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Global Markets Analyst

Global Equity Alpha - What Drives Regional Outperformance?

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- **Seven Global Regions offer Distinct Exposures**: We divide the MSCI ACWI index into 7 regions (in descending float cap order: the US, Europe, Emerging Markets, Japan, the UK, Canada, and Australia) to analyze the historical drivers of outperformance across global equities. These regions load differently on basic macro factors such as global rates, commodity prices, and equity beta, and are largely divided by currency regions. This report focuses on unhedged USD returns, consistent with global benchmarks.
- **The US has been exceptional**. Not only has the US offered double the equity return of all regional peers over the past decade (10% USD CAGR compared with 2-4% outside the US), but also the US market has been the *best performing equity region in 5 of the past 6 years*. Backtesting various macro strategies suggests that the signals helpful in picking regional equity winners (such as GARP) have been much more effective outside the US; and that the US market has indeed been exceptional in terms of its consistent 'upside surprises'.
- **GDP growth is distinct from EPS Growth**. It has been well flagged that EPS growth is the primary driver of long-term equity returns from a compositional perspective. This paper focuses on *alpha* or relative returns and the drivers of outperformance; in this regard, we underscore that *relative* equity returns are much more a function of *relative* EPS growth than, for example, relative equity valuations. This is a crucial distinction because regional "*relative EPS*" cycles need not follow a traditional business cycle framing. Similarly, as our colleagues have highlighted the divergence between EPS and GDP over time, we underscore here that the regions with superior GDP growth need not have superior EPS growth (i.e., the rank-order of growth is different when looking at GDP or EPS).
- **Backtests: What works best and when does it work?** Perfect foresight of top-down data unsurprisingly yields immaculate returns, but not all information is equal. Knowing future changes in headline EPS, for example, is by far more valuable than having perfect information of GDP growth or future GDP surprises.

  More practically (in the absence of perfect information), Consensus expectations of GDP *acceleration* and "STM" EPS forecasts provide the strongest historical track records, generating 3pp relative return alpha annually. Valuation has proven less useful in picking regional outperformers over time, though a GARP screen is effective outside the US. Historically, regions with high expected growth tend to outperform during "risk on" years, whereas valuation-driven strategies have performed better during volatile environments.

- **The Current Set-Up**: Our global equity forecasts point to roughly 8% returns across the major benchmarks, with a fairly tight spread from one region to the next. Historical backtests suggest that relative valuation is less likely to be a driver of alpha in 2024 compared with growth expectations, as valuation tends to be a helpful signal when real rates rise. Both our current GARP screen as well as Consensus macro forecasts suggest that EM is likely to outperform Europe heading into 2024, a view we have recommended in November. Consensus expectations that both the US and Japan will slow (from relatively strong growth in 2023) more abruptly than other regions point to equity leadership rotation; though Goldman Sachs Economics forecasts are above consensus in these two economies.

The Drivers of Regional Equity Outperformance

Beta is the major driver across global equity regions: we aim to find drivers of Alpha

"Beta" and "Risk" are largely interchangeable terms describing the principal component that drives global asset prices, and a frequent focus of our work when considering what sort of macro conditions are conducive to strong asset returns (such as our EM "cycle guide" or the Global Portfolio Strategy team's longstanding Equity Phases Framework).

A common global Beta is clearly a primary driver to all major equity markets, as the largest regional equity indices are significantly correlated (average pairwise correlation of 0.83 across the major geographies when considering USD returns over the past decade). This report does not focus on Beta, rather, we consider the top-down macro drivers of Alpha (outperformance) across the major equity regions.

There are many ways to divide the global equity market, but geographic grouping is by far the most common (particularly when considering available equity products such as mutual funds, ETFs, and indices). Accordingly, we deconstruct the MSCI All Country World Index into seven regions: (in descending market cap order): the US, Europe, Emerging Markets, Japan, the UK, Canada, and Australia. This division allows enough differentiation to be a helpful framework for global managers and aligns well with distinct currency regimes. EM stands out in this regard, given the large diversity of equity markets and currencies included in the aggregate, but given its size, liquidity and frequency in being traded as a combined entity, we have kept the EM region as a single exposure.

Our goal in this report is to analyze the historical alpha generated by each of these regions on an annual basis and identify which top-down macro variables are helpful in predicting outperformance. Conceptually, we are much less focused on the absolute return environment, which tends to be the dominant focus of our year-ahead outlooks (which have been published over the past three weeks) and center our analysis on the cross-sectional ranking of macro indicators.

