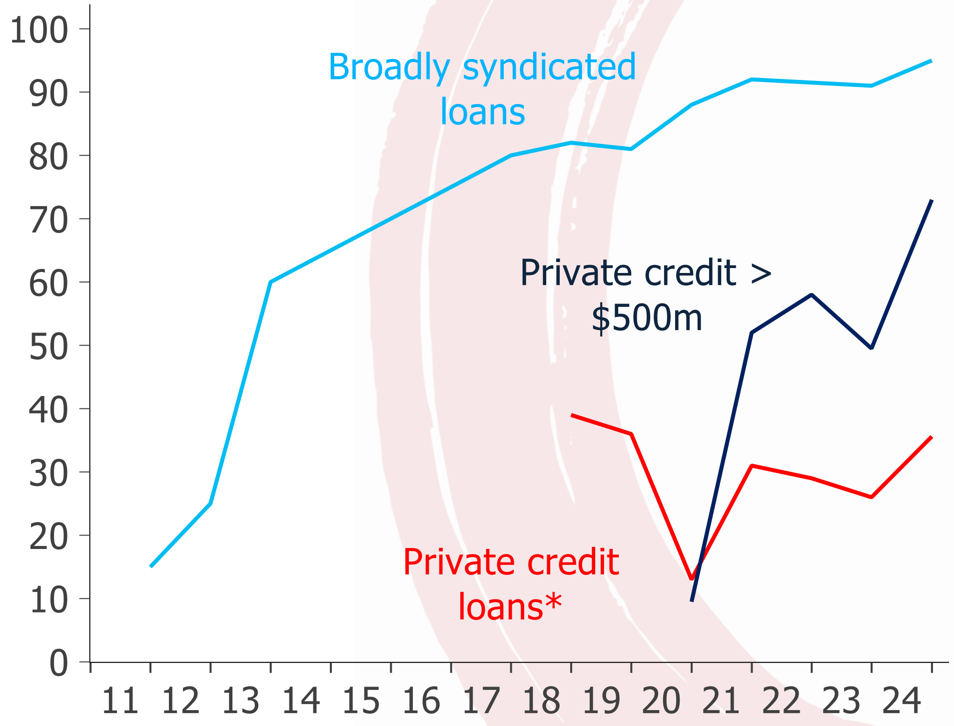
This changes the rules for debt investors

Traditional protections under threat

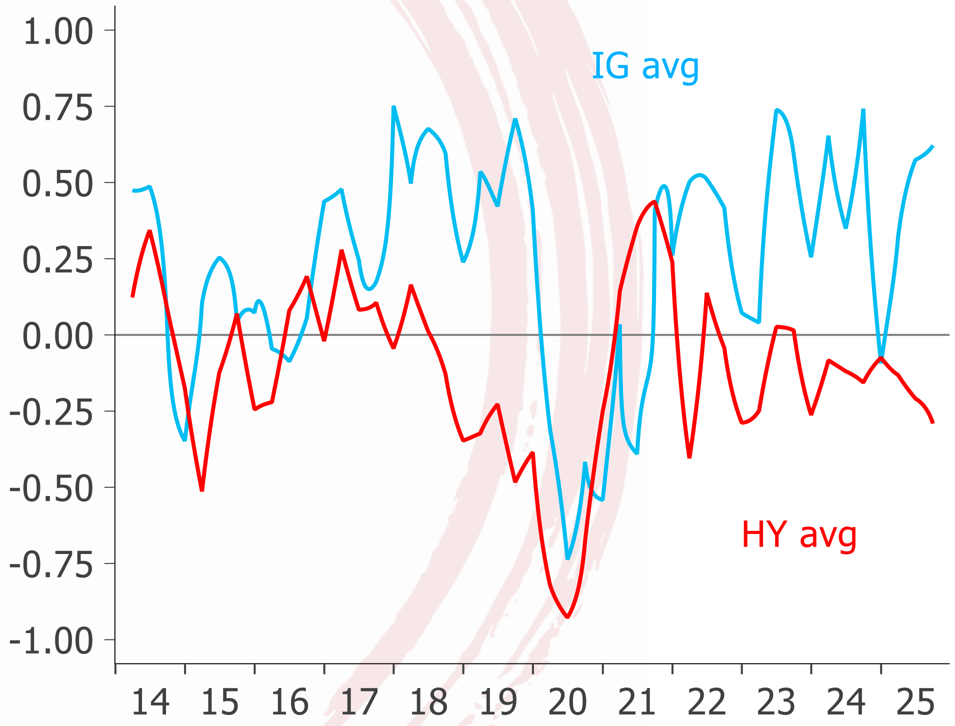
Covenant-lite share of new-issued loans, %



Source: ACC, Covenant Review, Kirkland & Ellis, BIS, Satori Insights.
*Unweighted average skewed by small loans. Covlite proportion for >$1bn loans closer to 70%.

PE⇒ ratings drift distinctly worse in HY

Net ratings upgrades / all ratings changes, Europe



Source: Moody's, S&P, Bloomberg, Satori Insights. US pattern similar.
See also "S&P: Defaults of sponsor-backed companies grew in 2024", Private Debt Investor, Jan25.

Management is no longer on your side

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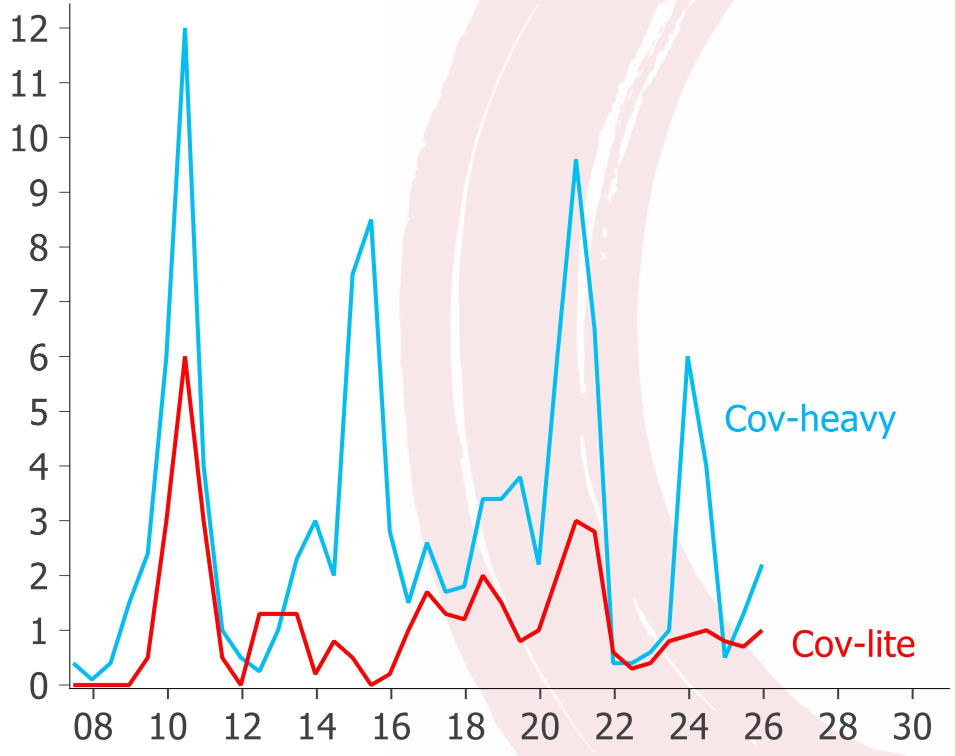
Surely this isn't all bad news?

Reduced covenants = reduced defaults

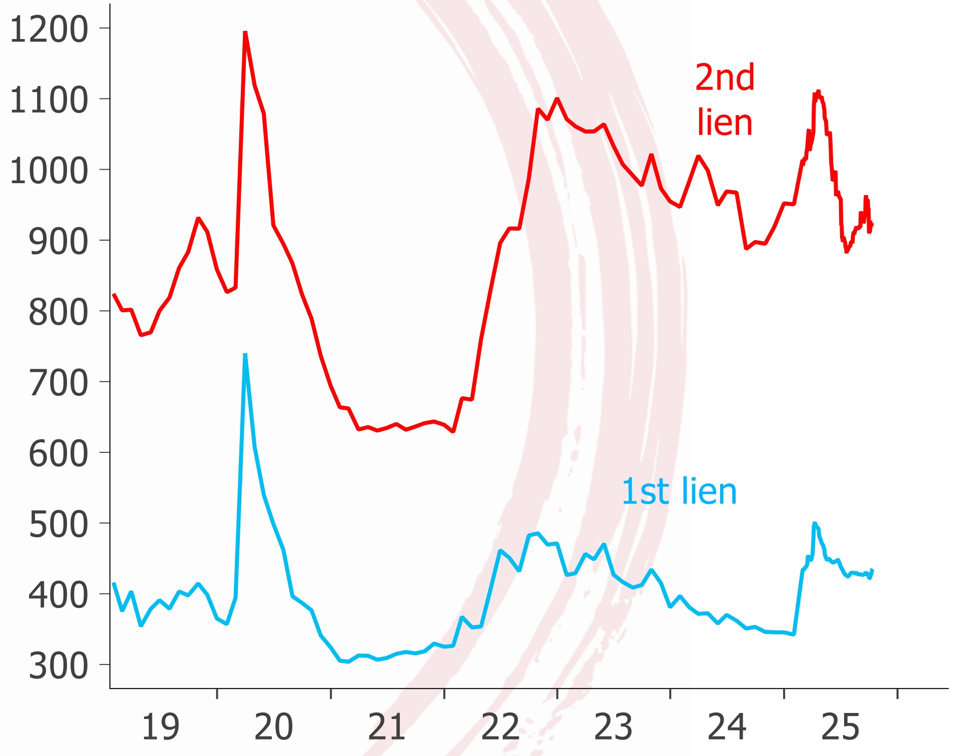
US lev loan default rates, rolling 1y, %



Source: PitchBook, LCD, Morningstar, Satori Insights.

2nd lien carries premium for LME risk

US leveraged loan index spreads by seniority, bp



Source: Bloomberg, BoA, Satori Insights.

