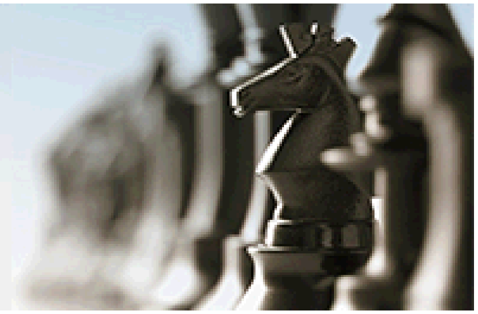
2021 Mid-Year Outlook



2021 Mid-Year Outlook: How vulnerable are risk markets in 2H?

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Charts are taken from presentations from Global equities, economics, rates, FX, commodities, US fixed income and EM research groups.

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Global economic outlook: Global GDP to surge at a 6.7% annualized rate in 2H21 with ~40% of the global economy fully vaccinated by September

Global real GDP

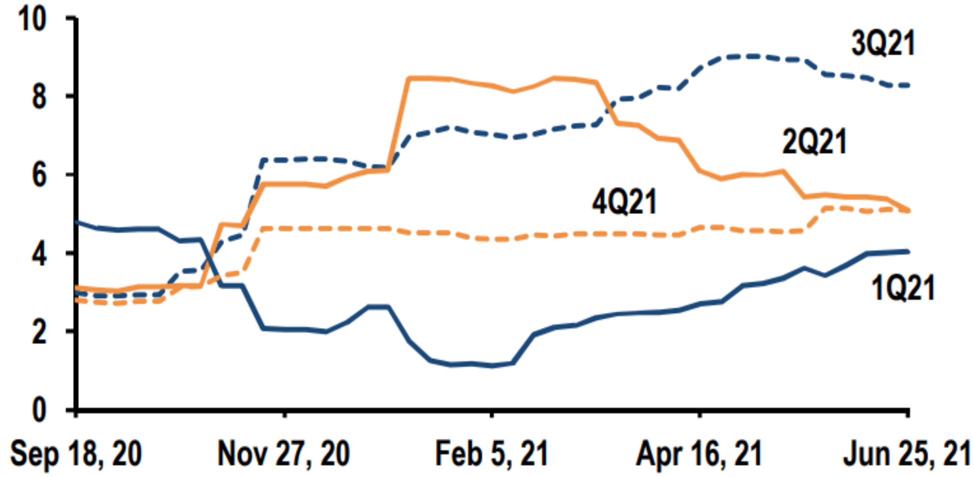
Real GDP %oya, except where noted

				Quarterly profile			
	2020	**2021**	**2022**	**1Q21**	**2Q21**	**3Q21**	**4Q21**
Global	**-3.5**	**6.4**	**4.5**	**4.0**	**5.0**	**8.3**	**5.1**
Developed markets	**-4.9**	**5.8**	**4.3**	**2.2**	**8.1**	**9.6**	**4.9**
US	-3.5	6.5	4.0	6.4	9.0	8.3	3.0
Euro area	-6.7	5.4	5.0	-1.3	7.5	13.5	5.5
Japan	-4.7	3.1	3.6	-3.9	1.0	6.0	10.5
UK	-9.8	8.1	5.6	-5.9	25.1	13.7	7.0
Emerging markets	**-1.5**	**7.2**	**4.9**	**6.8**	**0.4**	**6.3**	**5.4**
EMX	**-4.5**	**6.0**	**4.4**	**8.7**	**-3.5**	**7.7**	**5.4**
EM Asia	**-0.2**	**7.9**	**5.6**	**7.4**	**0.1**	**7.2**	**6.2**
EMAX	-2.9	5.1	5.0	8.1	0.6	6.3	5.2
China	2.3	8.8	5.5	4.3	5.3	4.5	5.5
India	-7.3	9.0	6.8	20.9	-25.5	21.5	11.0
EMEA EM	**-2.7**	**5.2**	**3.9**	**4.6**	**3.5**	**4.6**	**3.7**
Russia	-3.0	4.2	2.7	5.4	3.0	3.0	2.7
Turkey	1.8	6.8	3.4	7.1	-2.0	-0.6	1.2
Latin America	**-6.6**	**6.0**	**2.7**	**5.6**	**-1.3**	**3.4**	**3.5**
Mexico	-8.3	6.7	3.7	3.1	6.6	3.8	3.5
Argentina	-9.9	5.8	1.9	11.0	-13.0	5.0	4.0
Brazil	-4.1	4.9	1.7	4.9	-2.0	2.5	2.5
EM-DM differential	3.5	1.4	0.6	4.6	-7.7	-3.4	0.6
EMX-DM differential	0.4	0.2	0.1	6.5	-11.7	-2.0	0.5

Source: J.P. Morgan

J.P. Morgan global GDP

% change saar; forecast by date made

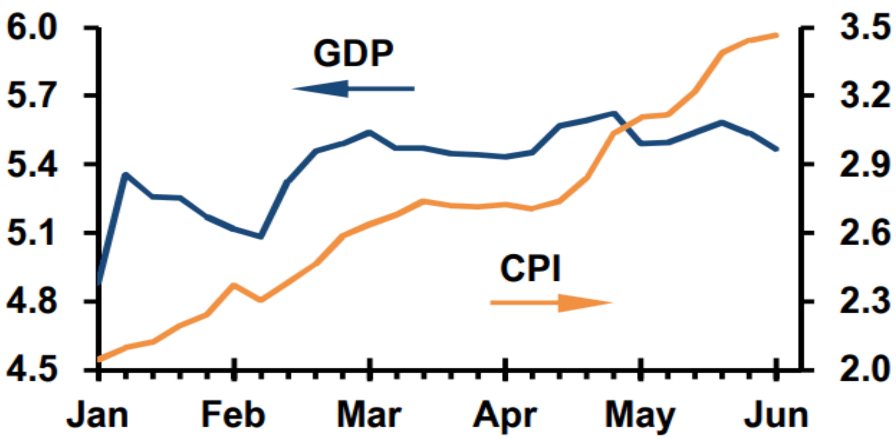


Source: J.P. Morgan

Global economic outlook: Inflation to remain elevated in 2H21

2021 global forecast by date

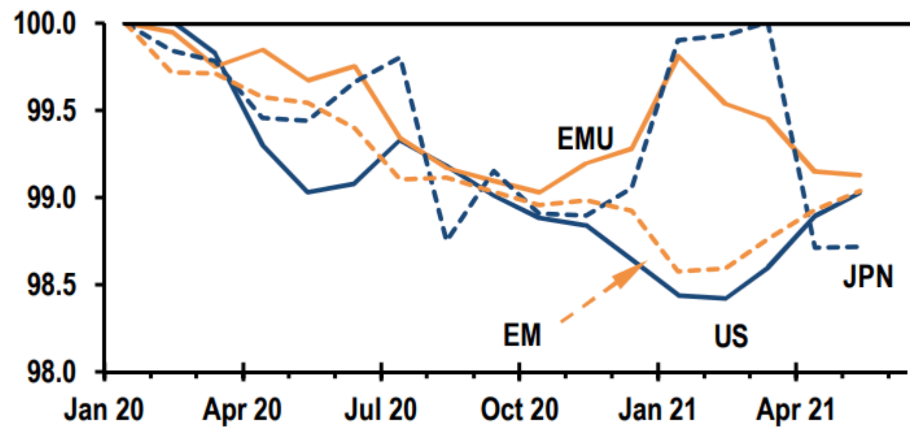
%4Q/4Q; both axes



Source: J.P. Morgan Global Economics

Services CPI, dev. from 2018-19 path

Index, Jan 2020 = 100

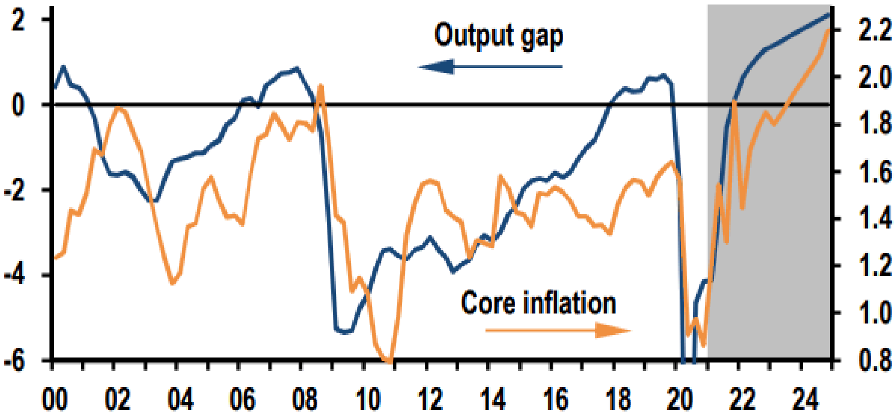


Source: J.P. Morgan Global Economics. Details on request.

