

Short sellers and Activists

Thursday, January 14

Markets flat, supported by defensives, awaiting Pres-elect Biden US\$1trn+ stimulus plan and largely ignoring second impeachment attempt against Trump. HOT TOPICS updates on short-seller and activist campaigns which have key role to play as fraud increases and earnings quality plunges around recessions, short interest ratios is at new lows, and whistle-blower activity at highs.

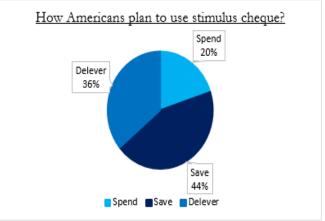
Equity markets resilient, ignoring US House 2nd Pres. Trump impeachment, and extending European virus lockdowns. Focus on Pres.-elect Biden US\$1trn+ stimulus plan announcement today and ability to get swiftly passed, and look ahead to Q4 corporate results start with banks tomorrow. We remain positive markets, focused on cyclicals and international catch-up, and with strong policy and vaccine (see below) supports. Asia markets were firm overnight, with Europe higher, along with US futures today.

How to spend it. 100m US consumers received US\$600 checks from Dec. stimulus plan and could receive US\$1,400 'top-up' to US\$2,000 under

Key Markets Performance Table

Index	Level	1D	1W	YTD
S&P500	3801.2	0.2%	1.6%	1.4%
ACWI xUS	54.9	-0.1%	1.1%	3.5%
DXY USD	90.4	0.3%	0.9%	0.5%
US 10Y YLD	1.09	-4.4%	4.4%	19.3%
Brent Spot	55.7	-0.3%	2.2%	9.5%
Gold Spot	1843.4	-0.7%	-3.9%	-2.8%

US\$1trn+ plan Pres.-elect Biden to announce today. Poll data (see chart below) suggests most will be saved or to cut debt, with c20% spent, mostly on utilities, groceries, rent with <20% on durables



Source: Refinitiv, Maru/Blue opinion survey, THR

HIGHLIGHTS FROM REST OF DOC

- Hot Topics on <u>Short-sellers</u>. Short-campaigners key as fraud increases and earnings quality plunges around recessions, short interest ratios at lows, and whistle-blower activity at highs
- What to watch: Pres.-elect Biden announces US\$1trn+ stimulus plan. US wkly jobless stall
- Country and Sector 'Eye': Favor US and EM, and cyclicals/value and IT sector barbell.
- <u>Data pages</u>: Performance, valuation, earnings, macro forecasts. See <u>Library</u> for prior dailies

*Sources if not stated are Refinitiv, THR

US & Sector Performance

Index	Level	1D	1W	YTD
S&P500	3801.2	0.2%	1.6%	1.4%
NASDAQ	12973.6	0.4%	3.0%	1.9%
Russell 2000	2112.0	-0.8%	2.6%	6.9%
US IT	481.0	0.4%	2.3%	-0.3%
US Healthcare	428.1	0.2%	2.0%	3.6%
US Financials	214.4	-0.3%	2.8%	7.2%

(apparel, white goods, auto). Has helped drive retail sales +5% yoy, our consumer durables overweight, and latest savings rate at 12.9% - still 5pp over pre-pandemic level.

The fourth vaccine. J&J Janssen <u>published</u> initial results showing vaccine safe, producing immune-response, and co. saying had 'confidence' to be highly-effective. Phase III results expected end of Jan., with FDA emergency use application straight after. Would be 4th vaccine broadly approved, after Pfizer/BioNTech, Moderna, Oxford/AstraZeneca, only one in single-dose and not needing deep refrigeration and help accelerate rollout vs est. 30m vaccinated globally (0.4% pop.) currently.

Europe politics focus. Former Italian PM Renzi yesterday pulled his tiny centrist party Italia Viva from government, on differences over fiscal 'recovery plan', raising threat of 2018 political turbulence re-run. Likely leads to cabinet reshuffle not elections. Outlook for tighter spreads remains with large ECB purchases and fiscal transfers. Spread to German yields 111bps. Bigger news may come in Germany, with Saturday's election of CDU leader as heir to replace 16-yr run of Chancellor Merkel in Sept. 26 election.

FX. Fixed Income. Commodities

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Index	Level	1D	1W	YTD
DXY USD Index	90.4	0.3%	0.9%	0.5%
EUR/USD	1.22	-0.4%	-1.4%	-0.5%
US 10Y YLD	1.09	-4.4%	4.4%	19.3%
US 10-2 BOND	0.94	-4.4%	3.0%	-2.2%
CBOE VIX Index	22.2	-4.8%	-11%	-2%
CRB Index	3369.3	-0.4%	2.1%	8.8%

Events to Watch

Indicator	Period	Forecast	Last
RICS Housing Survey, UK	Dec	61.60	66.00
GDP YY, DE	2020	-5.21	0.60
Initial Jobless Claims, US	09/01 w/e	797k	787k
Exports YY, CN	Dec	14.76	21.10

Sector Views

S&P 500 firm, led by defensive utilities (+1.9%) and real estate (+1.4%), while cyclical materials (-1.1%) and industrials (-0.9%) took 'catch-up' breather. Chipmaker Intel soared on replacing CEO, under pressure from activist Third Point HOT TOPICS and 130% underperformance vs PHLX Semi Index. Fellow chip-giant and EM largest stock TSMC posted +23% Q4 record profit on work-from-home, iPhone boost. Semis sector is in 'momentum' quadrant on our allocation framework. See Page 6. Europe' largest supermarket Carrefour takeover approach from Canada' conveniencestore operator Couche-Tard, as cross-border activity picks up. US IPO boom continues as online instalment loan provider Affirm Hldgs. doubled in debut, taking mkt. cap. to US\$22bn.

