Challenges to Navigating the COVID-19 Shock

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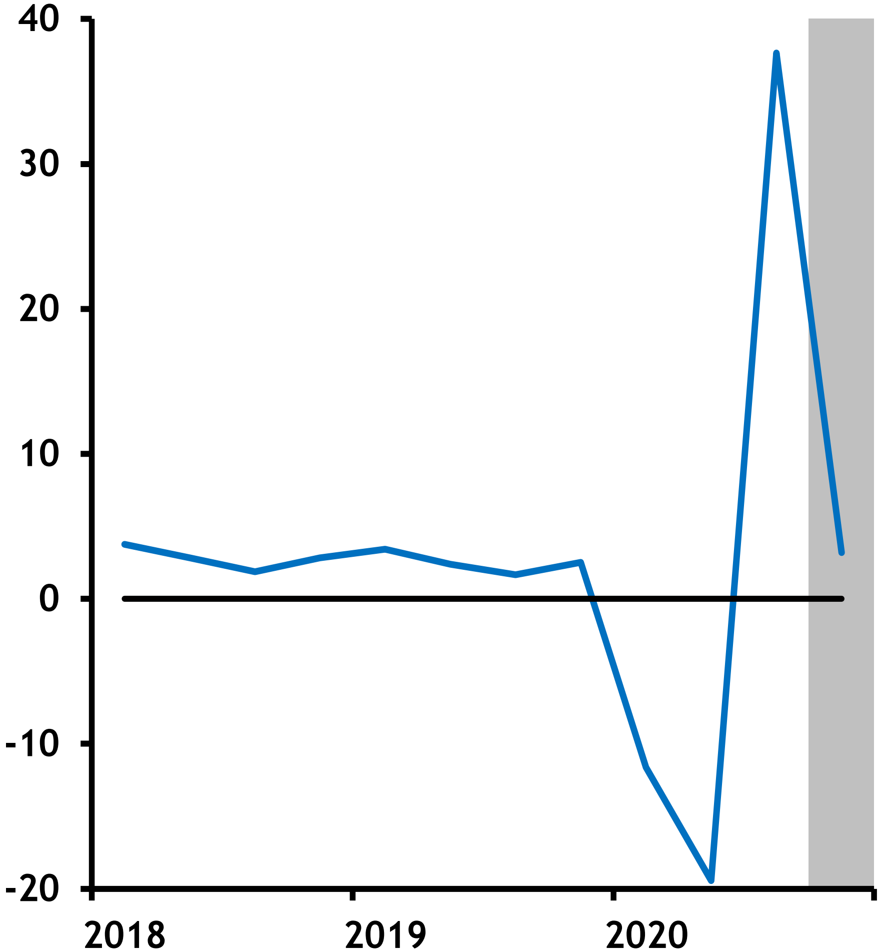
Historic 2H20 bounce, but incomplete recovery

Global real GDP

%q/q, saar



Source: J.P. Morgan

Global real GDP

% ch annualized. *Q4/Q4

	2016-2019	1H20	2H20	2021*
Global	**3.0**	**-16**	**20**	**4**
DM	**2.0**	**-21**	**21**	**3**
US	2.4	-18	18	2
Euro area	1.8	-27	26	6
Japan	0.7	-15	16	2
UK	1.3	-34	37	8
EM	**4.7**	**-7**	**19**	**5**
EM Asia	**5.8**	**-1**	**18**	**5**
China	6.6	11	10	5
India	6.1	-32	66	7
EMEA EM	**3.0**	**-17**	**16**	**4**
Poland	4.2	-16	12	6
Russia	1.6	-16	11	4
Latam	**1.0**	**-26**	**29**	**2**
Mexico	1.3	-29	31	2
Brazil	0.8	-21	21	1

Source: J.P. Morgan

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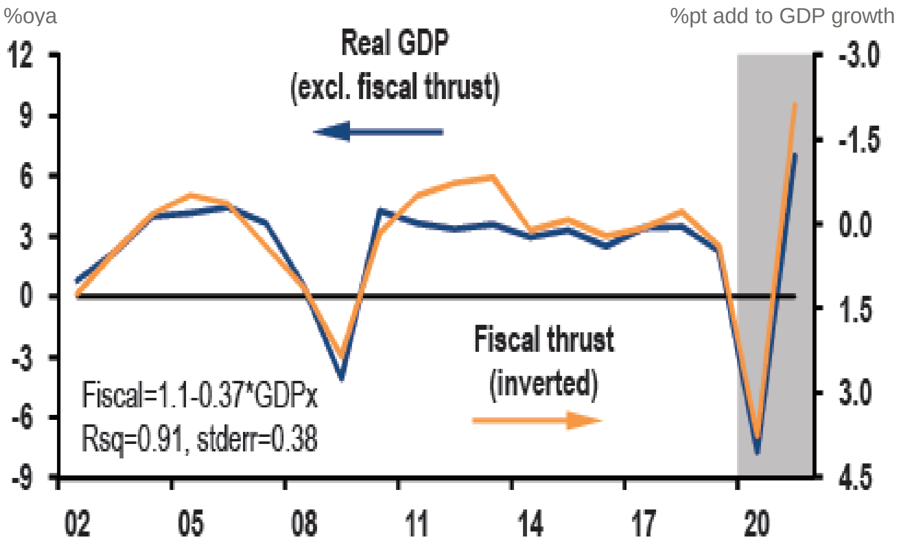
Global economy expected to remain 3.8% below pre-COVID path at end-2021 despite substantial fiscal stimulus

