

CORE MATTERS

Equity valuation: a multipronged assessment
centred on earnings and risk premium

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Our Core Matters series provides thematic research on macro, investment, and insurance topics

- This paper presents our enriched equity valuation framework, which is aimed at forecasting 1-year as well as longer-term (3-to-5-year) total return (TR) for equity indices.
- The future performance of the equity market will largely hinge on earnings growth. To this end, we make our **own earnings assessment**, comparing it with the consensus.
- We then take a **multipronged approach to valuation**. We look at current market multiples' premium/discount as well as at the equity risk premium (ERP, i.e. the extra return over risk free rates to compensate for the risk) vs. history. ERP is a function of real yields, long-term earnings growth and economic and political uncertainty.
- For the S&P 500 only (better data availability), we also use the one century **Shiller series** for inflation-adjusted earnings and market multiples, i.e. CAPE or cyclically adjusted price-to-earnings ratio. Moreover, we measure the distance of current ERP to its historical average when inflation was comparable to current levels.
- Additionally, we run **traditional regression models** to check market fair value and PE targets – using macro inputs as explanatory variables – as well as **Machine Learning (ML)** to assess future total returns.
- A final qualitative assessment along with **proprietary valuation country scores** is performed in ranking the attractiveness of market indices and overweight/underweight decisions within the equity space.
- Based on our analysis, we conclude that there is no particular hype in the US market valuation in the short term, although there is some exuberance from a longer-term perspective. This may ultimately imply lower future equity returns relative to bonds over the coming years (ca. +2-3% spread): 7% equity TR vs 4% Treasury. This compares to a higher TR spread of +4-6% over the past decades.

Shiller PEs*: Euro area vs. US
inflation adjusted



* based on total market indices from Datastream
The Shiller PE is price divided by the average of ten years of earnings, adjusted for inflation.
Source: Datastream, GenAM calculations

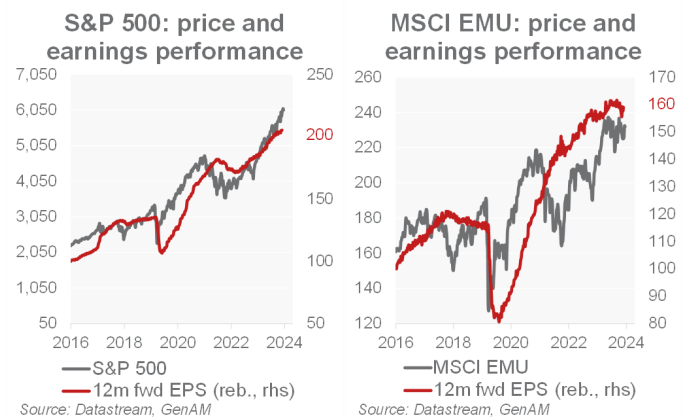
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Equities play a pivotal role in asset allocation. In this publication, we describe our approaches to stock market valuation to obtain a broad market assessment to support investment decisions. They help us forecast **1-year as well as longer-term (3-to-5-years) total returns (TR) for different equity indices**.

1. Earnings assessment: below consensus in US and EMU

The assessment of future earnings per share (EPS) is crucial for stock market valuation. It provides one of the two ingredients for the fair value estimate, the other being the discount rate. A broad EPS assessment includes a view on margin trends, in relation to the macro and bond yield forecasts used as inputs. Concerning margins, we monitor the trend in consumer price inflation relative to unit-labour costs (ULC, a function of employment costs and productivity) and capacity utilisation. Central banks' (CB) as well as corporate surveys, where for example firms are asked about their will to increase final prices or wages, are also very useful. This qualitative analysis may be used to adjust the model-based EPS growth

¹ This measure is unaffected by changes in tax laws and is adjusted for nonreported and misreported income. It excludes dividend income,

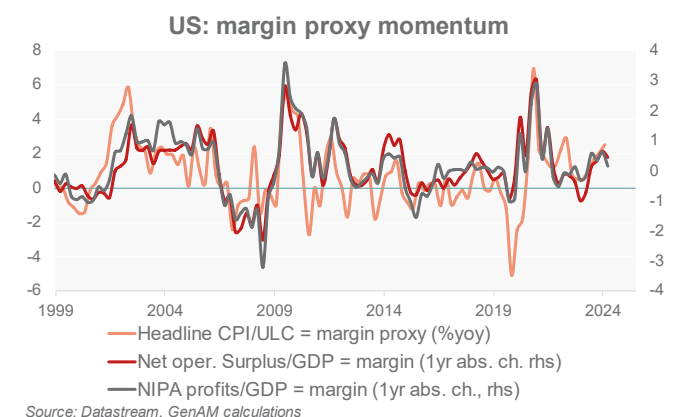


estimates. **The final result is a proprietary future EPS growth to be compared to the analyst consensus.** Large discrepancies could represent profitable market opportunities.