What to Watch

Yesterday saw Dec. US inflation in-line with expectations and in contrast to surging market expectations. Core CPI rose 1.6% yoy, like Nov., and well below Fed avg. 2% target. Dec. China trade data beat expectations, with exports +18.1% yoy, seventh month of increase, and imports +6.5%, as Chinese 'first in, first out' virus rebound broadens further. German 2020 GDP fell 5%, in-line with forecast. Set for a 4.3% rebound this year. Today US weekly jobless claim improvement forecast stalled at 797k vs prior week 787, still higher than worst of GFC, and adding to fiscal stimulus pressure.

HOT TOPICS

SHORT SELLERS AND ACTIVISTS

Short-seller and activist campaigns fell last year, are tiny vs listed universe; profits far from certain; and regulator support mixed. But Intel to Wirecard they had role to play. Fraud increases and earnings quality plunges around recessions, short interest ratios are at lows, whistle-blower activity at highs. Rallying markets, rise of ETFs, and retail all headwinds, but see 2021 campaign pick up. Healthcare led short-reports, and Industrials activist campaigns.

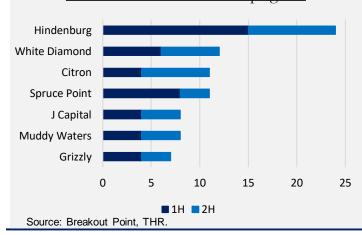
Prepare for a fraud rebound

The no. of short-seller and activist campaigns have been falling, even as arguably become more important. Last year saw short campaigns vs c0.4% of c45,000 global listed equities, and activist campaigns against 1.8%.

Comes even as markets rallied hard off lows, short interest activity fell to record, and whistle-blower activity soared. Median S&P 500 short interest ratio is now est. at 1.6%, the lowest since 2004. Whilst SEC reports its whistle-blower program received 6,900 tips to end Sept, up 31% from vs prior 12m record.

Mkt structure continues to evolve, with passive funds growing. Jan. 7th, *ETF dominance growing*. Retail investor participation soaring, and 200+ SPAC listings boosting IPO' to 1999 highs.

2020 most active short campaigners



Campaign activity likely higher in 2021, as Hindenburg CEO notes 'we've never seen this number of multi-billion-dollar frauds and stock promotion schemes' and follows Jim Chanos who noted was 'golden age of fraud'. Would be unsurprising given historic spike in scandals and decline in earnings quality in recessions. August 7, Don't overlook the write offs and March 12, Beware recession earnings quality.

Short campaign success mixed

2020 saw a modest <u>fall</u> in number of short campaigns to 177. It was a difficult environment for short campaigners. Whilst average stock was -7% a week after campaign launch, it was 28% higher at year-end, on combination of sharp equity rally off March low, unprecedented monetary and fiscal policy support, significant increase in retail investor



Source: Breakout Point, THR.

participation, and SPAC listing boom. See Sept. 23, *The importance of short sellers*.

The most impactful 2020 campaigns incl. April implosion of China Starbucks copy Luckin Coffee (LK), and later Germany's Wirecard - three years after first campaign launched - and September' Hindenburg campaign against high-flying EV truck-maker Nikola.

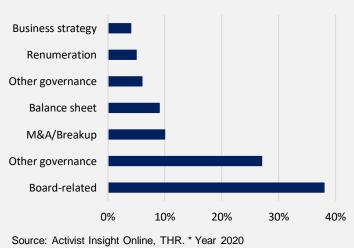
Part of the relatively low number of short campaigns reflects the time and expense involved. For example, it is estimated the Luckin Coffee research involved 90 full time staff, in 38 cities, plus thousands of part time workers, hours of video, and gathered receipts.

US saw most short campaigns at 55% of total, like its global equity weight. China followed at 31 (18% of total), well-above its market weight. Healthcare and technology were the most targeted sectors, at 45% of total, 10pp higher than weight in global indices.

Mixed regulator support for shorts

Regulators have played a mixed role. They often followed up on short reports, as the SEC/DOJ did with Nikola probe, or have more broadly pushed for auditors to better take account of alternative market signals and data (see UK

US Activist Campaigns*, by demand-type



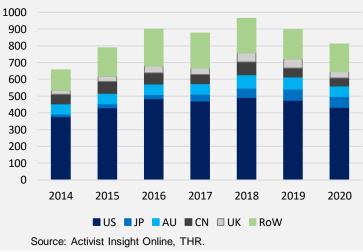
UK Brydon Report). But Regulators also lapsed, as with Germany' BaFin Wirecard response. European regulators halted their financials short selling ban in May last year, after following the SEC ban playbook from 2008. But South Korea recently extended its entire-market ban to March 2021 and plans to permanently ban naked short-selling. It is one of only an estimated three markets globally, with Malaysia and Indonesia, to ban practice.