Global Fiscal Policy and GDP



Source: J.P. Morgan

Global real GDP

% change over specified period, ar

	4Q20	1Q21	2Q21	2H20	2021, 4Q/4Q
Global	**3.2**	**3.2**	**4.7**	**3.9**	**3.9**
DM	**-0.3**	**2.3**	**4.9**	**3.3**	**3.5**
US	3	1.5	2	1.6	1.7
Euro area	-9	2.5	8.5	6.8	6.1
UK	-6	8.7	14.9	3.6	7.7
Japan	8	1	2.5	1.5	1.6
EM	**8.3**	**4.6**	**4.5**	**4.6**	**4.6**
EM Asia ex China	9.4	7.1	5.2	4.5	5.3
China	11.9	4.1	4.8	5.8	5.1
EMEA EM	-3.8	4.8	5.2	4	4.5
Latam	7.1	1.1	1.9	2.1	1.8

Source: J.P. Morgan

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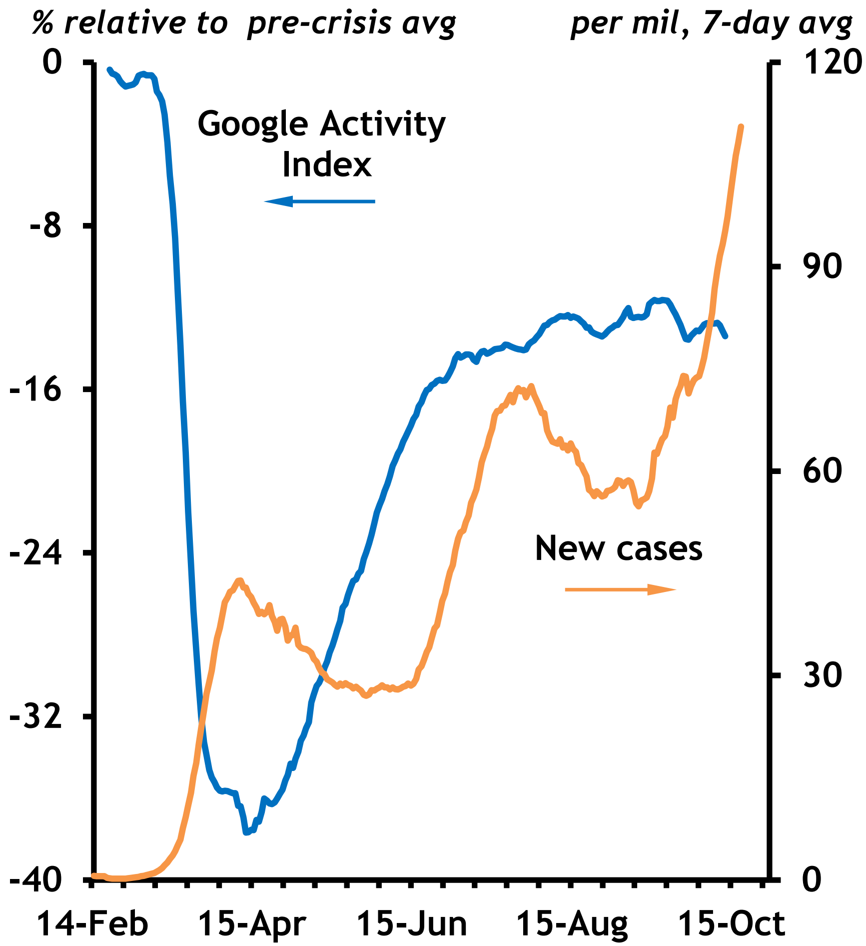
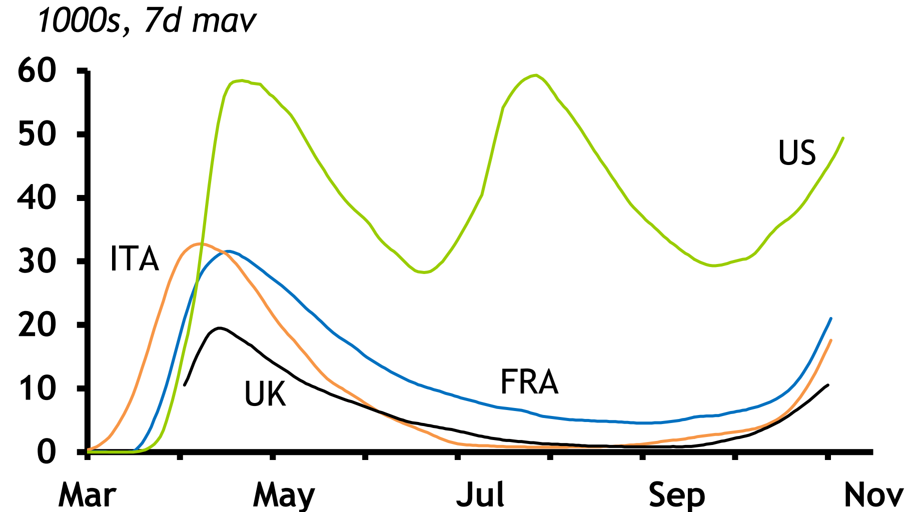
The link between COVID-19 and mobility has yet to be broken