1.1 Analysis of NIPA profits' future trend

Official US NIPA (national income and product accounts) corporate profits, measured by the BEA (Bureau of Economic Analysis), represent the portion of total income earned from current production by all U.S. corporations, not just the largest 500 contained listed in the S&P index¹.

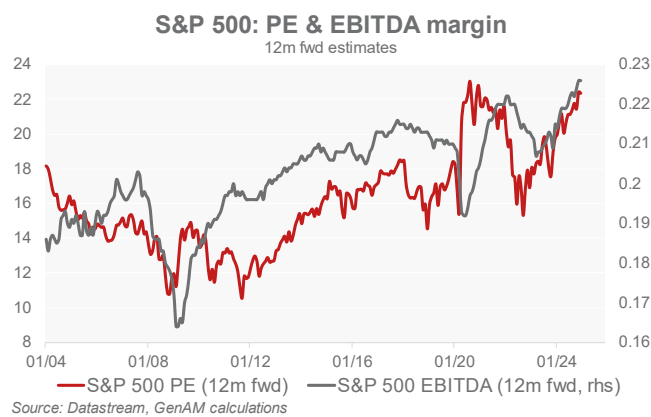
It is a particularly useful analytical measure of firms' profitability. We found that real GDP growth, inflation and unit labour costs are key drivers of *before-tax* NIPA corporate profits. We use proprietary forecasts of the above macro variables to predict the growth of profits, which we estimate at around 4% for the next two years (and 7.5% on longer-term horizon), with margins only slightly below current levels.



This is important because current margins are well above average, representing a fundamental reason why price/earnings

capital gains and losses, and other financial adjustments, such as deductions for bad debt.

ratios are relatively high from a historical perspective (along with a lower corporate debt, higher free cash-flows and larger – and fully self-financed – payouts, including buybacks).

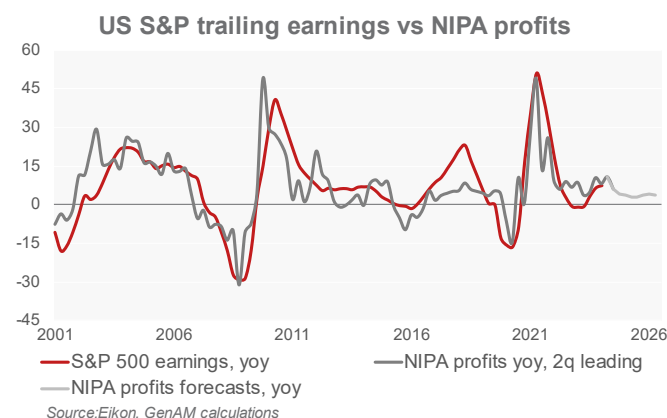


1.2. Derivation of earnings growth for MSCI EMU and S&P500

Earnings of all US corporations (small, mid and large-sized) included in NIPA figures are less volatile and able to anticipate S&P 500 EPS by one quarter. Indeed:

- NIPA's broader size perimeter means they can capture economic shifts earlier.
- They include adjustments for inventory valuation and capital consumption, which provide a more comprehensive view of corporate profitability.
- The differences in accounting methods can lead to NIPA profits showing trends earlier than S&P 500 profits².

We therefore use NIPA profits forecasts as input to project S&P 500 and EMU EPS.



² NIPA corporate profits measures are ultimately based on data collected from corporate income tax returns, whereas S&P 500 earnings measures are based on data collected from financial reports.

Additionally, we predict earnings from regression models based on relevant macroeconomic variables. We focus on variables that have a direct impact on business operations and profitability. For the EA, we rely on GDP, wages, world trade, and the trade-weighted euro. For the US, on GDP, inflation, the trade-weighted dollar, wages, US exports and ISM.