Reduced covenants + constant refi + LMEs have boosted returns and suppressed defaults

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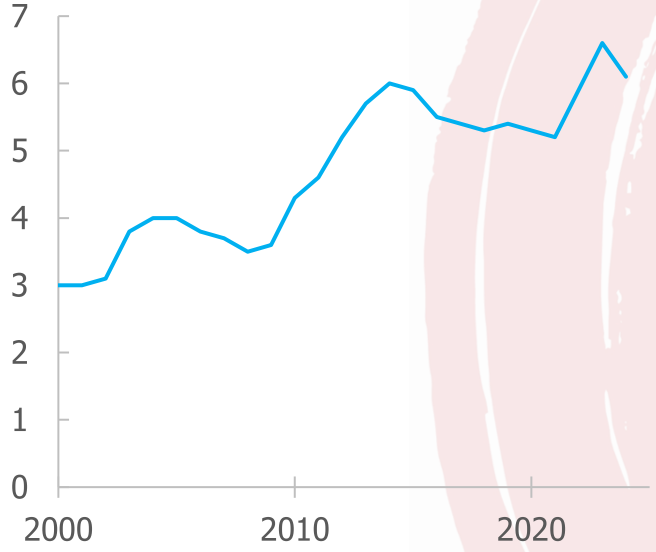
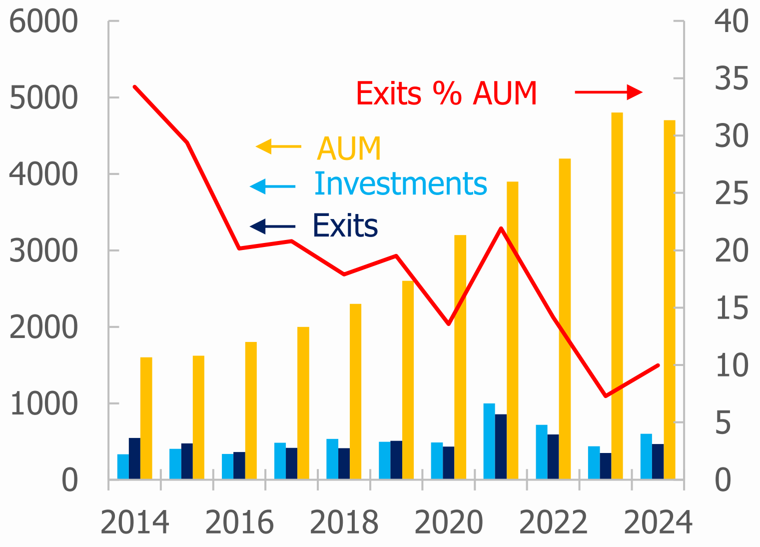
If private equity is becoming Hotel California…

Holding periods increasing
Median global buyout holding period, years



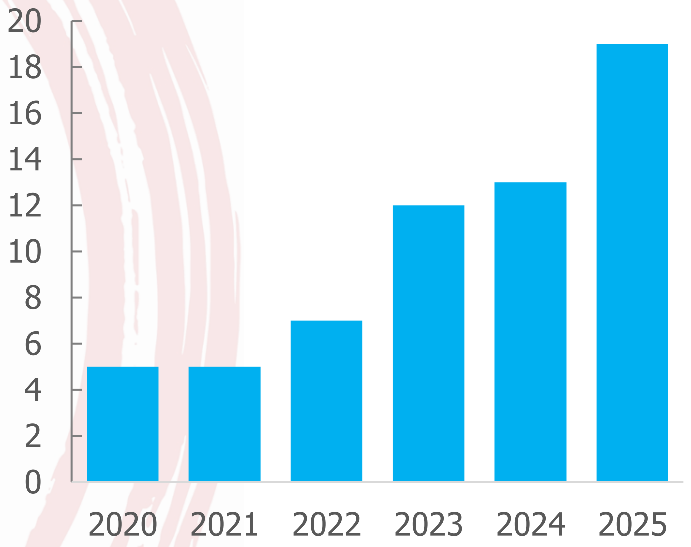
Source: Bain, PitchBook, Preqin, Privateequityinfo.com, Satori

Exits decreasing
Global PE buyout statistics, $bn



Source: Bain *Private Equity Outlook 2025*, Satori Insights.
See also "Exits favor the deleveraged" in *Troubling Signals for Private-Equity Exits*, A. Zaid, MSCI.

Thank Zeus for private credit
PE exits taking form of Continuation Vehicles, %



Source: Jefferies, Bloomberg, Satori Insights.

…private credit are the staff whose continued attendance keeps the hotel running

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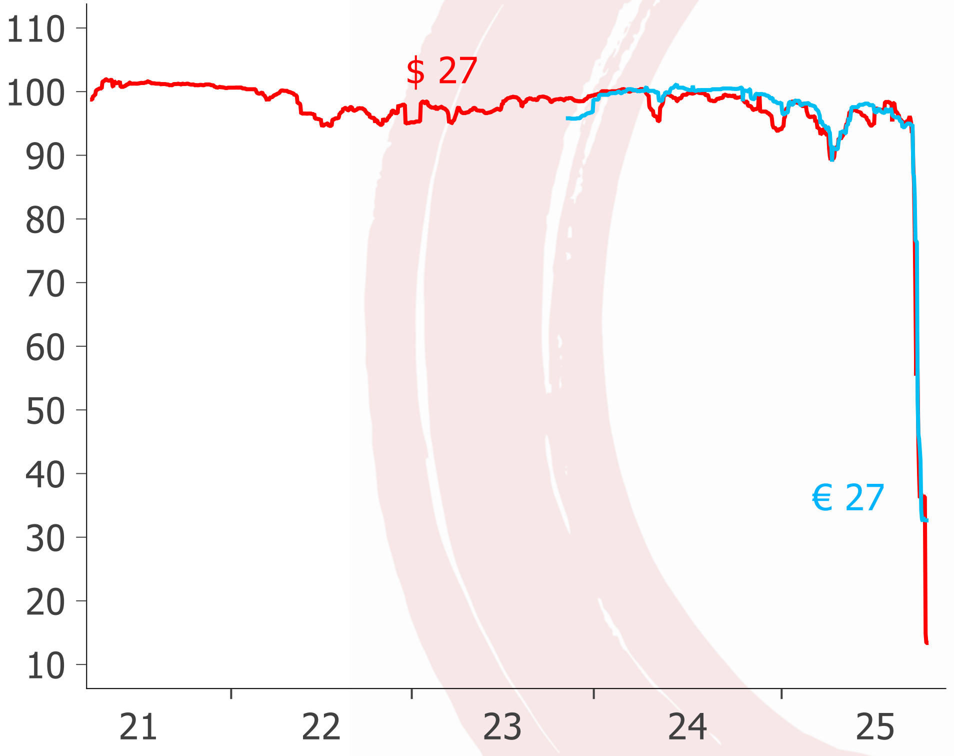
The question is whether risks are being stored up in the system

Sometimes even First shall be last

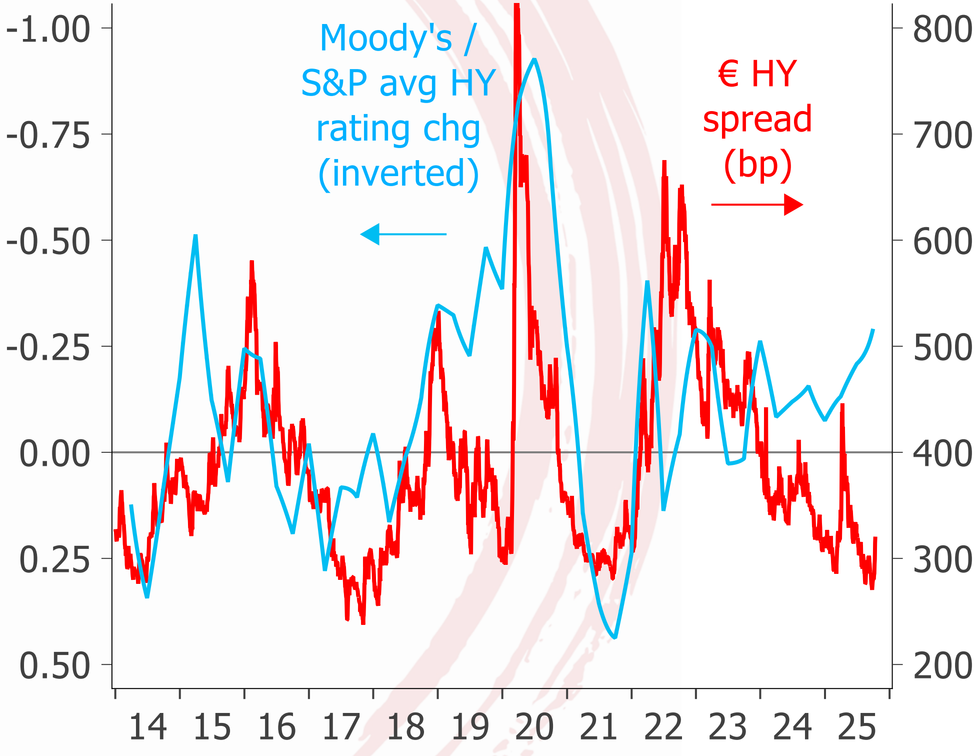
First Brands 1st Lien guaranteed senior secured loan price



Source: Bloomberg, Satori Insights.

And spreads lack any sort of premium

Net upgrades / all ratings changes, W Europe, vs spreads



Source: Moody's, S&P, Bloomberg, Satori Insights. US pattern similar.