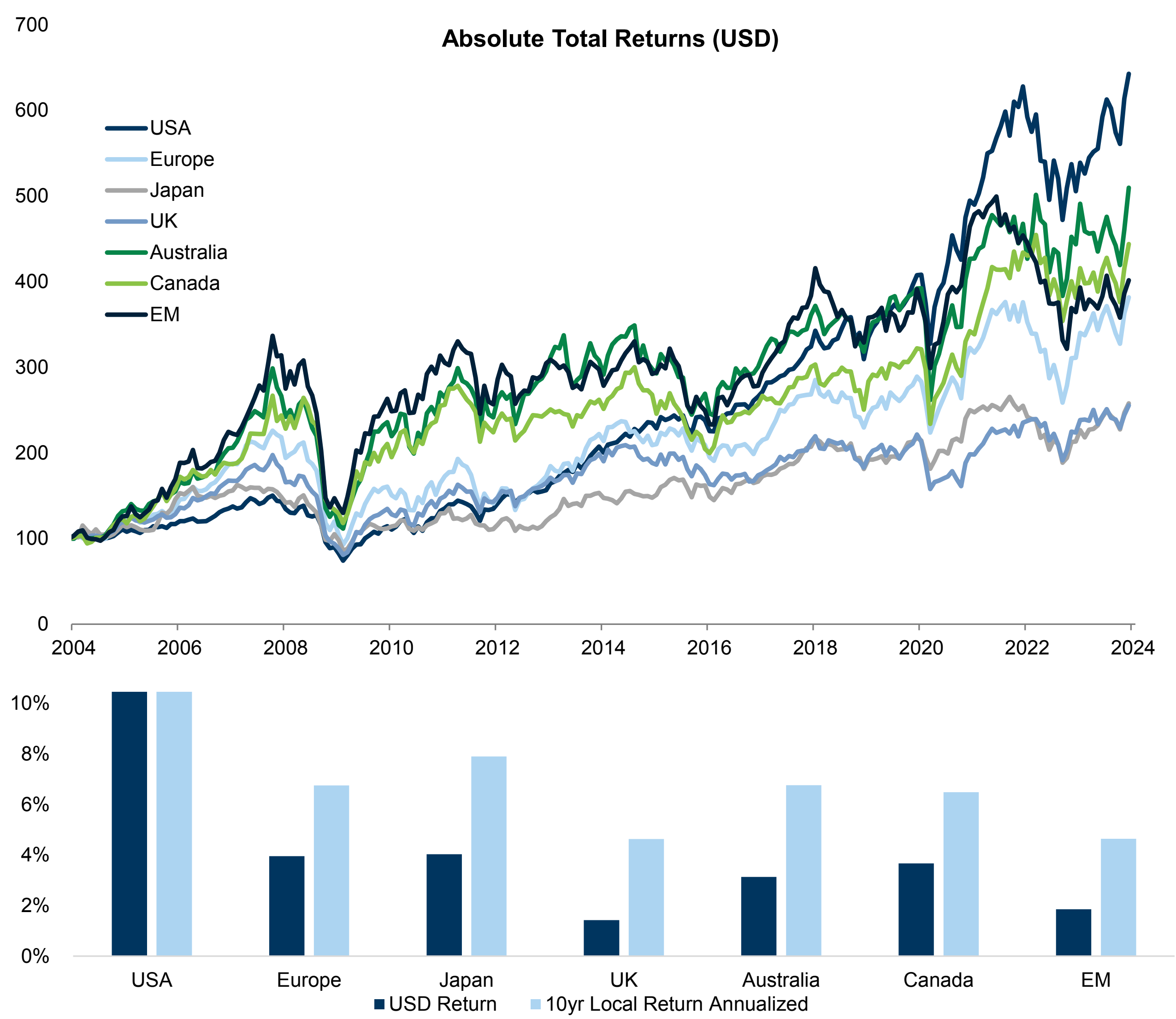
1) A Brief History of Recent Returns

Over the past twenty years, equity markets have generally trended upwards with a few notable pullbacks around the 2008, 2016, and 2020 economic slowdowns. Those three episodes were indeed global shocks and are clearly visible in the return history of each major region as shown in Exhibit 1.

Although these seven major regions have been highly correlated, the returns in the US have far exceeded global peers in a well-documented era of US "exceptionalism". This is particularly true over the past decade, as the US has been the *top* performer in 6 of the past 10 years. This exceptional track record has often been attributed to factors such as Big Tech and the appreciation of the US Dollar. US equities have returned 10% per annum over the past twenty years, and outside the US, no region has given more than a 4% annualized return (in USD terms). As we note below, the significant US outperformance has been well backed by GDP and EPS growth dynamics as well.

But what are the more generalized factors that drive regional outperformance in any given year? In this report, we consider a number of basic macro strategies including GDP expectations, EPS estimates, and valuation metrics as potential markers of relative outperformance. Ultimately, we conclude that a Growth-at-a-Reasonable-Price (GARP) framework, with a few modifications, is the most helpful strategy in identifying regional outperformance outside the US and that forecasts of GDP *acceleration* are helpful at the macro level.

Exhibit 1: Markets are correlated but the US has been exceptional with 10% annualized returns (vs. sub-4% in USD terms for the other major regions) over the past twenty years (returns shown are inclusive of dividends)



Source: FactSet, Goldman Sachs Global Investment Research

Seven equity regions offer a "manageable partitioning" of the global equity pie, with distinct exposures. Before addressing our backtesting results, there are a few macro issues we outline below in terms of correlations, equity vs. currency movements, and "conversion" of GDP to EPS. To start, Exhibit 2 displays a correlation matrix of monthly returns across the regions (relative to the MSCI ACWI index) since 2004. As shown, there are a few 'clusters' that emerge; meaning there are several of the major regions that tend to co-move.

For example, the UK and Europe have fairly clustered returns likely due to a close economic relationship with significant trade linkages as well as common pools of capital that invest in the two regions together (in this report, "Europe" refers to MSCI Europe ex-UK). Separately, Australia, Canada and EM also appear loosely clustered, likely a function of exposure to commodity prices and a historical tie to Mainland China as a common driving growth force. US equity returns are negatively correlated with all other regions, also due to the sheer size of the US (~60% of MSCI ACWI). These clusters are confirmed in a simple beta analysis (shown in the Appendix), which suggests EM, Australia, and Canada are the highest beta markets to global equities. In other words, during periods of "risk on", these high-beta regions tend to outperform together.

Exhibit 2: Correlation matrix of monthly relative returns vs ACWI (USD, since 2004)

	USA	Europe	Japan	UK	Australia	Canada	EM
USA		-0.57	-0.13	-0.43	-0.46	-0.29	-0.72
Europe	-0.57		-0.20	0.38	0.12	-0.08	0.10
Japan	-0.13	-0.20		-0.04	-0.19	-0.21	-0.06
UK	-0.43	0.38	-0.04		0.14	0.23	0.04
Australia	-0.46	0.12	-0.19	0.14		0.33	0.42
Canada	-0.29	-0.08	-0.21	0.23	0.33		0.31
EM	-0.72	0.10	-0.06	0.04	0.42	0.31	

Source: Factset, Goldman Sachs Global Investment Research

In this report, we focus primarily on USD-based returns without assuming FX hedging. This is mostly due to the ACWI benchmark itself being an unhedged USD-based index; though many of the conclusions looking solely at local currency returns across global equities remain unchanged (see Appendix for details).