In 2025 we see a decent earnings growth of 9.7% and 8% for the US and EMU

For 2025, we are below consensus for the US by 4% and aligned for EMU. Earnings growth should decline to 6% for both indices in 2026, while analysts expect 14% and 11% for US and EMU.

2. US ERP: low, but justified by fundamentals

“Riskier investments should have a higher expected return than safer investments [...]. Thus, the expected return on any investment can be written as the sum of the risk-free rate and an extra return to compensate for the risk.”³ Ex-post, the equity risk premium (ERP) is the historical average extra return of equity versus bonds. Ex-ante, it is usually approximated by the 12-month forward earnings yield minus the yield on the risk-free rate.

Starting from the well-known $P = E / (ERP + \text{real risk-free rate} + \text{inflation} - g)$; we can derive: $E/P = ERP + \text{real risk-free rate} + \text{inflation} - g$;

Therefore, $E/P - (\text{real risk-free rate} + \text{inflation}) = ERP - g$, where g is the expected LT EPS growth.

But even this simple approach can result in very different estimates depending on methodology (see Box 1):

Box 1: ERP calculation:

- **Earnings yield:** the earnings yield (E/P) can be obtained from trailing (last 12 months) or forward (next 12 months) earnings; alternatively, cyclically adjusted earnings can be used (see more in chapter 3); the universe can also be different – the broad market or a specific equity index.
- **The so-called “risk-free rate”:** the risk-free rate (if that still exists, given that government bonds appear increasingly less risk free) should match the

³ [Estimating Equity Risk Premiums, Aswath Damodaran, Stern School of Business](#)

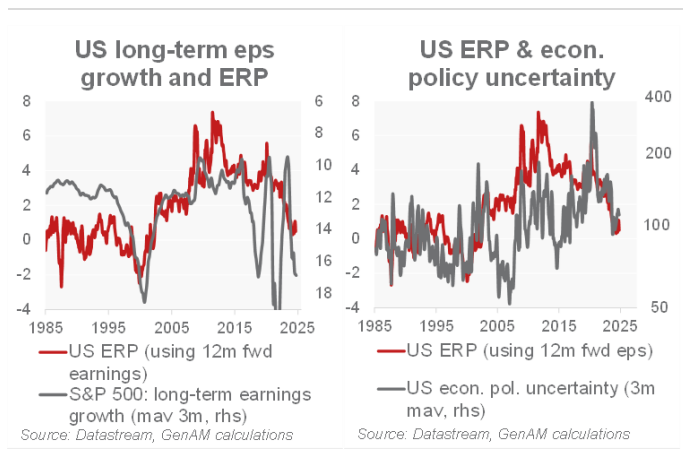
duration of the equity discounted cash flows. Usually, a nominal 10Y Treasury yield is used, less often a 30Y one, but some use the short-term risk-free rate (3m yield). Moreover, a *real* yield can be taken as reference⁴. It can be obtained from the nominal yield minus current or expected inflation or extracted directly from the market (inflation-linked bonds).

- **Time period:** the timeframe chosen may influence the results. From 1974 to 2000, the median ERP (Datastream US total equity market⁵ E/P – 10Y Treasury yield) was around -1pp. However, from 2000 to 2024, it increased to 2pp. If we take the S&P 500 instead of the US total equity market, the average ERP from 2000 is around 3.5pp).

Fundamental factors explaining ERP level: real yields, EPS growth, inflation, uncertainty

The key variables driving the equity risk premium are:

- **Real yields:** There tends to be a negative relationship between real yields and ERP. When real yields rise, up to a certain level and speed, the market tends to anticipate an accelerating economy, which benefits equities⁶.
- **Long-term EPS growth (Ltg, 3-to-5 years ahead):** Higher long-term growth expectations lead to a lower ERP.



⁴ From the formula above (section 2), when the real risk-free yield is subtracted from E/P, you get: $E/P - \text{real risk-free rate} = \text{ERP} + \text{inflation} - g$.

⁵ for which very long dataset exists.

⁶ “An increase in real yields could signal an improvement in the economic outlook via two potential channels. First, it reflects an increase in return on investment, leading to an increase in investment demand. Second,

- **Inflation:** Historically, there has been a positive correlation between inflation and the equity risk premium. A high level of inflation, among others, is associated with poor visibility for capex and consumption decisions and ultimately uncertainty on risky assets.
- **Uncertainty:** economic (measured by CPI and GDP volatility) and policy (by media news flow): higher uncertainty results in a higher ERP.