When defaults do occur, recoveries are frequently minimal

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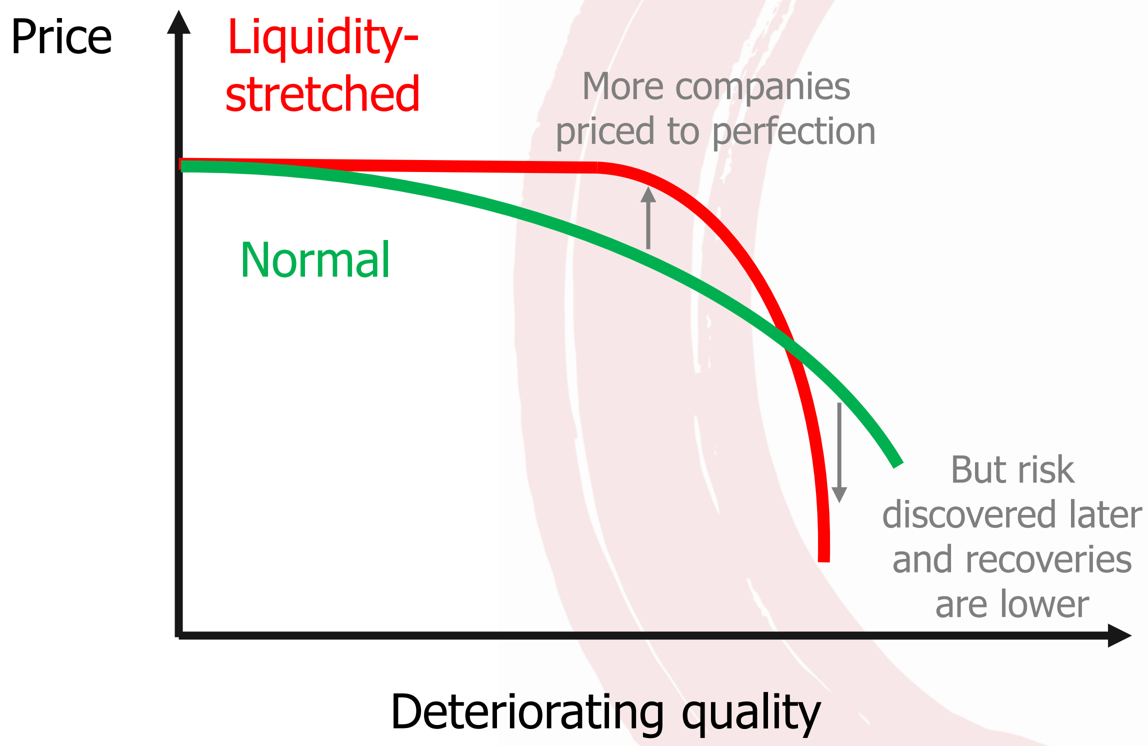
The impact of excess demand

How credit responds to too much money

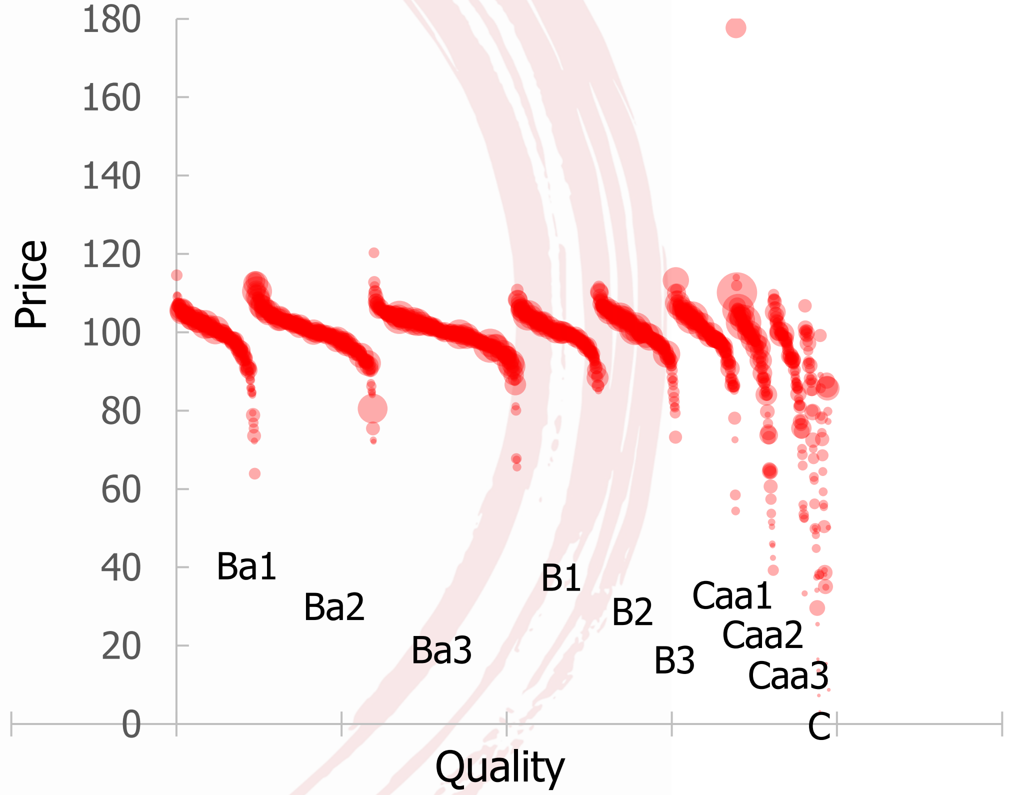
Index pricing schematic



Source: Satori Insights, Hans Lorenzen.

You can see this effect in practice

$ HY index members ranked by rating and price, Oct25



Source: Bloomberg, Satori Insights.

Liquidity steepens the credit cliff

Agenda

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The limits of leveraging

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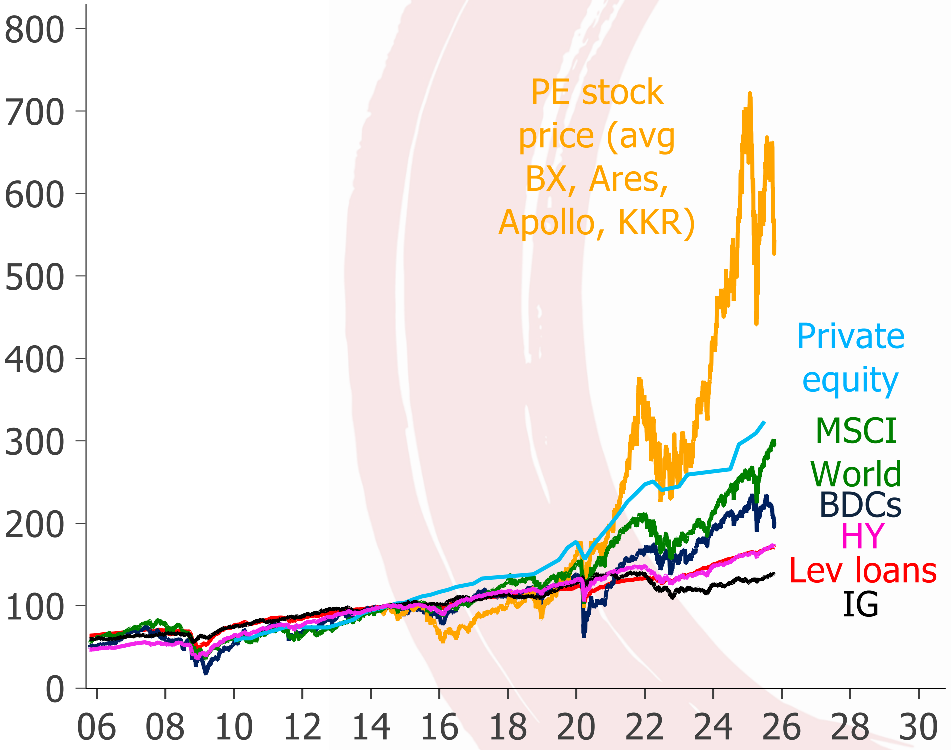
Anything leveraged has outperformed

The more levered, the better?

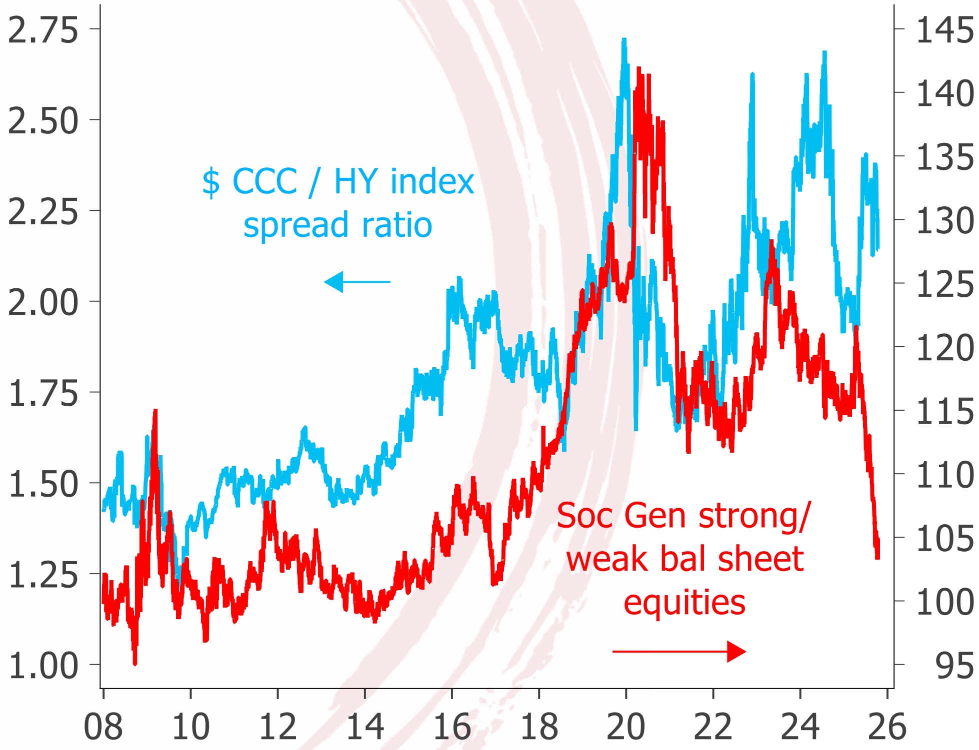
Total return indices, Jul14=100



Source: Morningstar, Bloomberg, Cliffwater, Macrobond, Satori Insights.

Parts of credit still harbour doubts

$ CCCs vs weak balance sheet equities, indices



Source: Bloomberg, Satori Insights.