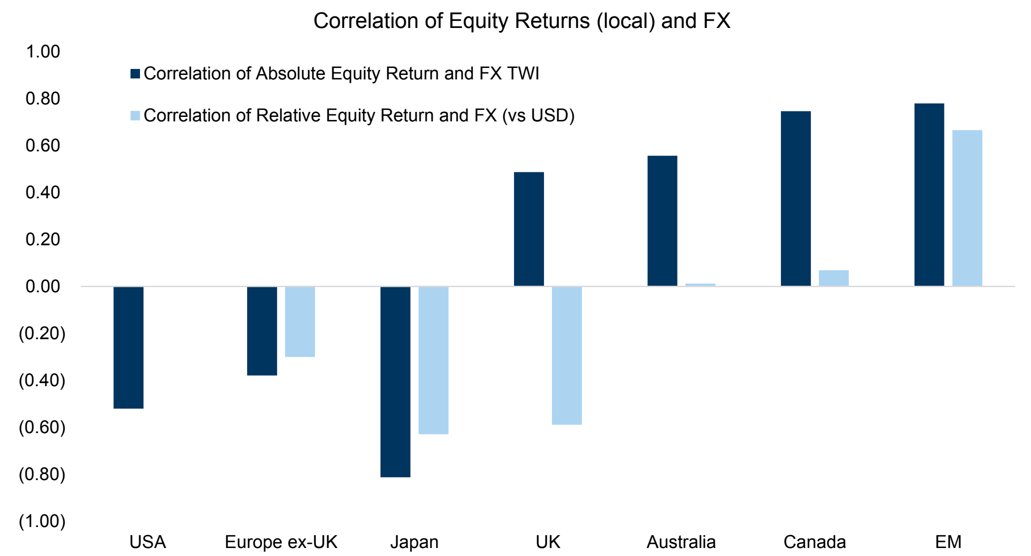
A closer look at the relationship between equities and FX shows a varied relationship between the two asset classes depending on the region in question. Exhibit 3 below plots the correlation of equity returns and FX since 2003 in two ways.

First, the darker bars highlight basic return correlation between local equity returns and trade-weighted currency moves. Second, the lighter bars highlight the correlation of *relative* equity returns (compared to the ACWI) with their respective currencies against the USD (spot terms). These two measures carry different implications for the regions.

For EM, the story is similar in both metrics: the equities and currencies "move together" both in absolute return space as well as relative to the ACWI index. In other words, when EM currencies are appreciating, the equities are going up *and* outperforming regional peers. For Japan, the reverse is true: currency appreciation is often associated with falling equity prices and underperformance against MSCI ACWI. Europe is also somewhat defensive in this regard, though the correlations are less significant (and importantly, the correlation structure of European equities and the Euro oscillate in various phases over the years). Australia and Canada equity indices are positively correlated with their currencies, but there is not much of a relative performance signal embedded in the FX.

The UK is less straightforward — local equity returns themselves are correlated positively with an appreciating GBP (on a TWI basis). But GBP strength against the USD is associated with *relative* equity underperformance vs global peers. This is likely due to the export and "foreign revenue" orientation of the UK index.

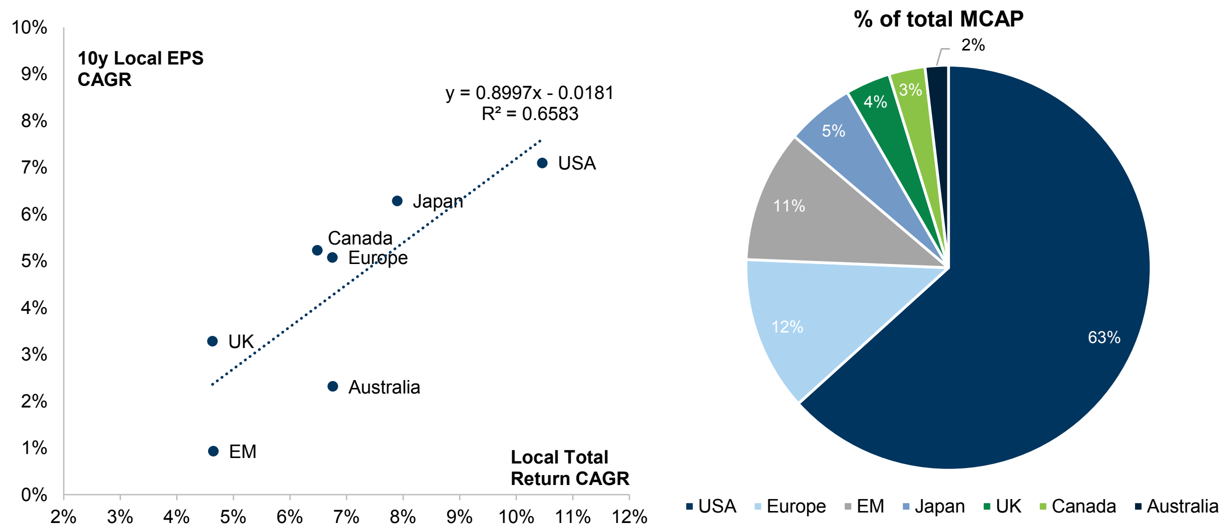
Exhibit 3: FX and equity correlations vary across the regions



Source: FactSet, Datastream, Goldman Sachs Global Investment Research

Currency fluctuations do have an impact on the rank-order of regional equities, but the much more important driver of relative performance is EPS growth outcomes. As shown below in Exhibit 4, the long-term relationship between EPS and total returns is extremely close (R sq. of 0.66). We display the relative size of the seven regions below as well, which does not appear to have much of a causal relationship with EPS growth (going against the notion that smaller regions have more "room to grow"). In fact, it has been the largest region (the US) which has posted the strongest EPS growth over the past decade and two of the smaller regions (Australia and the UK) which have posted the shallowest EPS growth alongside EM.