Global mobility and new COVID cases



Source: J.P. Morgan

COVID-related hospitalizations



Source: J.P. Morgan, COVID Tracking Proj. ECDPC

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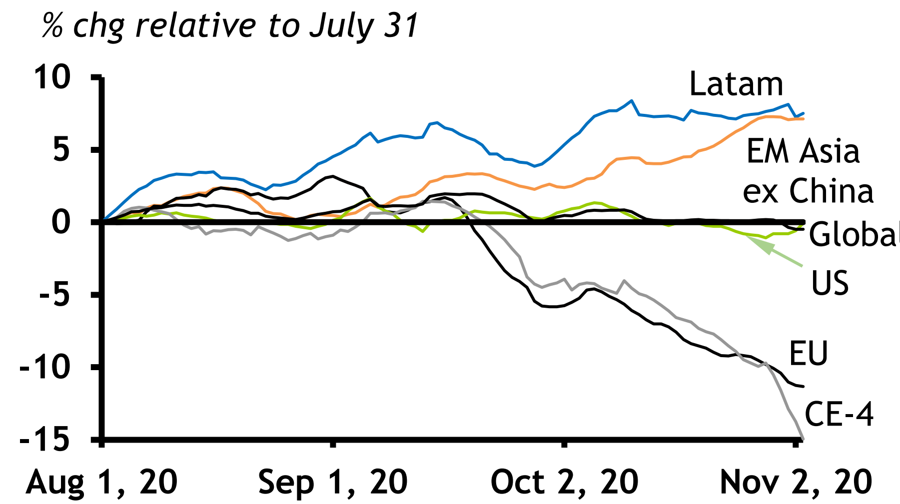
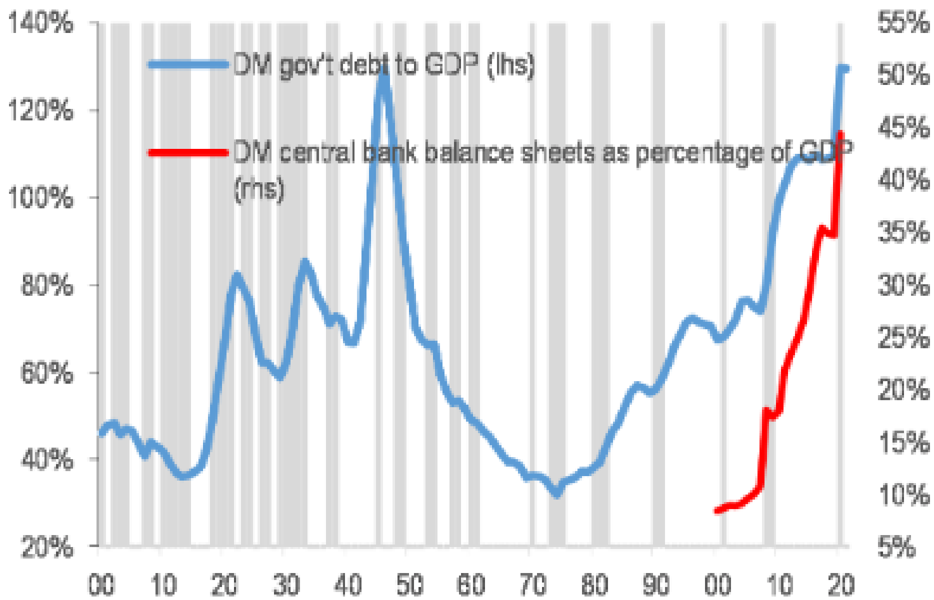


Source: J.P. Morgan

Sovereign indebtedness at 70-year high with 70% of global sovereign debt posting negative real yields after adjusting for inflation