Activist campaigns governance focused

Similarly, the number of broader global activist campaigns fell 10% last year to an est. 810, according to <u>Activist Insight</u>. Whilst US dominated, Japan, Australia, Canada, and UK rounded out the top-5 most active markets, whilst China was outside the activism top-10, unlike for short-campaigns.

Elliot Management and Starboard Value were the most active funds, but an est. 1/3 of all campaigns were launched by 'new' investors. Industrials, financials, and consumer discretionary sectors saw the greatest activism activity last year, accounting for 43% of total campaigns. Board-related and other governance issues were by far the most common reasons for activism, at near 2/3 of total.

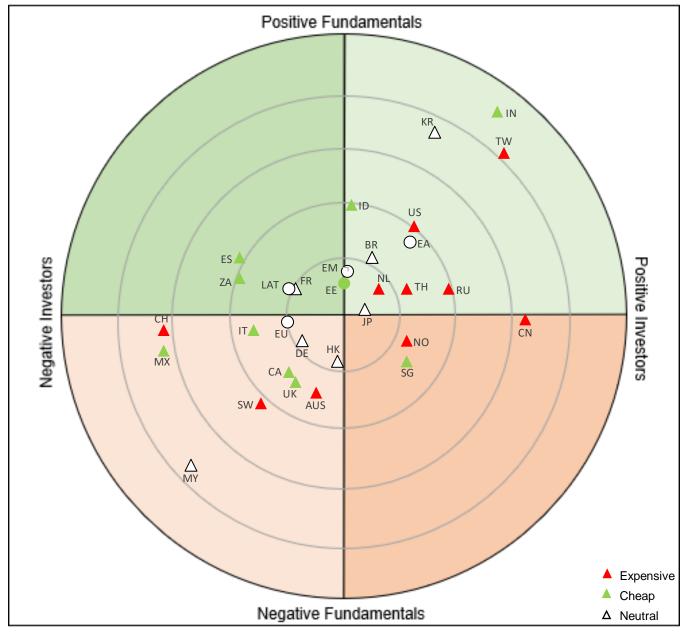
Activist Campaigns: by geography



COUNTRY 'EYE' & ALLOCATIONS

Country Allocation Views

Market	Main Index	THR View	Market	Main Index	THR View
US	S&P 500	Overweight	UK	FTSE 100	Underweight
EM	MSCI EM	Overweight	Canada	S&P/TSX	Overweight
Eurozone	EUROSTOXX	Neutral	Switzerland	SMI	Neutral
Japan	TOPIX	Underweight	Australia	S&P/ASX	Neutral



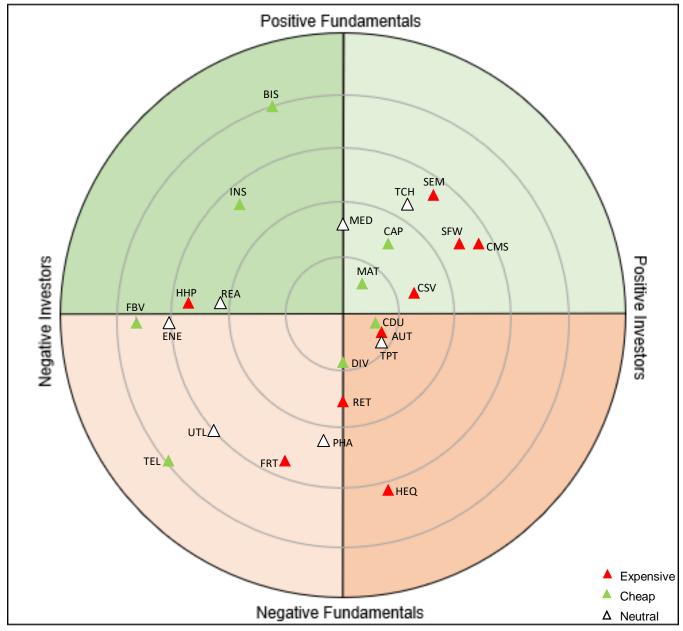
Source: Refinitiv, THR. SEE PAGE 13 FOR FULL METHODOLOGY

AUS=Australia, BR=Brazil, CA=Canada, CN=China, FR=France, DE=Germany, HK=Hong Kong, IN=India, ID=Indonesia, IT=Italy, JP=Japan, KR=Korea, MY=Malaysia, MX=Mexico, NL=Netherlands, NO=Norway, RU=Russia, SG=Singapore, ZA=South Africa, ES=Spain, SE=Sweden, CH=Switzerland, TW=Taiwan, TH=Thailand, UK=United Kingdom, US=United States, EU=Europe, LAT=Latin America, EM=Emerging Markets, EE=Emerging Europe, EA=Emerging Asia.

