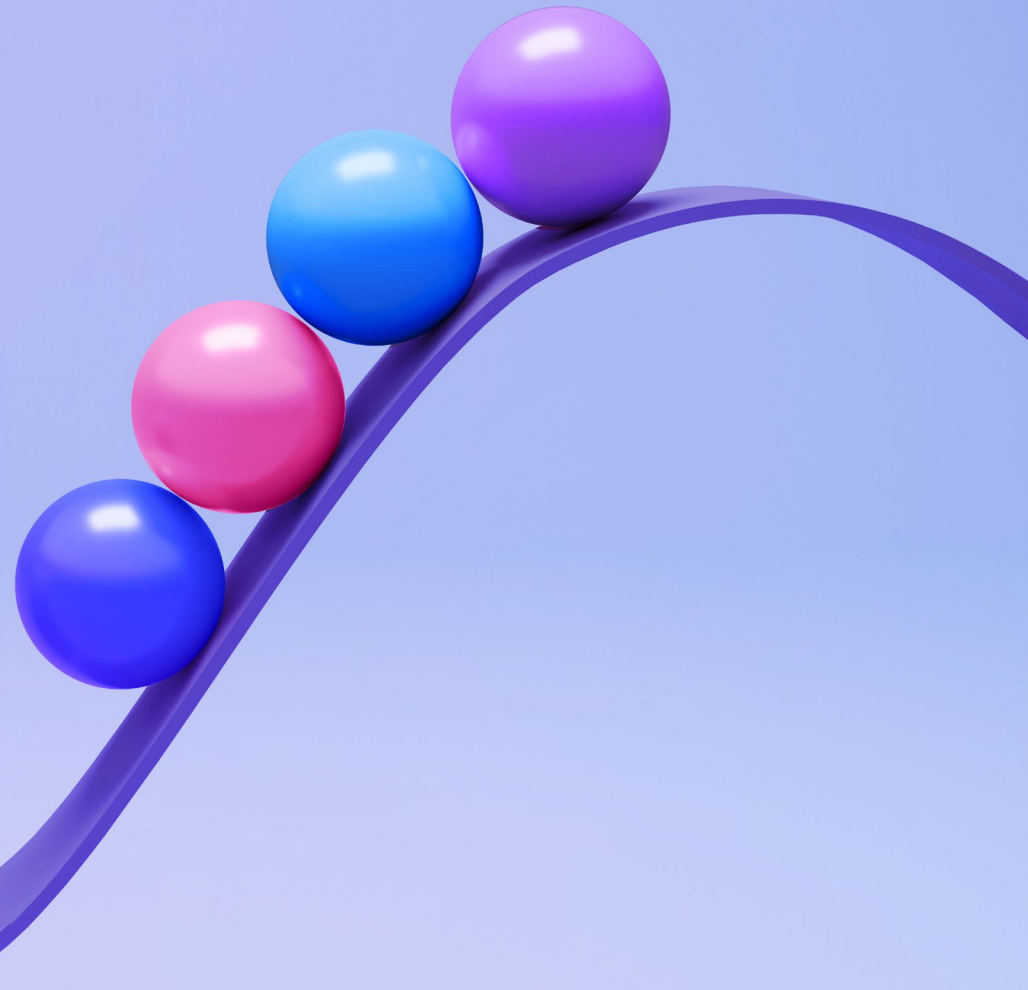




Cost of Capital Study 2024

**The New Dilemma:
Balancing Interest Rates
and Growth**



This study is an empirical investigation with the aim of analyzing management practices. The information provided and explanations offered by the study do not offer a complete picture for deriving financial forecasts or costs of capital, or for proper actions or interpretation of the requirements for impairment tests, other accounting-related questions or business valuations for accounting, tax or other purposes. As the study relies on retrospective empirical data, the information provided, and explanations offered are not applicable for future-oriented valuation purposes.

When considering the following analyses, it should be noted that the company data presented here stems from companies in different countries, some with different currencies and at varying points in time. Furthermore, it should be noted that not all participants in the study answered all questions.

The data presented in this study does not necessarily reflect KPMG's view on future-oriented assessments or on the cost of capital in the survey period.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.



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Preface

Dear Readers,

We are delighted to present you with the results of the nineteenth edition of our Cost of Capital Study. With around 300 participating companies, we have once again succeeded in drawing a significant number of participants. We would like to extend our heartfelt gratitude to all the companies that took part in the study. Your support and involvement reaffirm how important the study is to your valuation practice. We hope you find this year's study and its key topics interesting and valuable.

The expectations of market participants concerning the future magnitude, timing, and risk profile of returns from their intended investments play a crucial role in shaping market prices and the input parameters for valuation models. Persistent political uncertainties, growing market divergences, and the influence of emerging megatrends on business models further exacerbate the complexity. Accordingly, we have titled this year's Cost of Capital Study "The New Dilemma: Balancing Interest Rates and Growth".

In the current issue, we examine the impact of a persistently uncertain market environment on the interplay between interest rate developments and growth expectations, as well as resulting effects on business models, corporate development and long-term return expectations (cost of capital). In this context, the current issue of the study focuses on the following subjects:

- Market dynamics unveiled? The impact of divergence, resilience and inflation on return expectations.
- Inflation defeated? Inflation again proves particularly persistent toward the end of inflationary periods.
- Growth or stagnation? The coming years will reveal whether Europe's anemic growth is cyclical or structural.

The empirical data collected from participants is based on impairment testing under the International Financial Reporting Standards (IFRS) that are mandatory for all IFRS users.

We hope that this year's Cost of Capital Study also meets your expectations and provides useful insights. Our team would be happy to discuss the results with you personally. Should you have any questions or comments, please do not hesitate to contact us.

Best regards,



Heike Snellen

Director
Deal Advisory, Valuation
KPMG AG
Wirtschaftsprüfungsgesellschaft



Dr. Andreas Tschöpel

Partner
Deal Advisory, Valuation
KPMG AG
Wirtschaftsprüfungsgesellschaft

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2020

- The world is changing
- Goodwill – steady in turbulent times?!
- Unusual times – new valuation methods?



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- ESG impacts on valuations in the consumer markets sector
- Essential changes to ESG reporting
- Making sound ESG decisions



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- Value enhancement through inflation?
- Disruptive times in the energy sector – what's the impact of inflation and cost of capital?
- Inflation is back – and what about the cost of capital?