Exhibit 4: Long-term EPS growth is a powerful driver of long-term equity returns

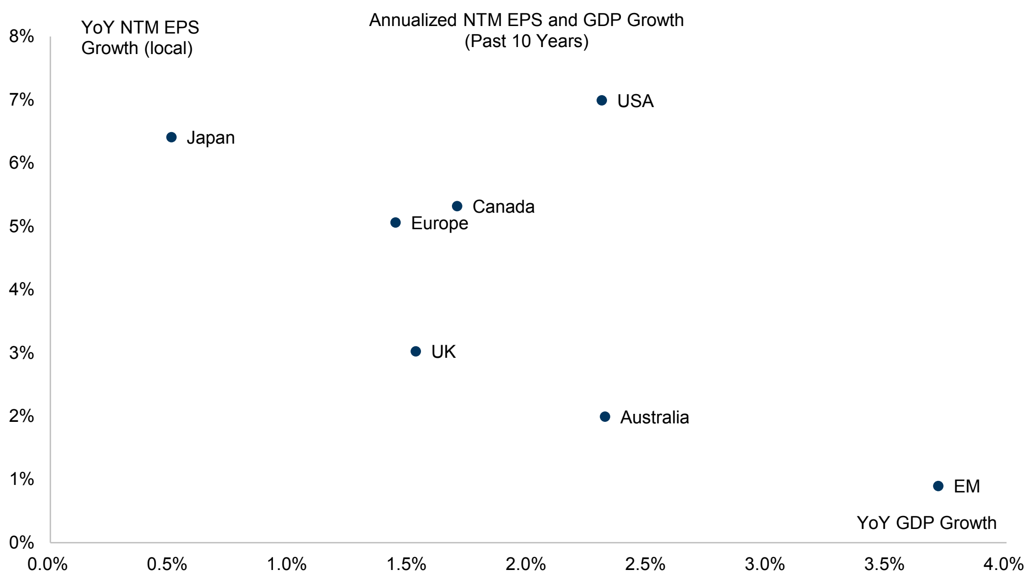


Source: FactSet, Goldman Sachs Global Investment Research

GDP and EPS are, empirically, very different measures of growth. Finally, we note that "conversion" of GDP to EPS growth is not particularly straightforward. Typically, macro investors focus on GDP growth differentials when considering equity market attractiveness. These considerations are helpful for long term cycles and valuation effects, but not especially useful when looking at EPS growth itself. For example, Exhibit 5 plots the 10-year annualized growth of real GDP against EPS growth, showing a *negative* correlation (-0.75). Excluding EM and Japan this correlation would be +0.28 — suggesting the relationship is fairly spurious (similar results if looking at just the past five years).

Over shorter horizons, GDP trends are indeed helpful inputs to EPS forecasts (and a variable across our Strategy teams' EPS models), but we underscore here that there is not a straightforward implication from long-term GDP trends to equity market returns, a point reinforced by our backtesting analysis further below.

Exhibit 5: GDP trends do not "convert" well to EPS growth necessarily



Source: Haver Analytics, FactSet, Goldman Sachs Global Investment Research

2) Annual Returns: Macro Backtesting

Narrowing the scope of our analysis to annual returns, Exhibit 6 displays the "scorecard" for each year since 2004 across the seven major equity regions (with highlights representing the ranking within each calendar year). For reference, the opportunity set is outlined on the right-hand side via a dispersion (standard deviation across regions) as well as "Top vs. Bottom" performer. Annual return dispersion averages 6%, though there are some notable years of significant dispersion such as 2009 and 2013; and typically the best region outperforms the worst by 20pp.

Most regions have given 2-5% returns over the long run, but return dispersion within each calendar year is much wider; the implication is that global equity managers should consider large portfolio rotations on an annual basis. Our goal is to help identify the macro signals that help identify the outperformers each year and capture this potential return dispersion.

Exhibit 6: Annual total returns across the major regions

	Annual Returns (in USD Terms)								
	USA	Europe	Japan	UK	Australia	Canada	EM	Return Dispersion	Top vs. Bot Difference
2004	11%	22%	16%	20%	32%	23%	26%	7%	21pp
2005	6%	11%	26%	7%	18%	29%	35%	11%	29pp
2006	15%	36%	6%	31%	33%	18%	33%	11%	30pp
2007	6%	17%	(4%)	8%	30%	30%	40%	16%	44pp
2008	(37%)	(45%)	(29%)	(48%)	(50%)	(45%)	(53%)	8%	24pp
2009	27%	34%	6%	43%	77%	57%	79%	27%	73pp
2010	15%	2%	16%	9%	15%	21%	19%	6%	19pp
2011	2%	(14%)	(14%)	(3%)	(11%)	(12%)	(18%)	7%	20pp
2012	16%	23%	8%	15%	22%	10%	19%	6%	14pp
2013	33%	29%	27%	21%	4%	6%	(2%)	14%	35pp
2014	13%	(6%)	(4%)	(5%)	(3%)	2%	(2%)	7%	19pp
2015	1%	0%	10%	(8%)	(10%)	(24%)	(15%)	11%	33pp
2016	12%	0%	3%	(0%)	12%	25%	12%	9%	26pp
2017	22%	28%	24%	22%	20%	17%	38%	7%	21pp
2018	(5%)	(14%)	(13%)	(14%)	(12%)	(17%)	(14%)	4%	12pp
2019	32%	26%	20%	21%	23%	28%	19%	5%	13pp
2020	21%	12%	15%	(10%)	9%	6%	19%	11%	32pp
2021	27%	17%	2%	19%	10%	27%	(2%)	11%	29pp
2022	(19%)	(17%)	(16%)	(5%)	(5%)	(12%)	(20%)	6%	15pp
2023	27%	23%	21%	14%	15%	16%	10%	6%	17pp
10y CAGR	12%	6%	5%	3%	5%	5%	3%		

Source: FactSet, Goldman Sachs Global Investment Research

In running our macro backtests, we consider three sets of data: GDP, valuation, and EPS. There are a number of ways to consider each of these three metrics, such as using perfect forward information, expectations at the beginning of each backtested period, and "changes vs. levels" type of considerations. The analysis above has already highlighted that EPS are likely to be the most accurate indicator of equity returns (likely superior to GDP) but the conclusion may not hold when considering signals ex ante, particularly if GDP forecasts are historically more accurate than EPS. Because our backtests rely heavily on ex ante forecasts, our dataset is largely confined to the past 15 years; prior to that, the quality of historical forecast data (such as GDP estimates and long-term EPS ,or "STM", forecasts) is quite poor.

As a starting point, we highlight four backtest results in Exhibit 7 below: NTM EPS growth (using perfect information), High real GDP growth (using perfect information), Low P/E Valuation, and "GARP". Each backtest is run as "above or below median" ranking across the seven regions (being long three regions and short three others in each case).