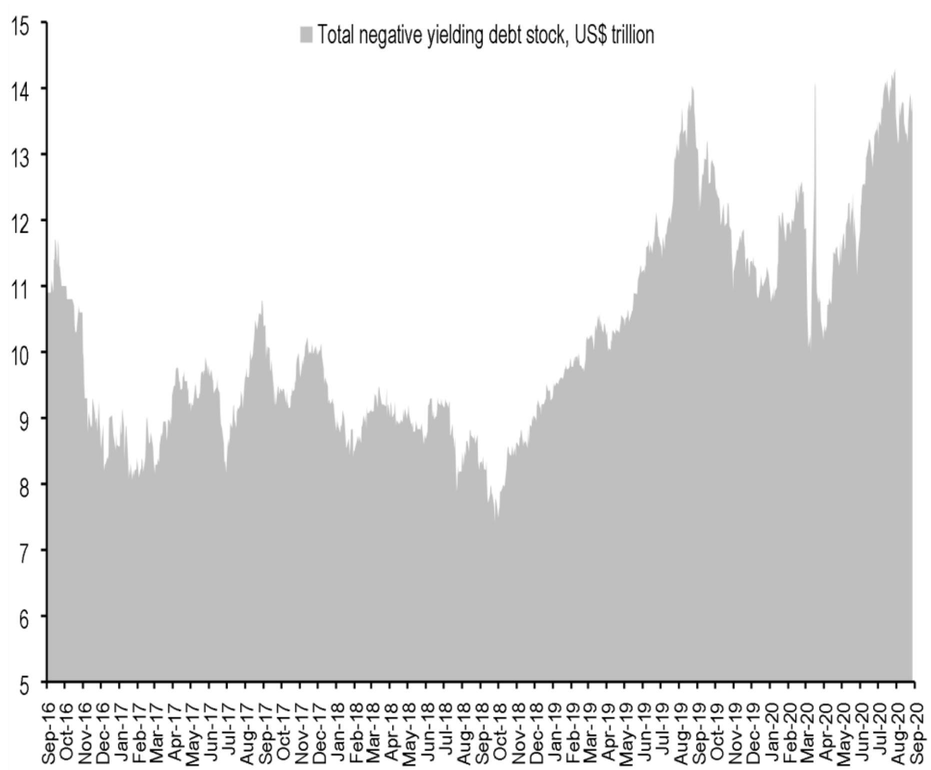
The COVID-19 recession lifts sovereign indebtedness to a 70-year high, mostly financed by central bank asset purchases

DM sovereign debt since 1900 vs DM central bank balance sheets since 2000. Percentage of GDP for both. Grey bars indicate recessions.



Source: J.P. Morgan, IIF

Total negative yielding debt stock



Source: J.P. Morgan (as of 9th September)

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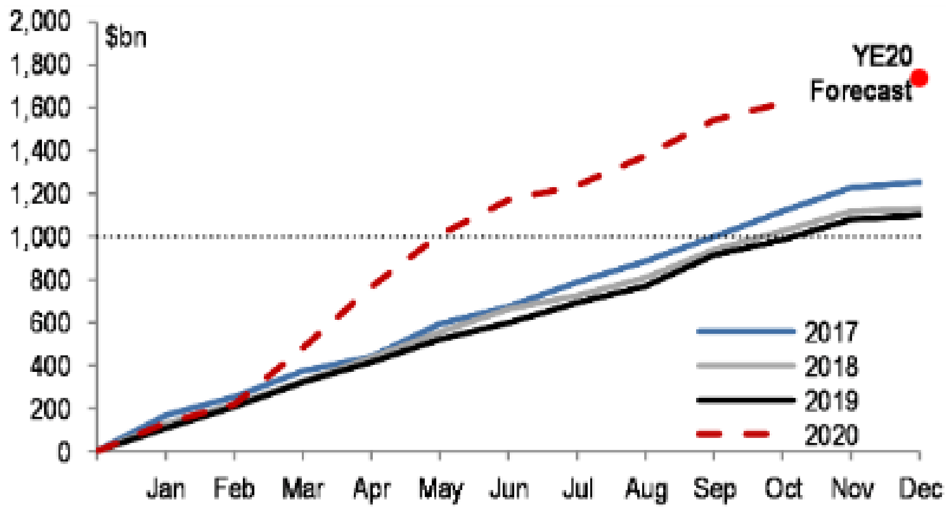
The credit crisis that wasn't: Record high grade corporate bond issuance and robust inflows but global equity flows still negative