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2023

- Growing divergence? Hypotheses on the different development of global economic areas
- Inflation unleashed? Central Banks' interaction with capital markets
- Navigating increasing uncertainty? Development of market return expectations in turbulent times

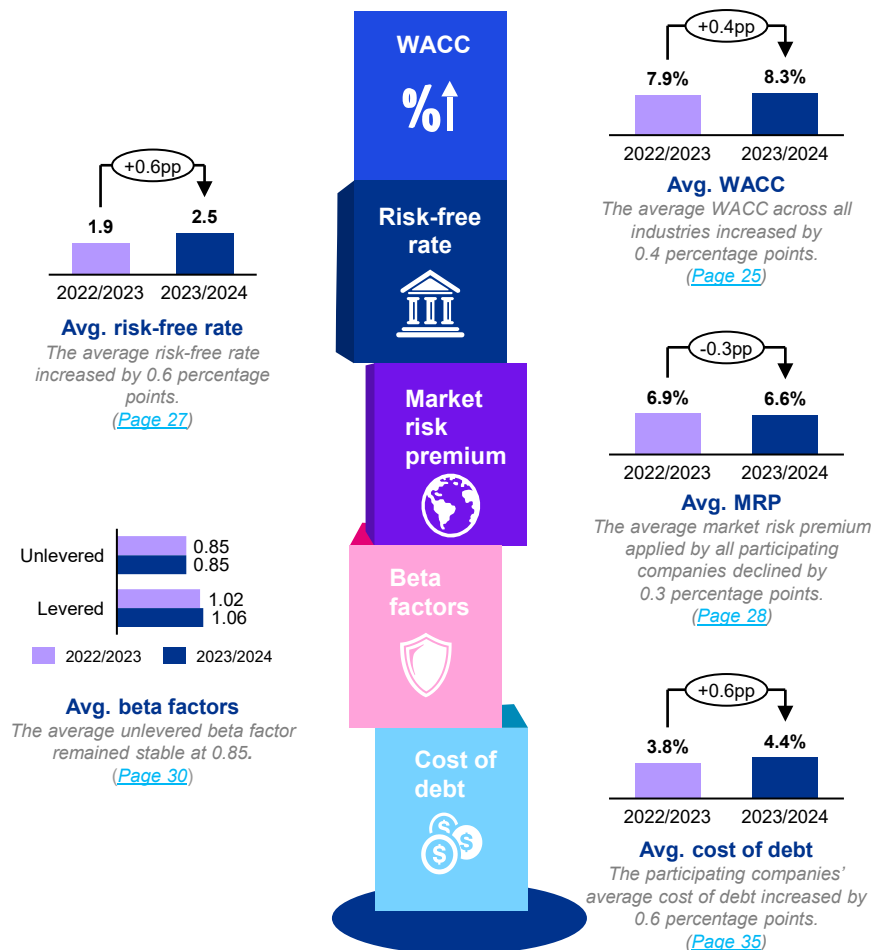


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2024

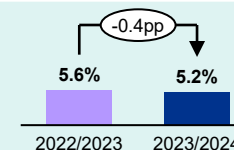
- Market dynamics unveiled? The impact of divergence, resilience and inflation on return expectations.
- Inflation defeated? Inflation again proves particularly persistent toward the end of inflationary periods.
- Growth or stagnation? The coming years will reveal whether Europe's anemic growth is cyclical or structural.

Summary of Findings



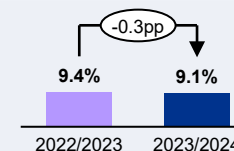
Sales growth

Forecast sales growth declined by 0.4 percentage points likely due to geopolitical tensions and overall market conditions. (Page 15)



EBIT growth

In line with forecast sales growth, EBIT growth declined on average by 0.3 percentage points. (Page 15)



Planning uncertainty

Top risks reported by participating companies:

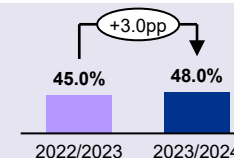
- General economic risks (macroeconomic)
- Customer-side risks (microeconomic)

(Page 22)



Impairment test

The number of participating companies recognizing an impairment has increased slightly. (Page 42)



Megatrends

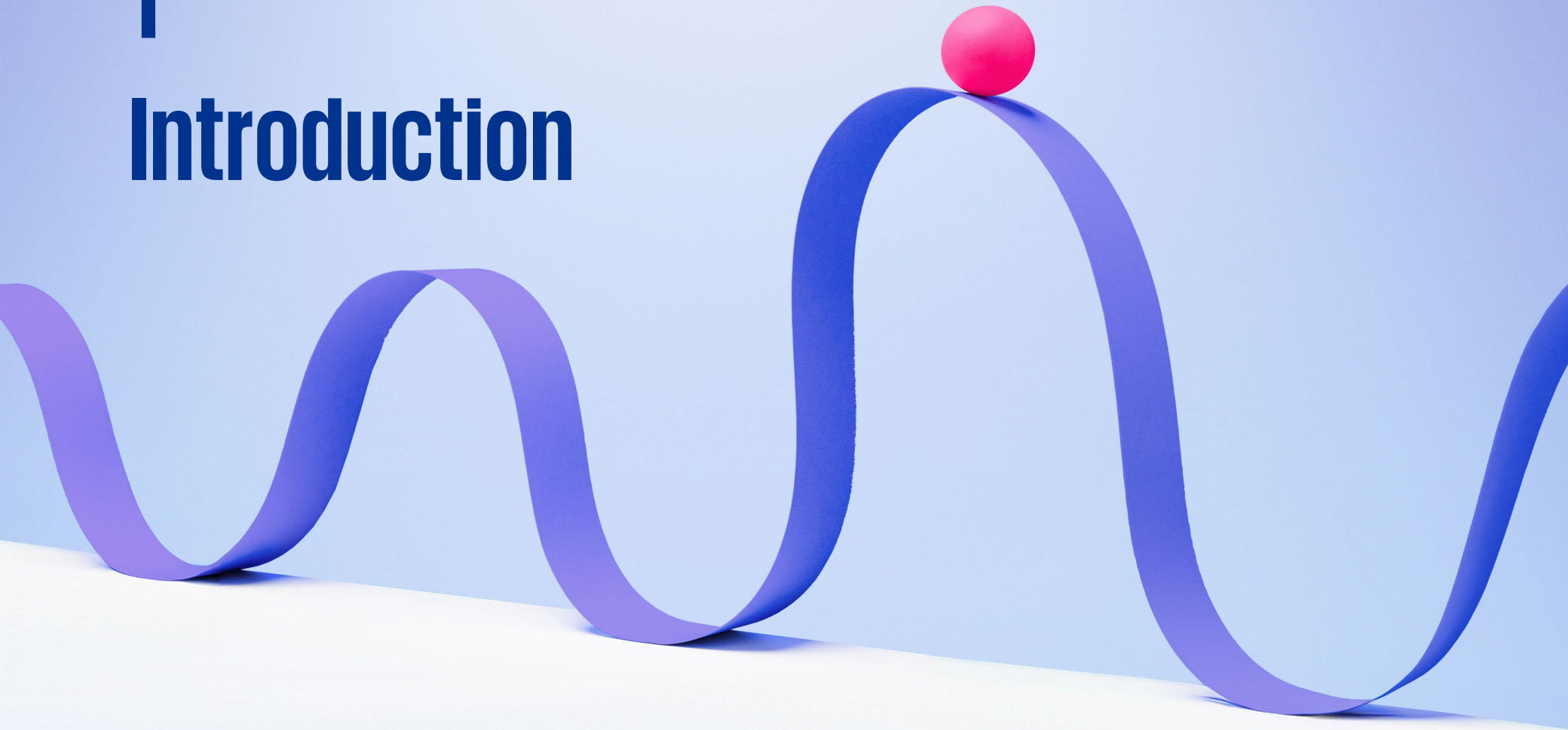
Most relevant megatrends across the analyzed sectors:

- Artificial Intelligence (AI)
- Digitalization
- Environmental, Social and Governance (ESG)

(Page 49)

1

Introduction



1.1 Overview of Participating Companies

1.2 Sub-Sector Analyses

1.1 Overview of Participating Companies

Study participants

As in previous years, the Cost of Capital Study has once again attracted a substantial number of participants. This year, the study encompasses a total of 296 companies (previous year: 322), including 223 companies from Germany, 31 from Austria and 42 from Switzerland.

Among the DAX 40 companies, the response rate increased by 10 percentage points compared to the previous year, reaching 75 percent, which equates to 30 companies. Conversely, the participation rate of companies listed on the MDAX decreased to 32 percent compared to the previous year. With a participation rate of 29 percent, SDAX participants maintained their response rate at a similar level compared to that of 2023.

For ATX listed companies, the response rate increased by 5 percentage points to 40 percent, while the response rate for companies listed on the SMI decreased by 5 percentage points to 40 percent.

Survey period

Participating companies had the chance to respond to the survey for this year's study between April and July 2024. The survey period encompasses the reporting dates of the companies' consolidated financial statements between 31 March 2023 and 31 March 2024.

Figure 01:
Participants by country
Total

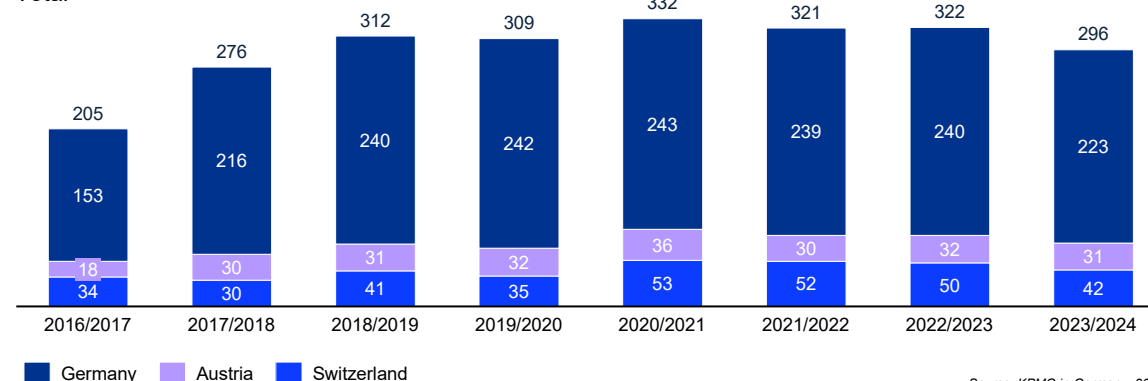
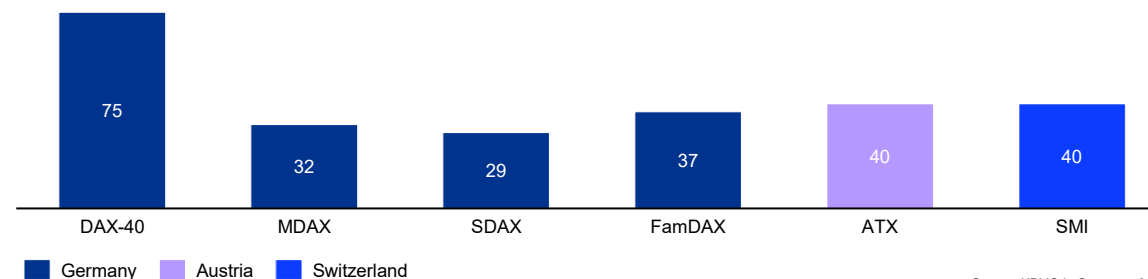


Figure 02:
Participation rates by market index
(in percent)



Analyses

The companies participating in the Cost of Capital Study were asked to classify themselves into specific sectors based on their operational activities. In terms of the relevant parameters for financial forecasting and cost of capital, this facilitates both the differentiation and comparison of these sectors.

Participation increased in the Chemicals & Pharmaceuticals, the Energy & Natural Resources, and the Transport & Leisure sectors as compared to the previous year.

Conversely, the most significant decline in participation was observed in the Automotive, Consumer Markets and Technology sectors.

Despite the decrease in participation, the Industrial Manufacturing sector remains the most represented in the survey.

Most participants in the Cost of Capital Study were medium- to large-sized companies, operating in over ten countries, employing more than 500 employees, and generating revenues in excess of EUR 1 billion.