Is the current ERP unreasonably low? Not really...

2.1 US market data analysis since 70s

Using data since 1970, we find that the recent decline in the risk premium does not appear out of line with its fundamental explanatory factors.

We start by comparing the current level with the past, using the long-term (since the 70s) series of the US total market index provided by Datastream. As said above, the timespan used is crucial. Focusing only on the period after 2000 could be misleading because the cycle was characterised only by one state of the world (alarming disinflation trend, with main fear being the “Japanification” of the economy) and declining real yields (thus deserving a higher ERP).

The current ERP (total market trailing earnings yield – 10Y Treasury yield) of -0.9% is slightly below its average of 0.4%, since 1973, but not dramatically so (also taking into account that the average ERP 1970-2000 is -0.7%). More recently, the ERP has progressively decreased from the March 2022 high, which can be explained by the dual rise in real yields and expected LT EPS growth. Additionally, economic uncertainty, as measured by GDP and CPI volatility, which peaked also around the end of 2022, has started to decline.

2.2 Equity discount rate fair value via DDM model

An alternative approach leads to similar conclusions (see box 2 for details).

higher expected growth boosts future earnings, which, in turn, leads forward-looking households to increase current consumption and save less.” [What Is Driving the Rise in Advanced Economy Bond Yields?](#), 03/2021, IMF Global Financial Stability Notes. Of course, a sudden huge and unexpected spike in real yield triggered, for example, by deflation fears, could harm sentiment and increase the equity risk premium.

We start by deriving the **market-implied real equity discount rate** – EDR⁷, 5.1% currently – using a two-stage dividend discount model (DDM) for the S&P 500 index.

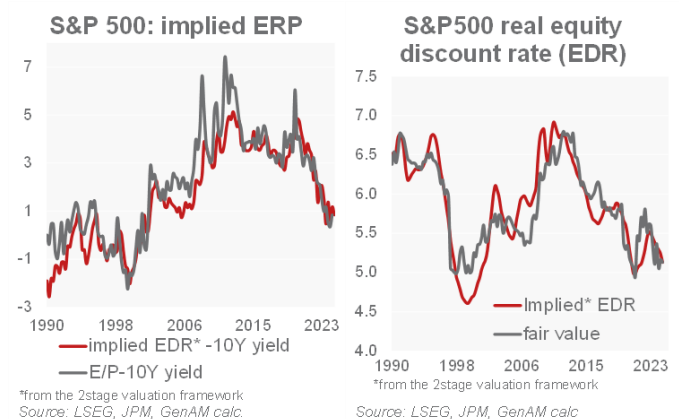
Box 2: Equity discount rate (EDR)

Market implied EDR: According to the two-stage dividend discount model, the equity price (a known variable) is equal to the expected future cash flows (estimated by us) discounted at an implicit equity discount rate (EDR, the unknown variable). The future dividend stream is divided into two periods: the next five years and from the fifth year to infinity⁸.

Fundamental estimate (fair value): Once we derived the market implied EDR, we wanted to get a fundamental estimate of the same. For this purpose, we built a **regression model based on the 10-year real yield, 5-year CPI volatility and 5-year GDP volatility**.

The reason why we look at the EDR directly instead of considering its two components (bond yield and risk premium) is because they tend to move in opposite direction. The real bond yield is highly negatively correlated with the ERP, so a rise in bond yields does not have much impact on EDR. So, the ERP is quite volatile, while the EDR, and the earnings yield are less so.

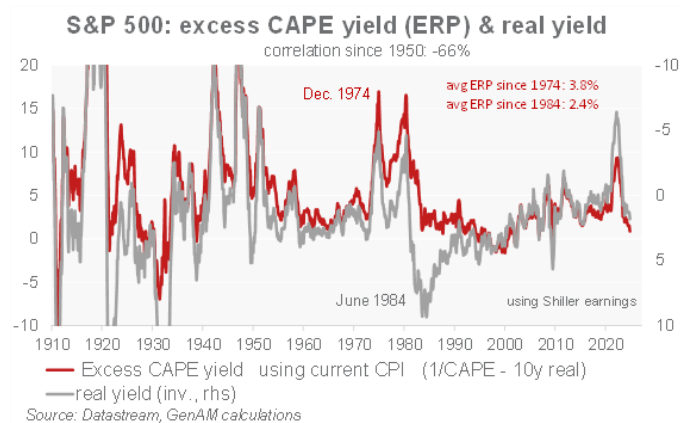
The ERP is the estimated EDR minus the nominal 10-year rate. The trend in such implied ERP (current=0.8%; average=1.6% since 1990) is historically close to the one of the usual market standards, which is ERP = E/P - 10-year yield (currently=0.3%, average=2.1% since 1990, using 12-month forward EPS). The standard ERP is lower, i.e. suggesting some market overvaluation, yet it has been more volatile, with