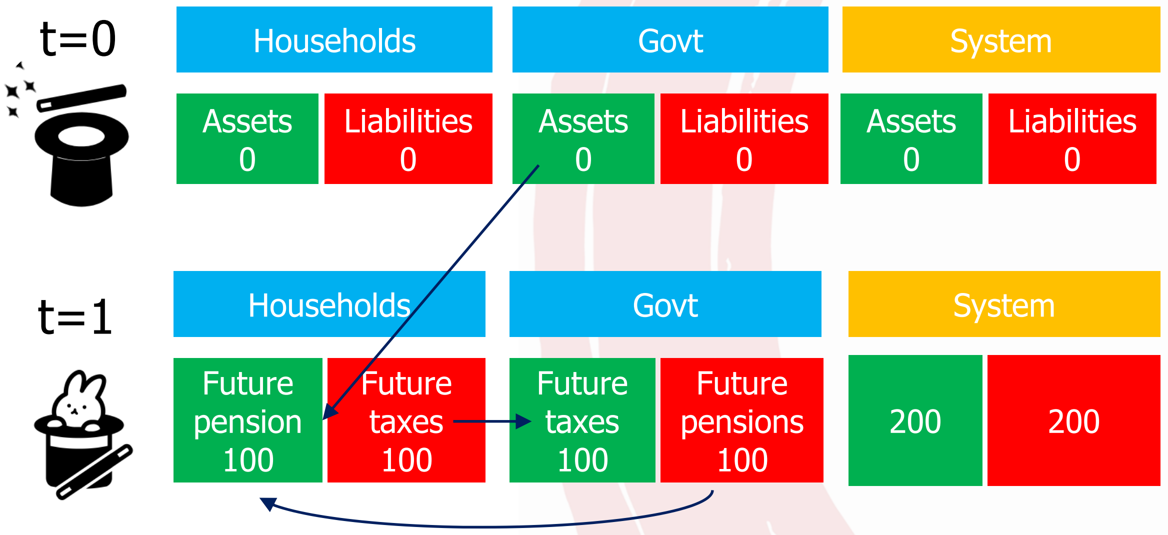
At what point does leveraging reach limits?

Leveraging is the financial equivalent of magic

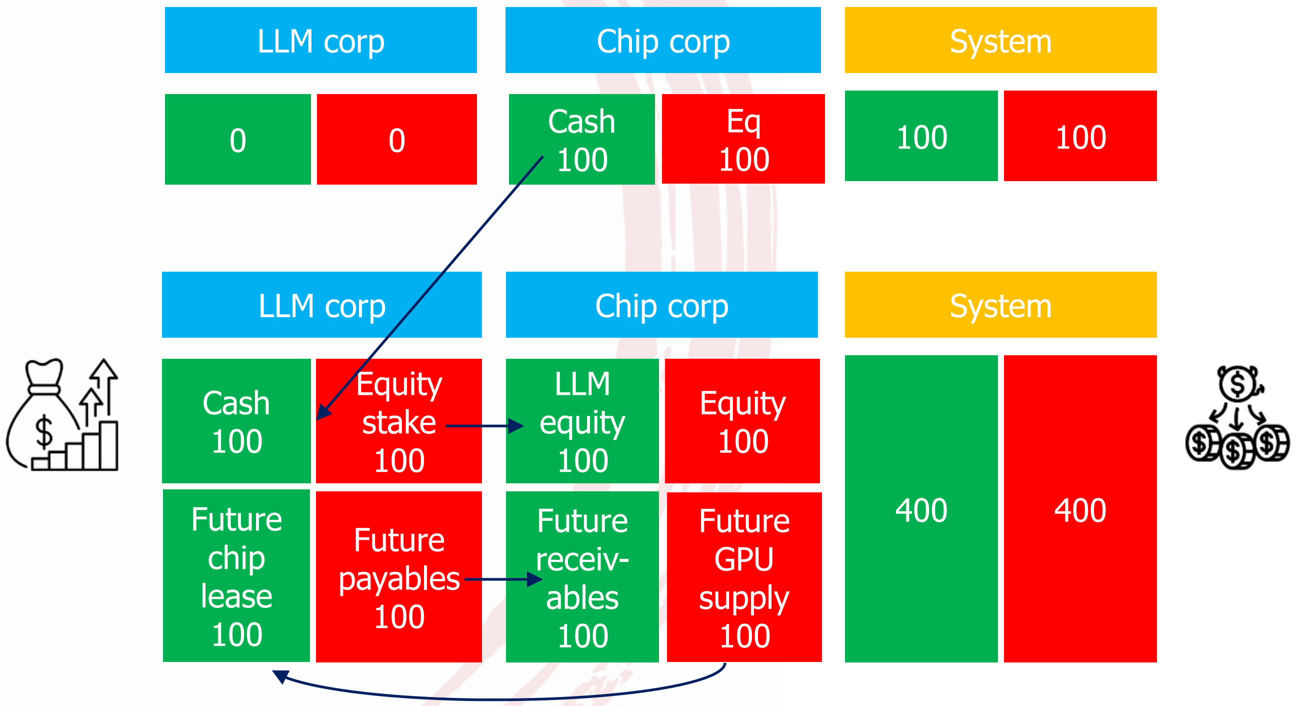
Who needs banks?

How leveraging through promises today juices paper wealth at the expense of liabilities tomorrow

Example 1
Government pension promise creates wealth



Example 2
Vendor financing à la OpenAI/Nvidia/Oracle/Lucent



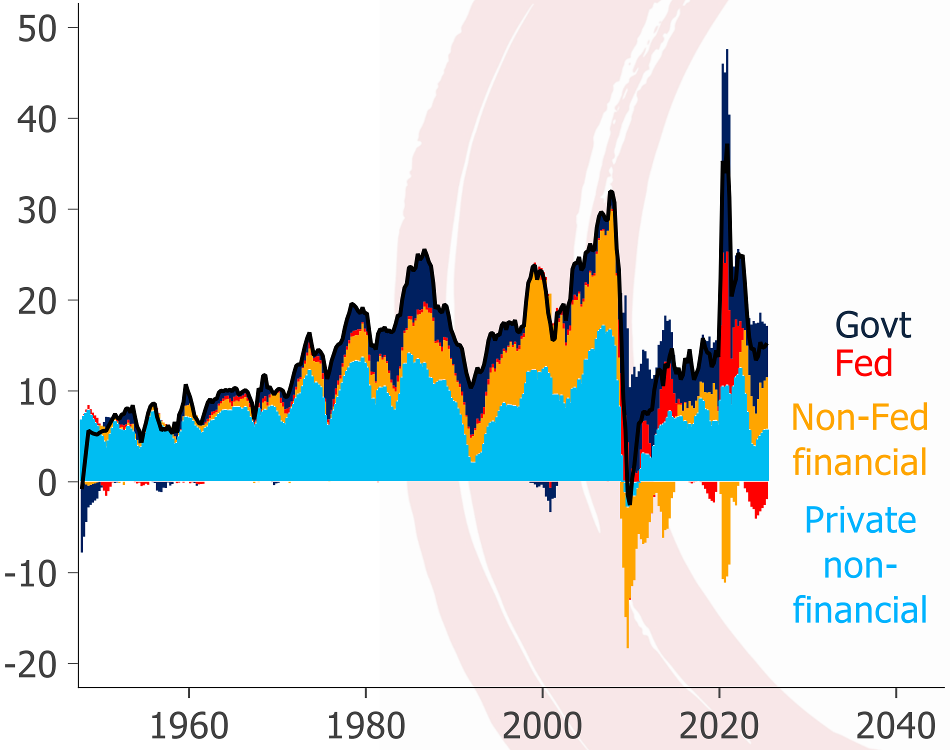
Source: Satori Insights. For some more precise numbers as to why the hyperscaler capex boom may be overdone, see *Global Crossing Is Reborn*, Praetorian Capital, Aug25. Also *OpenAI, Nvidia Deals Spark Fear AI Is Being Propped Up*, Bloomberg, 10 Oct.

Wealth is created *ex nihilo* – provided the ~~magicians~~ borrowers and lenders remain credible

So where's the new money coming from, and how durable is it?

Private non-fin borrowing unchanged

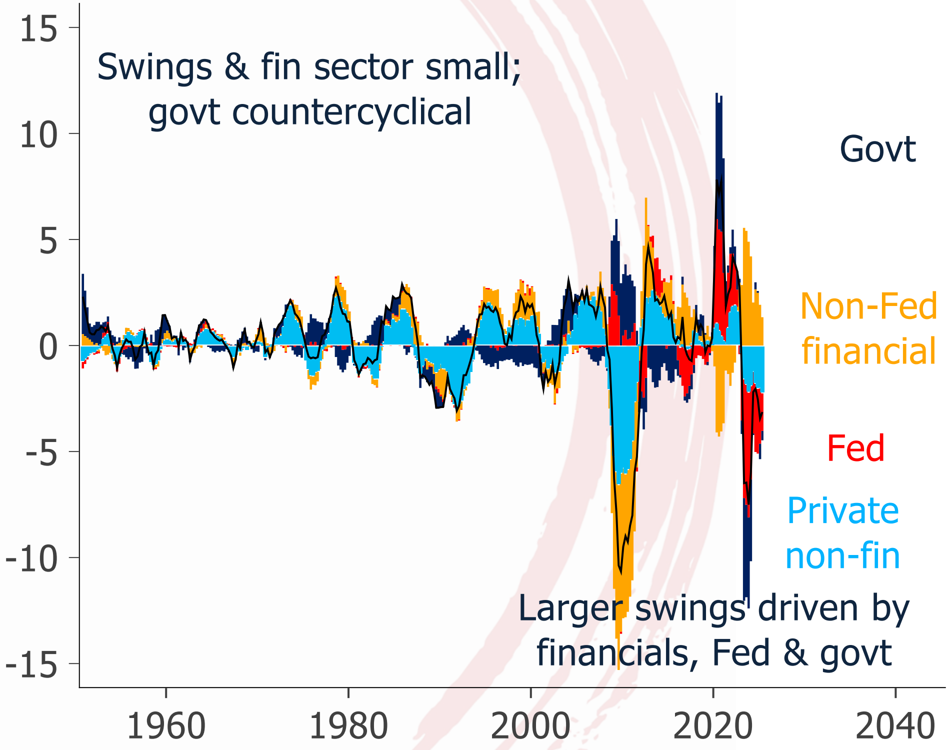
US borrowing by sector, rolling annual, % GDP



Source: Fed, Macrobond, Satori Insights.