Figure 03:

Participants by sector

Total (multiple choices possible)

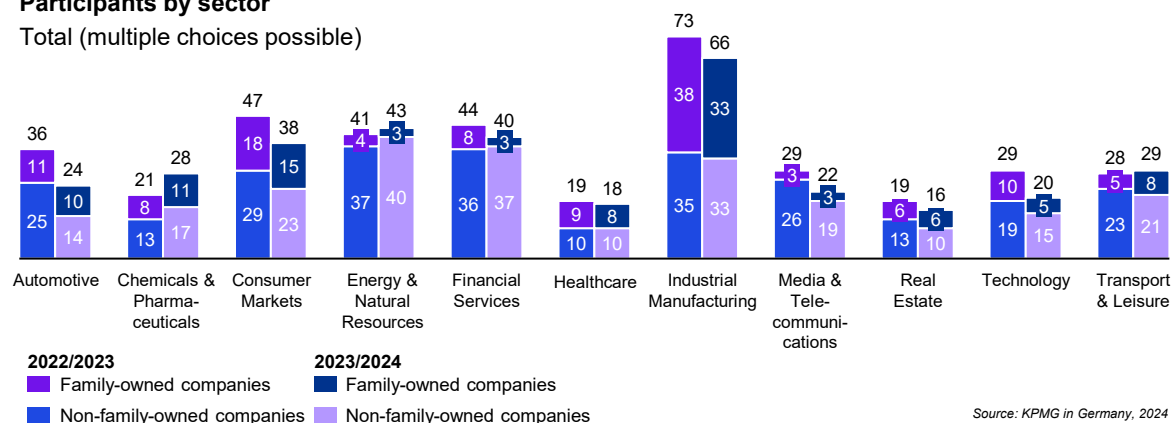
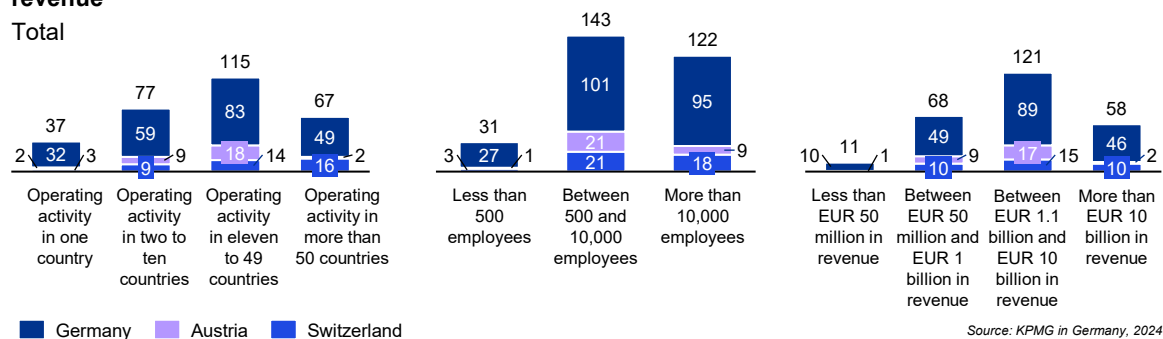


Figure 04:

Participation by number of countries where respondents operate, by number of employees and by revenue

Total

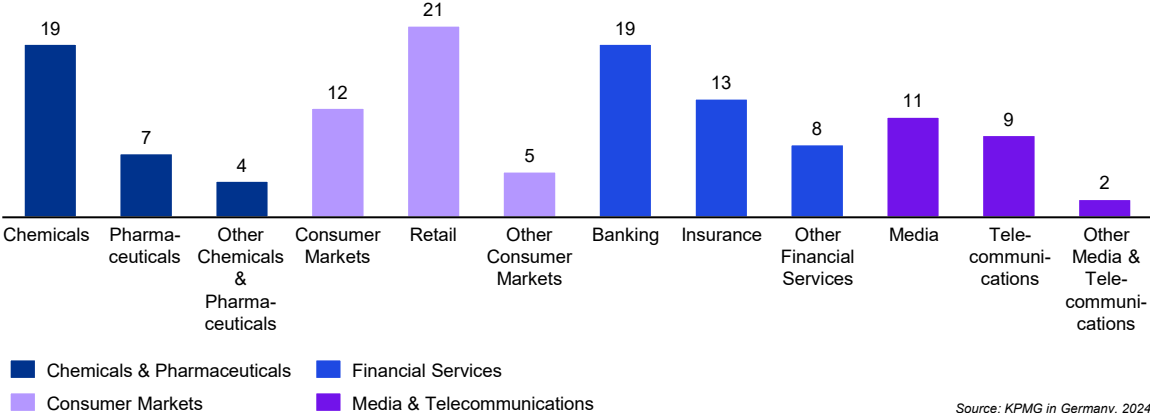


1.2 Sub-Sector Analyses

Sub-Sector Analyses

Participants from the Chemicals & Pharmaceuticals, Consumer Markets, Financial Services, and Media & Telecommunications sectors were given the opportunity to further specify the sub-sector in which they operate. The participation rates for each sub-sector are presented in the graph to the right. Notable developments within the sub-sectors are highlighted at various points throughout this study.

Figure 05:
Participation by sub-sector
Total (multiple choices possible)



Source: KPMG in Germany, 2024

Market dynamics unveiled? The impact of divergence, resilience and inflation on return expectations.

The expectations of market participants regarding the future level, timing, and risk profile of returns from their intended investments determine market prices and the input parameters of valuations. High volatility due to political uncertainties, increasing market divergence, and changes in business models driven by disruption, digitalization, AI, or ESG with long-term investment cycles are increasingly adding to the complexity.

1) Divergence – The trend of increasingly divergent development among major economic regions continues to be reinforced.

The specter of inflation in industrialized Western economies seems to have been banished for the time being, with headline inflation rates steadily approaching the targets set by central banks. In the meantime, central banks have initiated a turnaround in interest rates, with the ECB taking the lead for the first time. However, the ECB remains cautiously optimistic and anticipates that there will be a limited and temporary increase in inflation in the near future. Core inflation rates – adjusted for volatile goods such as food and energy – currently remain above headline inflation rates. The money supply in the European region continues to significantly exceed the comparable figure in the USA relative to GDP.

Interest rate cuts in Europe aimed at stimulating nearly stagnant markets contrast with interest rate cuts in the USA to avoid a recession following a period of exceptionally strong economic growth. By contrast, China has recently been struggling with deflation, although the trend now appears to be reversing, even though current inflation rates are still far from those of Western industrialized nations.

The GDP growth between Europe and the USA continues to diverge significantly. This divergence is attributable to increasingly entrenched structural differences (see also p. 39 *et seq.*), as well as historically developed orientations of the economies. In times of increasing geopolitical tensions on the one hand and the extremely dynamic development of high-tech and AI-driven business models on the other, the regulatory frameworks set by authorities become clear drivers of potential competitive advantages of freely developing markets. In this context, it remains to be seen – alongside urgently needed European initiatives – to what extent China can actually overcome its current economic challenges, given the increasing strengthening of the party and state at all economic and political levels over the past decade, combined with the suppression of free markets.