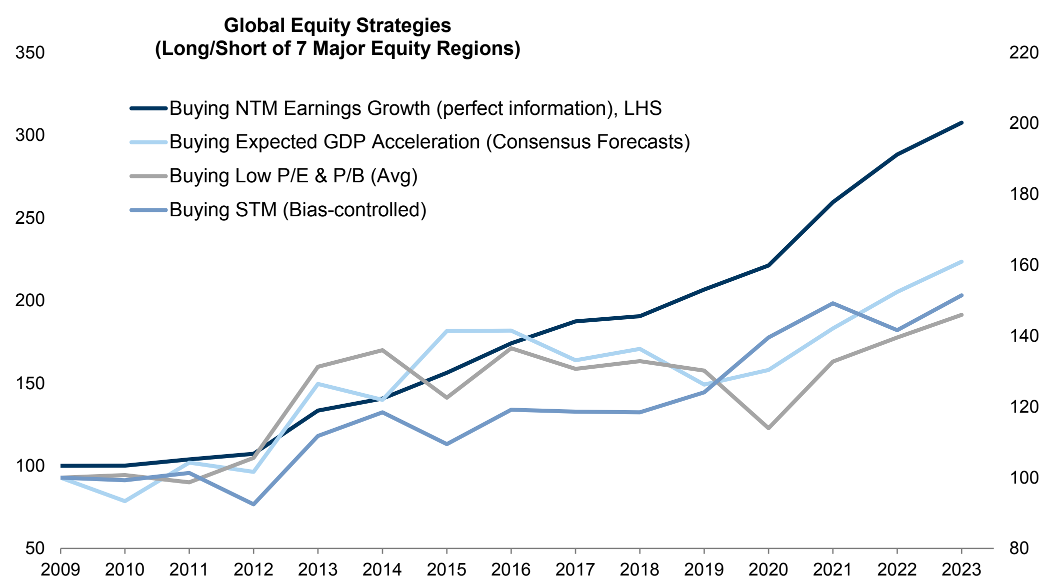
Perfect information naturally "wins", but not all crystal balls are created equal. Using perfect (or future) information regarding NTM EPS growth is by far the most desirable strategy, with a 100% hit rate in each calendar year and a 10pp return CAGR in long-short space. This strategy is not implementable in reality, but a useful benchmark to highlight that EPS growth is indeed the most important driver to equity returns from a cross-sectional (or relative performance) perspective. Tools that can help predict the ordinal ranking of EPS growth are extremely valuable in this regard.

Conversely, a strategy of buying the fastest growing regions from a real GDP perspective is a fairly useless strategy, yielding only 0.1pp of alpha each year with a

57% hit rate, even when using perfect forward information. There is a bit of nuance here, as discussed further below, in that buying regions with *accelerating* GDP is far more desirable strategy (4pp of alpha annually). Valuation (defined as low P/E and P/B z-scores on a 5-year look-back window) has been fairly ineffective strategy in recent years, with the long-run track record of yielding ~3pp of alpha largely driven by concentrated returns during volatile environments (2013, 2014, and 2020 being examples). But unlike the other two strategies outlined, this valuation backtest is readily implementable (i.e., no future information is used in this strategy).

Other implementable backtests, such as growth strategies which incorporate Consensus forecasts, have performed more steadily over time. Below, we highlight a simple "best STM growth" strategy across the 7 major regions as a backtest that has generated 3pp of alpha annually quite consistently. STM refers to Second-Twelve-Months, which would be the *exact* change in NTM estimates over a 12-month period assuming starting forecasts proved accurate. As mentioned, realized changes in NTM EPS levels are by far the most important driver of equity returns; and here we find that STM forecasts are fairly helpful predictors of those NTM outcomes (see Appendix for further discussion).

Exhibit 7:



Source: FactSet, Haver Analytics, Consensus Economics, Goldman Sachs Global Investment Research

Outlining the backtests: Macro, Growth, Valuation, and GARP. A more comprehensive set of backtesting exercises below sheds further light on which macro indicators are helpful drivers of equity alpha each year. We separate the strategies between: "perfect information", "growth strategies", and "value" (see Exhibit 9).

Within the "perfect information" category, as mentioned, the best possible strategy is to go long equity regions where realized NTM growth will be strongest. This strategy is the only one with a 100% hit rate and generates the most alpha. From this perspective, the consistent outperformance of the US is justified given its superior EPS growth over other regions (and suggesting that valuation alone has not been a helpful indicator for the US). High real GDP growth regions are not necessarily outperformers, but GDP acceleration and GDP surprises both generate alpha (surprises are defined as realized GDP less the consensus estimate at the start of the calendar year). Here the takeaway is that EPS outcomes and GDP outcomes can be quite different; and EPS information is by far more important for equity outcomes.

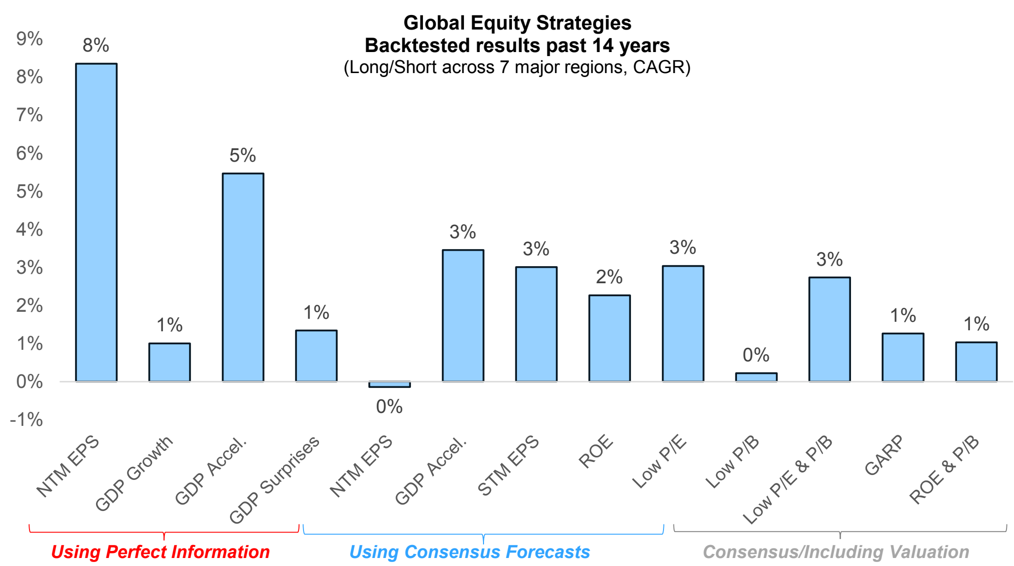
In the "Growth" category (using know-able information at the start of each year), longer-run growth expectations tend to be more helpful than year-ahead forecasts. We suspect this is driven by market valuations tending to discount near-term outcomes, but not longer-run trends. We apply an important calibration to the consensus STM estimates here (in the Bias-controlled backtest): given the consistent over-estimation by Consensus, we subtract the average of the previous 5-year STM forecasts to scale the current STM estimates. This scaling (which is replicable given there is no future information in using rolling 5-year "bias" calculations on historical data) is extremely helpful in gauging the relative optimism of analysts across regions.