Global economic outlook: DM output gap is rapidly closing

Output gap and core inflation

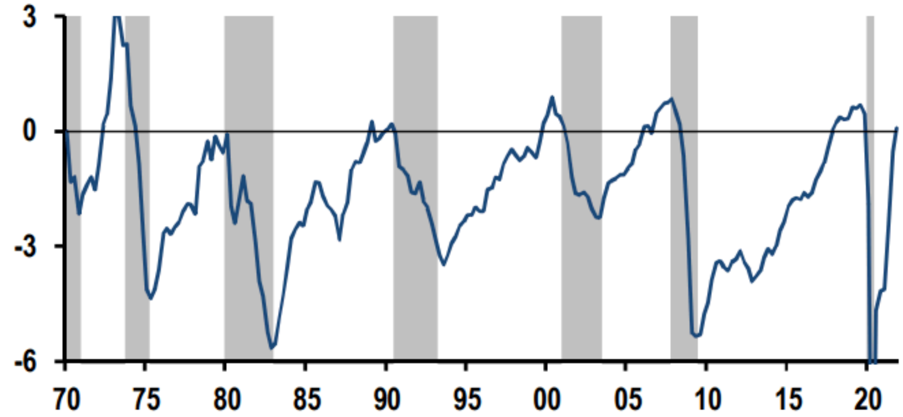
% of potential (lhs), %oya (rhs)



Source: J.P. Morgan; Excludes Japan VAT hike

DM output gap

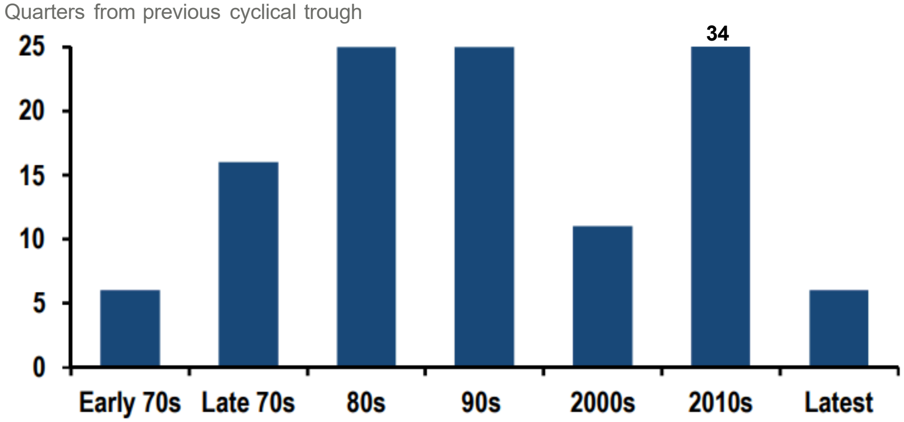
% of potential



Source: J.P. Morgan

Quarters to close output gap

Quarters from previous cyclical trough



Source: J.P. Morgan

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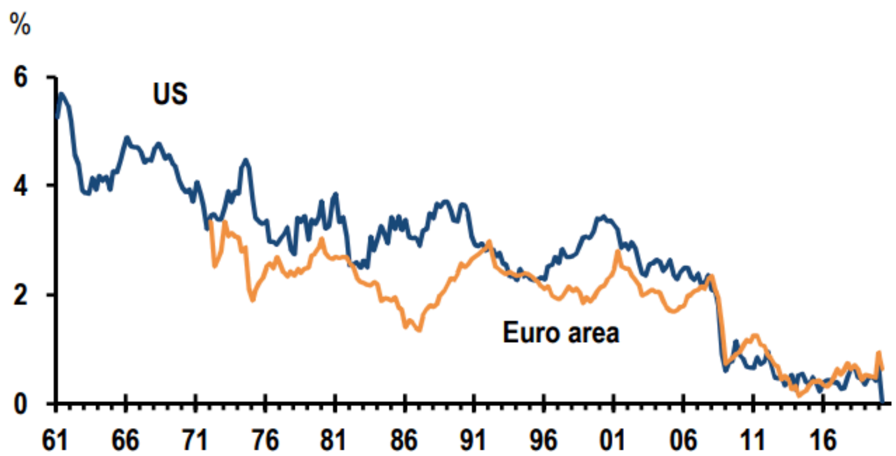
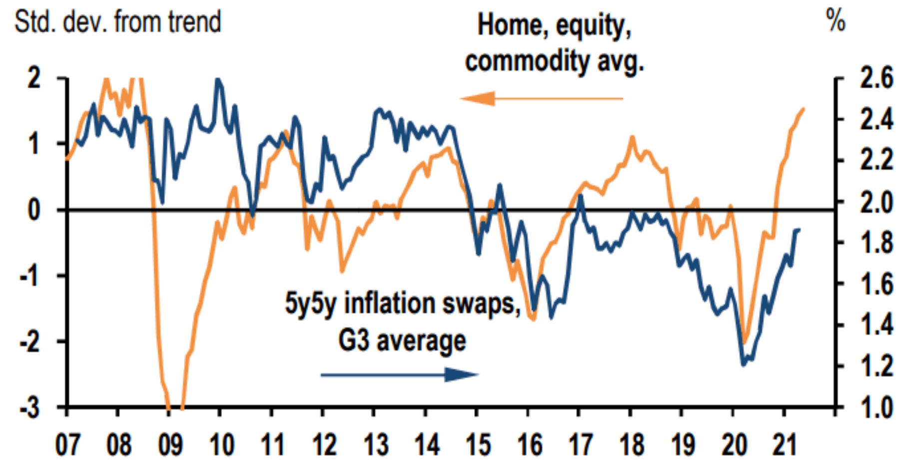
Global economic outlook: Success of this low-for-long strategy will not be determined by central banks alone: Fiscal policy and easy credit conditions push up r* and asset prices

US and Euro area r* estimates



Source: Holston, Laubach, Williams, J.P. Morgan

G3 inflation swaps and global asset prices



Source: J.P. Morgan

Global asset allocation: Stay overweight equities and commodities going into 2H21

GAA long only model portfolio

Asset Classes		Active Weights
Equities		10%
Govt. Bonds		-13%
Corp. Bonds		0%
Commodities		7%
Cash		-4%

Sectors		Active Weights
Equities	US	-2%
	EMU	1%
	Japan	1%
	UK	-2%
	EM	2%
	Other	0%
Govt. Bonds	US Nominal	-2%
	US TIPs	2%
	Europe Core	-2%
	Europe Periphery	2%
	Japan	0%
	UK	0%
	EM Local	2%
	Australia	0%
Corp. Bonds	US HG	-1%
	Europe HG	-1%
	UK HG	0%
	US HY	1%
	Europe HY	1%
	US Loans	0%
	EM Sovereigns	0%
	EM Corporates	0%
Commodities	Energy	4%
	Industrial metals	-1%
	Agriculture	0%
	Precious metals	-3%

Source: J. P. Morgan, Bloomberg Finance L.P

Equity sector recommendations and YTD returns

	US		Europe		Japan		EM	
Energy	48%	OW	23%	N	37%	N	17%	N
Materials	14%	N	18%	N	9%	N	18%	OW
Industrials	15%	N	19%	N	11%	OW	13%	OW
Discretionary	9%	OW	22%	N	13%	OW	-2%	OW
Staples	4%	UW	13%	UW	4%	N	2%	UW
Healthcare	12%	OW	13%	N	-1%	UW	8%	UW
Financials	25%	OW	20%	OW	19%	OW	9%	OW
Technology	12%	OW	22%	N	13%	N	8%	N
Comm Services	19%	N	16%	OW	4%	UW	7%	N
Utilities	2%	UW	1%	OW	2%	UW	6%	UW
Real Estate	22%	UW	10%	UW	20%	N	2%	N
Overall	**14.0%**		**16.9%**		**10.0%**		**6.8%**	

Source: J. P. Morgan, Bloomberg Finance L.P

JPM equities forecasts

Equities	Current	Dec-21
S&P 500	4,279	4,400
MSCI Europe	1,836	1,830
MSCI Eurozone	263	268
FTSE 100	7,136	7,100
TOPIX	1,963	1,900
MSCI EM ($)	1,367	1,550
MSCI China	108	125
MSCI Korea	1,015	1,100
MSCI Taiwan	686	755
MSCI India	1,828	1,800
Brazil (Ibovespa)	129,514	134,000
Mexico (MEXBOL)	50,558	46,300
MSCI South Africa (USD)	490	628

Source: J.P. Morgan, Bloomberg Finance L.P., Datastream

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Global asset allocation: J.P. Morgan cross-asset year-end forecasts