US SECTOR 'EYE' & ALLOCATION

US Sector Allocation Views

Market	Main ETFs	THR View	Market	Main ETFs	THR View
IT	XLK/VGT	Overweight	Staples	XLP/VDC	Overweight
Healthcare	XLV/VHT	Neutral	Energy	XLE/VDE	Neutral
Financials	XLF/VFH	Neutral	Utilties	XLU/VPU	Underweight
Communications	XLC/VOX	Overweight	Real Estate	XLRE/VNQ	Overweight
Discretionary	XLY/VCR	Neutral	Materials	XLB/VAW	Underweight
Industrials	XLI/VIS	Overweight			



Source: Refinitiv, THR. SEE PAGE 13 FOR FULL METHODOLOGY

AUT=Auto & Auto parts, BIS=Banking & Investment, CAP=Capital Goods, CMS=Commercial & Prof Svcs, CDU=Consumer Durables & Apparel, CSV=Consumer Svcs, DIV=Diversified Financials, ENE=Energy, FRT=Food Staples & Retail, FBV=Food, Bev. & Tobacco, HEQ=Healthcare Equipt. & Svcs, HHP=Household & Personal Products, INS=Insurance, MAT=Materials, MED=Media & Entertainment, PHA=Pharma, Bio & Life Svcs, REA=Real Estate, RET=Retailing, SEM=Semiconductors & Equipt, SFW=Software and Svcs, TCH=Technology Hardware & Equipt, TEL=Telecoms TPT=Transport, UTL=Utilities

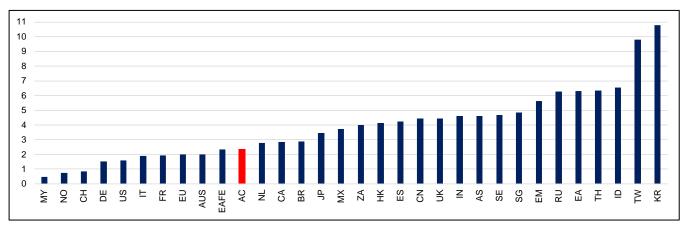
'EYE' ALLOCATION BREAKDOWN

Country/	Rationale	P/E			Gr. (%)
Region	United States (Overweight): Remains global equity 'safer haven' despite centre COVID outbreak. Has relatively closed economy and stock market, trend GDP growth into crisis, unprecedented policy response with unlimited QE and initial 14%/GDP fiscal stimulus. Valuations fundamentally supported by tech, tax, and UST. Earnings expectations very quickly adjusted. Is in 'momentum' Eye quadrant, with some of world's strongest relative fundamentals, but also some of most optimistic investors.	28.0		-11.0	
*‡	Emerging Markets (Overweight): We are focused on cyclical components, such as LatAm/CEEMEA, alongside more 'structural' north Asia overweight. Recent outperformance has a lot further to go after decade of under-performance, with GDP, earnings, valuations, currencies, and ownership all depressed, with room for a sharp 2021 recovery as gain vaccine-led growth visibility. Frontier and EM proxies (such as Canada/Spain) also attractive. Key is accelerating earnings turn-around, which is currently weak.	19.8	14.8	-4.5	34.0
* * * * * * * * *	Eurozone (Neutral): Led global GDP and EPS decline, whilst much of valuation discount vs US is just sector composition. Recession triggered a broader fiscal policy response, whilst ECB help extended. COVID easing and countries reopening, will see large cyclical economic and market upturn. Focus on cheap domestic cyclicals, such as Financials. Risk is impact of stronger EUR on region's globalised and low margin companies.	23.3	16.9	-31.2	37.7
	Japan (Underweight): Been moving out of the value-trap 'Eye' quadrant, but has significant fundamental headwinds on growth, trade, policy flexibility, and longer-term structural issues (demographics, debt). Valuation is attractive vs history, but EPS outlook overstated and vulnerable to stronger JPY. Domestic stocks underperformed global-exposed peers.	23.0	16.7	-5.0	37.5
	UK (Underweight): In value-trap framework quadrant. Exposed to twin-headwinds of above-average COVID impact (with high infections and relatively low fiscal response) and Brexit impacts (after 'lite' goods-focused Brexit deal), and market valuations at long-term average. Risk that lags our preferred recovery cyclicals (Canada, EU Financials, US small caps) despite 50%+ cyclical equity index composition and 60% overseas revenue exposure.	20.0	14.0	-38.2	42.6
US Sector	Rationale	P/E 2020e		EPS G 2020e	
US Sector	Information Technology (Overweight): See resilient to cyclicals catch up (not rotation) given still strong long-term growth and financial flexibility and still relatively well positioned on allocation framework. Software in attractive 'momentum' quadrant. Valuations average but supported by net-cash and high RoE, giving buyback and M&A flexibility. Tech Hardware			EPS G 2020e 5.2	
US Sector	Information Technology (Overweight): See resilient to cyclicals catch up (not rotation) given still strong long-term growth and financial flexibility and still relatively well positioned on allocation framework. Software in attractive 'momentum' quadrant. Valuations average	2020e	2021e	2020e	2021e
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Source: Refinitiv, THR