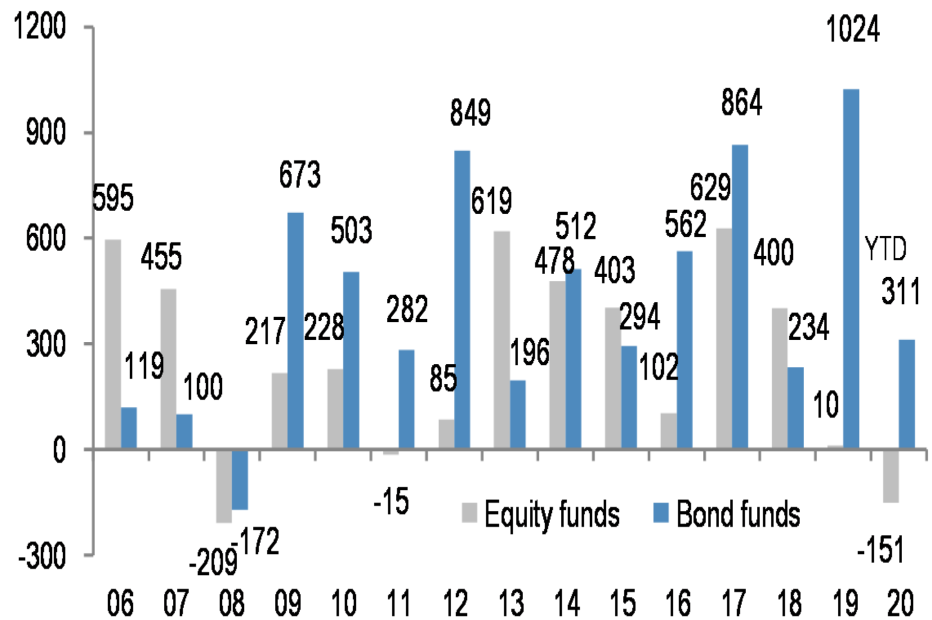
Record corporate issuance: HG gross bond supply on track to reach record $1.74tr



Source: J.P. Morgan, Dealogic, and Bloomberg Finance L. P., Data as of Nov 3, 2020

Bond fund flows have remained robust despite declining yields in contrast to equity flows

$bn per year of Net Sales, i.e. includes net new sales + reinvested dividends for MF and ETFs. Flows are from ICI (worldwide data up to Q2'20). Data since then are a combination of monthly and weekly data from ICI, EPFR and ETF flows from Bloomberg Finance L.P..



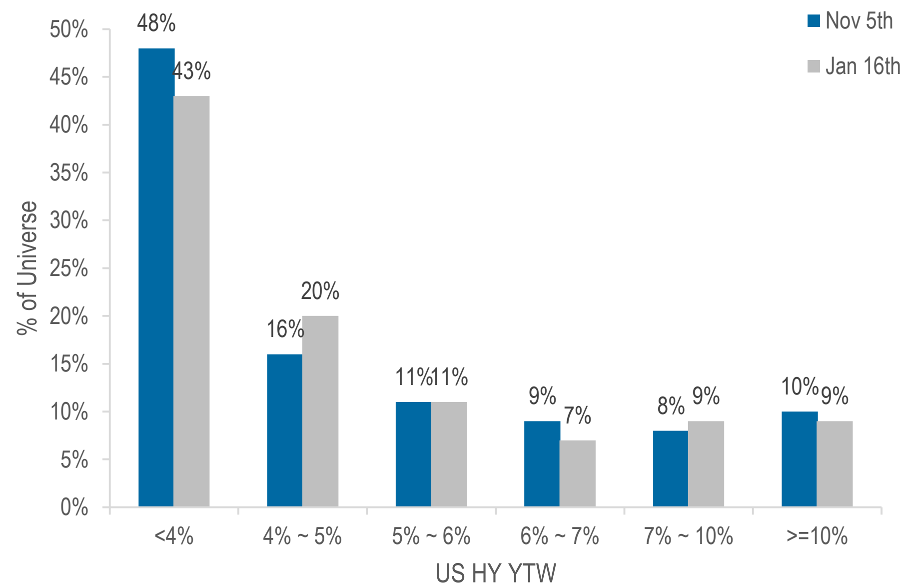
Source: ICI, EPFR, EFAMA, Bloomberg Finance L.P., J.P. Morgan.

Returns crisis replaces the credit cliff: Expensive valuations for high grade corporate debt and 46% of the high yield bond universe now yields less than 4%