Rates

Rates	Current	Sep-21	Dec-21	Mar-22	Jun-22
US (Fed funds)	0.10	0.00	0.00	0.00	0.00
10-year yields	1.48	1.85	1.95	2.05	2.10
Euro area (depo)	-0.50	-0.50	-0.50	-0.50	-0.50
10-year yields	-0.18	-0.20	-0.15	0.00	0.05
Italy-Germany 10Y (bp)	107	90	100	100	100
Spain-Germany 10Y (bp)	62	55	60	60	60
United Kingdom (repo)	0.10	0.10	0.10	0.10	0.10
10-year yields	0.75	0.95	1.15	1.25	1.35
Japan (call rate)	-0.10	-0.10	-0.10	-0.10	-0.10
10-year yields	0.05	0.10	0.15	0.15	0.15
EM Local (GBI-EM yield)	5.04		4.96		

Currencies

Currencies	Current	Sep-21	Dec-21	Mar-22	Jun-22
JPM USD Index	119	120	120	121	121
EUR/USD	1.20	1.18	1.17	1.16	1.16
USD/JPY	111	110	111	112	112
GBP/USD	1.39	1.39	1.38	1.38	1.38
AUD/USD	0.76	0.77	0.74	0.73	0.74
USD/CNY	6.45	6.45	6.45	6.45	6.45
USD/KRW	1128	1120	1120	1120	1120
USD/MXN	19.73	20.50	20.75	21.00	21.50
USD/BRL	4.91	5.15	5.40	5.40	5.50
USD/TRY	8.69	9.00	9.50	10.00	10.50
USD/ZAR	14.06	13.75	14.00	14.00	14.00

Commodities

Commodities	Current	Jun-21	Sep-21	Dec-21	Mar-22
Brent ($/bbl, qtr end)	76	76	80	83	79
WTI ($/bbl, qtr end)	74	74	77	80	76
Gold ($/oz, qtr avg)	1,786	1,650	1,590	1,550	1,500
Copper ($/ton, qtr avg)	9,404	9,640	8,180	7,550	7,550
Aluminum ($/ton, qtr avg)	2,429	2,380	2,050	1,965	1,925
Iron ore (US$/dt, qtr avg)	213	192	188	172	
Wheat ($/bu, qtr avg)	6.5	6.1	6.0	6.3	
Soybeans ($/bu, qtr avg)	13.8	10.5	10.5	10.5	

Credit

Credit		Cur-rent	Dec-21
US High Grade (bp over UST)	JPM JULI	111	110
Euro High Grade (bp over Bunds)	iBoxx HG	95	90
US High Yield (bp vs. UST)	JPM HY	377	375
US Lev Loans (bp vs. 3Y Index)	JPM Lev Loans	421	450
Euro High Yield (bp over Bunds)	iBoxx HY	303	275
EM Sovereigns (bp vs. UST)	JPM EMBIGD	335	325
EM Corporates (bp vs. UST)	JPM CEMBI	246	225

Source for all charts: J.P. Morgan, Bloomberg Finance L.P., Datastream

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US economic outlook: We still see boomy US growth in 2021 overall with unemployment to fall to 4.7% by year-end

- Growth rates decelerate but remain strong: Q2: 9%, Q3: 8%, Q4: 3%
- GDP growth averages 6.9% over four quarters of 2021, fastest year since 1984
- GDP above pre-crisis path by Q2

GDP forecast growth

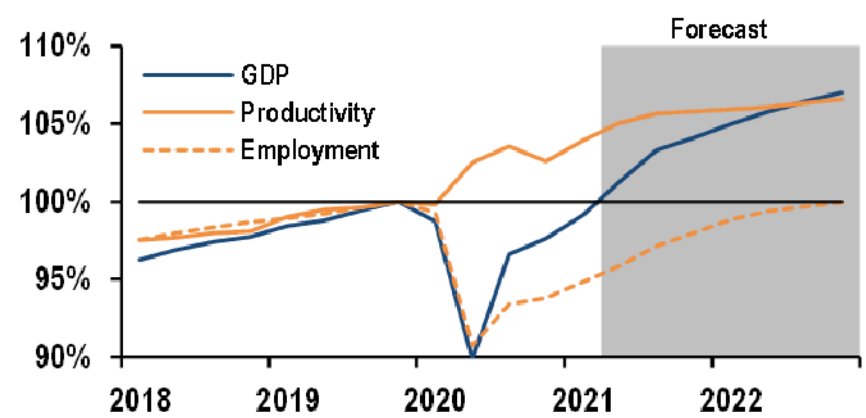
saar

Source: J.P. Morgan

- Employment recovery lags GDP, with help from jump in productivity
- Payrolls average 550k/month in 2021H2
- Unemployment rate falls to 4.7% by year-end

GDP, productivity, and employment forecasts

Index, 2019Q4=100



Source: BEA, BLS, J.P. Morgan

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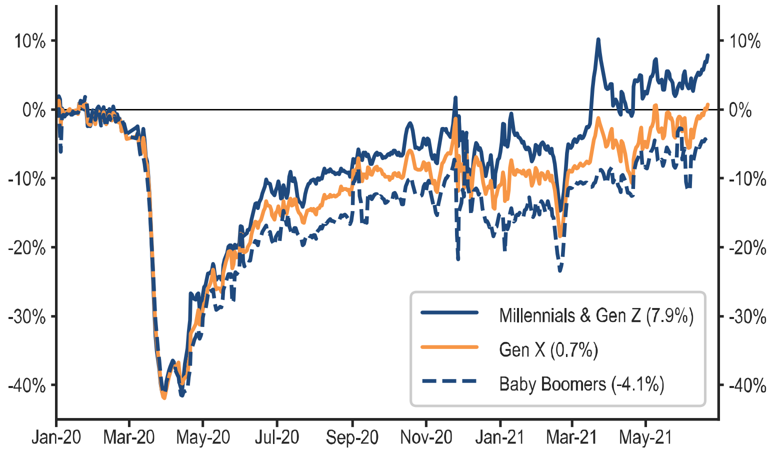
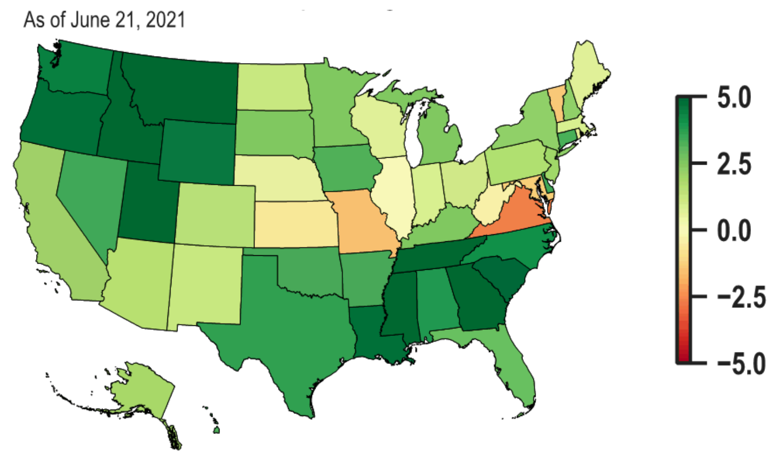
US economic outlook: Older consumers not catching up despite early vaccinations; Some travel and entertainment indicators still depressed

Chase consumer card spending by generation



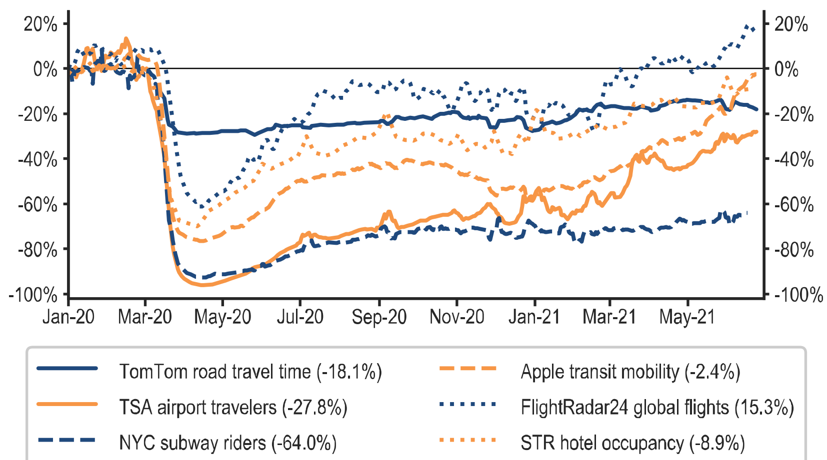
Source: J. P. Morgan. %change from pre-COVID trend of 7-day average of total spending.