Impulse now from fiscal, Fed & fins

Annual chg in 3y US borrowing by sector, % GDP



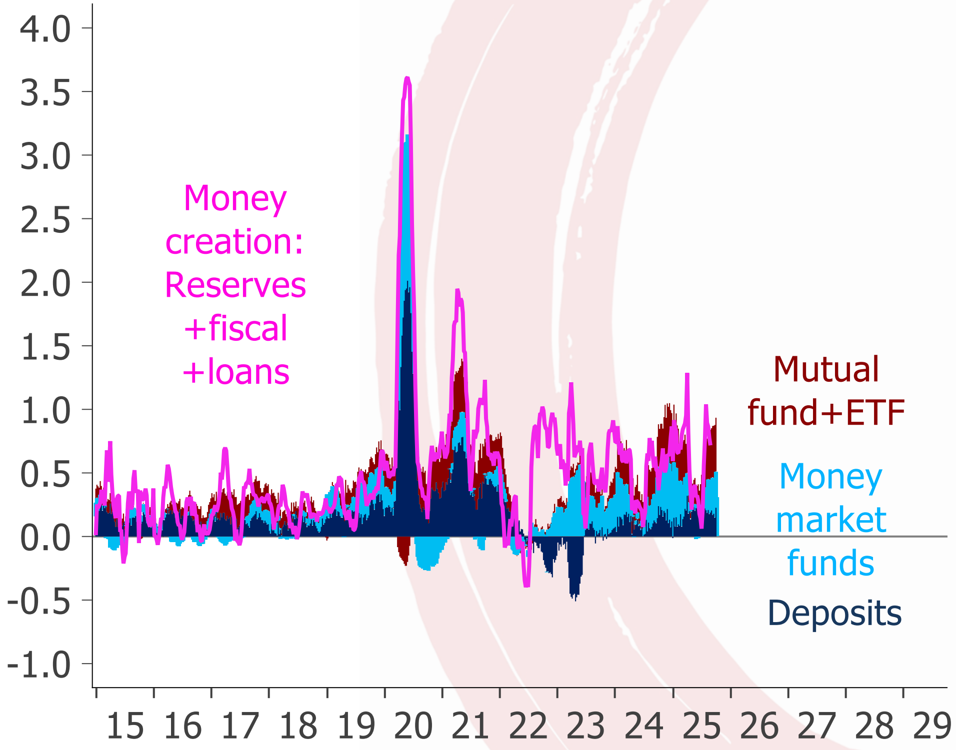
Source: Fed, Macrobond, Satori Insights.

In outright terms, from fiscal; in terms of the recent surge, from the financial sector

Can we track short-term moves more directly? (1)

Money utilization≈depo+MMkt+funds

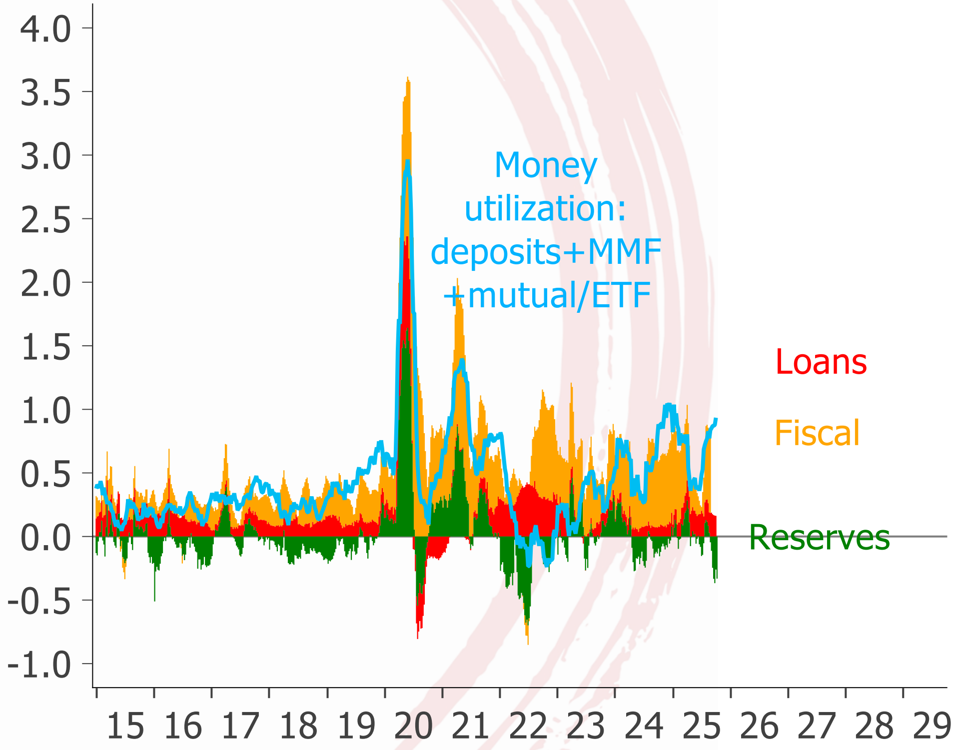
Uses of US money vs total creation, rolling 3m, $tn



Source: Federal Reserve, ICI, Macrobond, Satori Insights.

Money creation≈reserves+fiscal+loans

Sources of US money and asset creation, rolling 3m, $tn



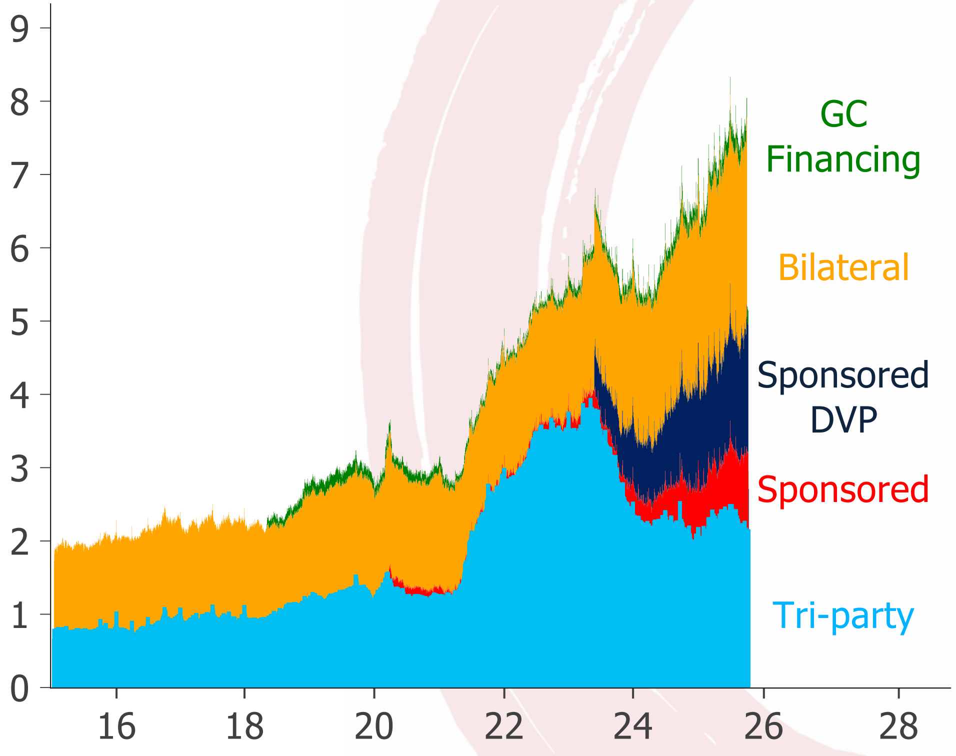
Source: Federal Reserve, Satori Insights.

Unprecedented fund inflows have their roots in fiscal money creation

Can we track short-term moves more directly? (2)

Repo flying high again

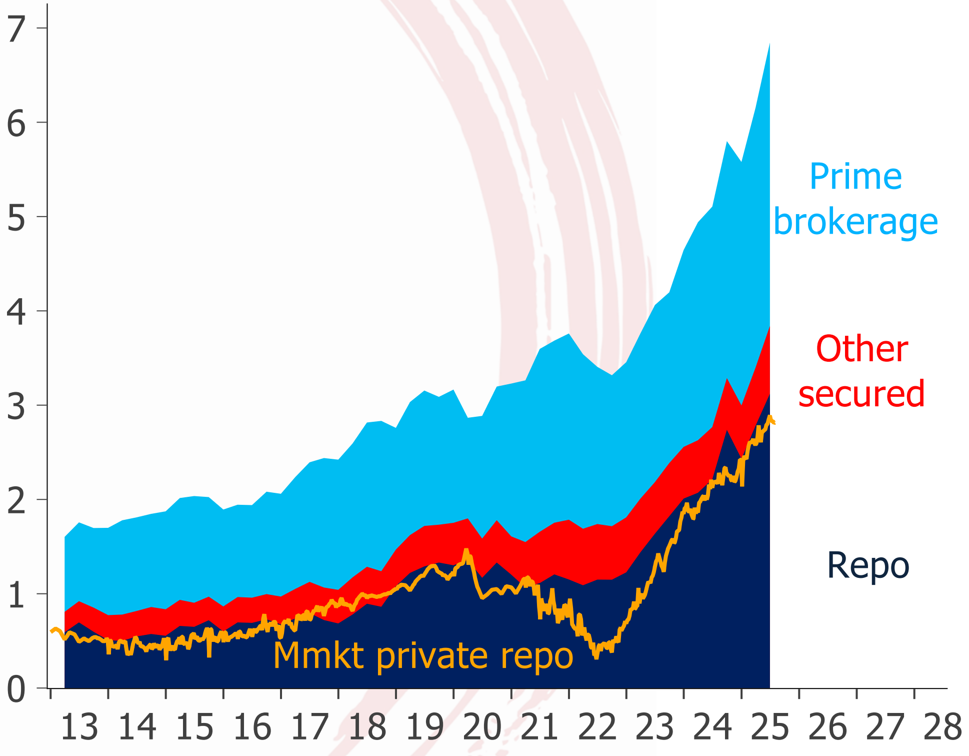
US repo outstanding by venue, $tn



Source: OFR, DTCC, Bloomberg, Satori Insights.

