



DIVIDEND STUDY, 13TH EDITION

Investment income

Let your money work for you!

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Investment income: Let your money work for you!

The appeal of generating income from investment continues to grow. Given today's demographic trend towards longer life expectancies, particularly in industrialised countries, as well as a dwindling number of people in work, there is practically no getting around the need to supplement income from work with investment income. This study explores just how much dividends can contribute to this additional source of earnings.

Investment income – its time has come

Demographics: Planet Earth is home to more than 8 billion people and, according to a 2022 population forecast by the United Nations, this number is expected to rise to 10.4 billion by the year 2100 (median estimate). Interestingly, while the global population is growing, the rate of increase is slowing as people are living increasingly longer. Overall, the human race

is getting older and the potential working-age population is declining, a trend that is most pronounced in industrialised economies. In light of these demographic shifts, it follows that state pensions are unlikely to be more generous in the future. In fact, the development in the share of working-age adults as a proportion of the total population suggests the opposite is true.

Digitalisation: As the potential supply of labour shrinks, smart machines have arrived just in time to plug the gap.

Therefore, it is high time to consider income from investment as a supplement to income from work. The unstoppable rise of robots and the impact of shifting demographics make a strong case for it.

One striking aspect in this respect is that, in some countries, it is precisely the state pension that provides the largest share of retirement income. Austria, France, Italy and Portugal top the rankings here, where the share of state pensions as a proportion of total income for people aged over 65 is as much as 75 % or even more. Consequently, the share of occupational or private pensions, or income from work, is relatively low. However, the situation is not significantly better in Spain (just under 72 %) and Germany (68 %) either.

The picture looks quite different in **Sweden**. With its long-standing tradition of capital-funded, private pension schemes, slightly under half of retirement income is derived from the country’s state pension. In Switzerland, this proportion is even lower at just over 40 %.

We need more investment income, especially in an age of smart machines and a state pension scheme creaking under the pressure of demographic change.

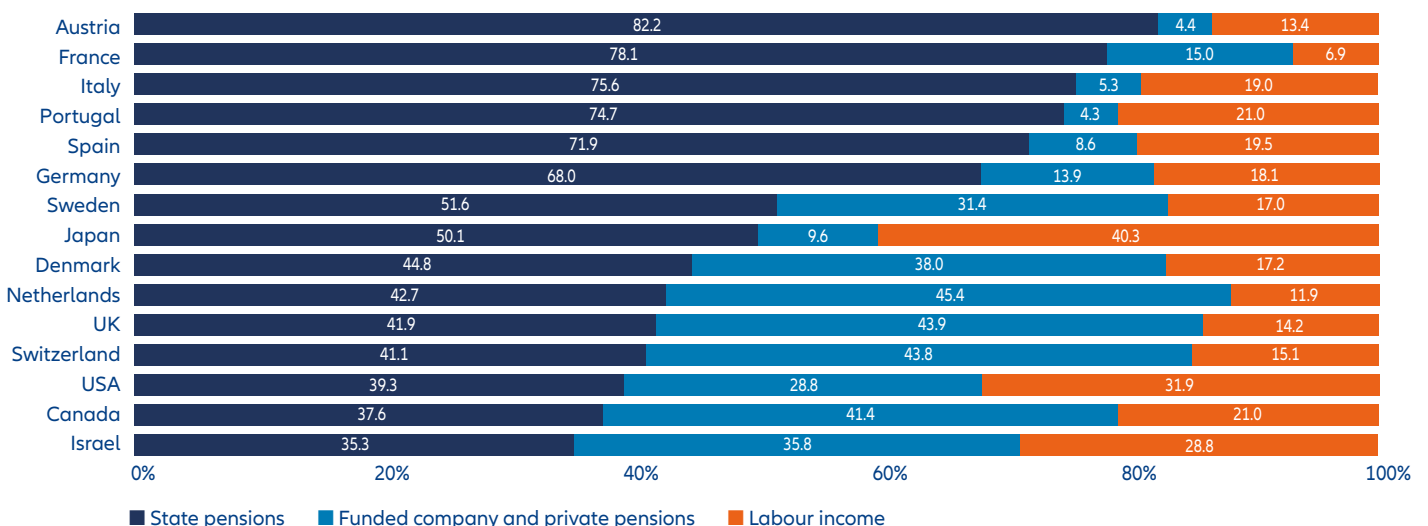
However, it does not end there. Indeed, investment income can be put to a great many more welcome uses: more money for a holiday, for everyday purchases or as a “grandparents’ grant” to support grandchildren during their apprenticeships and university studies, ...



We need more investment income, especially in an age of smart machines and a state pension scheme creaking under the pressure of demographic change.

Dr Hans-Jörg Naumer,
Director Global Capital Markets & Thematic Research

Figure 1: Sources of income for people aged over 65
Shares in % of total gross household income (incl. transfer payments)



Source: OECD; AllianzGI Global Capital Markets & Thematic Research. As of: 09/2024

Investment income can come from a variety of sources, such as:

- interest from bank deposits,
- coupons paid on bonds or
- dividends paid on investments in stock corporations (= equities).

Interest and coupons are straightforward: Investors who hold bonds, for example, know exactly how much interest they can expect

to receive every year. That is the easy part. However, the drawback is that, particularly during an **interest rate cutting cycle** in which the major central banks have already begun reducing their key rates, interest on bank deposits and coupons paid on bonds is being dragged down with them. As a result, nominal payments are declining. On top of that, inflation has to be factored in and what is left over is

the “real” investment income. In other words, the income that tells us what we can afford after allowing for rising prices. Based on an assumed inflation rate of 2 % p.a., which is the stated (or unstated) goal of many central banks, it is unlikely that a significant level of income will remain. That is why equities play an essential role in driving returns. Essentially, what it comes down to is:

Dividends – income from investments in stock corporations

A glimpse in the rear-view mirror can tell us what this could potentially mean. Let us assume that ten years ago someone invested 100,000 euros on the STOXX Europe 600, a broadly diversified benchmark index for the European equity market. If dividends that would have been paid out since then had been reinvested, said investor would have earned close to 40,000 euros over the entire investment period. At the same time, the original sum invested would have risen from 100,000 euros to around 150,000 euros (based on the price index). The price index simply reflects the price of the stocks included in the index, unlike the so-called “total return” index that also

includes dividend payments. This is reasonable from the perspective of an investor who wants to realise capital gains and spend rather than reinvest dividends, while the total return approach shows how the value of the portfolio has developed after factoring in dividend payments.

Based on the S&P 500 index for the US market, price gains alone would have been even more impressive, propelling the original investment of 100,000 US dollars towards the 300,000 US dollar mark, albeit dividend payments would have been lower (see figure 2).