Chase consumer card spending tracker



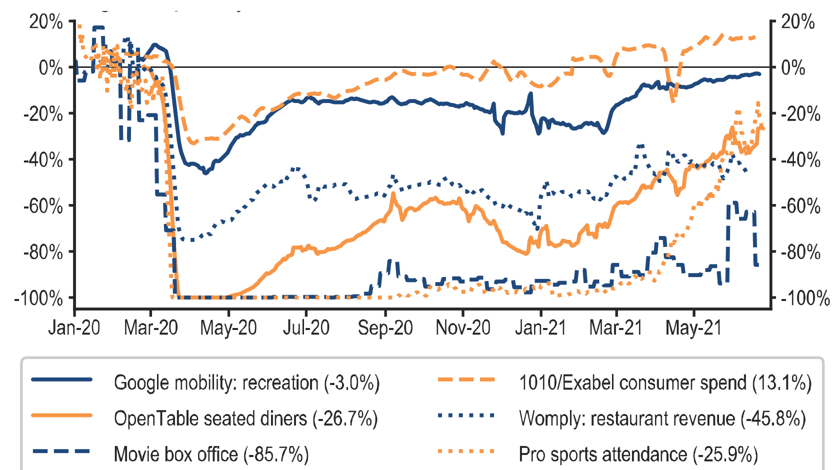
Source: J. P. Morgan. %change from pre-COVID trend of total spending ex-airlines

High frequency alternative data: Travel and accommodation



Source: Tom-Tom, TSA, NYC MTA, Apple, FlightRadar24, Womply, J. P. Morgan

High frequency alternative data: Retail and entertainment



Source: Google, BoxOfficeMojo, OpenTable, 1010, Womply, ESPN, J. P. Morgan

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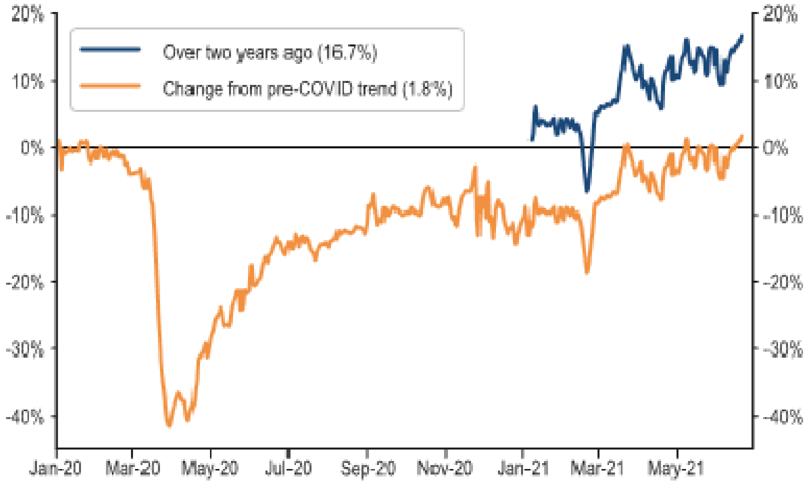
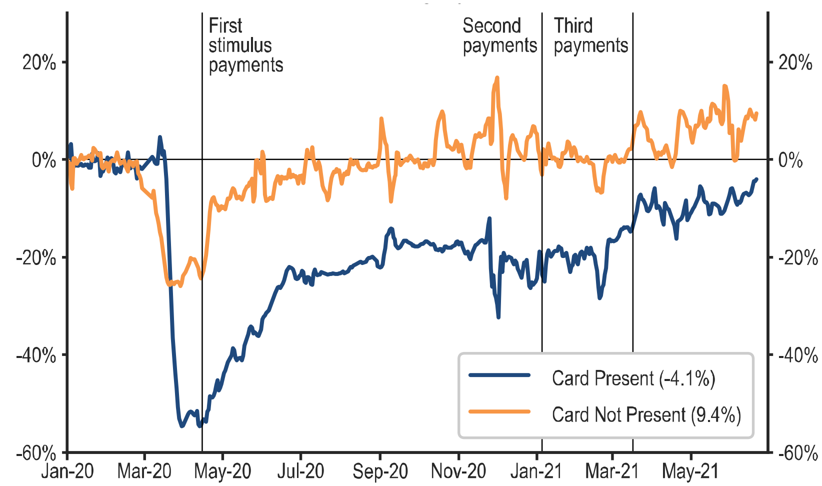
US economic outlook: Chase card spending is still rising and recently crossed above pre-COVID trend line

Chase consumer card spending tracker



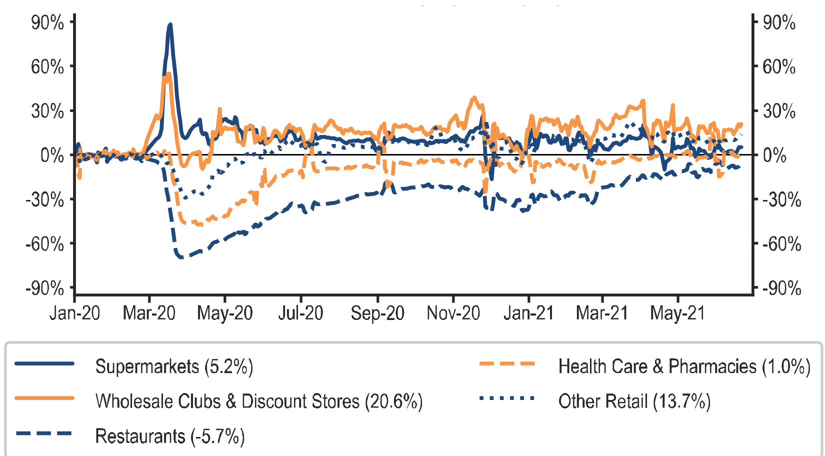
Source: J.P. Morgan. 7-day average of total spending. Data through June 21, 2021.

Chase consumer card spending by card presence



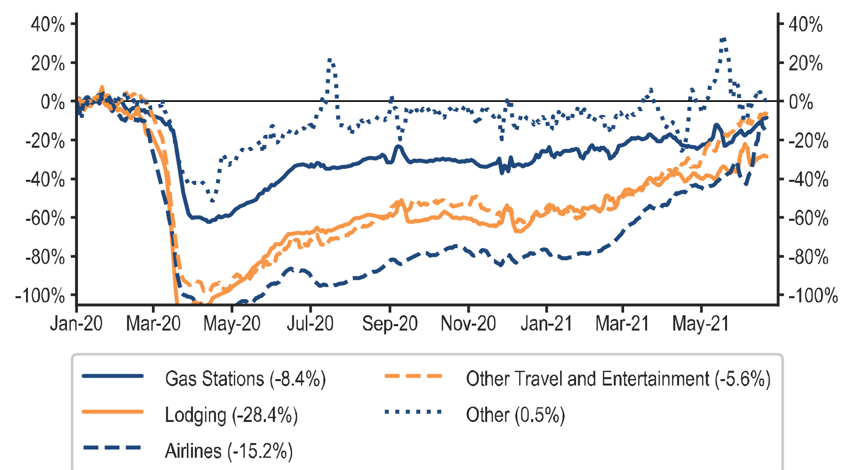
Source: J. P. Morgan. %change from pre-COVID trend of 7-day average of total spending.

Chase consumer card spending by category



Source: J. P. Morgan. %change from pre-COVID trend in 7-day average.

Chase consumer card spending by category

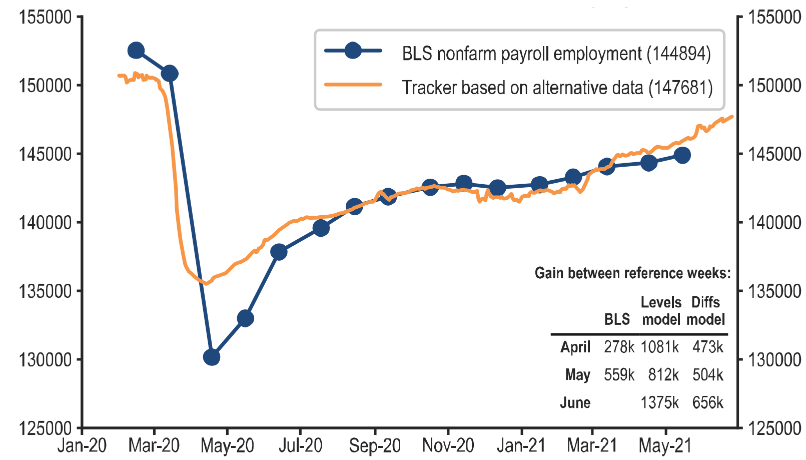


Source: J. P. Morgan. %change from pre-COVID trend in 7-day average.