Much is ending up at hedge funds

Hedge fund borrowing by type vs MMF repo activity, $tn



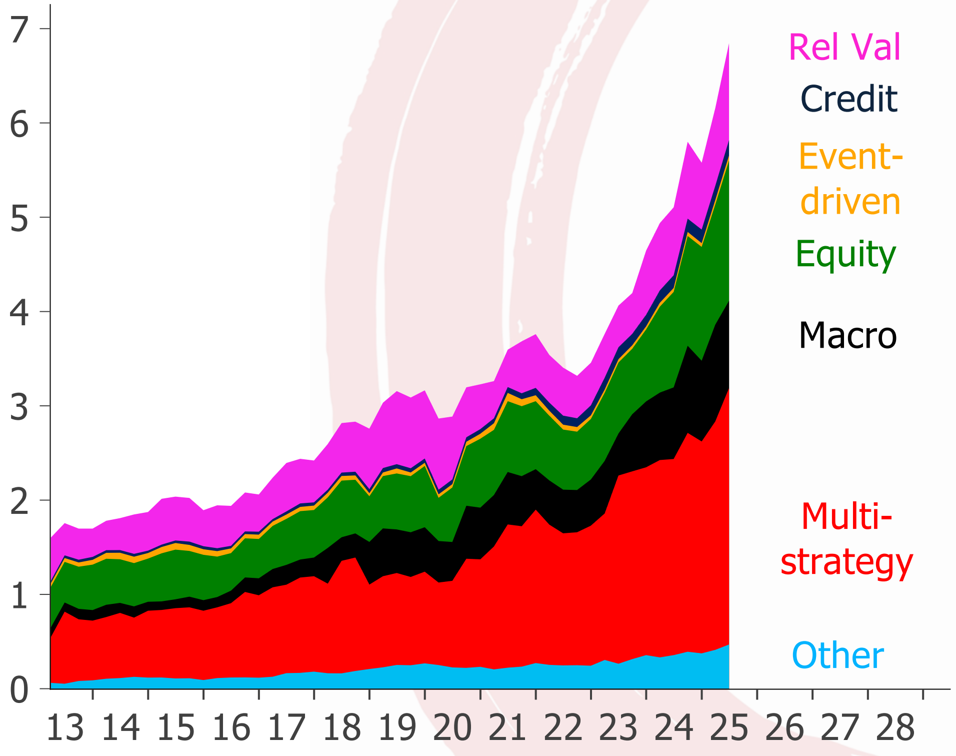
Source: The Office of Financial Research (OFR), Fed, Macrobond, Satori Insights.

Financial sector leveraging is feeding repo & hedge funds

HF leverage can potentially diversify and stabilize markets

Multi-strats lead the way

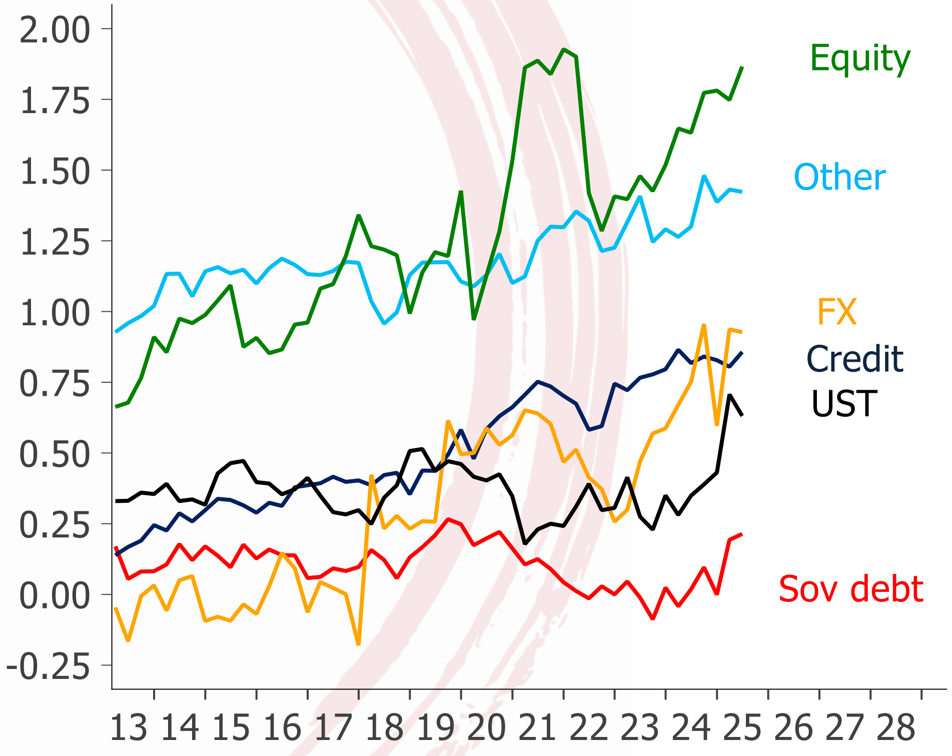
Hedge fund borrowing by strategy, $tn



Source: The Office of Financial Research (OFR), Fed, Macrobond, Satori Insights.

Long and getting longer

Net long-short exposure by asset class, $tn



Source: The Office of Financial Research (OFR), Fed, Macrobond, Satori Insights.

At present it's fuelling net longs

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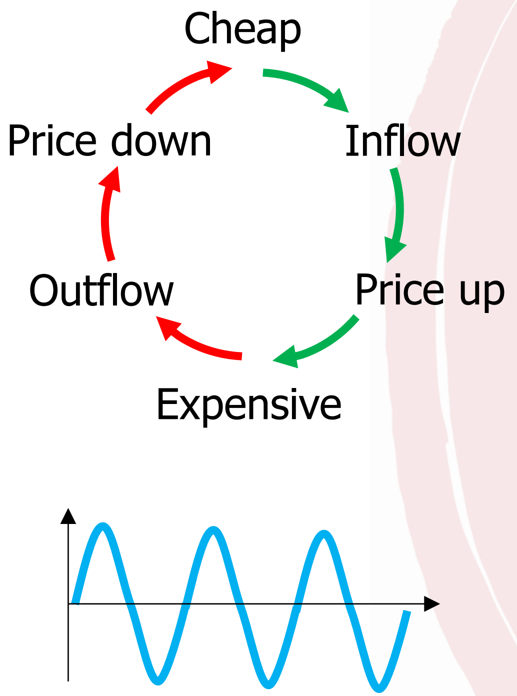
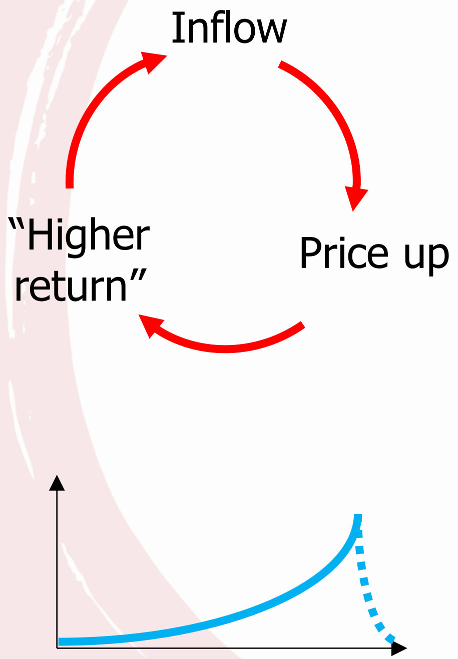
In a sense, the leveraging just creates asset price sensitivity

Leveraging used to fuel RV and mean reversion



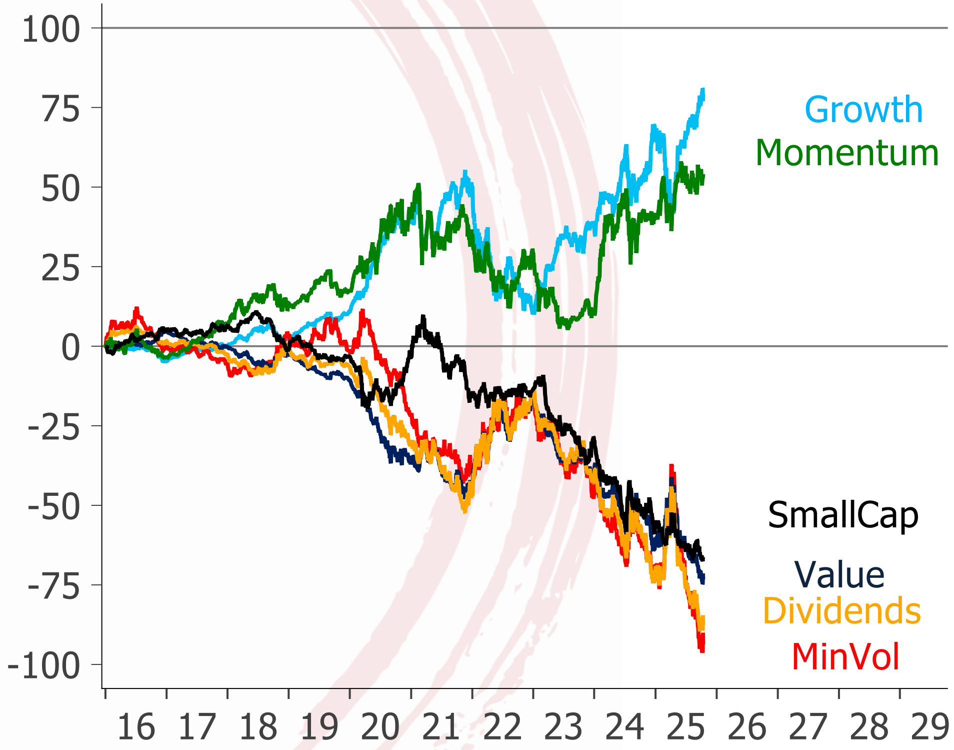
Source: Satori Insights.