higher temporary spikes especially to the upside, which in turn caused a higher historical average.

An estimate of EDR's fair value justifies a much lower level vs. average since 2008

We then build a regression model to estimate the **fair value of the EDR**. Our model confirms that the estimated market-implied real EDR is around its **fundamental fair value** (5.0%, very close to the implied value above, 5.1%), which is also well below its average since 1990 or 2000. **So, the market has certainly priced in many good news but is not too exuberant in the short term, according to key explanatory variables.** The latter would back a 1-year target for the S&P500 of around 6,600.



2.3 Excess CAPE yield

As a last control measure, we consider the ERP calculated as **excess CAPE yield** (1/CAPE minus real yield, where CAPE⁹ is Cyclically Adjusted Price-to-Earnings Ratio): its low level, compared to its average since 2000, **seems to be well justified by current inflation levels, higher real rate and LT EPS growth**. Nevertheless, such risk premium lies below the long-term averages since 1970 and 1983, posing some risks of limited equity TR versus Treasuries in the next 10 years. We elaborate more on this in the next chapter.

⁷ EDR theoretically equals the equity risk premium plus the risk-free rate.
⁸ We estimate with a separate time series regression the *real* earnings growth in the next five years (5.6%, using macro-market variables) and

we set the EPS growth thereafter equal to their past long-term growth of 4.9%.
⁹ The CAPE ratio is calculated by taking the current price of a stock index (like the S&P 500) and dividing it by its average inflation-adjusted earnings over the past 10 years (Shiller methodology).

3. Cross-check. Shiller-based approach: a long-term view

We see CAPE and the CAPE yield gap vs. real yields as LT valuation approaches. These currently suggest that US equities will deliver lower TRs in the next years than they have in recent decades. That said, an adjusted Shiller model aimed at forecasting shorter-term TRs shows that the SPX could be worth between 6,000 and 7,000 in one year's time. Let's see this in more detail.

Shiller long-term data provide a good way to double check our previous conclusion made in chapter 2. Indeed, this approach relies on a long-term US dataset (since 1871) of economic and financial data, developed by Nobel Prize-winning economist Robert Shiller. It includes: S&P 500 prices, inflation-adjusted earnings, dividends, CPI, and long interest rates.

We use Shiller dataset and methodology in several ways:

1) Original Shiller **CAPE**: we calculate the **Cyclically Adjusted Price-to-Earnings (CAPE) ratio**, which is a powerful tool for assessing the valuation of the stock market from a long-term perspective (see box 2).

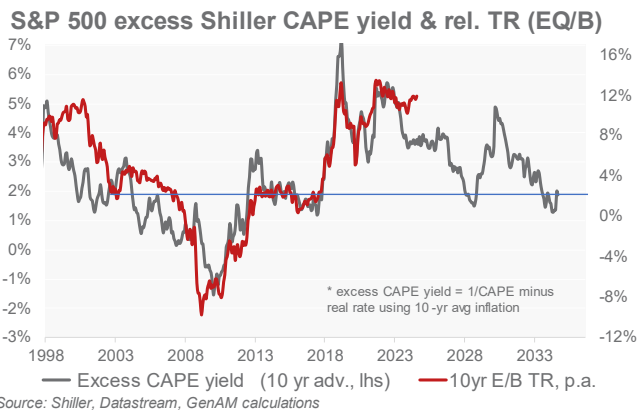
Box 3: CAPE and excess CAPE yield

CAPE: The CAPE provides a **long-term perspective of market valuations** by adjusting all variables for inflation and averaging earnings over a 10-year period, helping to smooth out short-term volatility and cyclicality. A high (low) CAPE ratio suggests that the market is overvalued (undervalued), meaning that future stock returns may be lower (higher) than norm.