US economic outlook: High frequency data predict continued moderate job gains and decline in June core retail sales

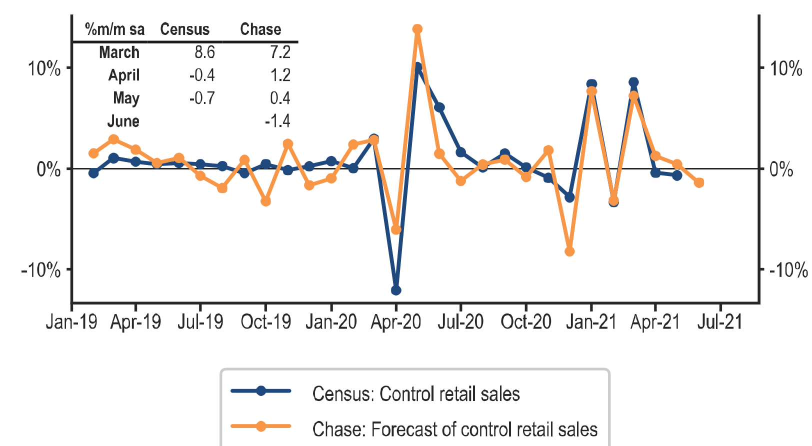
- Job tracker
  - Take ~25 daily or weekly series as %change from pre-COVID baseline
  - Regress sector-level employment decline from baseline on each relevant alt data indicator in reference week in payroll data since February
  - Forecast jagged edge of daily series using simplified dynamic factor model
  - Weight forecasts by inverse mean-square-error within each sector and aggregate sector forecasts to total payroll forecast
- Retail sales tracker
  - Forecast daily card data for rest of month, accounting for days of week, holidays etc.
  - Aggregate to monthly spending
  - Use regression to forecast not-seasonally-adjusted retail sales
  - Apply Census seasonal factors to NSA data to produce SA forecast

Job tracker based on alternative data: Total employment



Source: Various sources, J. P. Morgan. Units are thousands of jobs.

Chase card spending: Control retail sales tracker



Source: Census Bureau, J.P. Morgan

US rates outlook: The punchbowl’s long good-bye

Treasuries:

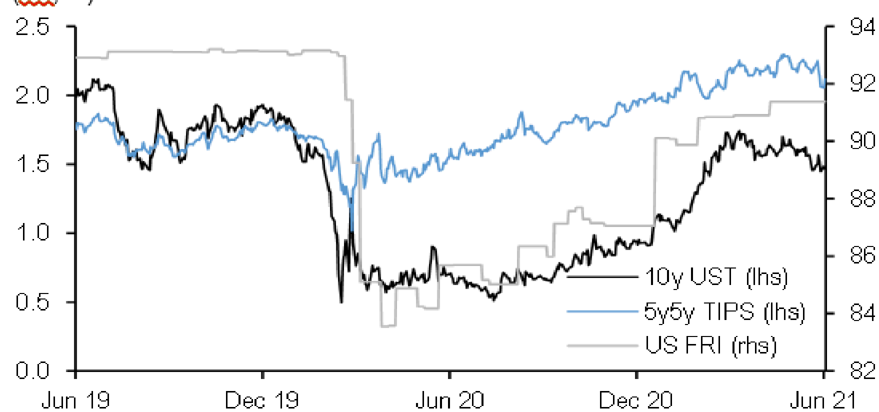
The Fed’s reaction function remains significantly more dovish than other easing cycles, and there remains room for inflation expectations to increase, duration supply will remain heavy even as Treasury cuts auction sizes later this year…

…valuations are rich, and the pace of LDI and bank demand should slow in 2H21: we project 10-year yields will rise to 1.95% and the 2s/10s curve to steepen: stay short 10-year Treasuries and maintain 3s/7s steepeners

However, we do not expect tapering to usher in a disruptive move to higher yields: policy expectations should remain better anchored and Fed succession presents a more dovish risk to monetary policy

Long-term yields have risen in 2021, supported by upward revisions to growth forecasts and rising inflation expectations

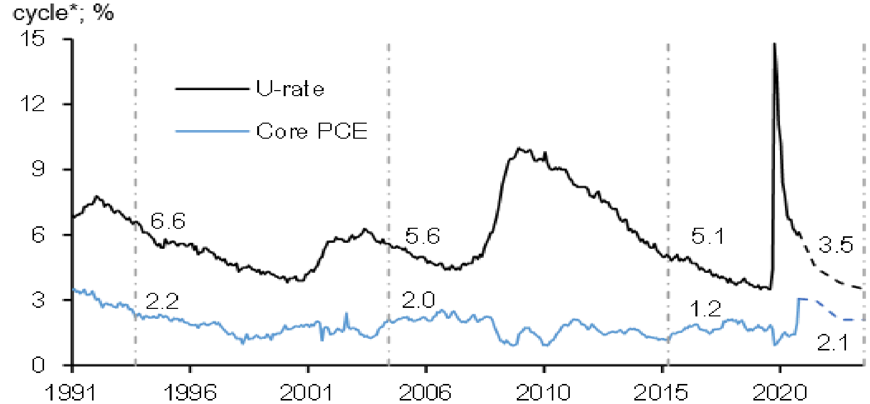
10-year Treasury yields (lhs, %) versus 5Yx5Y TIPS breakevens (lhs, %) and J.P. Morgan US Forecast Revision Index (rhs; %)



Source: Federal Reserve, J.P. Morgan

If Fed’s forecasts are realized, it will be lifting off against a tighter labor market and more persistently above target inflation

US unemployment rate and oya core PCE along with Federal Reserve projections for 2021-2023, vertical dashed line denotes first rate hike in Fed tightening cycle*; %



*Labels denote unemployment rate and core PCE data from month prior to Fed liftoff in each cycle. Liftoff dates: 2/4/94, 6/30/04, 12/16/15, 9/15/23

Source: BLS, Federal Reserve

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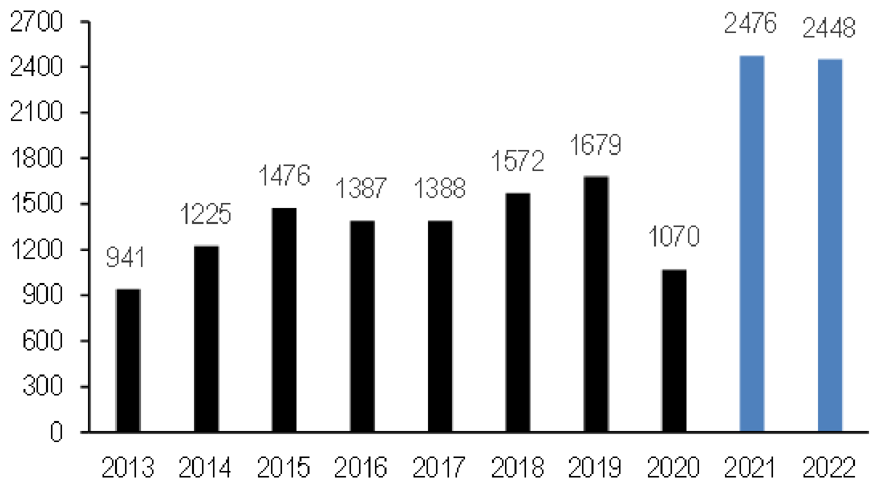
US rates outlook: Intermediate yields will rise moderately in 2021 and the curve will steepen

Even though we see Treasury supply cuts later this year, duration supply will remain heavy by historic standards

Gross Treasury duration supply excluding Fed purchases*; $bn 10-year equivalents



* Assumes gross Treasury issuance forecast in Exhibit 12, and assumes Fed tapers by $12bn Treasuries each meeting beginning in December 2021

Source: Federal Reserve, J.P. Morgan

We project intermediate yields will rise moderately in 2021 and the curve will steepen

J.P. Morgan interest rate forecast, %

	Actual 25-Jun-21	1m 25-Jul-21	3Q21 30 Sep	4Q21 31 Dec	1Q22 31 Mar	2Q22 30 Jun
Rates (%)						
Eff. funds rate	0.100	0.100	0.10	0.10	0.10	0.10
SOFR	0.050	0.050	0.08	0.05	0.05	0.05
3-mo LIBOR	0.146	0.150	0.20	0.20	0.20	0.20
2-yr Treasury	0.27	0.25	0.30	0.35	0.40	0.40
3-yr Treasury	0.48	0.45	0.55	0.60	0.70	0.75
5-yr Treasury	0.93	0.95	1.00	1.15	1.30	1.35
7-yr Treasury	1.29	1.30	1.55	1.65	1.75	1.85
10-yr Treasury	1.54	1.60	1.85	1.95	2.05	2.10
20-yr Treasury	2.10	2.15	2.55	2.60	2.65	2.65
30-yr Treasury	2.17	2.20	2.60	2.65	2.70	2.70

Source: J.P. Morgan

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US rates outlook: Additional thoughts and risks to monitor

TIPS:

Given an outlook for a quicker tapering of Fed asset purchases and an earlier Fed liftoff, we see less room for breakeven widening over 2H21 and revise our targets modestly lower Overall, we now project 5-, 10-, and 30-year breakevens to end the year at 250bp, 245bp, and 240bp, respectively, 5-15bp below previous targets.