2) Resilience – Its assessment is becoming increasingly important for company valuations.

The forecast of future cash flows is central to price and value determinations. In times of high volatility due to political uncertainties, increasing market divergence, and extremely dynamic changes in business models driven by disruption, digitalization, AI, or ESG-driven adjustments, forecasting the associated effects on cash flows becomes highly complex. The long-term investment cycles associated with these factors shift significant portions of the corresponding results further into the future than was previously the case. As reducing complexity becomes increasingly essential, simulation-based forecasting models can both help to drive this change and also offer innovative solutions. Nevertheless, the mounting challenge will continue to be the growing number of potential outcomes. This challenge can, however, be addressed as follows.

Future cash flows must be discounted to the valuation date using appropriate costs of capital and an assessment of their expected growth. In this process, the contribution of each future cash flow to the overall company value decreases significantly with an increasing time horizon. For example, projected results in 30 years contribute only about 10 percent to today's value, assuming realistic return and growth expectations.

Conversely, to ensure that the company's development over time does not result in a sustained loss in value, successfully reaching this future point is at least as important as achieving a correspondingly higher contribution to results. While the latter assumes that the business model adjustment will sustainably earn at least the required costs of capital, assessing whether this future point can be successfully attained increasingly requires an assessment of the company's resilience, i.e., its ability to withstand difficult situations without lasting impairments. The ability to respond flexibly to unforeseeable events is particularly important. The more resilient companies are, the better they will be able to cope with increasing geopolitical uncertainties, structural disruptions, and regulatory challenges. This refers not only to their financial stability but also their ability to rapidly adapt to a changing landscape, the error management structures they have in place, particularly as their pertains to keeping the focus on maintaining the initiative, their efforts to establish new forms of collaboration, and their flexibility in selecting the optimal mix of production factors.

3) Consistency – Although inflation must continue to be factored in, current return expectations are once again primarily determined by anticipated risks.

In principle, future return expectations in the markets – which can be measured using implicit return models – reflect a term-specific component via the risk-free rate and a risk-specific component via the difference between the total return and the risk-free rate, known as the risk premium.

Market participants regularly account for expected inflation in the nominal risk-free rate, starting from a real required risk-free rate as compensation for temporary consumption deferral. While inflation played only a very minor role in overall return expectations in the past due to very low inflation rates, its significance has increased markedly in the recent period of high inflation and has largely shaped the increased total return demands of market participants during this time.

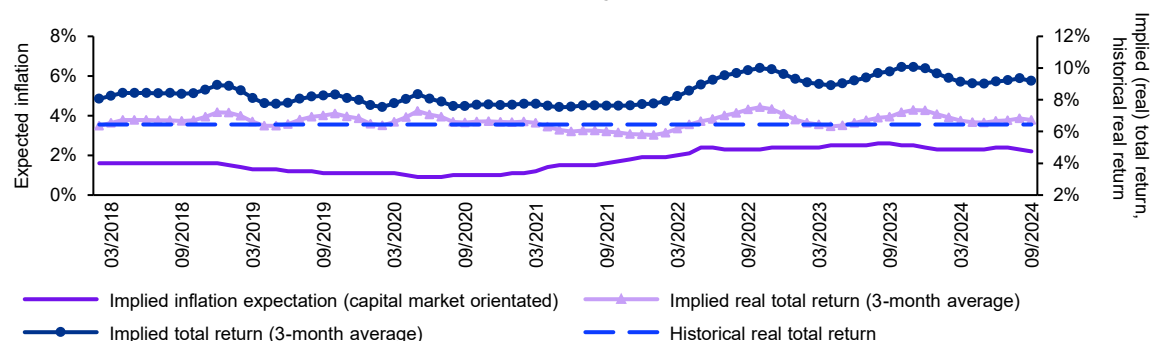
This can be seen in the graph below, where the significant increase in expected inflation led to a noticeable increase in return expectations.

After the pricing in of inflation, two effects are now evident:

1. With relatively stabilized inflation expectations, the volatility of total return expectations is again primarily attributable to differing risk expectations – as measured by real return expectations.
2. Compared to historical levels, the currently higher inflation expectations are leading to overall higher return demands compared to the period before the recent surge in inflation.

Figure 06:

Implied returns and inflation expectations in Germany over time



Source: KPMG in Germany on the basis of data from Stehle/Schmidt, 2015, and the German Central Bank, 2024