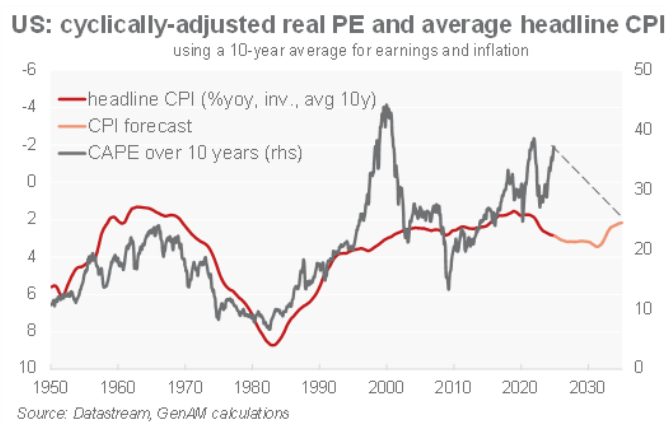
Historically, the CAPE ratio has fluctuated, with abnormally high values often preceding market corrections or crashes somewhere in the long run (around 10Y). Indeed, this is the main limitation to the CAPE ratio: **it is not a timing tool**. Furthermore, investors should consider the broader economic context and other factors that might influence market conditions. For example, structural changes in productivity, GDP growth, inflation, or political uncertainty.

Excess CAPE YIELD vs. real yield: It is the inverse of the CAPE ratio (a proxy for earnings yield) minus the real yield. It provides a way to compare the expected returns from stocks to the returns from "risk-free" government bonds. According to Shiller, this financial metric is better at anticipating relative equity vs bonds returns than the CAPE ratio is at predicting equity returns only.

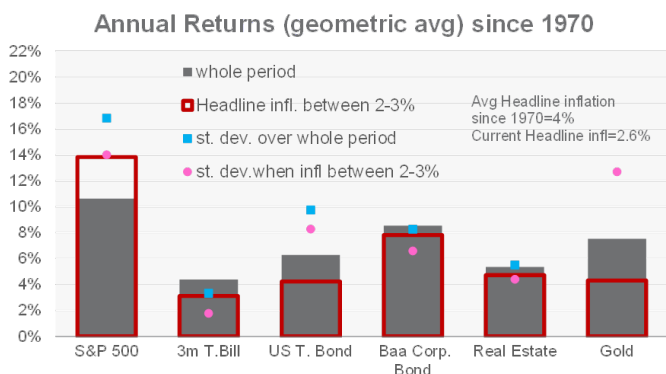
The chart below shows the usefulness of the measure from a long-term perspective.



Currently, the high US CAPE level (37x) would suggest lower returns ahead relative to the last few decades (TR of 10% p.a. since 1996). Indeed, we **forecast around 6.7% TR ahead**, which, given a nearly 7.5% nominal EPS growth, would bring the market at 26X CAPE **at the end of the next 5-to-10 years**. The latter multiple would be also coherent with a 2-2.5% inflation that we expect in the long term.



2) **CAPE yield gap versus real yield**: We calculate the **excess CAPE yield** to assess the attractiveness of equities relative to bonds over the next years. According to it, we could **expect lower additional equity returns over Treasuries in the next 10 years** (see chart above), **in the range of +2.5%** (6.7% equity minus 4% Treasuries): this is nearly half the long-term norm (historical TR spread of 4-6%). For ex-US countries, the gap is closer to historical norm, showing their higher attractiveness vs. the US from a pure valuation point of view. **One generally positive caveat for US equities** is that, since 1970, in periods of 2-3% inflation (as we expect for the next years), US equities have delivered a higher-than-normal TR differential vs. bonds.



Source: NYU, GenAM Research

4. ERP and inflation ranges: a short-term view

As an additional tool, we perform a historical analysis since 1950 and 1970 to see the average and median level of ERPs prevalent for selected CPI ranges. The ERP is defined as earnings yield (earnings¹⁰/price) minus 10-year real government bond rate. To forecast a 1-year target for the SPX level, we then use 12-month proprietary forecasts for EPS, 10-year yield and inflation.



Source: Datastream, GenAM calculations

Box 4: ERP and inflation ranges methodology

Looking at 1-year ahead TR, we take into consideration our own expectations as well as market consensus for earnings, headline inflation, and 10-year rate in 1 year.