Money Markets:

Neither the Fed's tweak to IOER/RRP nor the increase in supply are a panacea for the money markets: there remains an abundance of cash in the system. Assuming the Fed begins to taper in December, that would still generate about $700bn of additional liquidity in 2H. This is in addition to the ~$800bn of liquidity currently at the Fed's ON RRP.

Regulatory backdrop:

Regulatory uncertainty, both the rules themselves and volatility in the inputs to various metrics, will be a key theme in the second half; even banks for which CET1 is closer to binding under stress will be focused on GSIB

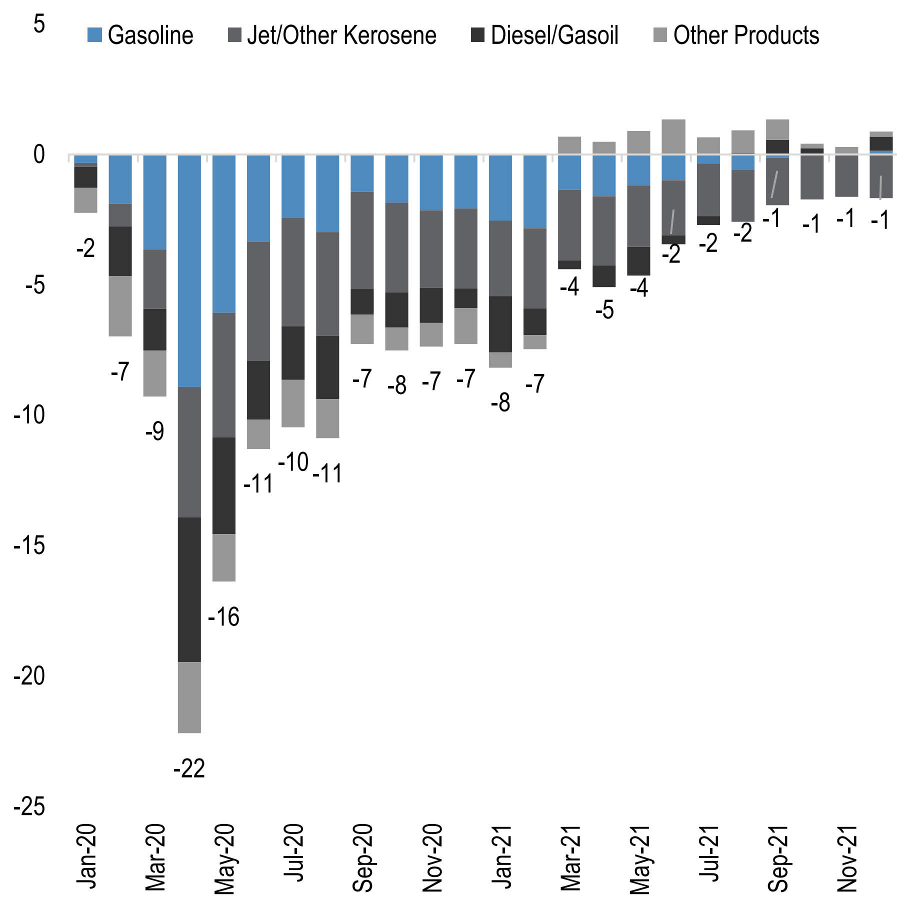
SLR might be revised, but any reduction in leverage exposure could be paired with higher minimums to preserve nominal levels of backstop bank capital requirements

Energy outlook: Gasoline demand drives global recovery in 2021

We see global demand recovering to 2019 levels in 2022, surpassing 100 mbd in December 2021

Global oil demand by product, change vs 2019

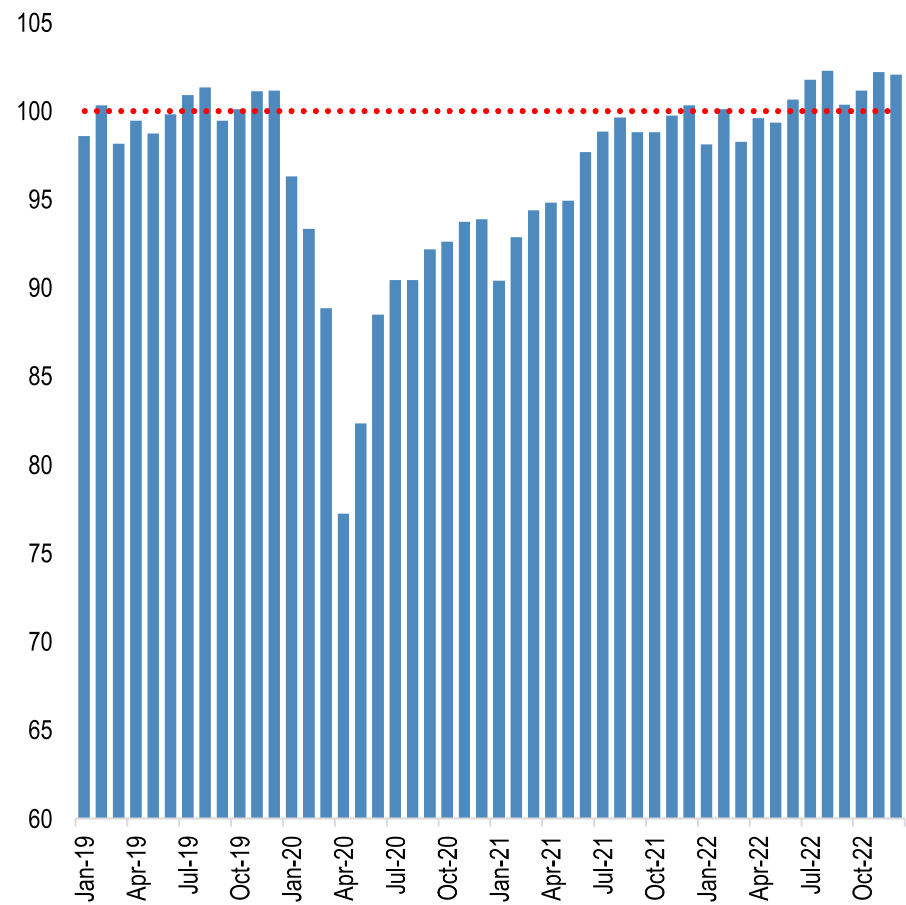
mbd



Source: Wood Mackenzie, IEA, FlightAware, IATA, EIA, MariTrace, Google, TomTom, US Department of Transportation, Bloomberg Finance L.P., Various company reports and government statistics, J.P. Morgan