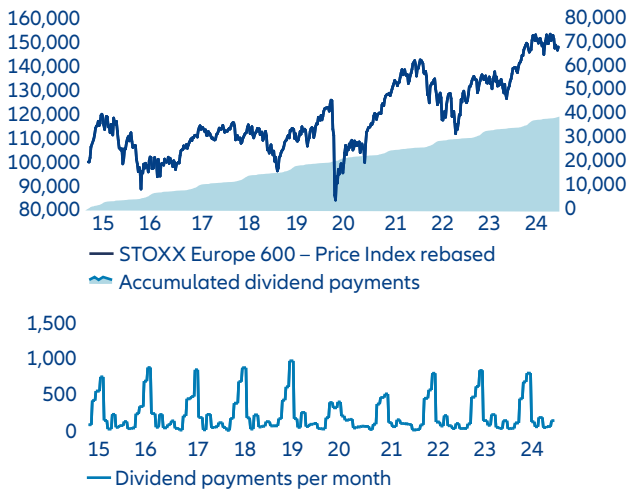
In this example, dividends would have been spread unevenly across the year, as illustrated in the lower section of figure 2, which shows monthly dividend payments relative to the original 100,000 euro or US dollar investment. However, it would have been possible to create uniform monthly payments with the right strategy.

Granted, these are historical figures and not future projections, and there has been plenty of price volatility in the past – as there will be in the future as well. Nevertheless, this analysis demonstrates that the value of an investment can rise while still providing a regular stream of income.

Figure 2: What happened to an investment of 100,000 euros or US dollars over a period of 10 years.

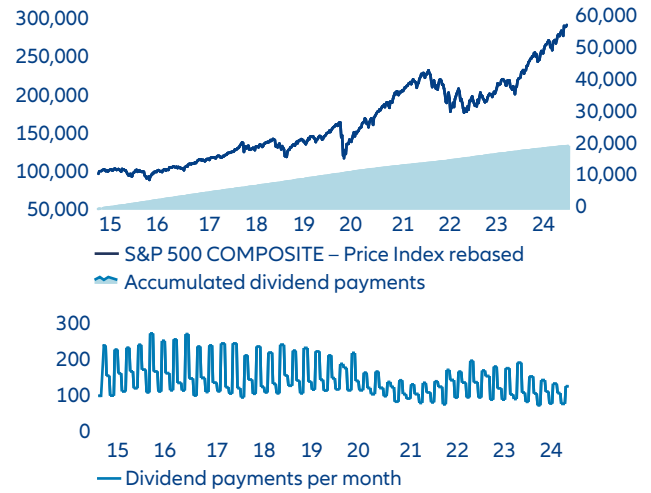
STOXX Europe –600 price index and dividends

Share price performance and dividends, cumulative & monthly



S&P 500 – price index and dividends

Share price performance and dividends, cumulative & monthly



Source: Allianz Global Investors Global Capital Markets & Thematic Research. Past performance is not indicative of future returns. Data as of December 2024

Dividends as a component of return

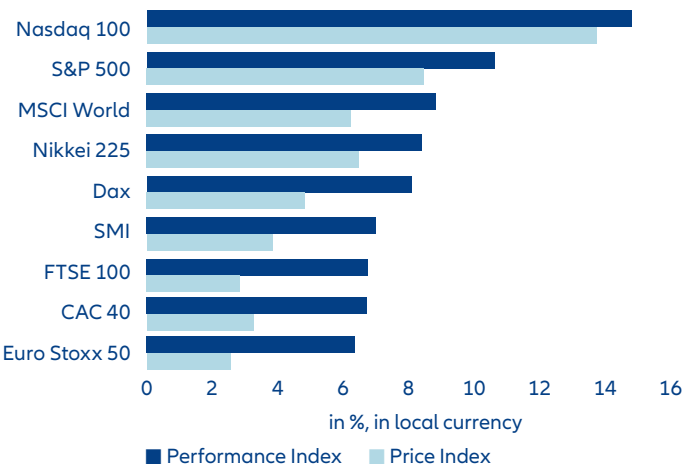
Yet, dividends make an often underestimated contribution towards the total return of an equity investment, as shown in figure 3 for an investment horizon of 20 years. To some extent, the total return of the

respective benchmarks (based on the performance index in each case) is significantly driven by dividends, as revealed in a comparison with the price index. This is because, unlike in the price index, dividends are not paid out in the performance index but reinvested instead. This reinvestment leads to a – desired – compound interest effect.

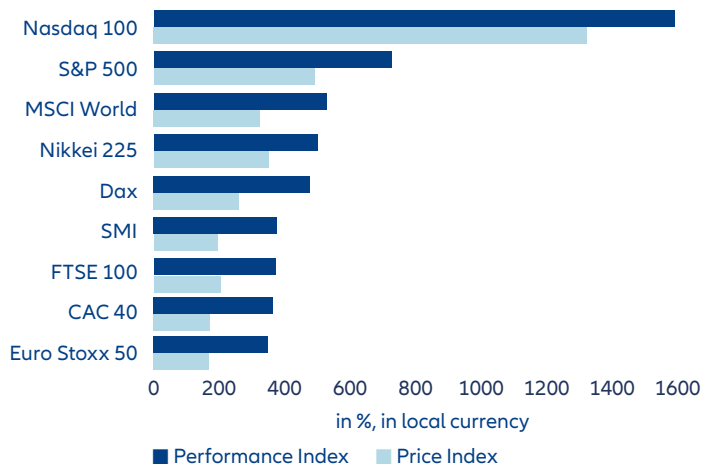
The contribution that dividends make to the total return of an investment is even more pronounced when analysing the performance of indexes with and without reinvestment, as the right-hand chart in figure 3 clearly illustrates.¹

Figure 3: Total return vs. price indices (over 20 years)

Performance Analysis: Current Status Compared to 20 Years Ago



Rebased Performance Analysis: Current Status Compared to 20 Years Ago (Base Value = 100)