US high grade valuations are getting expensive

Source: J.P. Morgan

46% of the high yield bond universe now yields less than 4%

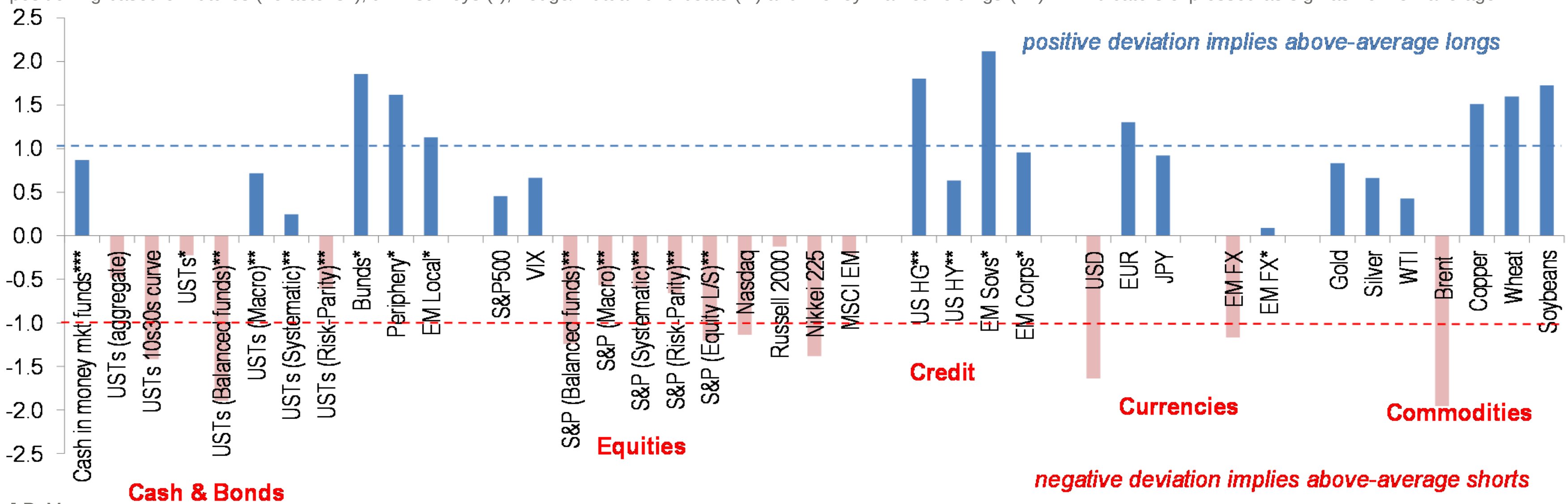


Source: J.P. Morgan.

More overweight positions in Credit vs. Equities although equity risk premium (earnings minus real 10Y yield) is high at 5.3%

Positioning seems only half committed to global reflation via above-average Cash holdings; absence of shorts in DM Bonds; more widespread overweights in Global Credit than in Equities; and almost neutral exposure to EM FX

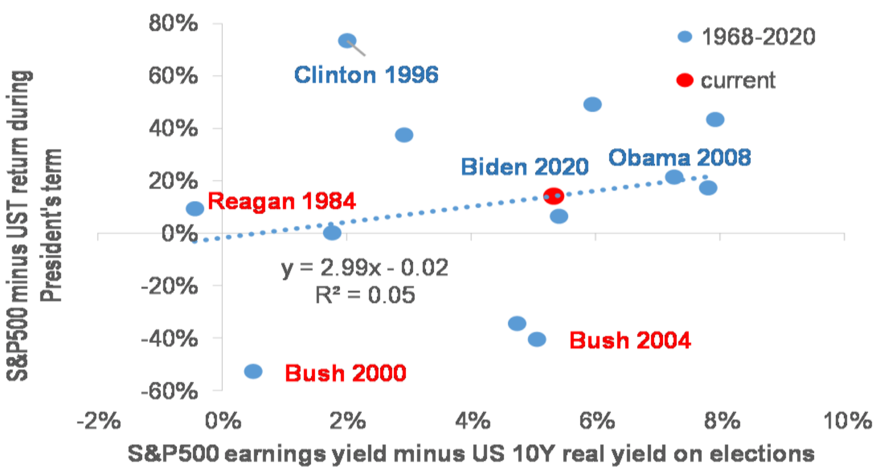
Investor positioning based on futures (no asterisk), JPM surveys (*), hedge/mutual fund betas (**) and money market holdings (***). All indicators expressed as sigmas from 5Y average



Source: J.P. Morgan.

Biden inherits an above-average equity risk premium, which is biased to Equities to continue outperforming Bonds over his term

Equity risk premium (earnings yield minus real 10Y yield) in November of Presidential election year vs realized return over President's four-year term



Source: J.P. Morgan

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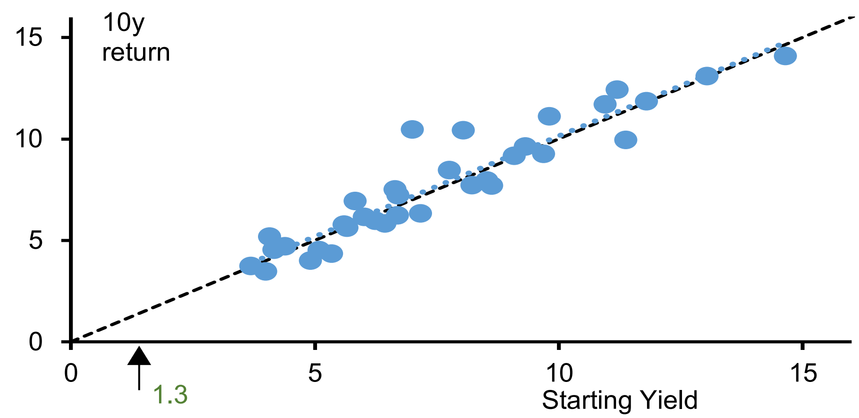
The return crisis ahead: 60/40 in 2020s: 3.5% in USD; 3% in EUR