REGION/COUNTRY PERFORMANCE & VALUATION

Total Return YTD

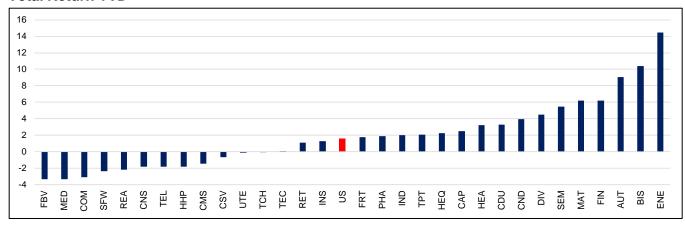


			Price Per	formance)		PE		EPS Growth	
Index	Abbreviation	1D (%)	1W (%)	3M(%)	YTD (%)	2019A	2020E	2021E	2020E	2021E
World	AC	0.3	1.8	12.3	2.4	21.2	25.1	19.6	-15.3%	27.6%
EAFE	EAFE	0.2	0.9	15.2	2.3	17.3	23.3	17.0	-25.7%	37.0%
Europe	EU	0.1	-0.3	14.3	2.0	16.0	23.3	16.9	-31.2%	37.7%
Asia	AS	0.6	3.5	18.1	4.6	20.8	20.8	16.1	-0.1%	29.7%
Emerging Global Markets	EM	0.8	3.7	20.0	5.6	18.9	19.8	14.8	-4.5%	34.0%
Emerging Asia	EA	0.8	4.0	19.4	6.3	21.1	19.5	15.7	8.3%	24.6%
Australia	AUS	0.1	1.5	9.1	2.0	22.8	20.8	18.4	10.0%	12.9%
Brazil	BR	-1.8	2.1	23.9	2.9	16.5	39.4	12.4	-58.0%	216.3%
Canada	CA	-0.3	0.6	8.6	2.9	16.0	20.8	16.5	-23.2%	26.6%
China	CN	0.6	2.6	9.1	4.4	18.1	17.8	15.0	1.8%	18.4%
France	FR	0.2	0.6	13.9	1.9	15.9	29.1	17.8	-45.4%	63.8%
Germany	DE	0.2	0.5	6.0	1.5	17.1	22.5	16.0	-23.9%	40.5%
Hong Kong	HK	-0.2	2.1	16.1	4.2	15.7	21.5	16.3	-26.9%	31.7%
India	IN	-0.2	2.6	19.2	4.6	51.7	29.7	21.5	74.3%	37.8%
Indonesia	ID	0.4	5.4	24.4	6.6	16.8	23.0	17.4	-27.0%	32.7%
Italy	IT	0.5	-0.4	16.8	1.9	12.3	23.0	14.5	-46.3%	58.9%
Japan	JP	0.3	4.0	14.7	3.4	21.9	23.0	16.7	-5.0%	37.5%
Korea	KR	0.5	7.7	36.4	10.8	23.5	18.6	13.1	25.8%	42.4%
Malaysia	MY	1.5	3.0	4.2	0.5	18.6	23.4	14.2	-20.4%	64.8%
Mexico	MX	-0.5	0.1	19.8	3.7	17.0	26.2	14.4	-35.2%	82.7%
Netherlands	NL	0.4	1.8	10.5	2.8	25.1	28.0	22.9	-10.3%	22.0%
Norway	NO	-0.9	1.3	7.6	0.8	15.3	20.5	15.6	-25.3%	31.3%
Russia	RU	0.0	3.2	24.8	6.3	6.6	12.6	8.0	-47.8%	58.5%
Singapore	SG	0.1	4.1	15.0	4.8	12.7	20.9	14.1	-39.1%	48.6%
South Africa	ZA	0.3	2.9	9.5	4.0	16.1	16.1	10.7	0.5%	50.2%
Spain	ES	0.3	0.4	24.0	4.2	11.9	28.2	15.7	-57.9%	79.5%
Sweden	SE	0.2	3.8	8.7	4.7	17.7	21.8	18.0	-18.4%	20.9%
Switzerland	CH	-0.2	0.7	3.4	0.8	20.0	21.8	18.7	-8.0%	16.2%
Taiwan	TW	2.1	7.1	25.7	9.8	23.7	19.9	17.6	19.2%	13.3%
Thailand	TH	0.5	3.6	22.3	6.3	15.7	26.3	19.3	-40.2%	36.2%
United Kingdom	UK	-0.1	-1.4	13.0	4.5	12.3	20.0	14.0	-38.2%	42.6%
United States	US	0.2	1.8	9.4	1.6	24.9	28.0	23.2	-11.0%	20.5%