Looking across our "Value" backtests, P/E signals have been much more effective in highlighting potential outperformers than P/B ratios, but there is an important caveat: the US market has been a large outlier for a number of the backtests. In the full table of backtests below (Exhibit 9), we display the results of each strategy "excluding the US" as well as other variations (in local currency terms and excluding smaller regions). Moreover, in this report, we are focusing on one-year returns, which is actually a fairly short-term investment horizon with respect to valuation inputs. As our colleagues have highlighted in other research, valuation signals tend to be more helpful over longer maturity windows (e.g. 2-5 years). Similarly, we have analyzed both P/E and P/B metrics as they have a varied track record depending on the individual equity market in question (our Asia Strategy team has written on signals of various valuation metrics previously).

Some of the backtests appear quite different once the US is excluded - such as our GARP backtest. This strategy (one that we often use in the EM Strategy product), has historically worked very well outside the US. Here, we define GARP as the markets appearing cheap (on a P/E basis) relative to their respective "STM" growth expectations (Exhibit 10 displays a GARP screen across global equity regions currently).

It is worth noting that valuation strategies (which include GARP) would "punish" equity markets experiencing a regime-shift (often associated with a sustainable re-rating in P/E or P/B). This phenomenon could characterize the US market in recent years, with the increasing share and profitability of Tech (and more recently with AI). In this regard, it is unsurprising that valuation-driven strategies have worked better outside the US in recent years.

Exhibit 8: Relative NTM EPS changes are by far the most important driver for equity outperformance



Source: FactSet, Haver Analytics, Consensus Economics, Goldman Sachs Global Investment Research

Exhibit 9: Having perfect forward growth information naturally would lead to impeccable investing strategies; but realistic macro-driven strategies are best considered with regard to GARP or "bias-controlled" consensus expectations

Backtest Returns (Full Sample, USD)														
	Growth (Perfect Forward Information)				Growth (No Forward information)					Value (No Forward Information)			Combined Strategies	
Year	Buying NTM (perfect)	Buying GDP Growth (perfect)	Buying GDP chg. (perfect)	Buying GDP Surprise (perfect)	Buying NTM Growth	Buying Expected GDP Acceleration	Buying STM Growth	Buying STM (Bias-Con)	Buying ROE STM vs NTM	Buying Low PE	Buying Low PB	Buying Low AVG PE PB	Buying GARP (Bias-Con)	Buying ROE STM vs PB
2010	0%	10%	(7%)	0%	1%	(7%)	(4%)	(1%)	(4%)	(0%)	1%	1%	(10%)	(10%)
2011	4%	(10%)	2%	(12%)	2%	12%	(4%)	2%	(3%)	(2%)	(2%)	(2%)	(2%)	(2%)
2012	3%	3%	(2%)	9%	(12%)	(2%)	1%	(9%)	7%	7%	(2%)	7%	1%	1%
2013	24%	(23%)	23%	(8%)	(14%)	24%	21%	21%	21%	23%	22%	24%	22%	22%
2014	5%	2%	(2%)	(2%)	(0%)	(4%)	6%	6%	6%	4%	2%	4%	2%	2%
2015	11%	(10%)	16%	10%	10%	16%	10%	(8%)	(9%)	(10%)	(11%)	(10%)	(16%)	(16%)
2016	11%	(0%)	9%	(0%)	11%	0%	9%	9%	0%	11%	9%	11%	9%	9%
2017	8%	6%	2%	6%	0%	(6%)	(0%)	(0%)	2%	2%	(2%)	(4%)	8%	8%
2018	2%	2%	2%	(0%)	2%	2%	(2%)	(0%)	(2%)	2%	(2%)	2%	(3%)	(3%)
2019	8%	2%	6%	3%	5%	(7%)	7%	5%	3%	(2%)	(3%)	(2%)	(2%)	(2%)
2020	7%	12%	9%	9%	10%	3%	12%	12%	12%	(12%)	(5%)	(12%)	3%	3%
2021	17%	7%	9%	2%	(10%)	9%	(16%)	7%	9%	16%	2%	16%	7%	7%
2022	11%	12%	7%	12%	(11%)	7%	(14%)	(5%)	(12%)	5%	5%	5%	(4%)	(4%)
2023	8%	6%	6%	(6%)	9%	6%	8%	8%	8%	2%	(6%)	2%	4%	4%
Hit Rate	**100%**	**71%**	**79%**	**57%**	**64%**	**64%**	**57%**	**57%**	**64%**	**64%**	**43%**	**64%**	**57%**	**57%**
Annualized Return of Long/Short Strategy														
Full Sample, USD	**8%**	**1%**	**5%**	**1%**	**0%**	**3%**	**2%**	**3%**	**2%**	**3%**	**0%**	**3%**	**2%**	**1%**
Full Sample, Local	**9%**	**1%**	**5%**	**-1%**	**1%**	**5%**	**3%**	**3%**	**3%**	**3%**	**-1%**	**0%**	**1%**	**1%**
Excluding US, USD	**6%**	**2%**	**5%**	**1%**	**0%**	**3%**	**1%**	**3%**	**2%**	**3%**	**3%**	**4%**	**3%**	**1%**
Exluding AUD/CAD, USD	**11%**	**1%**	**3%**	**0%**	**1%**	**1%**	**1%**	**2%**	**3%**	**-1%**	**-3%**	**-1%**	**0%**	**-2%**

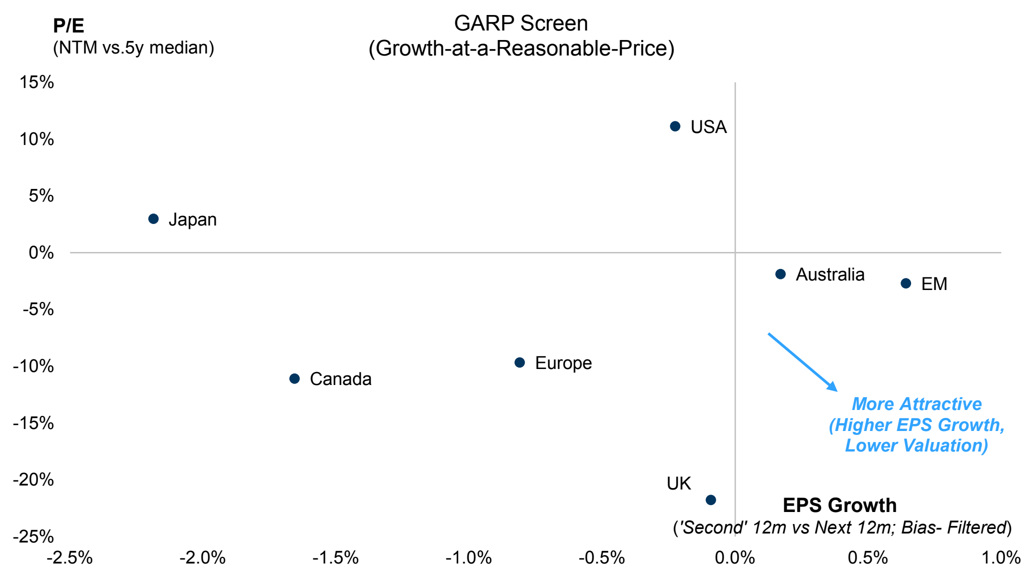
Source: FactSet, Haver Analytics, Consensus Economics, Goldman Sachs Global Investment Research