Now it fuels trend following



Momentum chasing

MSCI World factor relative performance since 2016, %



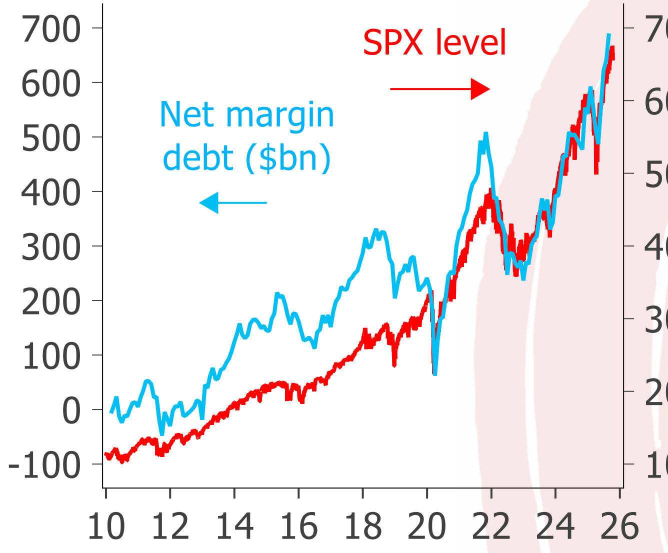
Source: MSCI, Macrobond, Satori Insights.

The real problem is how people have learnt to deploy it

So can we just lever ourselves to prosperity?

Highs all round

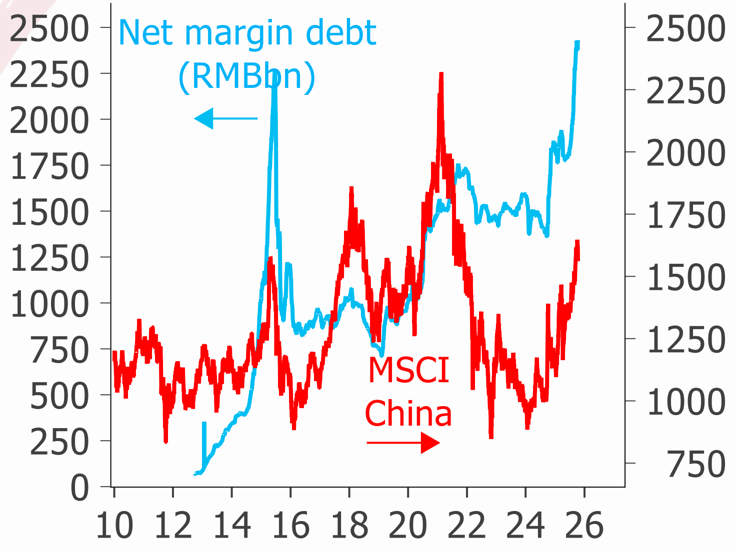
Net debt in margin accounts vs S&P 500



Source: FINRA, S&P, Satori Insights.

Margin also at highs in China

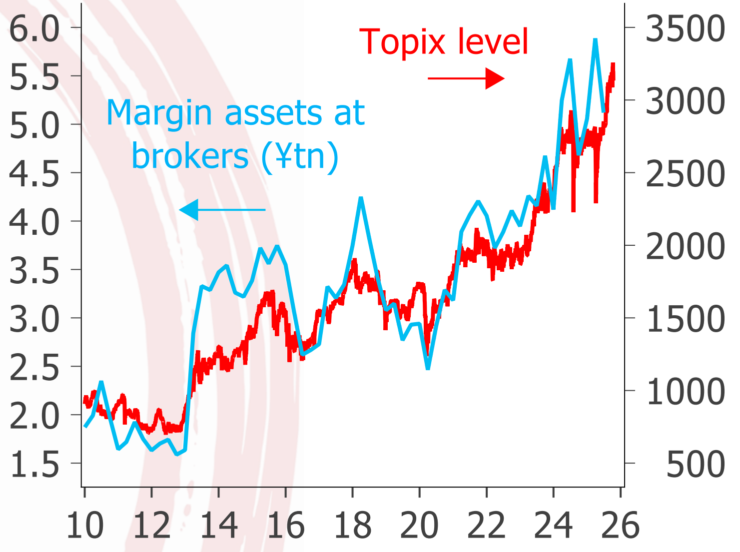
China margin debt vs equities



Source: Bloomberg, MSCI, Satori Insights.

And Japan

Japan margin accounts vs equities



Source: MoF, Tokyo Stock Exchange, Macrobond, Satori Insights.

Borrow → Buy risk asset → Price up → Margin covered → Borrow+ buy more → Price up

Borrow → Buy risk asset → Price down → Margin shortfall → Sell → Price down

Source: Satori Insights.

No. But the trick works while prices keep rising

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So where are the true limits?

What are we borrowing for? Three reasons for borrowing			How will we service it? Minsky's three finance types	
Real economy	**Consumption & capex**	Repay from future income	**"Hedge"**	Can pay interest and principal
Risky assets	**Capital gain**	Repay from price gain	**"Speculative"**	Can pay interest; must roll principal
Safe assets (FX, gold)	**Capital flight**	Repay from debasement	**"Ponzi"**	Requires capital gain or asset sale to pay interest and principal

Source: *The Financial Instability Hypothesis*, H. Minsky, 1992, Satori Insights.

Watch both the pace of borrowing, and where the money then goes

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Dalio's four warning signs from history

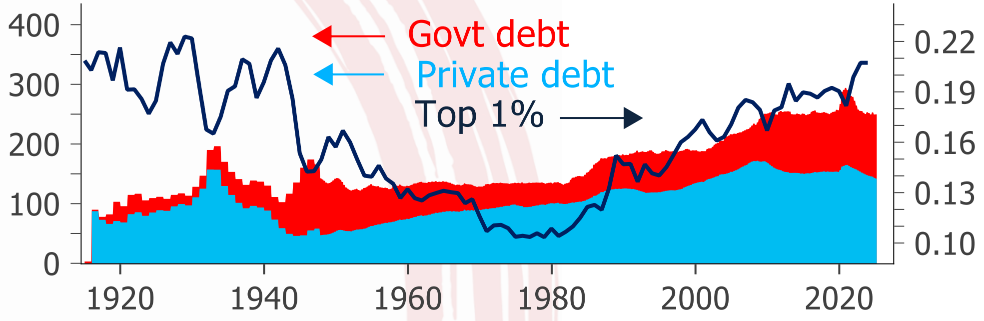
	Indicator	Why it matters
	High debt	Harder to escape problems by borrowing
	High inequality	Society has different incentives
	High political polarization	Society pulls in different directions and starts fighting internally
	Decline of old great power	War becomes more likely

Source: Satori Insights, with inspiration from *The Changing World Order*, R. Dalio.
See also *Trading a decaying hegemon*, M. King, 21 Aug.

Where we stand

Record debt, near-record inequality

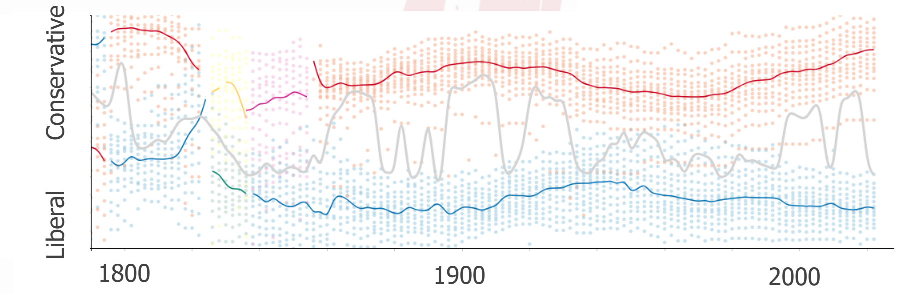
US debt (% GDP) and wealth (income share) levels



Source: BIS, Federal Reserve, WID, Jorda-Shularick-Taylor Macrohistory, Satori Insights.

Less common ground now than during US Civil War

Ideology split in US Congress since 1800, index



Source: voteview.com.
See also Philly Fed Partisan Conflict Index (recently somewhat ironically discontinued).

The scary thing isn't the economics; it's political choices which make the economics worse

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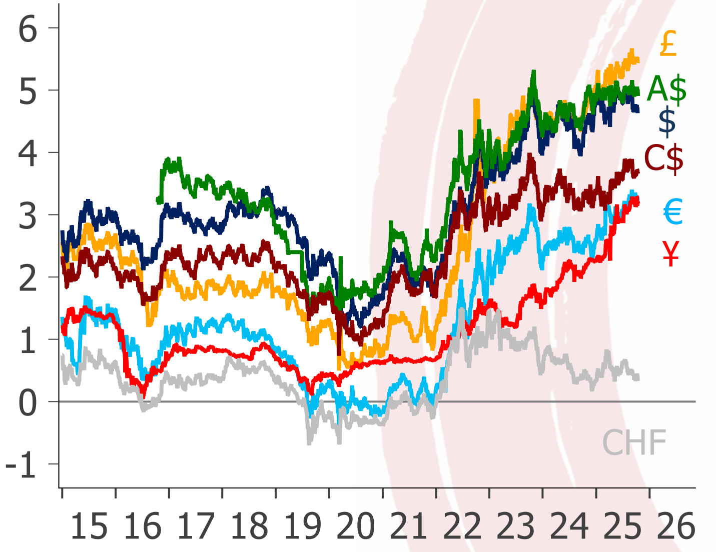
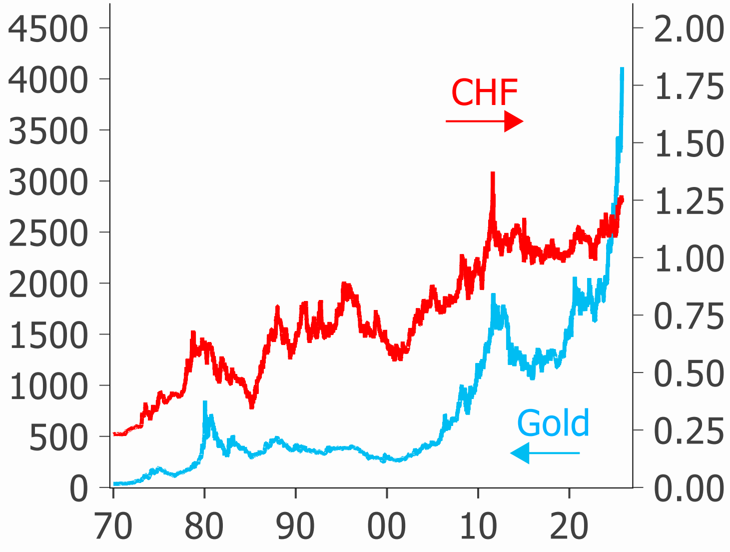
How to monitor progress?