2

Derivation of Cash Flows

2.1 Preparation of the Financial Forecasts

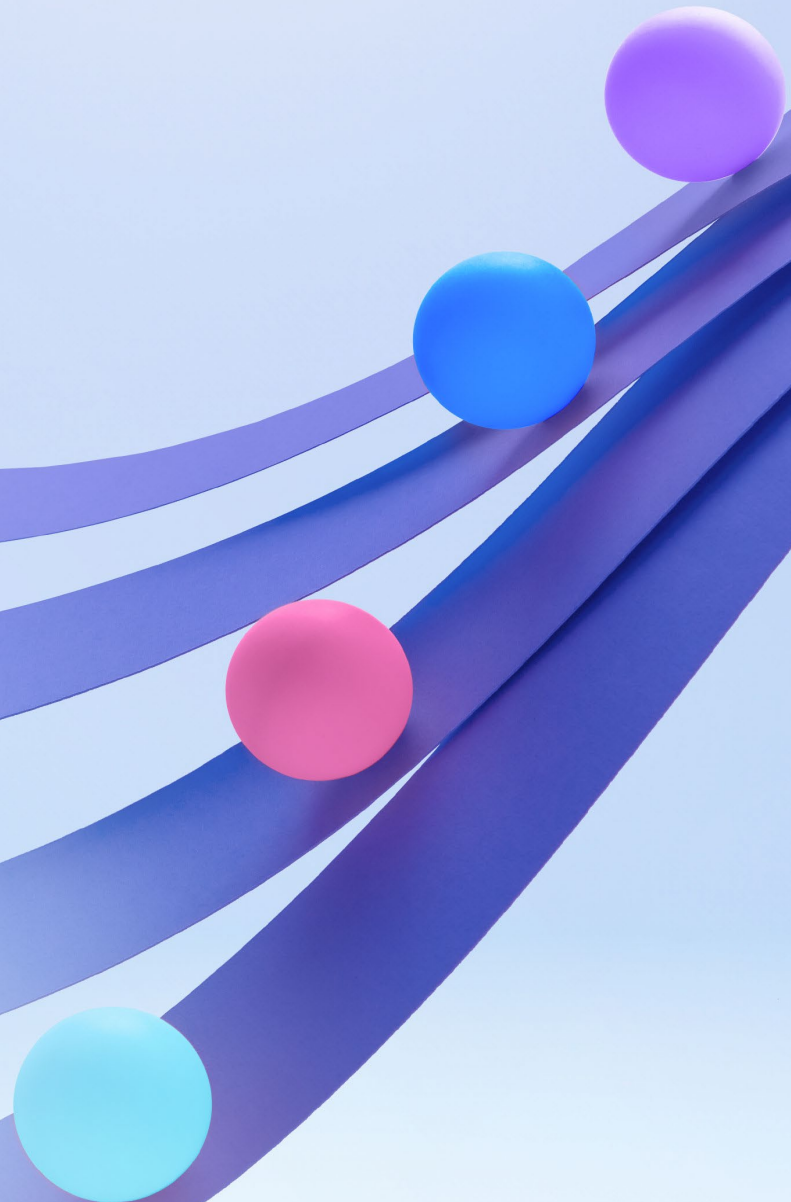
2.2 Growth Expectations

2.3 Inflation Expectations

2.4 Determination of Expected Values

2.5 Consideration of Risks

2.6 Dealing with Uncertainty



2.1 Preparation of the Financial Forecasts

The prediction of future economic growth is significantly constrained by the ongoing high level of uncertainty. Consequently, financial forecasts inherently carry a degree of planning uncertainty. In order to increase the accuracy of financial forecasts, it is essential to thoroughly consider expectations regarding operating performance and risk drivers. Another important factor for increasing accuracy is the integrated and sufficiently detailed preparation of the planning figures.

It is apparent that the majority of the study participants continue to provide a high degree of detail in their financial forecasts, likely driven by persistently high levels of uncertainty.

Sensitivity and scenario assessments, such as Monte Carlo simulations, are useful for forecasting potential variations in a company's performance. They offer a suitable structure for incorporating uncertainty into company valuations. To accurately address cash flow sensitivities, it is essential to adjust the cost of capital concurrently. Without this modification, there is no risk equivalence between the numerator and denominator, which can result in skewed valuation outcomes.

The study results indicate that, compared to the previous year, participants are increasingly conducting sensitivity analyses, although the proportion for both cash flow and cost of capital has remained unchanged.

Figure 07:
Degree of detail in the financial forecast
Total (in percent)

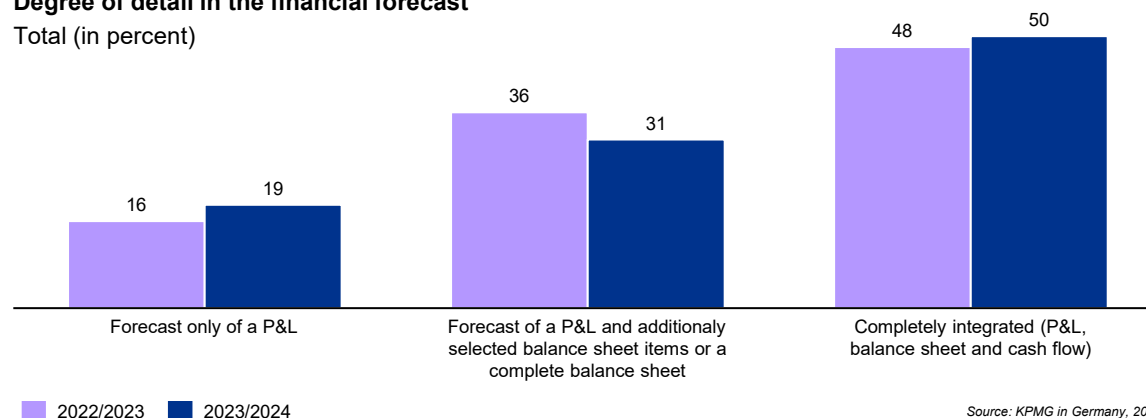
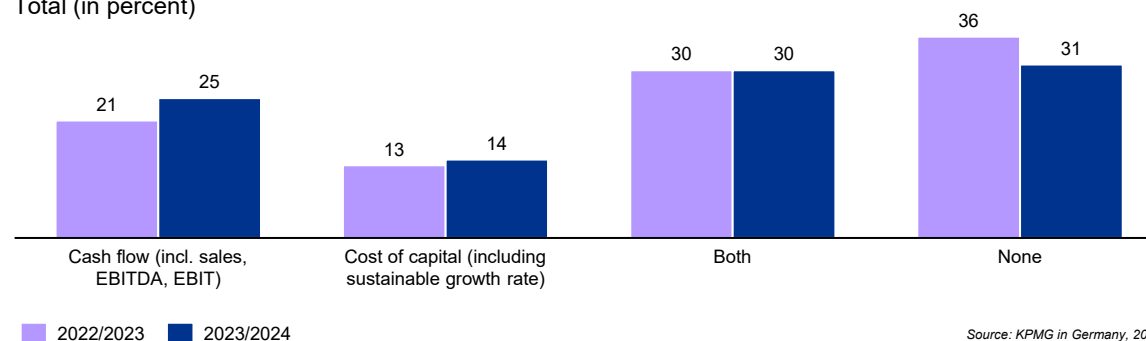


Figure 08:
Consideration of sensitivities
Total (in percent)



The determination of an appropriate planning horizon is crucial, as it directly impacts the precision of the valuation. This process inherently involves a certain degree of paradox. A longer planning horizon introduces greater planning uncertainty, while an excessively short planning horizon fails to adequately consider investment and product life cycles, as well as long-term industry trends, within the financial forecast. Consequently, this can result in inaccurate company valuations, which, in the worst-case scenario, may be used for subsequent decision-making.

In accordance with International Accounting Standard (IAS) 36.33 (b), the planning horizon of the financial forecast should not exceed a five-year period when applying the value-in-use concept. An extended planning horizon may be justified depending on product and investment cycles.

Compared to last year's study, we have observed a trend toward longer planning horizons. Specifically, there has been a shift from three to five planning years, which generally represents the maximum planning horizon when applying the value-in-use concept. This shift may be attributed to a deterioration in the short- to medium-term outlook, with expectations normalizing from the fifth planning year onward.