3) The Current Global Backdrop

Looking ahead into 2024, our global equity forecasts point to roughly 8% returns for the calendar year, with most regions hovering within 3pp of that return. Currently, our targets only point to Japan outperforming the US, though the spread in our return forecasts are quite tight. With 2023 marking the fifth out of the past six years in which the US has been the *best* performing equity region of the major 7, another year of US exceptionalism appears a tall order.

A current GARP screen (shown in Exhibit 10) supports a view of outperformance outside the US; though as mentioned, GARP screens have been more helpful at picking outperformers outside the US and less helpful in regions *vs. the US*. In addition, as shown, Japan screens fairly expensively vs. a rather weak 2-year forward EPS growth estimate (on Consensus); and part of our optimism in Japan is on corporate governance reform, which can elevate multiples have recent ranges (the GARP screen is based on a 5-yr 'look back' window). On this screen, both EM and the UK screen attractively: the UK for a deep valuation discount and EM for its modest valuation with strong 2-year consensus growth expectations.

Exhibit 10: EM and the UK screen attractively on a GARP basis



Source: FactSet, Goldman Sachs Global Investment Research

Reviewing the backtests from a 'quant' perspective, there are certain factors that appear correlated with the various strategies. For example, valuation-driven strategies (such as buying Low P/E markets) are positively correlated with US 10-year real rates. This appears intuitive in that rising rates might pressure the valuations are high-multiple markets. In the current market context, alleviation of inflation fears and the anchoring of real rate expectations likely means that relative valuations are *less* important to equity returns going forward (in terms of determining the outperformers).

Conversely, growth-driven strategies such as buying the strongest "STM" growth estimates tends to be correlated with nominal global equities as well as inversely correlated with the US Dollar (see Exhibit 11). In other words, these strategies are quite 'risk-on' (as global equities rise and the US Dollar depreciates during periods of rising risk appetite). In this context, the GARP screen above would still favor EM equities, though the UK's valuation discount would be less important to alpha in 2024 (and markets such as the US and Australia appear incrementally more attractive).

Exhibit 11: Valuation strategies tend to be "defensive" and growth strategies appear more "risk on"

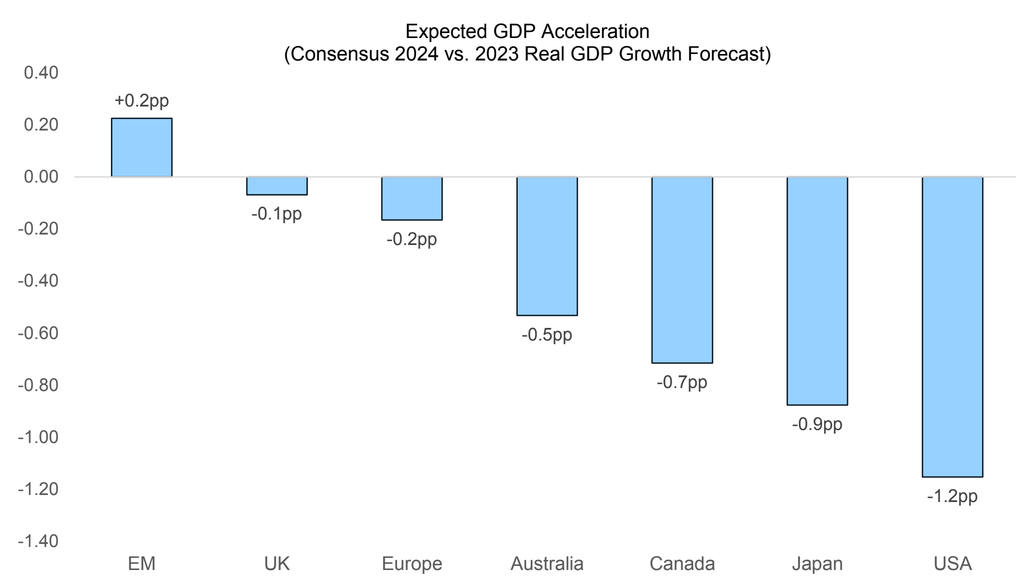
Correlation of Strategy with...	Buying NTM EPS (perfect)	Buying GDP Growth (perfect)	Buying GDP Chg. (perfect)	Buying GDP Surprise (perfect)	Buying NTM Growth	Buying Expected GDP Acceleration	Buying STM Growth	Buying STM (Bias-Con)	Buying ROE STM vs NTM	Buying Low PE	Buying Low PB	Buying Low AVG PE PB	Buying GARP (Bias-Con)	Buying ROE STM vs PB
USD (real TWI)	0.30	(0.29)	0.35	0.03	(0.05)	0.47	(0.11)	(0.11)	(0.31)	0.11	0.07	0.19	(0.20)	(0.25)
US 10y real yields	0.47	(0.13)	0.41	0.14	(0.47)	0.45	(0.17)	(0.03)	(0.19)	0.45	0.47	0.45	(0.08)	0.15
Commod. Prices	0.22	0.26	(0.04)	0.04	(0.21)	(0.20)	(0.44)	0.10	(0.01)	0.38	0.29	0.35	0.39	0.22
MSCI World	0.32	(0.04)	0.15	0.03	(0.13)	(0.19)	0.33	0.33	0.63	0.28	0.15	0.22	0.25	0.48

Source: FactSet, Haver Analytics, Consensus Economics, Goldman Sachs Global Investment Research

On the macro side, buying markets with the strongest expected GDP growth *acceleration* has been an effective strategy historically, and the current data suggests again that EM may outperform in 2024 on this basis. There is a historical estimate bias in that Consensus forecasts have typically signaled EM GDP acceleration at the start of a calendar year (+15bp on average, compared with +10bp for the US). But even taking historical estimation biases into account, Consensus forecasts point to stronger growth across EM economies and a more meaningful slowdown in the US and Japan (see Exhibit 12).