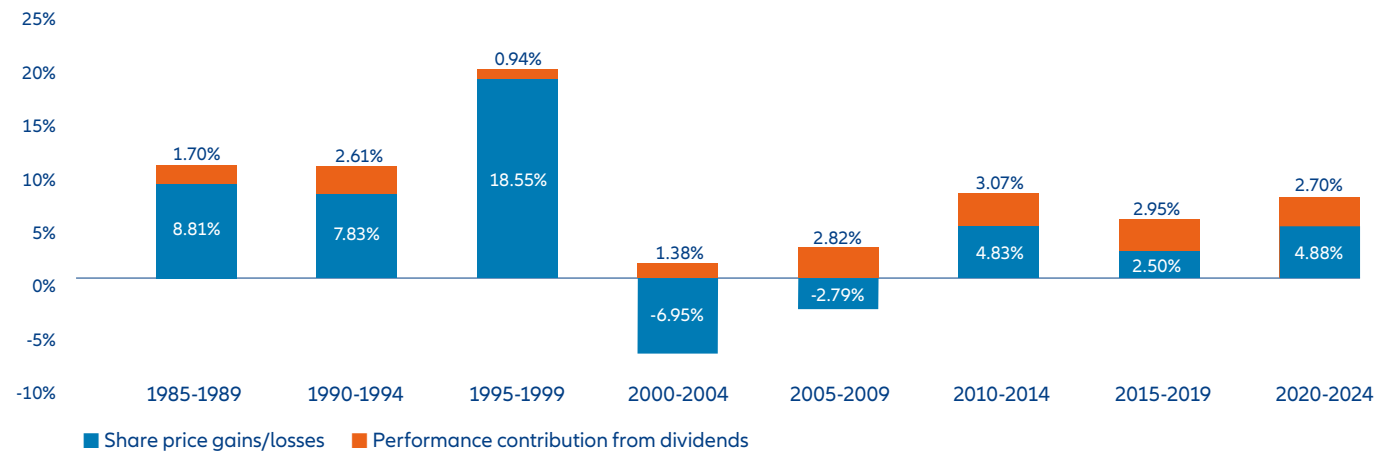


Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

While history never repeats itself, it is still worthwhile taking a closer look at the past share of returns on equity investments that can be attributed to dividends. As an analysis of 5-year investment periods from the beginning

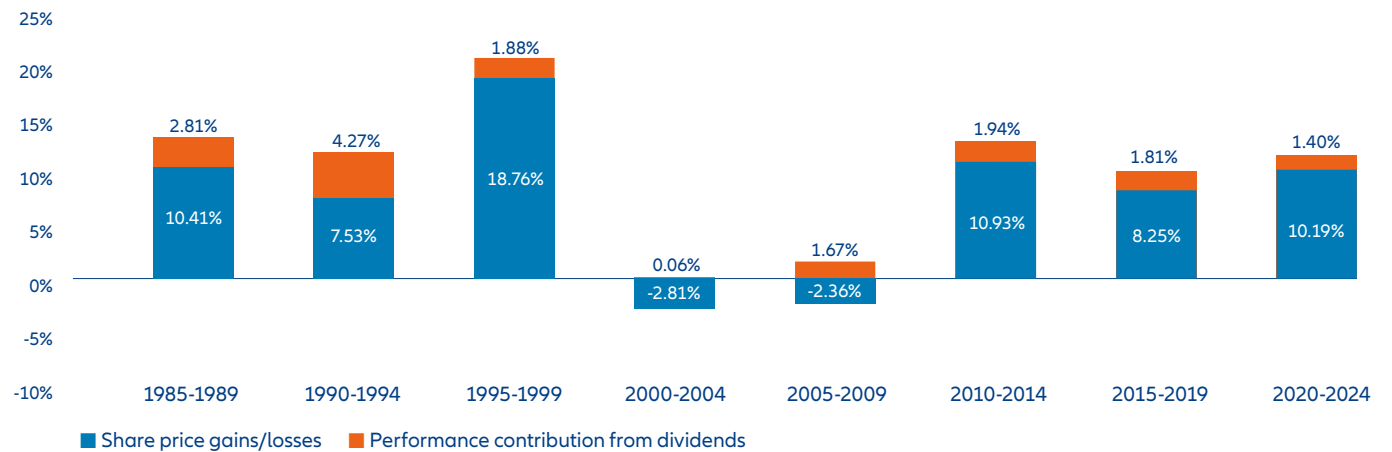
of 1985 to the end of 2024 shows (see figures 4a to 4c), they helped to stabilise the total performance in years when prices fell.

Figure 4a: Performance contribution of dividends and share prices over the last 40 years in five-year periods (in % p. a.) – MSCI Europe



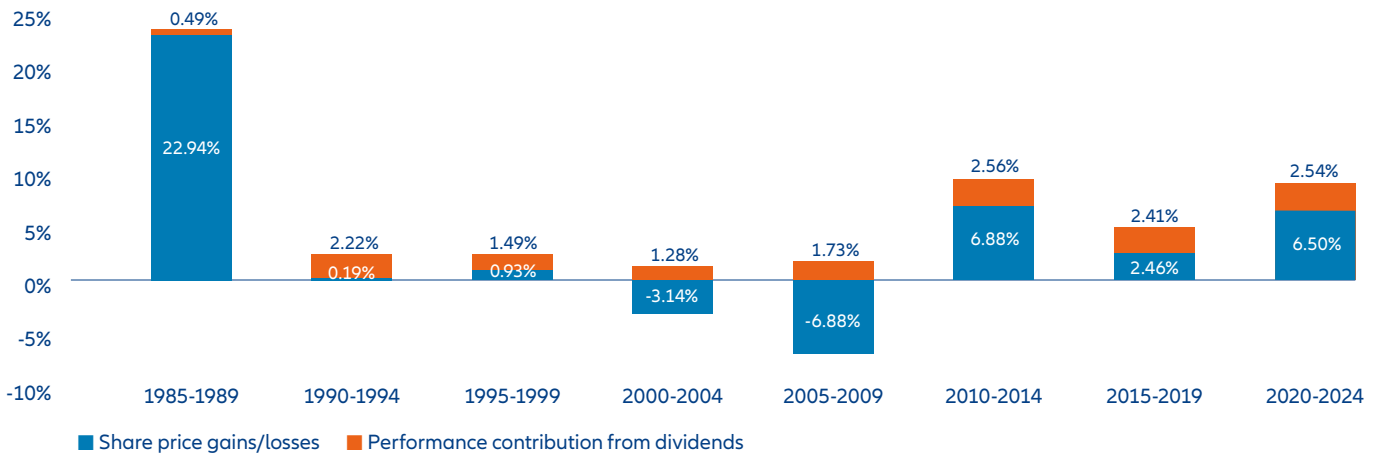
Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Figure 4b: Performance contribution of dividends and share prices over the last 40 years in five-year periods (in % p. a.) – MSCI North America



Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Figure 4c: Performance contribution of dividends and share prices over the last 40 years in five-year periods (in % p.a.) – MSCI Pacific ex Japan