Compared to the previous year, the participating companies report a slightly higher number of segments and CGUs.

Figure 09:

Planning horizon

Total (in percent, multiple choices possible)

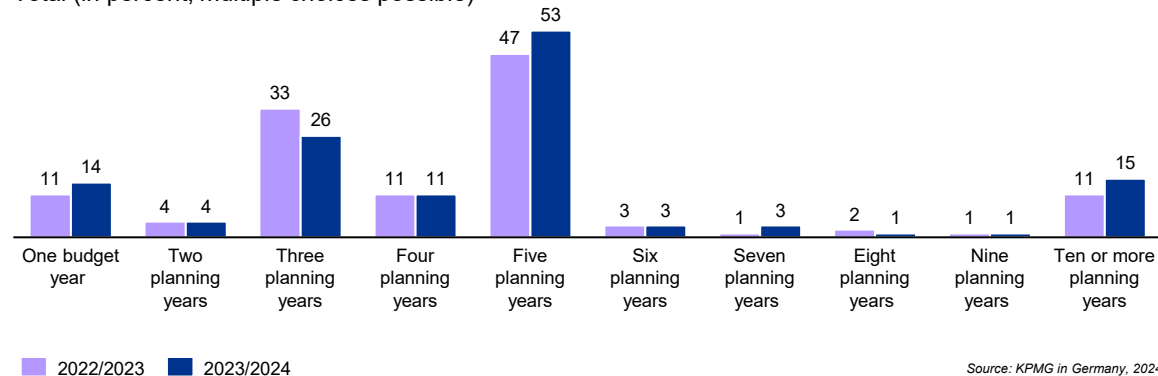


Figure 10:

Number of segments

Total (in percent)

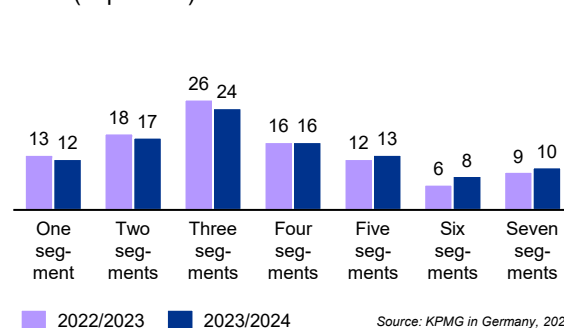
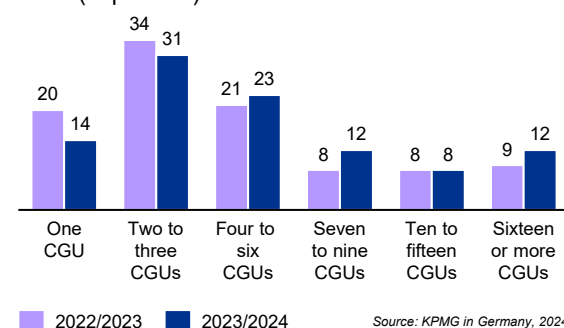


Figure 11:

Number of cash-generating units (CGUs)

Total (in percent)



2.2 Growth Expectations

Current growth expectations are heavily influenced by geopolitical uncertainties, including Russia's war against Ukraine, the escalating Middle East conflict, and rising tensions between China and the West. This may lead to increased trade restrictions and tariffs, which would exert pressure on companies, but could also attract domestic enterprises through new incentives.

Compared to the previous year, average expected revenue growth declined by 0.4 percentage points. The most significant declines are observed in the Media & Telecommunications (-2.1 percentage points), Consumer Markets (-1.3 percentage points), and Automotive (-1.2 percentage points) sectors. Reasons for this could be inflation-induced price increases, leading to a decrease in consumer spending, and a downturn in the Chinese market, particularly affecting the Automotive sector.

In line with the expected revenue growth, the anticipated EBIT growth declined on average by 0.3 percentage points. This decline is particularly notable in the Technology (-6.1 percentage points) and Media & Telecommunications (-2.5 percentage points) sectors.

Interestingly, despite the decline in revenue growth, the Consumer Markets sector experienced an average increase in EBIT growth of 2.8 percentage points.

Figure 12:
Forecast revenue growth by sector
(in percent)

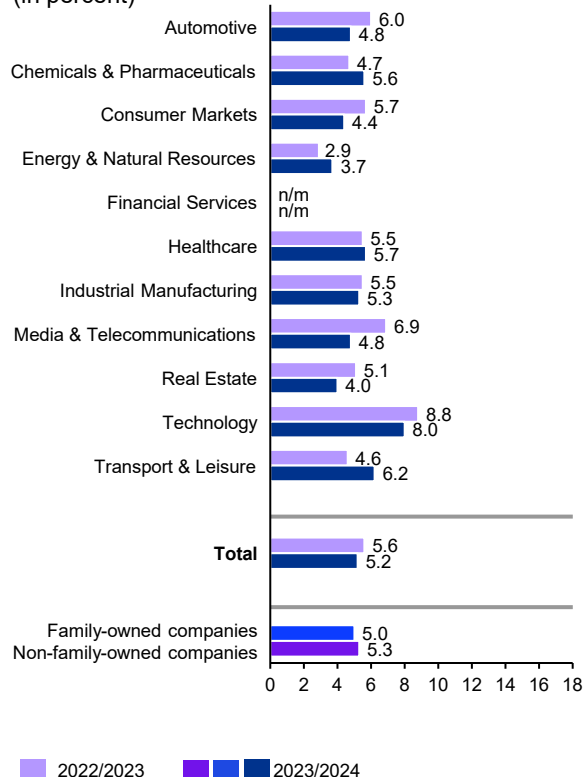
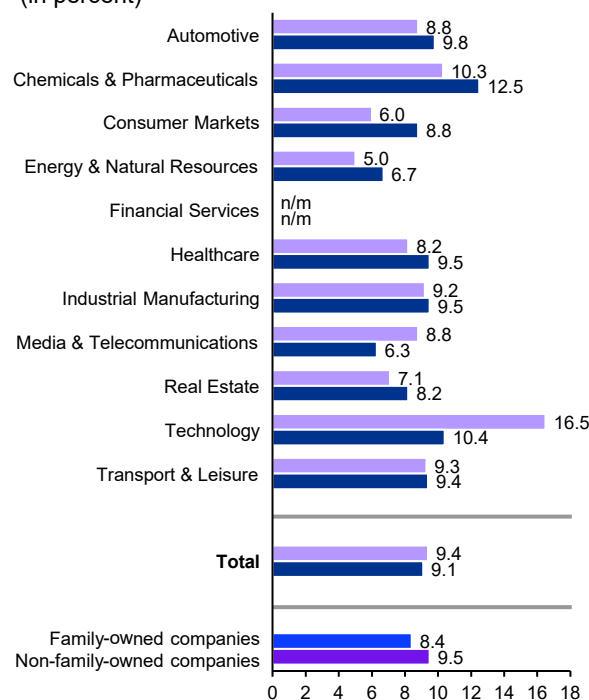


Figure 13:
Forecast EBIT growth by sector
(in percent)



Source: KPMG in Germany, 2024
Note: n/m = not meaningful

There are various strategies to achieve business growth, typically categorized as either organic growth, which relies on internal resources, or inorganic growth, which involves integrating external resources into the business.