Source: MSCI, Refinitiv, THR

US SECTOR PERFORMANCE & VALUATION

Total Return YTD

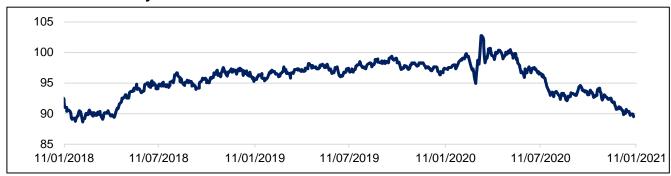


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Index	Abbreviation	1D (%)	1W (%)	3M(%)	YTD (%)	2019A	2020E	2021E	2020E	2021E
United States	US	0.2	1.8	9.4	1.6	24.9	28.0	23.2	-11.0%	20.5%
Communications	СОМ	0.3	-1.3	5.6	-3.1	26.7	27.9	24.6	-4.3%	13.5%
Media & Entertainment	MED	0.5	-0.9	6.6	-3.3	35.1	36.5	30.6	-4.0%	19.3%
Telecommunication Svcs	TEL	-0.4	-3.5	0.7	-1.8	11.4	12.0	11.7	-5.0%	3.2%
Consumer Discretionary	CND	0.0	3.3	6.6	3.9	41.4	54.7	36.2	-24.4%	51.0%
Autos & Components	AUT	-2.8	3.4	35.7	9.0	43.8	69.1	35.7	-36.7%	93.6%
Consumer Durables & App	CDU	-1.2	1.8	11.5	3.3	32.2	28.1	22.4	14.8%	25.5%
Consumer Svcs	CSV	-0.5	0.4	12.3	-0.7	25.5	NA	61.8	-114.5%	NA
Retailing	RET	0.4	1.8	-0.9	1.1	49.2	46.5	36.8	5.7%	26.3%
Consumer Staples	CNS	0.2	-0.9	0.2	-1.8	22.9	22.1	20.9	3.5%	5.9%
Food & Staples Retailing	FRT	-0.2	8.0	2.6	1.8	24.5	24.0	23.6	2.3%	1.4%
Food, Bev & Tobacco	FBV	0.2	-1.3	0.8	-3.4	19.8	19.5	18.3	1.6%	6.6%
Household Products	HHP	0.3	-1.5	-5.2	-1.8	28.9	25.7	23.9	12.4%	7.5%
Energy	ENE	-0.8	5.8	42.4	14.5	14.2	NA	30.3	-105.9%	NA
Financials	FIN	-0.2	2.5	25.6	6.2	13.3	17.5	14.3	-24.1%	22.3%
Banks	BIS	-0.4	4.0	39.8	10.4	10.2	16.8	13.4	-39.1%	25.5%
Diversified Financials	DIV	-0.2	2.0	18.9	4.5	17.5	20.0	16.6	-12.7%	20.1%
Insurance	INS	0.1	0.1	14.5	1.3	13.1	14.4	11.9	-9.3%	21.2%
Health Care	HEA	0.2	1.5	8.9	3.2	20.7	19.1	16.9	8.7%	13.0%
Health Care Equipment	HEQ	1.3	1.1	7.4	2.3	35.6	36.7	28.4	-2.8%	29.3%
Pharmaceuticals	PHA	-0.2	1.4	7.1	1.9	16.0	15.0	13.8	6.4%	9.1%
Industrials	IND	-1.0	0.5	13.5	2.0	23.9	30.7	23.6	-22.2%	30.1%
Capital Goods	CAP	-1.0	0.3	16.4	2.5	20.5	28.6	22.4	-28.5%	27.6%
Commercial & Prof Svcs	CMS	-1.2	-1.4	7.5	-1.4	37.2	36.5	32.8	1.9%	11.3%
Transportation	TPT	-0.6	2.0	7.5	2.0	34.3	35.5	23.9	-3.5%	48.8%
Information Technology	TEC	0.5	2.7	7.1	0.1	36.2	34.4	29.7	5.2%	15.8%
Semiconductors	SEM	0.9	5.9	12.2	5.5	26.0	25.2	21.7	3.0%	16.4%
Software & Svcs	SFW	0.3	1.1	1.1	-2.4	44.7	41.7	36.2	7.2%	15.3%
Technology Hardware	TCH	1.0	3.1	11.5	-0.1	32.8	31.4	27.1	4.4%	15.9%
Materials	MAT	-1.2	0.3	18.2	6.2	23.8	26.4	20.4	-9.9%	29.5%
Real Estate	REA	1.4	1.0	1.4	-2.2	35.6	50.1	49.3	-28.9%	1.6%
Utilities	UTE	1.8	-0.1	-0.5	-0.1	17.4	18.2	17.8	-4.3%	2.5%