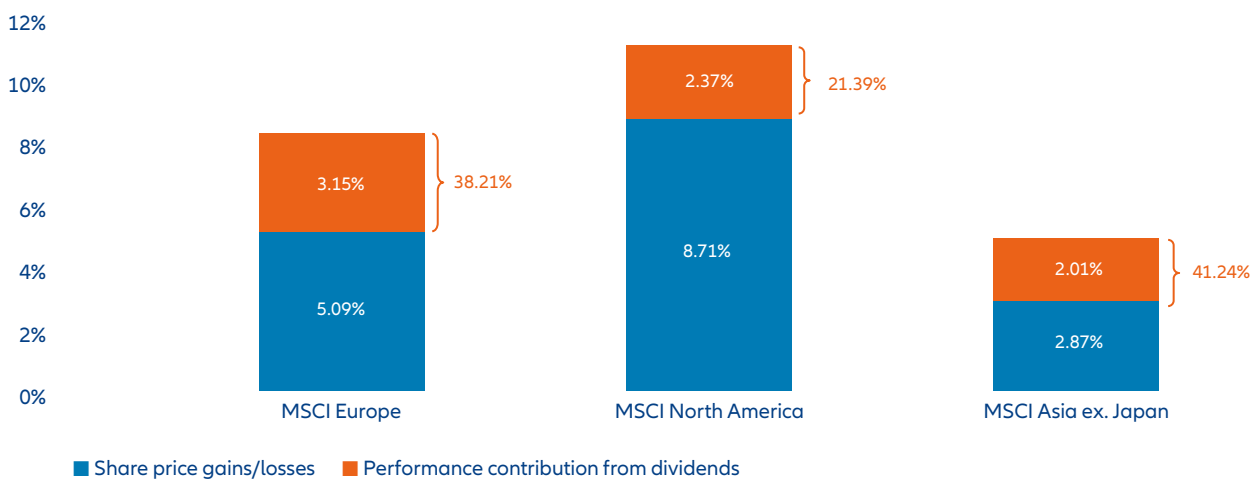


Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Over the entire period of the last 40 years, dividends accounted for almost 39 % of the annualised total return of an equity investment in the MSCI Europe. In North America

(MSCI North America) and Asia-Pacific (MSCI Pacific), dividends contributed almost 22 % and just over 41 % to the total return of each index respectively (see figure 4d).

Figure 4d: Share of p.a. total performance of dividends and price gains over the last 40 years in an international comparison (annualized)

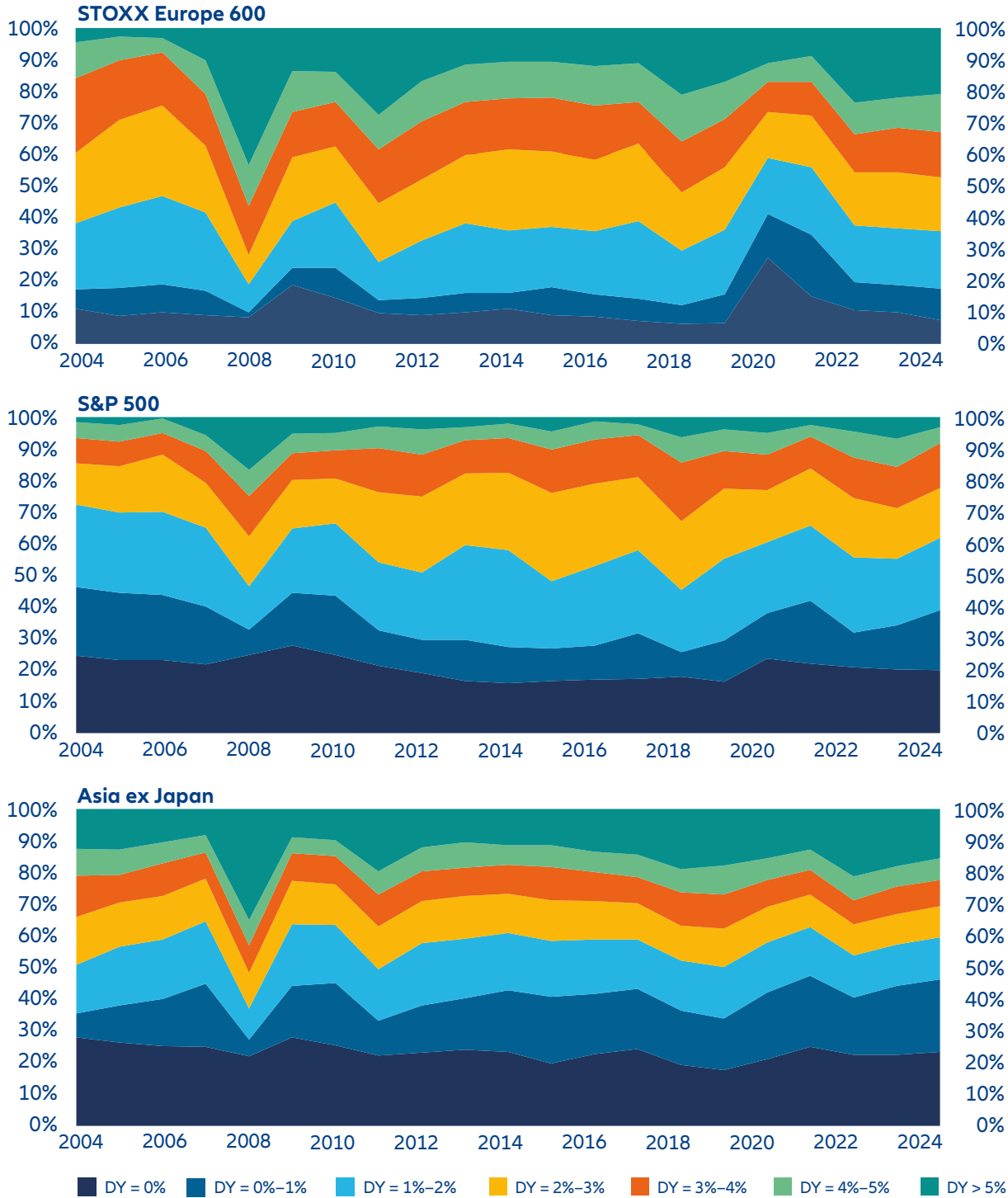


Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

The dividend yields of the respective equities included in the indexes are very broadly scattered around the average dividend yield of the benchmark, a finding depicted in figures 5a to 5c for the investment regions of Europe, the

United States and Asia (ex Japan). It is even relatively common to see dividend yields of 5 % or more, though yield clusters vary depending on the benchmark and region.

Figures 5a–5c: Dividend yield over time



Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Therefore, implementing an appropriate dividend strategy can optimise the dividend yield by selecting the right stocks – a particularly effective approach for generating

investment income from dividends. In turn, this has the potential to raise the share of return from dividends as a factor in the overall performance of an investment.