The target for the S&P is then derived from the target ERP coherent with inflation expectation, back reversing the definition of the ERP:

$$\text{Target S\&P} = E / (\text{target ERP} + \text{real 10yr rate})$$

The ERP is currently at 2.7%, while we expect it at 2.85% in one year. Without taking into consideration the different inflation levels, this 2.85% compares to a higher average of 4.2% since 1970, 2.8% since 1983 and 4.2% since 2003, though the ERP standard deviation has been quite high at 4%, 2.5% and 2.4%, respectively.

The above-mentioned current market ERP (2.7%) would signal at a first sight that the market is currently more expensive than norm.

That said, today's inflation is more similar to the average prevailing during the period 1982-2007 (3.2%) or the average after 2009 (2.6%) rather than the '70s (7.1%).

Over the period 1982-2007, the ERP was indeed low at 1.7%. Even excluding the bubble years (1997-2000), the average ERP would remain similar at 2%.

After 2009, the average ERP was higher at 4.4% but:

- 1) the average real yield since then was very low at 0%, vs. today's 1.6% (commanding a higher ERP level at that time),
- 2) the expected long-term EPS growth was much lower than current one (12.6% vs 17%),
- 3) margins were also much smaller,
- 4) the credit BAA real yield was slightly above current levels.

All these justify a current lower ERP than the one prevailing after 2009.

According to this analysis, a current lower ERP compared to the average since 2009 is justified.

Using the level of US inflation around our one-year forecast (2.2%), **we come up with a range of SPX valuation between 6,000 - 7,000.**

5. Insights from traditional and ML models

1) Macro-based regression models: we predict the TR of stock markets using macroeconomic variables¹¹. As such, we can gain deeper insights into the factors driving market performance. Furthermore, in this way equity returns forecasts have a closer link to our macro and fixed-income projections, a relevant goal in the asset allocation exercise. Based on

¹⁰ To have data from 1950 we use (unadjusted) earnings from the Shiller database.

¹¹ In particular, we use yields, EURUSD, IFO, 12m fwd earnings, earnings dispersion for fair value of the MSCI EMU. For the S&P we use 12m fwd eps, LT earnings growth, yields, earnings dispersion, ISM, inflation, money supply, corporate spreads, and trade-weighted USD.

these models, **both the EMU and US markets are slightly overvalued**, less so for EMU.

2) ML models: Apart from the traditional regression models, we also use the output from proprietary **machine-learning (ML) models**. The latter excel at recognising complex patterns in data that traditional statistical methods might miss and can process large datasets quickly and efficiently. These **models confirm the relative undervaluation of EMU vs S&P500 and overall constructive view on equities over bonds**.

6. Drawing results on 1Y TR: 6,400 US tgt

As a complementary step to predict 1-year returns, we run macro-based regression models to obtain **1-year PE (price earnings) forecasts** (see box 5): 21x and 13.5x for the S&P 500 and the MSCI EMU respectively.

Box 5: PE fair value estimate and long-term models

In order to estimate the PE 1-year target, we use the following input variables: GDP, 10-year yields, LT earnings growth and margins, as well as different time windows in order to catch newer trends and correlations. The predicted PE is part of our **long-term models, from which output we derive a country rank** based on a composite valuation score. LT models include market multiples' average gap vs. history (price-book, dividend yield, price-cash flow, PE, PEG adjusted ¹²), DDM, 3-stage EPS growth model and the Value momentum (12-month EPS divided by the 10-year rate). **LT models see a limited return for the US and more upside for ex-US markets.**

PE targets are combined with our 12-month forward earnings assessment (which are below consensus), see chapter 1, to provide us with one-year TR.

PE-based 1-year TR expectations

Markets	1yr PE tgt	1yr price tgt using		1yr TR using	
		GenAM eps	consensus eps	GenAM eps	consensus eps
S&P 500	21x	5,800	6,400	-2%	+9%
MSCI EMU	13.5x	251	263	+13%	+18%

Source: IBES, GenAM calculations

For the US in particular, this combined approach using prudent EPS expectations (regression, PE and LT models)

¹² PEG adjusted: PE corrected for expected long-term EPS growth, ROE and cost of equity (COE).

usually allows us to estimate the low level of valuation range (SPX at **5,800**). It is used for our 12m assessment, together with the above-mentioned valuation ranges derived in chapter 4, which normally give us a **higher fair value target (as said, 6,000-7,000 for the SPX in one year)** and in chapter 2.2 using the **EDR approach (SPX fair value at 6,600 in one year)**. Combining these results, we come out with a one-year target at **6,400**.