Source: MSCI, Refinitiv, THR

GLOBAL FX, BONDS AND COMMODITIES

DXY USD Index - 3 years



CRB Major Commodity Index* - 3 Years

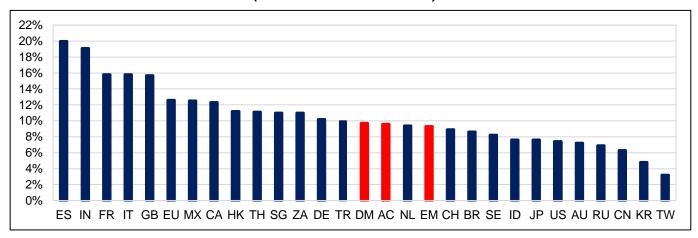


Name	Currency	Close Price	1 Day	1 Week	1 Month	3 Months	1 Year	MTD	QTD	YTD
Commodoties	-									
CRB Commodity Index	USD	3369.26	-0.4%	2.1%	8.5%	27.6%	9.7%	8.8%	8.8%	8.8%
Gold Spot	USD	1843.41	-0.7%	-3.9%	0.2%	-2.5%	19.1%	-2.8%	-2.8%	-2.8%
Copper Spot	USD	3.62	0.3%	-0.9%	2.6%	18.9%	26.4%	2.9%	2.9%	2.9%
Brent Crude Spot	USD	55.70	-0.3%	2.2%	9.8%	36.0%	-13.3%	9.5%	9.5%	9.5%
CRB Agricultural Index	USD	6708.59	-0.3%	2.1%	10.3%	23.1%	17.5%	7.8%	7.8%	7.8%
Currencies	-									
DXY USD Index	USD	90.36	0.3%	0.9%	-0.7%	-3.4%	-7.2%	0.5%	0.5%	0.5%
EUR/USD	USD	1.22	-0.4%	-1.4%	0.4%	3.5%	9.2%	-0.5%	-0.5%	-0.5%
USD/JPY	JPY	103.85	0.1%	0.8%	-0.2%	-1.5%	-5.5%	0.6%	0.6%	0.6%
GBP/USD	USD	1.36	-0.2%	0.2%	3.1%	5.4%	5.0%	-0.3%	-0.3%	-0.3%
USD/CNY	CNY	6.47	0.1%	0.1%	-1.2%	-4.1%	-6.2%	-0.9%	-0.9%	-0.9%
Bond Yields	-									
DE 10Y BUND	EUR	-0.52	11.1%	-4.6%	-18.3%	-6.1%	171.4%	-9.4%	-9.4%	-9.4%
GB 10Y GILT	GBP	0.31	-12.4%	26.4%	78.7%	29.0%	-58.6%	58.7%	58.7%	58.7%
JP 10Y JGB	JPY	0.03	-3.2%	57.9%	114.3%	0.0%	1400.0%	42.9%	42.9%	42.9%
US 10Y BILL	USD	1.09	-4.4%	4.4%	22.1%	49.7%	-41.1%	19.3%	19.3%	19.3%
US 30Y BOND	USD	1.82	-3.6%	-0.2%	11.9%	20.1%	-21.2%	10.7%	10.7%	10.7%
US 10-2 BOND	-	0.94	-4.4%	3.0%	0.6%	45.4%	49.6%	-2.2%	-2.2%	-2.2%
Volatility	-									
CBOE VIX Index	USD	22.21	-0.05	-0.11	-0.05	-0.15	0.80	-0.02	-0.02	-0.02

Source: Refinitiv, THR

MACRO INDICATORS: HISTORIC AND FORECASTS

Forecast Real GDP Growth 'Delta' (2021E % Growth – 2020E)



			R	eal GDP (%)	I	nflation (%	6)	Fiscal	Balance (% GDP)	Gov Deb	t (% GDP)
	Codes	Nominal GDP 2019 US\$trn	2019	2020E	2021E	2019	2020E	2021E	2019	2020E	2021E	2019	2020E
Americas		,											
US	US	21.4	2.2	-4.3	3.1	1.8	1.5	2.8	-6.3	-18.7	-8.7	109	131
Canada	CA	1.7	1.7	-7.1	5.2	1.9	0.6	1.3	-0.3	-19.9	-8.7	89	115
Brazil	BR	1.9	1.1	-5.8	2.8	3.7	2.7	2.9	-6.0	-16.8	-6.5	90	101
Mexico	MX	1.3	-0.3	-9.0	3.5	3.6	3.4	3.3	-2.3	-5.8	-3.4	54	66
Europe													
Eurozone	EU	18.3	1.7	-7.6	5.0	1.4	0.8	1.2	-0.6	-9.7	-4.8	79	95
Germany	DE	3.9	0.6	-6.0	4.2	1.3	0.5	1.1	1.5	-8.2	-3.2	60	73
UK	GB	2.7	1.5	-9.8	5.9	1.8	0.8	1.2	-2.2	-16.5	-9.2	85	108
France	FR	2.7	1.5	-9.8	6.0	1.3	0.5	0.6	-3.0	-10.8	-6.5	98	119
Italy	IT	2.0	0.3	-10.6	5.2	0.6	0.1	0.6	-1.6	-13.0	-6.2	135	162
Spain	ES	1.4	2.0	-12.8	7.2	0.7	-0.2	8.0	-2.8	-14.1	-7.5	96	123
Netherlands	NL	0.9	1.7	-5.4	4.0	2.7	1.2	1.5	1.7	-8.8	-4.9	48	59
Switzerland	CH	0.7	1.2	-5.3	3.6	0.4	-0.8	0.0	1.5	-4.2	-1.4	42	49
Sweden	SE	0.5	1.3	-4.7	3.5	1.6	0.8	1.4	0.4	-5.9	-2.0	35	42
Russia	RU	1.6	1.3	-4.1	2.8	4.5	3.2	3.2	1.9	-5.3	-2.6	14	19
Turkey	TR	0.7	0.9	-5.0	5.0	15.2	11.9	11.9	-5.6	-7.9	-7.9	33	42
Asia													
China	CN	14.1	6.1	1.9	8.2	2.9	2.9	2.7	-6.3	-11.9	-11.8	53	62
Hong Kong	HK	0.4	-1.2	-7.5	3.7	2.9	0.3	2.4	-1.5	-11.8	-6.6	0	0
Japan	JP	5.2	0.7	-5.3	2.3	0.5	-0.1	0.3	-3.3	-14.2	-6.4	238	266
India	IN	2.9	4.2	-10.3	8.8	4.8	4.9	3.7	-8.2	-13.1	-10.9	72	89
Korea	KR	1.6	2.0	-1.9	2.9	0.4	0.5	0.9	0.4	-3.2	-2.3	42	48
Australia	AU	1.4	1.8	-4.2	3.0	1.6	0.7	1.3	-3.9	-10.1	-10.5	46	60
Indonesia	ID	1.1	5.0	-1.5	6.1	2.8	2.1	1.6	-2.2	-6.3	-5.5	31	39
Taiwan	TW	0.6	2.7	0.0	3.2	0.5	-0.1	1.0	-1.8	-4.7	-3.2	33	36
Thailand	TH	0.5	2.4	-7.1	4.0	0.7	-0.4	1.8	-0.8	-5.2	-4.9	41	50
Singapore	SG	0.4	0.7	-6.0	5.0	0.6	-0.4	0.3	3.8	-10.8	1.2	130	131
Other													
South Africa	ZA	0.4	0.2	-8.0	3.0	4.1	3.3	3.9	-6.3	-14.0	-11.1	62	79
World													
Developed Markets	DM	51.7	1.7	-5.8	3.9	1.4	0.8	1.6	-3.3	-14.2	-6.8	104	124
Emerging Markets	EM	34.9	3.7	-3.3	6.0	5.1	5.0	4.7	-4.8	-10.4	-8.8	52	61
World	AC	86.6	2.8	-4.4	5.2	3.5	3.2	3.4					