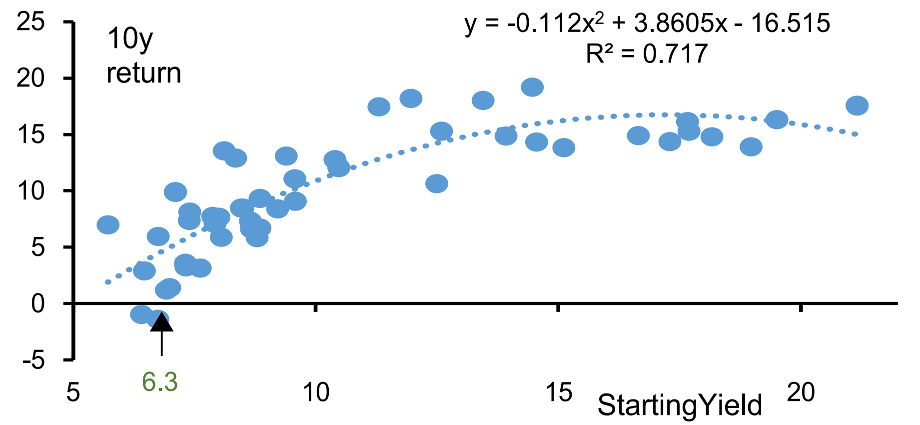
10-year US Agg returns vs starting yield

%,annual, index yield at start of each 10-year period on x-axis, 1976-2019, dotted line is 45 degree line. Arrow indicates current yield level.



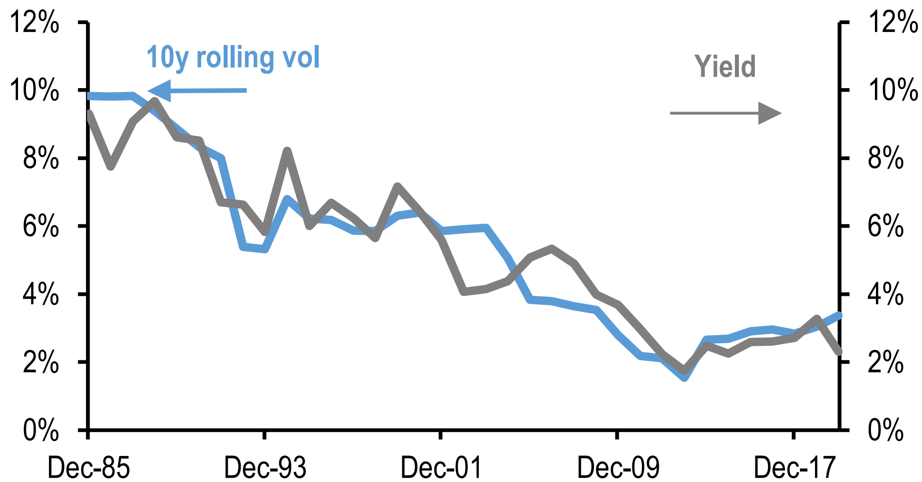
10-year SPX returns vs starting nominal yield

%,annual, trailing earnings yield plus 10-year rolling inflation at start of each 10-year period on x-axis, 1957-2019. Arrow indicates current yield level.



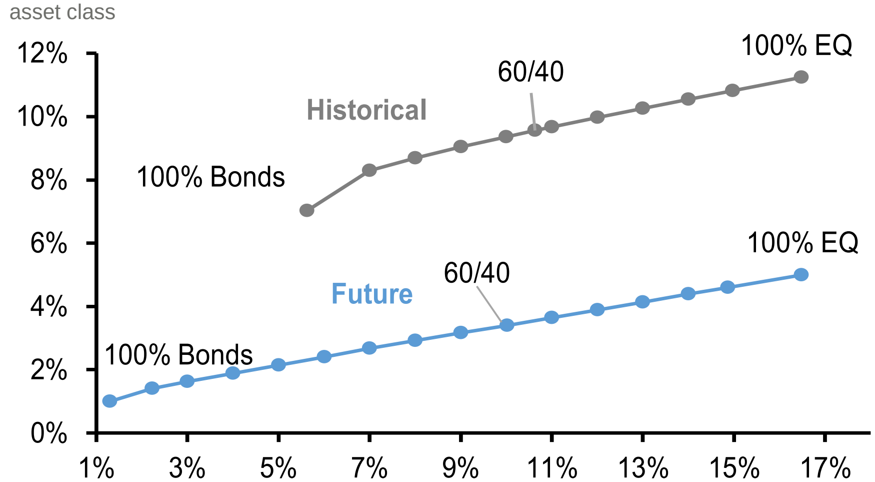
US Agg yield and10-year rolling annual return volatility

%, 1975-2019



Efficient Frontiers, historical since 1983 and forward for the next 10 years

%, annual, 1983-2019, except for end-points, intermediate points have 10% allocation to any asset class



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Source for all charts: J.P. Morgan, Bloomberg Finance L.P., S&P, Refinitiv.

Long-term structural forces

Post pandemic change

- Savings rates rises and post debt surge delivering.
- Social distancing fades, but some WFH and Zoom stay.