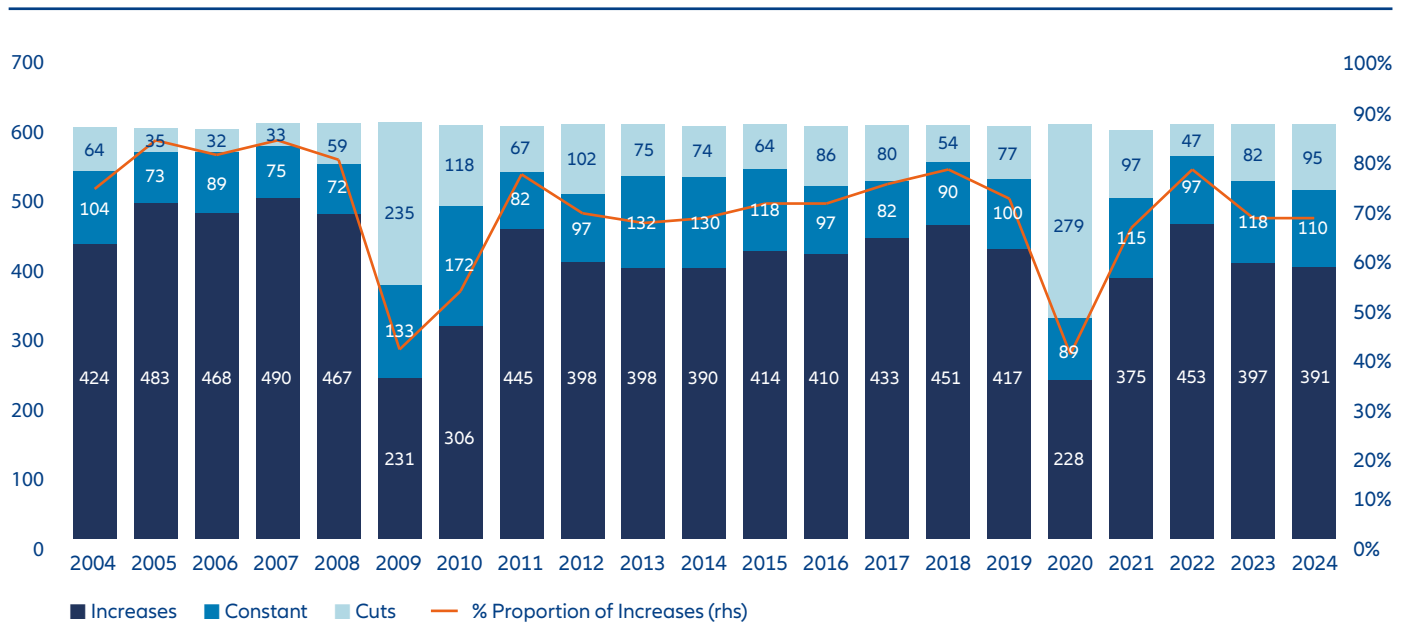
A “steady-as-she-goes” dividend policy

It is interesting to note in this regard that companies themselves tend to pursue a very consistent dividend policy and, in many cases, one that even tilts towards rising payouts.

This trend is illustrated very clearly in figures 6a to 6c. The companies included in each index were clustered according to whether they increased, maintained or cut their dividends compared to the previous year. The

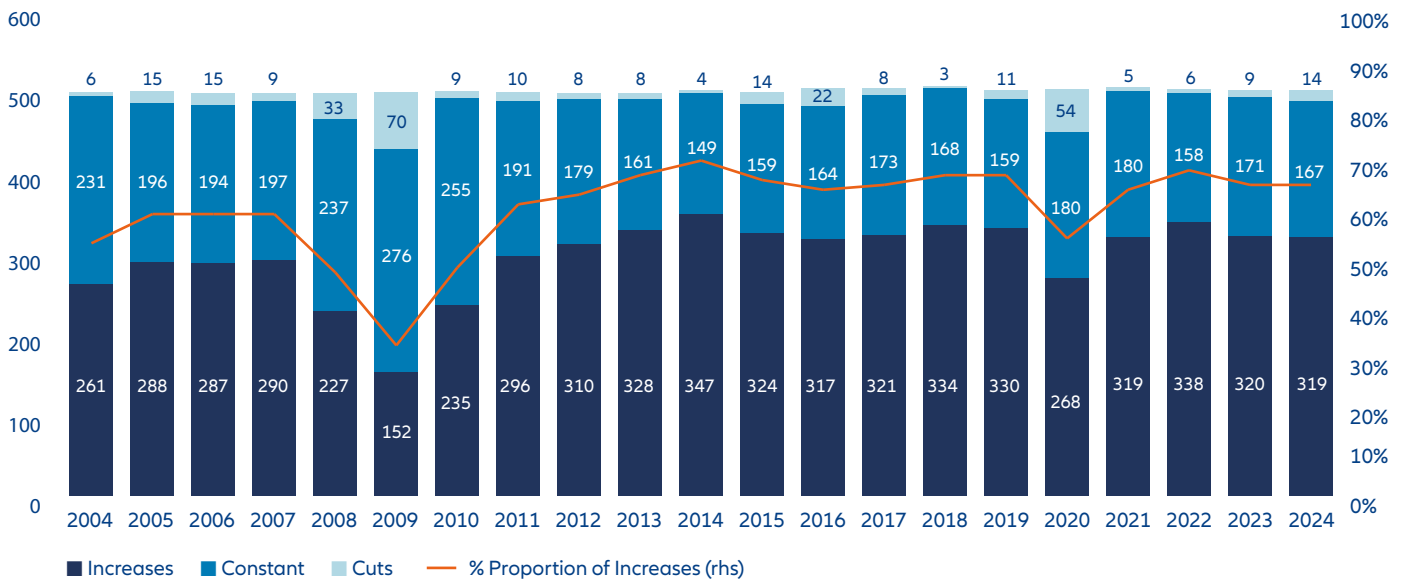
results show that the vast majority of companies raised their dividend payments every year. A considerably smaller number reduced their dividend payments, with the exception of years such as 2009 (the year after the outbreak of the global financial crisis) and the pandemic-stricken year of 2020. These findings are also consistent with the historical trend of a steady year-on-year increase in total payouts (excluding crisis-hit years). In other words, investors have traditionally benefited from rising corporate profits.