Watch bonds
Global 30y government bond yields, %



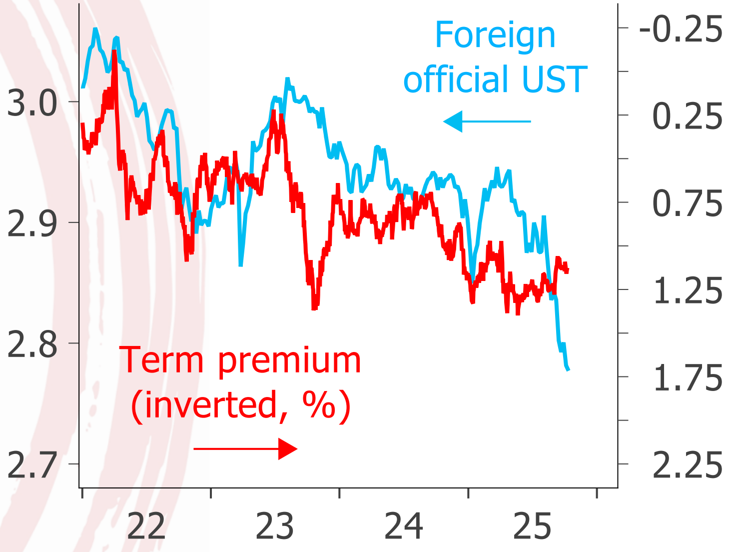
Source: Macrobond, Bloomberg, Satori Insights.
Technical factors are at work here too. See *The long-bond problem*, 8 Sep.

Watch FX
Exchange rates for gold and CHF, $



Source: Macrobond, Satori Insights.

Watch capital flight
Foreign UST at Fed ($tn) vs term premia



Source: Federal Reserve, NY Fed, Macrobond, Satori Insights.
For daily updates and more examples, see our *UST-USD capital flight charts*.

Keep watching the exits, and remember runs are contagious

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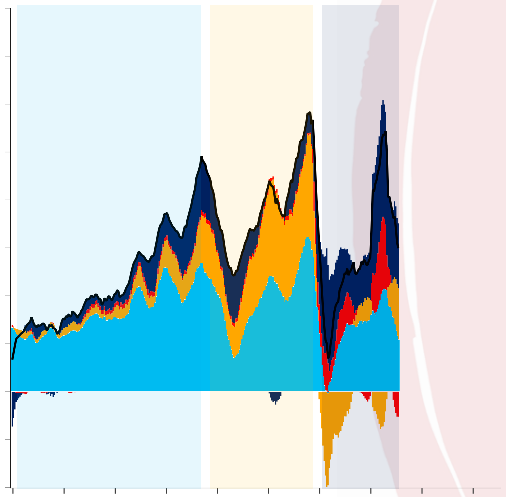
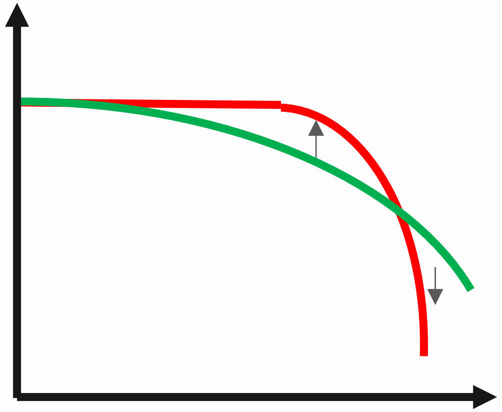
Conclusion

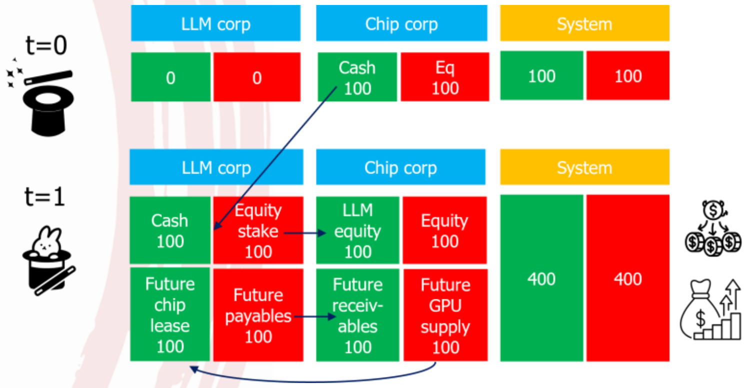
We keep forcing money in



Problems postponed are problems accumulated



Credibility is everything

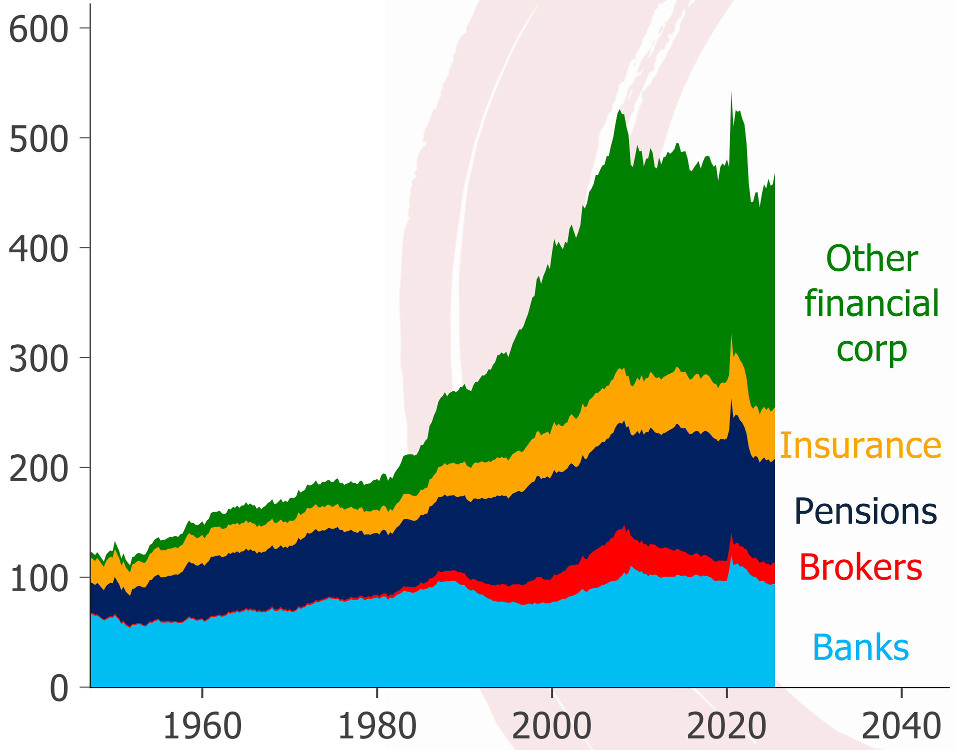


Ponzi schemes work – until people stop believing in them

Appendix: how large has the financial sector become?

Assets not quite at highs

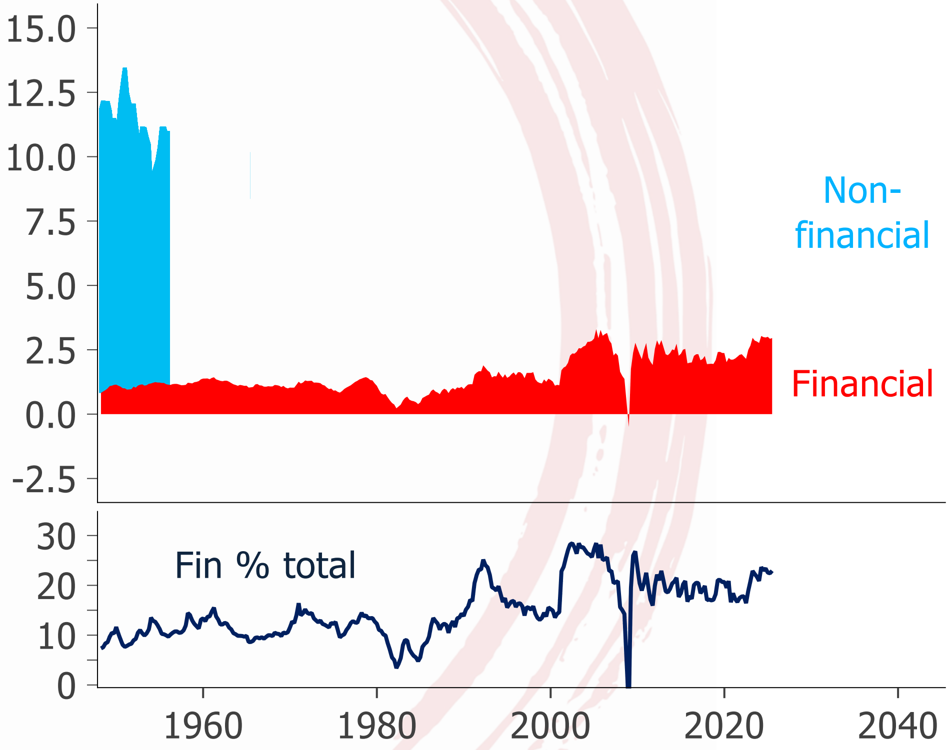
US financial sector assets, % GDP



Source: Federal Reserve, Macrobond, Satori Insights.

But profits are!

US corporate profits metrics, % GDP



Source: Federal Reserve, Macrobond, Satori Insights.

Slicing and dicing risks double-counting – but maybe that's the point

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