De-globalization

- Plateauing past decade.
- US/China great nation conflict; Populism and EU centrifugal forces.

Antitrust and a Biden move to left

- Business concentration has risen for decades, used to explain inequality, low wages, low capex.
- Democrats have vowed to return Antitrust, starting with Big Tech.

MMT replaces fiscal discipline, bringing inflation back

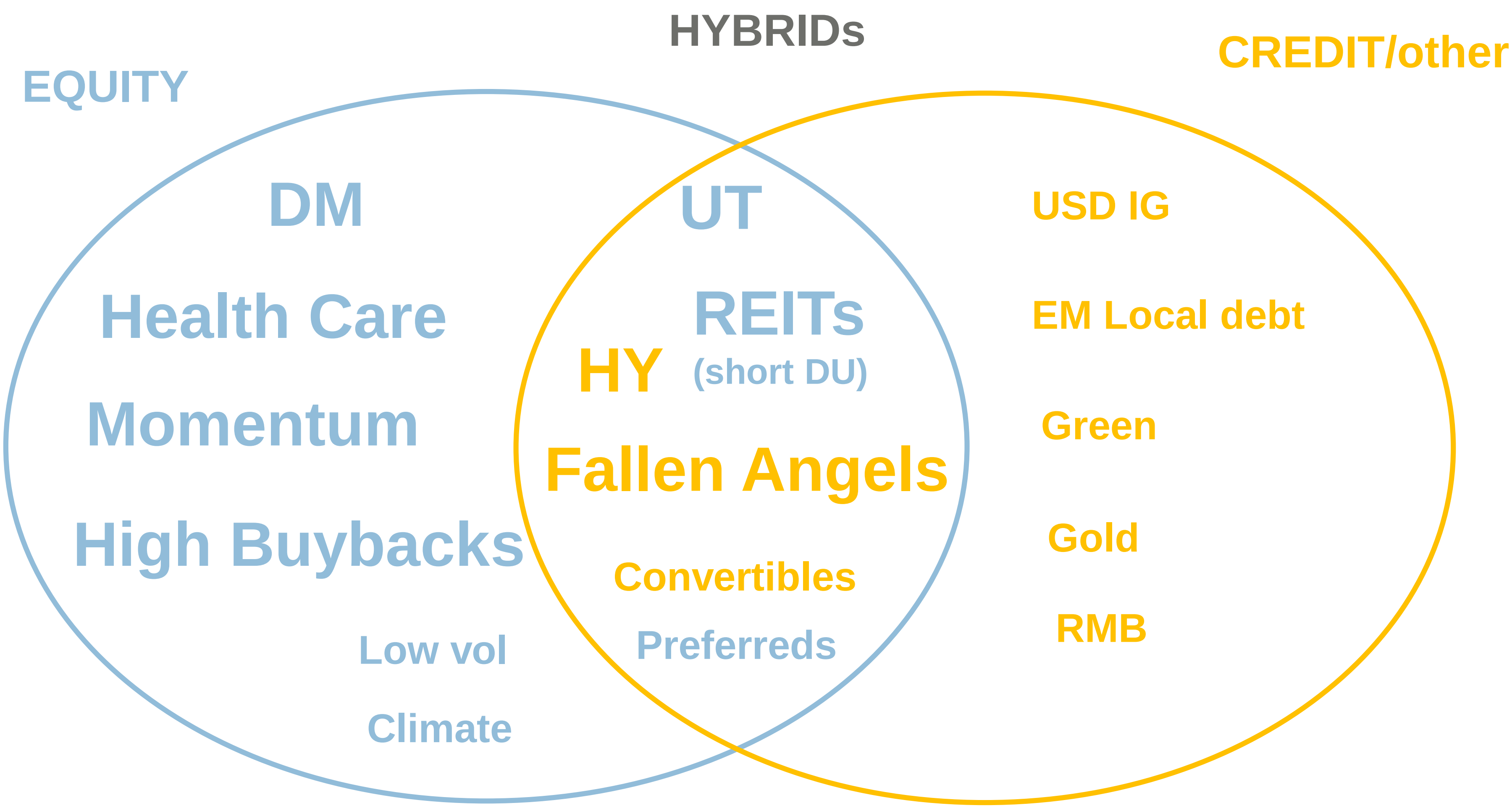
- Massive fiscal and monetary easing; constraint supply; determined Fed; a reverse in demographics; de-globalization, bring inflation back in 3-4 years.

Climate change accelerates

- Faster rises in sea level and weather volatility.
- Investment returns still poor, but need to think from risk mitigation standpoint instead.

My Portfolio

My Portfolio



Large: 7-10%

Small: 3-5%

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In relatively safe fixed income

In relatively safe fixed income

Inflation linkers	= inflation rises a lot in 2-5 years
Steepeners	= Fed holds short end down
High-grade credit	= Spreads stable
EM local debt	= yield convergence, FX hedged
Chinese gov’t debt	= disinflation, monetary easing
RMB	= Stable with good carry
Gold	= other central banks buying

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