Figure 6a: Number of companies with dividend increases and decreases in the years 2004–2024 – STOXX Europe 600



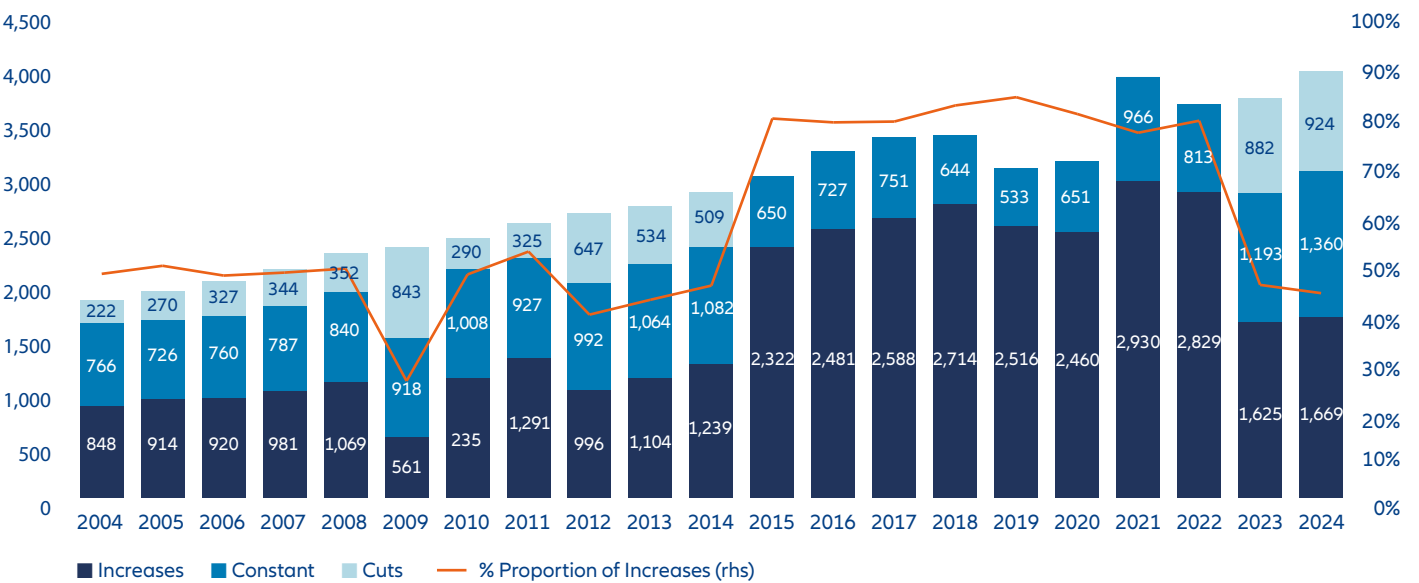
Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Figure 6b: Number of companies with dividend increases and decreases in the years 2004–2024 – S&P 500



Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Figure 6c: Number of companies with dividend increases and decreases in the years 2004–2024 – Asia ex Japan

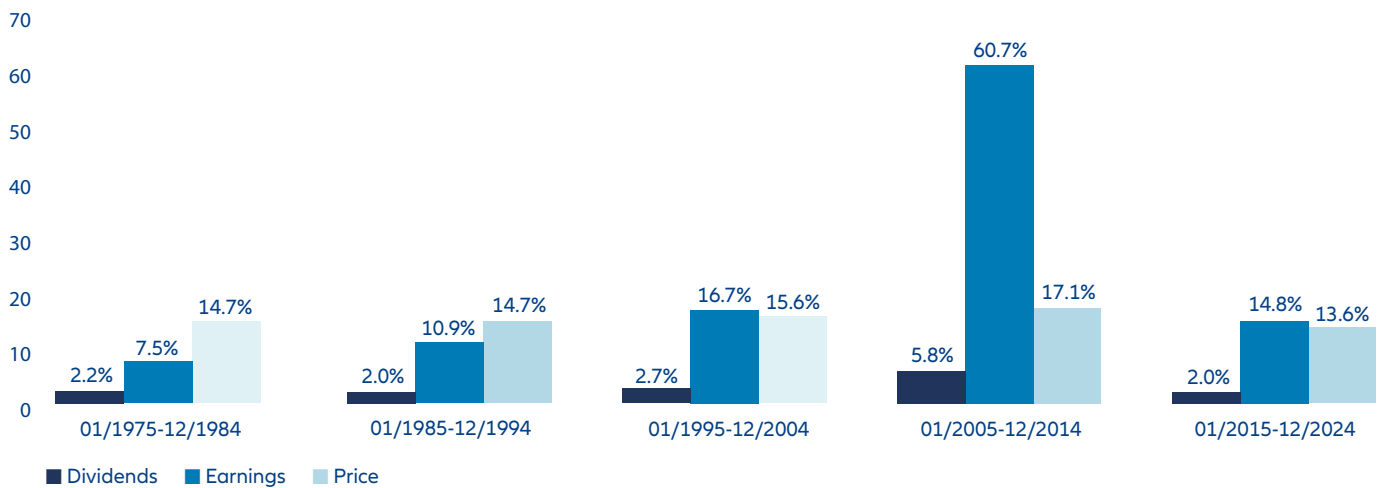


Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024

Furthermore, dividends themselves exhibit less volatility than corporate earnings. A comparison of dividends and profits of companies listed on the S&P 500 from the beginning of 1974 until the end of 2024 indicates that

corporate profits were subject to considerably greater volatility than dividends over the period in question (see figure 7). In addition, equity prices fluctuated more sharply than the level of dividend payments.

Figure 7: Volatility of S&P 500 Group Earnings and Dividends from the Beginning of 1974 to December 2024 (in % p.a., quarterly basis)



Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024



As a rule of thumb, dividend payments exhibit significantly less volatility than corporate earnings and to a much lesser extent than even equity prices themselves. By definition, they cannot fall below zero, either; in the worst case, they may simply not be paid out.

Dr Hans-Jörg Naumer
 Director Global Capital Markets &
 Thematic Research

Deep Dive:

What academic literature tells us about companies' dividend policies

The following motives may explain the consistency of companies' dividend policies:

- A company's dividend policy is frequently an integral aspect of its corporate strategy and dividend payouts have the effect of sending out an exceptionally strong message. Cutting or suspending dividend payouts is viewed negatively by the market, since it raises doubts about the future viability of the company. As a consequence, corporations are anxious to ensure consistent dividend payments.
- Many (but not all!) companies that generate high dividend yields boast healthy balance sheet metrics with a relatively strong capital base and stable cash flows.
- Paying high dividends to shareholders – and striving to do so reliably and consistently due to the message this sends out – tends to encourage greater discipline among companies. They are forced to manage their financial resources prudently and deploy them efficiently. In contrast, as they are discretionary, share buyback programmes neither have a comparable signalling effect on analysts nor do they promote a similar level of discipline in companies.

The above considerations have been corroborated by academic research. A study from 2005² revealed that 94 % of the Chief Financial Officers (CFOs) at companies surveyed aimed to achieve a stable dividend payout ratio over the long term while avoiding any cuts in dividends. 65 % of respondents stated that they would even be prepared to take on debt in order to maintain a consistent level of dividend payments. This is not surprising, as 90 % of the CFOs in the study expected negative ramifications for their company's share price if they reduced the level of dividends. Furthermore, the study found that decisions on capital expenditure and dividend payments were regarded as equally important in two thirds of cases – unlike share buyback programmes, which were considered a far more flexible instrument than dividends.