Source: IMF, THR

GLOBAL MACRO & FORECAST TABLES

Provides historic data, and consensus forecasts, for key macro-economic indicators in the major economies of US, Germany, and China. Forecasts highlighted in green and red indicate whether the latest change in the consensus forecast was an increase or decrease.

					Hist	oric					Fore	casts
United States	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E
Production												
Real GDP, Growth	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.3	-5.7	4.0
Industrial Production, Growth	5.5	3.1	3.0	2.0	3.1	-1.0	-1.9	2.3	3.9	8.0	-9.1	2.6
Labour Markets and Income												
Unemployment Rate	9.6	8.9	8.1	7.4	6.2	5.3	4.9	4.3	3.9	3.7	10.5	8.0
Average Earnings, Growth	1.9	2.0	1.9	2.1	2.1	2.2	2.6	2.6	3.0	3.3	2.8	2.4
Prices												
CPI	1.6	3.2	2.1	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.6	1.6
PCE, excluding energy	1.4	1.6	1.9	1.5	1.6	1.2	1.6	1.6	1.9	1.6	1.3	1.4
Government												
Budget Balance, Growth	-0.2	-0.2	0.0	-0.9	-0.2	0.0	0.2	0.1	0.2	0.1	0.6	-0.4
Current Account, % of GDP	-2.9	-2.9	-2.6	-2.1	-2.1	-2.2	-2.3	-2.3	-2.4	-2.5	-2.2	-2.4

Germany		Historic										Forecasts	
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E	
Production													
Real GDP, Growth	4.2	3.9	0.4	0.4	2.2	1.7	2.2	2.5	1.5	0.6	-5.3	4.4	
Industrial Production, Growth	11.6	8.8	-0.6	0.3	1.9	0.4	1.4	3.6	1.2	-4.5	-7.0	5.9	
Labour Markets and Income													
Unemployment Rate	7.6	7.1	6.8	6.9	6.7	6.4	6.1	5.7	5.2	5.0	5.4	5.2	
Prices													
CPI	1.1	2.1	2.0	1.5	1.0	0.2	0.4	1.7	2.0	1.4	0.8	1.4	
Government													
Current Account, % of GDP	5.7	6.2	7.1	6.6	7.2	8.6	8.5	8.1	7.3	7.0	6.5	6.4	

	Historic										Forecasts	
China	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E
Production												
Real GDP, Growth	9.9	8.8	8.1	7.7	7.3	6.9	6.9	6.8	6.5	6.0	1.8	8.2
Prices												
CPI	3.5	5.5	2.6	2.7	2.0	1.4	2.0	1.5	2.1	2.8	3.3	2.3
Government												
Current Account, % of GDP	3.9	1.8	2.5	1.5	2.2	2.7	1.8	1.6	0.4	1.0	0.5	0.8

Source: Refinitiv, THR

TOWER HUDSON 'EYE': HOW IT WORKS

The 'eye' methodology helps identify relative buy and sell signals for countries, regions and US sectors, by comparing market sentiment vs fundamentals, with a valuation overlay. The more out-of-favor, with better relative fundamentals the better.

We compare: 1) **sentiment:** to understand whether markets are optimistic or pessimistic, and 2) **fundamentals:** focusing on earnings and business cycle fundamentals and price momentum. The output is also color-coded with a valuation overlay. This combines to give a relative allocation view

How to read the quadrants

Top left – Pessimistic sentiment/Positive fundamentals: The best place to be. Market expectations are low, but fundamentals are relatively good. As sentiment catches up to the better fundamentals, assets may outperform.

Top right – Optimistic sentiment/Positive fundamentals: The 2nd best place to be. The fundamentals are good, but so is market sentiment. This is a momentum quadrant that may deliver outperformance, but investors must be sensitive to relative fundamentals easing.

Bottom right – Optimistic sentiment/Negative fundamentals: Worst place to be. Fundamentals are poor but sentiment still positive. As sentiment catches up, assets may underperform.

Bottom left – Negative sentiment/Negative fundamentals: The second worst place to be. Can be a 'value trap'. Fundamentals are weak but sentiment is equally subdued. Investors need to be sensitive to any improvement in relative fundamentals, that can lead to a move up and rerating.

Sentiment	Indicator						
Buy-side	Net ETF and Mutual Fund Flows vs average						
Sell-side	Sell-side recommendation consensus score (RCS)						
Re-rating/De-rating	Trailling P/E ratio vs average						
Fundamentals							
Earnings revisions	Rolling earnings revisions ratio						
Price momentum	Change in trailing P/E ratio						
Business cycle	Correlation to this business cycle stage (rising, neutral, falling)						
Overlay							
Valuation	Average of P/E, P/BV, and P/CF vs history						

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