Global oil demand

mbd, Dashed red line = 100 mbd



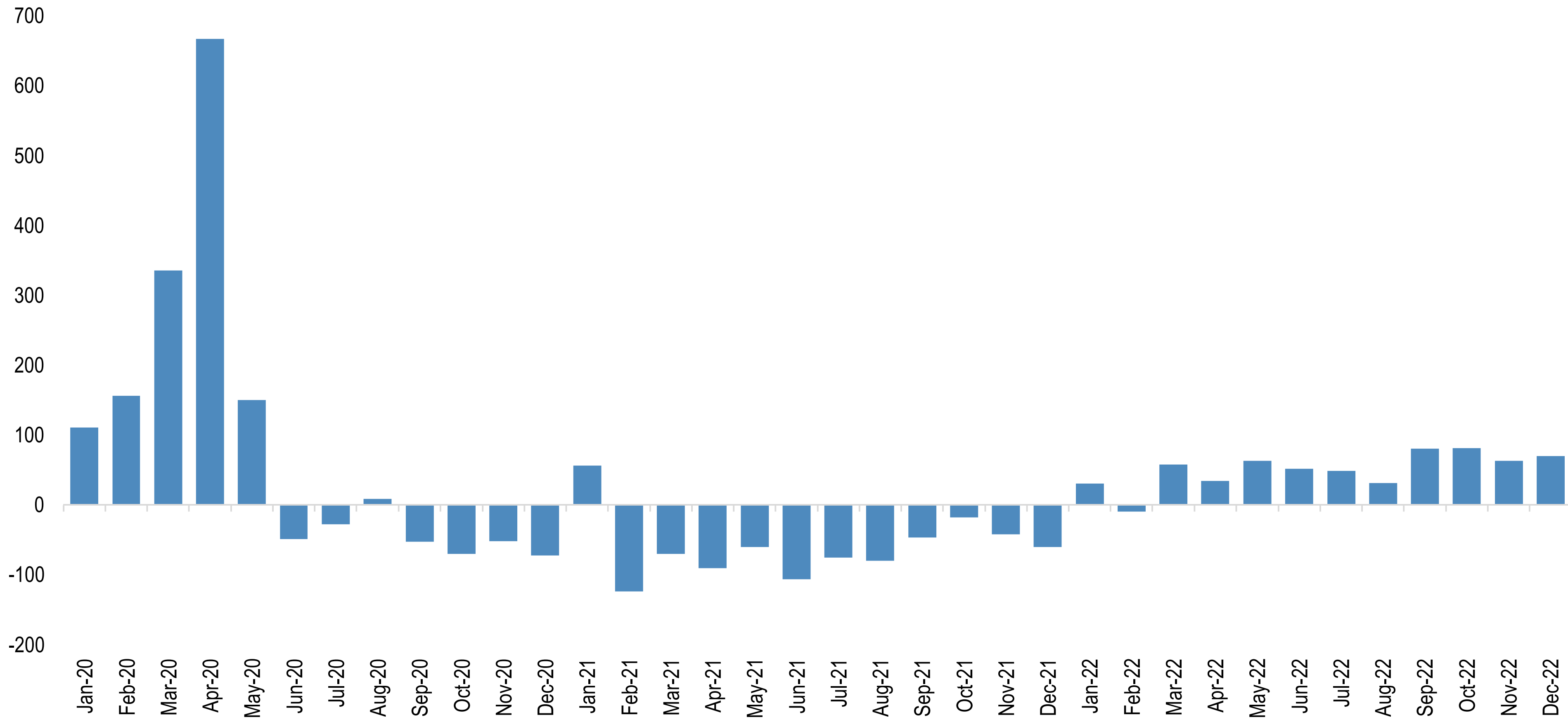
Source: Wood Mackenzie, IEA, FlightAware, IATA, EIA, MariTrace, Google, TomTom, US Department of Transportation, Bloomberg Finance L.P., Various company reports and government statistics, J.P. Morgan

Energy outlook: Oil prices peak in 4Q 2021, but increases in supply pressure market in 2022

Post-pandemic recovery in demand likely keeps global oil market tight through the end of 2021

Global oil supply and demand balance

Stock change to balance, mb



Source: IEA, EIA, Wood Mackenzie, Rystad, Genscape, FlightAware, IATA,, MariTrace, Google, TomTom, US Department of Transportation, Bloomberg Finance L.P., Various company reports and government statistics, J.P. Morgan Commodities Research

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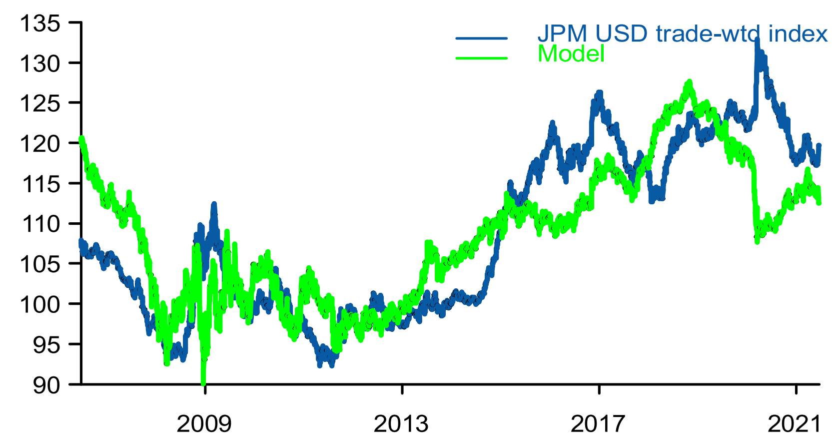
FX outlook: FOMC is a bullish watershed for USD from an indecisive 1H; USD outlook most bullish vs. low-yielding reserve FX but read-through to high-beta FX is debatable

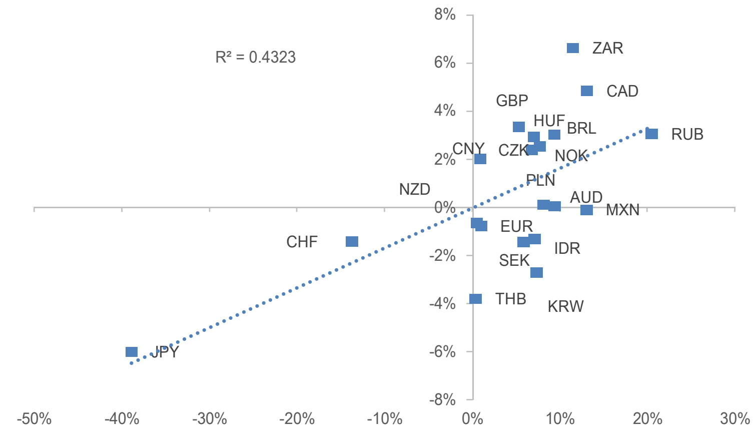
40-50bp upside to 10Y UST yields translates to 6-7% upside to the USD index (3-4% allowing for a beta-rise in ROW yields)

USD index = 107 + 14.4 (USD-G10 10Y). R2 = 63%



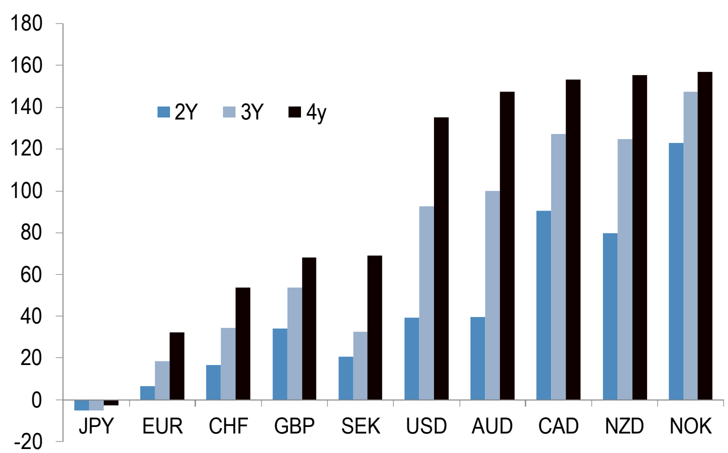
Historic sensitivity to higher US yields has proven a good guide to relative FX performance this year, certainly for JPY

CCY/USD ytd change (y-axis) versus 10Y CCY/USD correlation to 10Y UST.



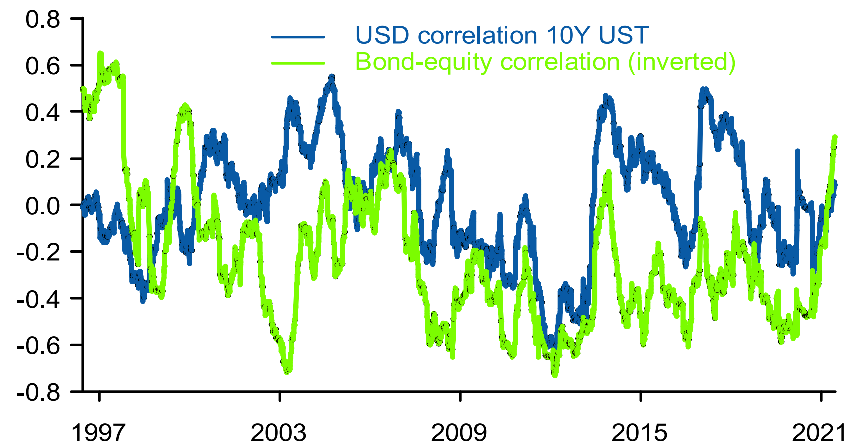
The bifurcation of monetary policy prospects in G10 makes it easier to distinguish investment currencies from funders

Cumulative CB rate hikes derived from forward OIS rates, bp



The bond-equity correlation is now highly negative since 2000, which tends to be associated with broader-based USD strength

6-mo correlation between SPX-UST yields (inverted) and USD-UST yields



Source: J.P. Morgan for all charts

EM outlook: Improving growth vs rising rates to drive EM in 2H but we still see low returns