The researchers asked managers from 394 US listed companies, with the sample predominantly including dividend-paying firms. The results – at least in the past – support the aforementioned observation of a very consistent pattern in dividend payments.



Thanks to their consistency and their substantial contribution to total return, dividends are a suitable means of generating additional income from an investment.

Supplementary investment income that can then be used, for example, to fund the grandchildren's education (a "grandparents' grant"), as extra money for a holiday or for the third phase of life.

Dr Hans-Jörg Naumer

Director Global Capital Markets & Thematic Research

Another study that provides some valuable insights here is that by Skinner and Soltes in 2011³, who analysed the annual dividend payments and earnings of companies listed on the NYSE, AMEX or the US tech exchange NASDAQ between 1974 and 2005 (excluding utilities and financial services). Their findings show that the earnings performance of dividend payers was more consistent than that of non-dividend paying companies. In fact, according to their study, it did not even depend on the level of dividends paid – simply on whether they paid dividends to shareholders or not.

Michaely et al.⁴ found that when dividend payments increased, this indicated a less volatile development in future cash flows and hence in a company's results – and vice versa. Whenever companies take the unpopular step of reducing dividends, this may also be interpreted as a harbinger of less stable cash flows in the future. A corollary of these findings is that they also help to understand the previously cited study by Brav, which indicates that increases in dividend payments make it less likely that they will be reduced in future as they foreshadow expectations of more stable cash flows.

A more recent study by Moortgat et al., which analysed companies listed on the Belgian stock market since 1824, arrived at the same conclusion. Namely that companies that paid dividends in the past were highly likely to continue doing so in the future and that the share of profits paid out as dividends would subsequently rise.⁵

In their econometric analyses, Basse and Reddemann established a relationship between dividend payments and inflation and found that US corporations listed on the S&P 500 not only tend to distribute their dividend payments equally over time but to increase them in line with rising prices as well.⁶ This would boost the attractiveness of dividends as a source of investment income as it is crucial that, when an investor seeks to generate supplementary earnings, these should not be eroded by a decline in real purchasing power.

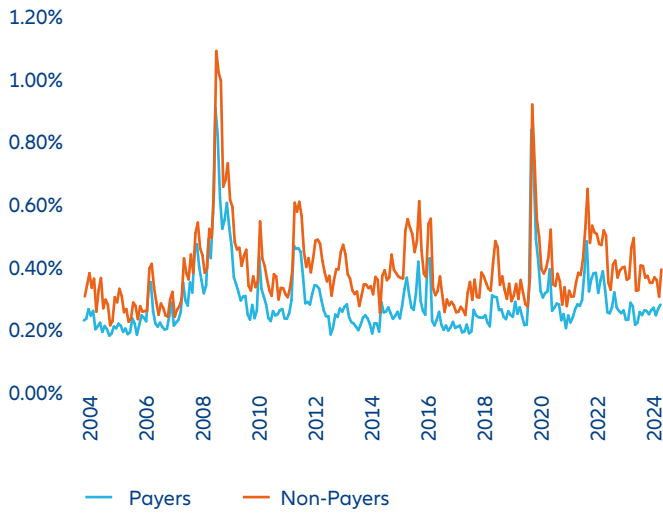
As shown in figures 8a and 8c, the equity prices of dividend payers fluctuated to a lesser extent on average (i.e. were subject to lower volatility) than those of non-payers. To put it another way: If someone had tracked a portfolio consisting entirely of dividend-paying companies on the STOXX Europe 600 or S&P 500, or on the Refinitiv Asia

Ex Japan, this portfolio would have been subject to less volatility than one made up of the remaining non-payers. It should be noted, however, that there was a trend for the proportion of non-payers in the indexes analysed to decrease over time.

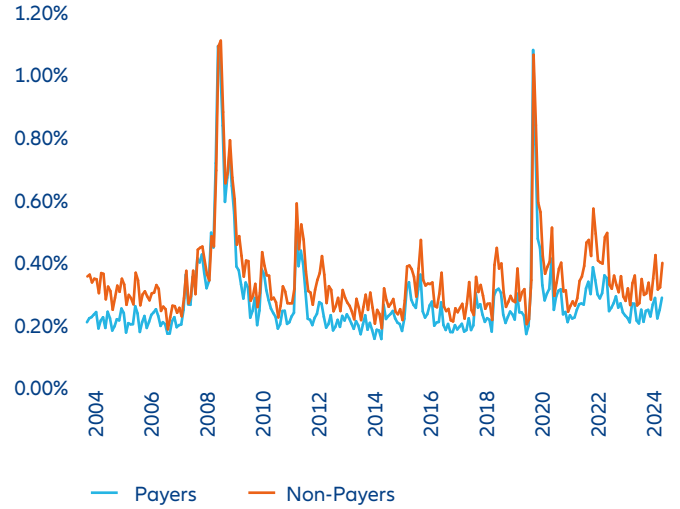
Figures 8a–8c: Volatility of dividend payers vs. non-payers – STOXX Europe 600, S&P 500 and Refinitiv Asia (ex Japan)

Stocks that do not pay a dividend fluctuate more on average than those that pay a dividend

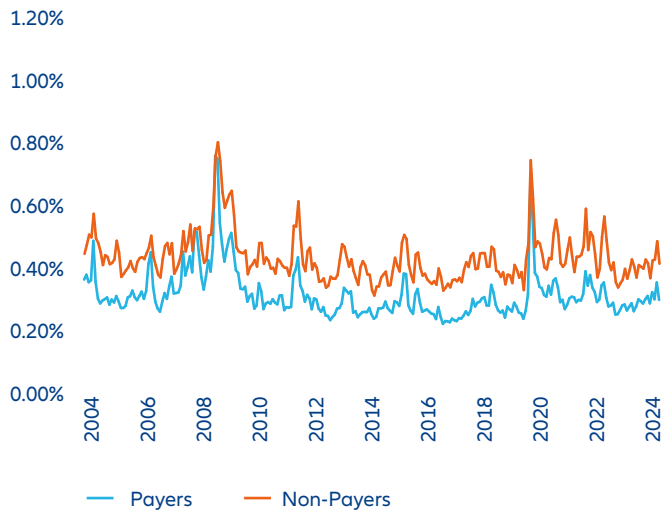
STOXX Europe 600



S&P 500



Refinitiv Asia ex Japan Universe



Equally weighted 30-day volatility of dividend payers and non-payers, respectively, Source: LSEG Datastream, Allianz Global Investors Global Capital Markets & Thematic Research. Past performance does not predict future returns. Data as of December 2024