While this report is focused primarily on the historical drivers of regional outperformance, the current backdrop appears broadly supportive of our recommendation to be long MSCI EM ex-China against MSCI Europe. Heading into 2024, EM has stronger GDP growth expectations and a more attractive equity screening on a GARP basis. The valuation profile between EM and Europe is not meaningfully different (Europe is slightly less expensive), but as mentioned, that factor would likely be a bigger drag to EM if US real rates rise, a modest risk tactically in our view.

Exhibit 12: Median EM growth is expected to accelerate and the US & Japan expected to slow in 2024



Source: Consensus Economics, FactSet, Goldman Sachs Global Investment Research

APPENDIX

- Below we include additional exhibits that highlight variations to the backtests and analyses from the report above.

Exhibit 13: Backtested results in local currency terms suggest valuation strategies have performed fairly poorly historically

Backtest Returns (local)								
Year	Buying NTM (perfect)	Buying NTM Growth	Buying STM Growth	Buying STM Bias-Con	Buying Low PE	Buying Low PB	Buying Low AVG PE PB	Buying GARP (Bias-Con)
2010	1%	(6%)	(2%)	(9%)	6%	0%	0%	9%
2011	6%	(4%)	(6%)	6%	(6%)	(4%)	(6%)	5%
2012	8%	0%	8%	1%	7%	7%	7%	(0%)
2013	21%	11%	11%	21%	5%	(19%)	5%	20%
2014	7%	3%	3%	3%	5%	1%	1%	(4%)
2015	8%	(3%)	(2%)	(10%)	2%	(8%)	(11%)	5%
2016	12%	11%	11%	11%	0%	7%	7%	(0%)
2017	12%	12%	4%	4%	(2%)	3%	3%	7%
2018	(3%)	(0%)	(0%)	(3%)	(4%)	4%	4%	1%
2019	6%	4%	4%	4%	(4%)	(4%)	(4%)	0%
2020	8%	(1%)	14%	14%	(12%)	(7%)	(7%)	12%
2021	6%	(6%)	(6%)	6%	6%	6%	6%	11%
2022	6%	(4%)	(10%)	(0%)	8%	2%	2%	(6%)
2023	10%	8%	10%	10%	(10%)	10%	6%	10%
CAGR	10.5%	2.1%	3.6%	5.5%	-0.1%	-0.7%	1.0%	6.8%
Hit Rate	93%	50%	57%	71%	57%	64%	71%	71%

Source: FactSet, Consensus Economics, Haver Analytics, Goldman Sachs Global Investment Research

- "High Beta" regions, such as Australia and Canada tend to form "clusters".

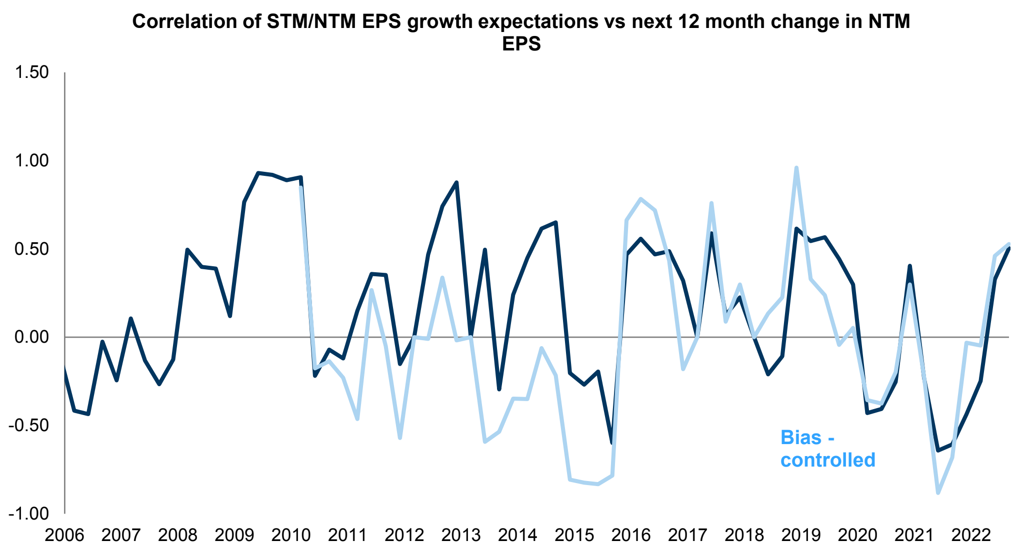
Exhibit 14: Description of columns (global beta, defensive, fx)

Correlation Table	Macro Affinity	Cyclicality	FX
	Return (vs ACWI) to FX (vs USD)	Beta to MSCI World ex US	FX (vs USD) to ACWI
MSCI Europe ex UK	0.49	1.09	0.49
MSCI UK	0.14	0.99	0.68
MSCI USA	0.31	0.95	-0.73
MSCI EM	0.38	0.88	0.68
MSCI Australia	0.46	1.17	0.78
MSCI Japan	0.21	0.79	0.16
MSCI Canada	0.46	1.07	0.80

Source: FactSet, Goldman Sachs Global Investment Research

- In this report, we refer extensively to "STM" estimates. Given our findings that NTM shifts are the major driver of return dispersion across equity regions, these STM estimates should prove extremely useful *ex ante* if they are accurate. For example, if Consensus forecasts are correct, NTM EPS should move towards and converge *exactly* to the "starting" STM EPS in a given calendar year (i.e. MSCI EM's NTM EPS at the end of 2024 should equal the exact "STM EPS" of *today* if Consensus forecasts prove accurate). As shown below, there is some usefulness in Consensus STM EPS estimates cross-sectionally; i.e. that estimated STM EPS growth is indeed correlated with subsequent NTM shifts in a given calendar year.

Exhibit 15: STM estimates are generally positively correlated with future realized NTM outcomes



Source: FactSet, Goldman Sachs Global Investment Research

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Reg AC

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