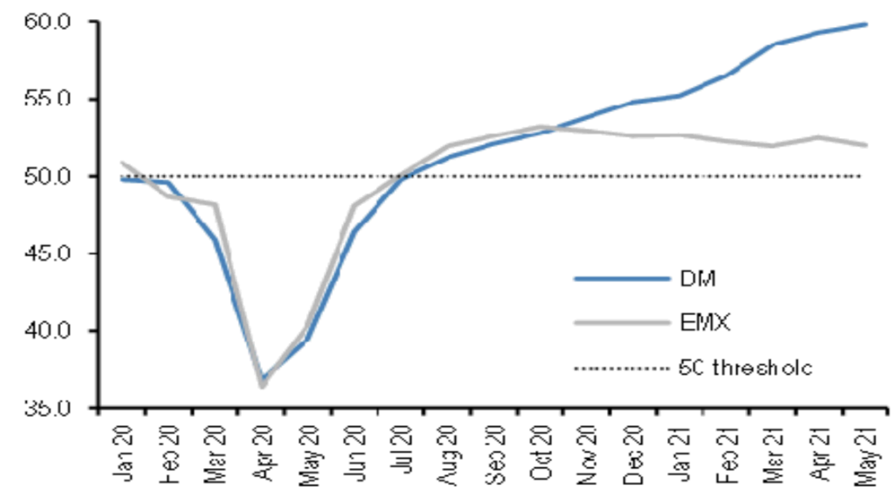
Cyclical settings are still supportive as US real yields are low while global growth booms

Source: J.P. Morgan

EM local bond yields have closely tracked UST yields despite very varied EM country inflation and monetary policies

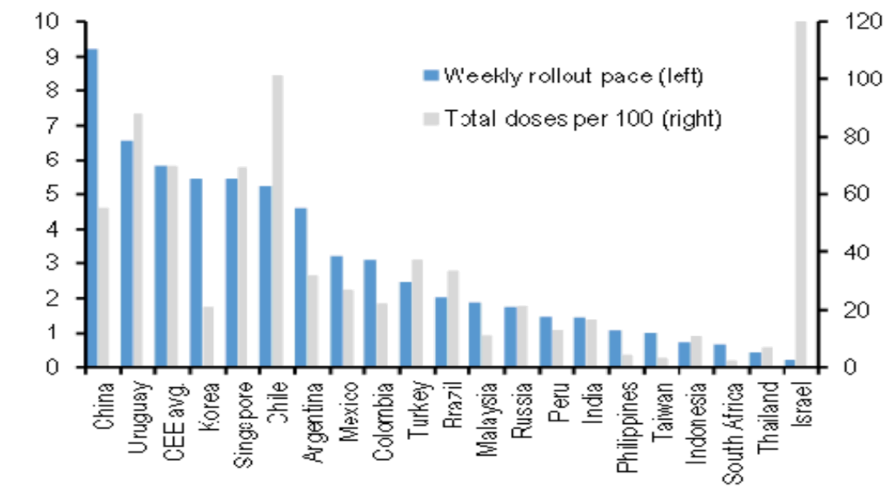
Source: J.P. Morgan

EMX-DM divergence in PMIs widened further in May



Source: J.P. Morgan

COVID-19 vaccination has stepped up significantly in a number of countries, but most large EMs face challenges



Source: J.P. Morgan

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Global credit outlook: The 'pain trade' in credit markets is still skewed toward tighter, not wider, spreads

More tightening and more compression in 2H21

2H21 executive summary

- Credit remains a 'clean' asset class and late-cycle excesses like leverage and complexity remain absent
- Interestingly, it's the longest duration market – US High Grade – which sits closest to its YE21 target and 2018 tight
- Given a preference for spread over duration risk, we see potential for more compression – IG versus HY and EM versus DM – in 2H21
- Creditors' biggest gripe is valuation but:
  - demand-side technicals remain strong, as evidenced by capital markets volumes
  - default risk remains remote, as evidenced by low distressed debt volumes

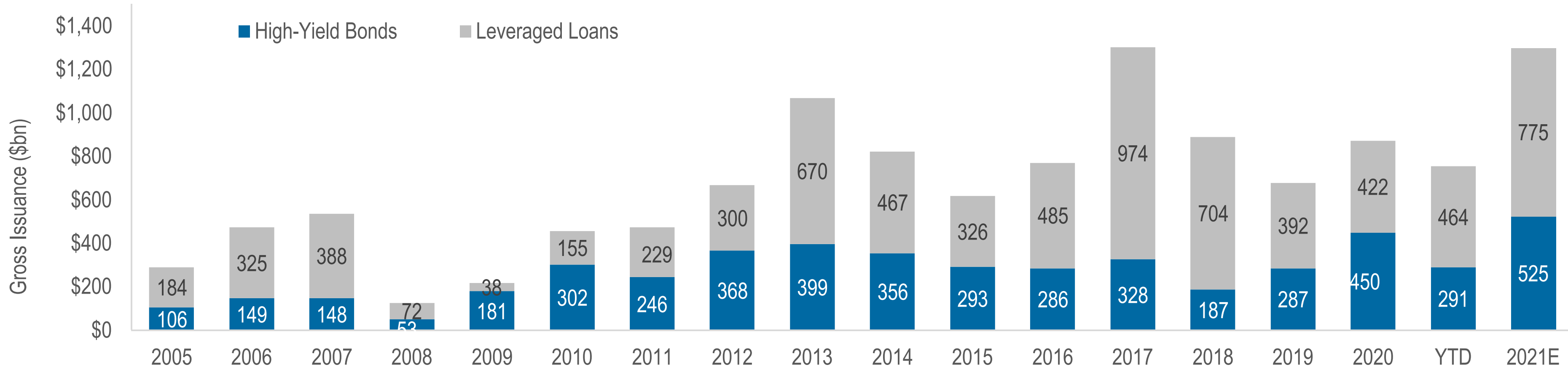
Global credit spreads – current vs forecasts and 2018 tights

	US IG	US HY	Euro IG	Euro HY	EM Corps
End 2020	127	444	101	358	258
Current	**112**	**380**	**96**	**304**	**246**
Year-to-Date Move	*-15*	*-64*	*-5*	*-54*	*-12*
Current 2021 YE Forecast	**110**	**375**	**90**	**275**	**225**
Forecast Move to YE21	*-2*	*-5*	*-6*	*-29*	*-21*
Percent Change	*-2%*	*-1%*	*-6%*	*-10%*	*-9%*
2018 Tight	**108**	**355**	**82**	**265**	**208**
Move to 2018 Tight	*-4*	*-25*	*-14*	*-39*	*-38*
Percent Change	*-4%*	*-7%*	*-15%*	*-13%*	*-15%*

Source: J.P. Morgan

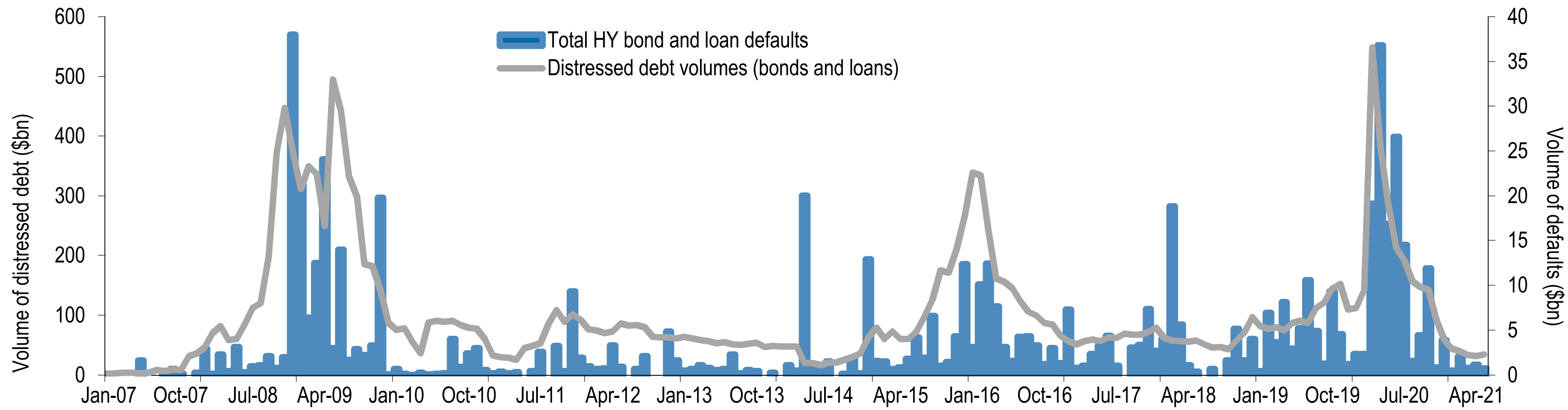
Global credit outlook: Despite valuation, credit still has a few things going for it as we enter 2H21

Someone's buying all these bonds and loans!



Source: J.P. Morgan

Low distressed debt volumes suggest default risk will remain remote



Source: J.P. Morgan

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