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 successful investors"

Investment income and self-delusion

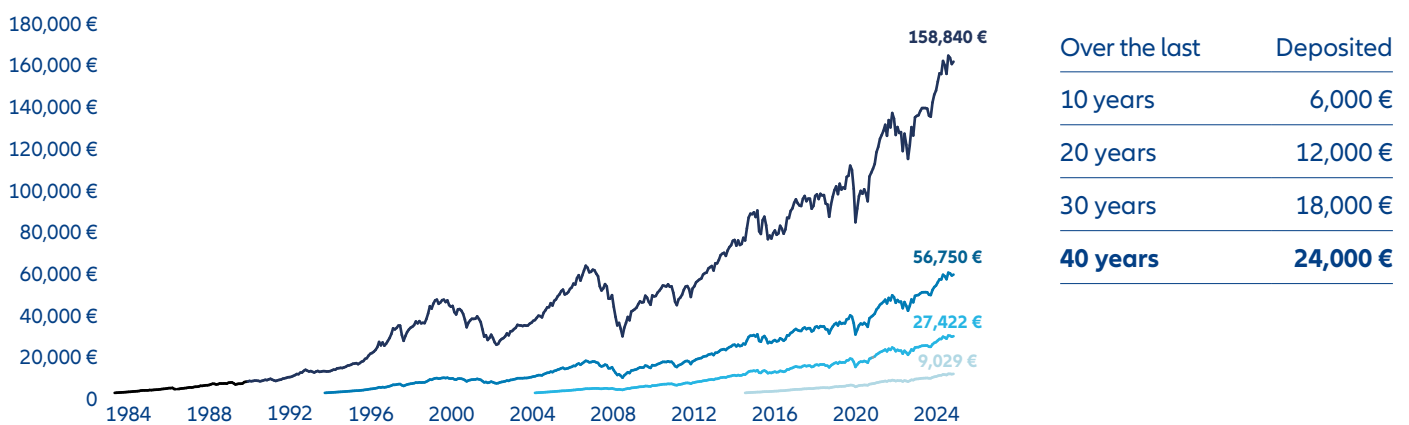
From an investor's perspective, consistent dividend payments have another advantage in terms of behavioural psychology. On the one hand, additional investment income is useful, especially towards providing for old age. On the other, it has a positive behavioural economic effect in that any declines in equity prices that are perceived as a "loss" are less painful for investors as they also receive interim payments in the form of dividends. Our brain's reward centre, the mesolimbic pathway, is in fact trained to seek instant satisfaction. As they could not expect to live 80 years or longer, the prehistoric ancestors of modern

humans wanted to consume immediately. This explains why money that is invested is perceived as a "loss" since it is (at least temporarily) not available for consumption. As such, dividends act as a form of compensatory "reward". Another important aspect to bear in mind is that the consistency with which dividends are paid out helps to stabilise a portfolio. As a result, the overall performance of an equity investment exhibits less volatility than equity prices alone and this addresses a human's innate aversion to loss.

Speaking of "self-delusion":

On the subject of self-delusion, a **savings plan** is one possible way of helping to mitigate volatility on the capital markets by using the cost-averaging effect while still benefiting from a risk premium. Figure 9 illustrates the potential return that can be generated based on the example of saving 50 euros a month in the STOXX Europe 600 over 10, 20, 30 and 40 years. Clearly, even a savings plan is not a magic formula against losses: If markets decline over a prolonged period, it will not deliver any positive returns either. However, in the longer term, it is reasonable to hope that the higher risk of equities will be reflected in higher returns – as risk is rewarded.

Figure 9: "Prosperity for all" is possible – even with small contributions
 Example of a savings plan on the MSCI Europe and Stoxx 600, 50 euro/month



Assumptions: reinvestment of dividends, dividends tax-free, withdrawal on retirement, unemployed persons without savings contributions. Due to the insufficient history of the Stoxx 600, a switch was made to the MSCI Europe for the 30 and 40-year periods. Source: AllianzGI Global Capital Markets & Thematic Research; Past performance is not indicative of future returns. As of: December 2024



Generating investment income with dividends

While the past cannot be easily extrapolated into the future, there are still a number of useful lessons that can be learned from dividends.

- Our historical analysis suggests that dividends have made a significant contribution to the total return generated by equity investments.
- It also shows that dividends have delivered a more consistent performance than corporate earnings.
- In other words, companies display a tendency to adhere to a dividend policy once it has been adopted and are more likely to raise the level of dividend payouts rather than lower them.
- Furthermore, equities from dividend payers have proven to be less prone to volatility in the past than equities from non-payers; that is at least what our analysis has found.
- Dividends may help investors to outsmart themselves by providing them with a constant stream of “rewards” in the form of dividend payments that reduce the feeling of “loss” associated with an investment in securities.
- Thanks to their consistency and their substantial contribution to total return, dividends are a suitable means of generating additional income from an investment.
- Supplementary **investment income** that can then be used, for example, to fund the grandchildren’s education (a “grandparents’ grant”), as extra money for a holiday or for the third phase of life. ...
- The bottom line is: Let your money work for you!

Dr Hans-Jörg Naumer

A special thanks to Lucas Schulz for his support in collating the data for this study. It was not easy, but the hard work paid off.



According to our calculations, dividends have historically made a significant contribution to the total return on equities.

Dr Hans-Jörg Naumer

Director Global Capital Markets & Thematic Research

Further publications



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- 🔗 Multi Asset: The comeback
- 🔗 The Week Ahead



Behavioural Finance

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- 🔗 Using the 7 habits of successful investors



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- 🔗 Digitalisation
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Dividend Study,
13th edition

Dr Hans-Jörg Naumer (hjn)

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¹ each index was rebased to 100 for better comparability.

² cf. Brav, Alon; Graham, John R.; Harvey, Campbell R.; Michaely, Roni: "Payout Policy in the 21st Century"; *Journal of Financial Economics*, Vol. 77, S. 483–527, 2005.

³ Skinner, Douglas J.; Soltes, Eugene: "What do dividends tell us about earnings quality?"; *Review of Accounting Studies*, Vol. 16, S. 1–28, 2011.

⁴ Michaely, Roni; Rossi, Stefano; Weber, Michael: "The Information Content of Dividends: Safer Profits, No Higher Profits"; CESifo, Working Paper No. 6751, 2017.

⁵ Moortgat, L., Annaert, J. & Deloof, M.: "The long-run persistence in dividend policy."; *Cliometrica* 18, 621–651, 2024.

⁶ Basse, T. and Reddemann, S.: "Inflation and the dividend policy of US firms"; *Managerial Finance*, vol. 37 no. 1, pp. 34-46, 2011.

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