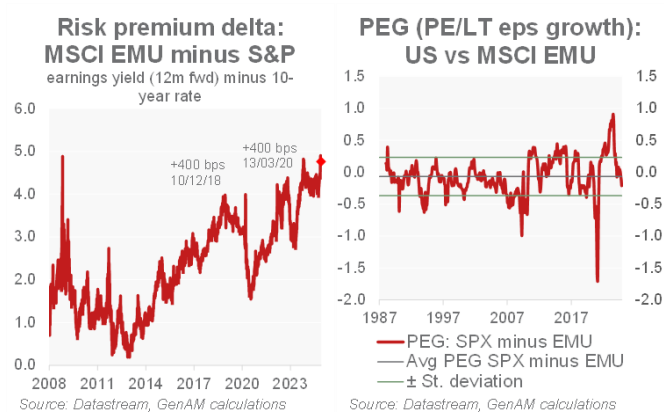
Summary table of expected 1-year targets

Markets	ERP and inflation ranges	EDR approach	regression / PE-based models *	our 1-yr target	exp. 1-yr TR
S&P 500	6,000 - 7,000	6,600	5,800 - 6,400	6,400	8%
MSCI EMU	-	-	251 - 263	257	11%

* provides lower level of valuation range (it also includes the avg of LT models)

Source: Datastream, IBES, GenAM calculations

In the short term, **the higher EMU risk premium (i.e. undervalued) vs the US looks justified by the superior expected US EPS growth**, which also translates into a lower US PEG (PE/ EPS LT growth). That said, given the current very high relative US exuberance¹³ vs. other countries on a long-term perspective (all-time high valuation spread and absolute US CAPE plus very high concentration, i.e. high IT weight in the SPX), we recommend diversifying the US exposure into the cheaper mid, small caps (Russell 2000) and equal weight SPX, and also diversifying US weight into other countries like EU ex-EMU, Japan, India and to a lesser extent China.



¹³ Reason for US leadership vs. EMU: higher population growth, tech leadership, geopolitical leadership, more effective and unanimous economic policy, higher R&D/turnover expenses, energy independence, lower segmentation of energy and capital markets infrastructures

7. Adding qualitative considerations

To complete the market assessment aimed at determining the future TR and asset allocation decisions, we consider qualitative aspects which can be short- and long-term ones.

Among the **short-term or cyclical factors**, we include investor positioning, cash-flow spread vs. capital expenditure needs (today abnormally high, i.e. positive for risky assets), central banks' policy, momentum in money aggregates (M2), and financial conditions of Households, Corporates and Government. For the latter, the increase in the US deficit has helped to sustain the SPX via increasing private net savings.

More structural factors can be related to US market concentration risk (Top 10 stocks = 36% of the SPX), firms' debt levels, the degree of energy independency, investments in R&D, productivity trend (currently driven by investments in AI and into other technology fields), investments need for green transition and defence and, lastly, political and geopolitical instability. In particular, it is important to gauge which countries are at risk from this point of view (EU), and which are relatively safe (US, India, Malaysia, Switzerland, Japan, etc.). The latter would request a lower risk premium from investors.

8. Conclusions

Our framework considers both quantitative and qualitative considerations, starting with earnings estimates and ending with a differentiated approach to valuation. We also analyse the risk premium in different ways, using a long-term and a short-term approach.

We think there is not a particular hype in the US market valuation in the short term (**6,400 SPX target in 1 year**), although there is some exuberance from a longer-term perspective. This may eventually imply lower equity returns versus bonds over **the next years** (c.a. +2-3% spread) when compared to previous decades (+4-6%): **7% equity TR** vs 4% Treasury. However, a sustained resurgence of higher productivity trends could prove to be a plus for US equity.

Other markets including **Europe** are **much less expensive but carry higher risks**, ranging from lower expected EPS growth and productivity to geopolitical weakness. On a long-term perspective, it could be worth diversifying the US portfolio weight into US small caps and equal weight SPX rather than just into ex-US regions.

 **Imprint**

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