86 percent of the participating companies report primarily achieving growth through organic means, particularly through product innovations and improvements, as well as the expansion of their product portfolio. Additionally, the majority of participants who indicated achieving growth through organic means also employ efficiency improvements and customer retention strategies.

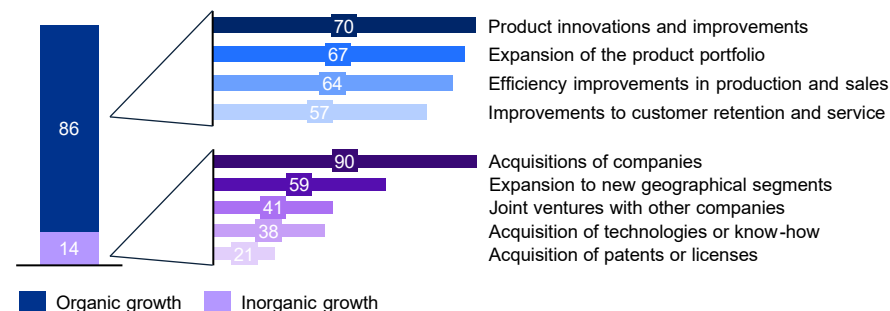
A significantly smaller proportion of participating companies (14 percent) report achieving growth through inorganic means, primarily through the acquisition of other companies and through acquisitions aimed at expanding into new geographical markets.

When comparing the growth strategies with the CAGRs planned by the participating companies, it can be observed that those achieving growth through organic means report higher revenue, EBITDA and EBIT CAGRs than companies pursuing growth through inorganic means.

Figure 14:

Growth strategies

Total (in percent, multiple choices possible)

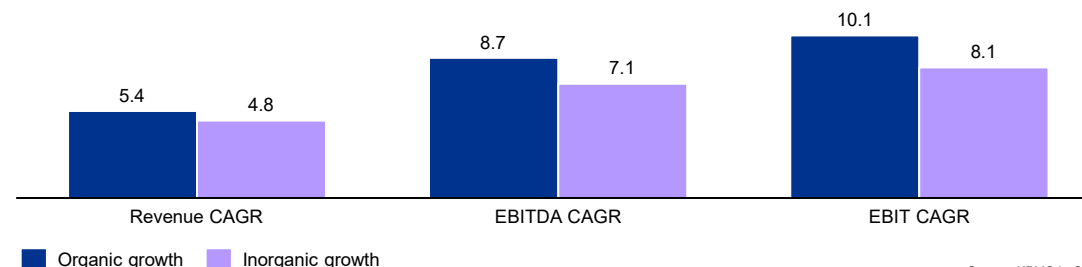


Source: KPMG in Germany, 2024

Figure 15:

Growth strategies in relation to planned CAGRs

Total (in percent)



Source: KPMG in Germany, 2024

2.3 Inflation Expectations

The trend of declining inflation rates observed in 2023 has continued in 2024. However, the current core inflation level is still above the ECB's target of around 2 percent.

Approximately three-quarters of the participating companies anticipate short-term company-specific inflation rates to be between 2 and 4 percent. The highest short-term inflation expectations are noted within the Real Estate sector, with over one-fifth of participants expecting inflation rates above 4 percent. Conversely, participants in the Media & Telecommunications sector expect the lowest short-term inflation rates among all sectors, with one-third anticipating inflation rates of below 2 percent.

Consistent with last year's study, most participants expect their company's specific inflation rate in the mid- to long-term (starting from the third planning year) to fall within a range of 1 to 3 percent.

The primary reasons cited by participating companies for the high inflation rates include higher energy prices, geopolitical crises, and resource scarcity, with the latter showing a significant decrease compared to last year (-10 percentage points), thereby continuing the observed downward trend. Conversely, an increasing number of participants identified the price-wage spiral as a driver of inflation (+7 percentage points), thus continuing the recently observed upward trend.

Figure 16:
Short-term company-specific inflation expectations
(in percent)

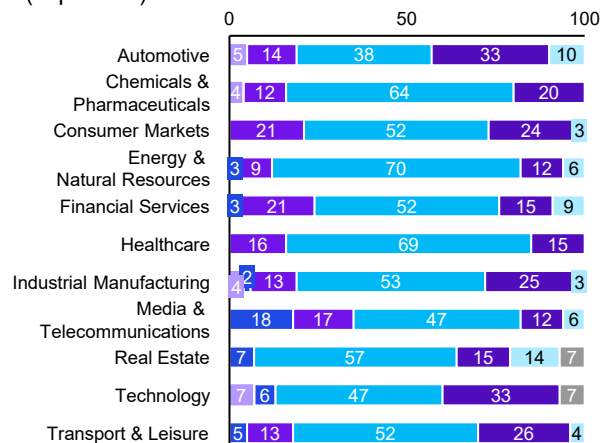
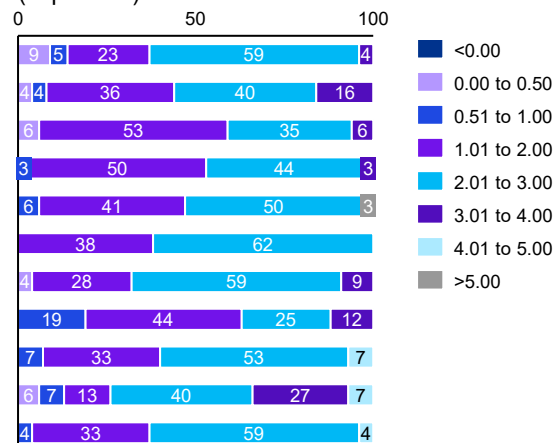
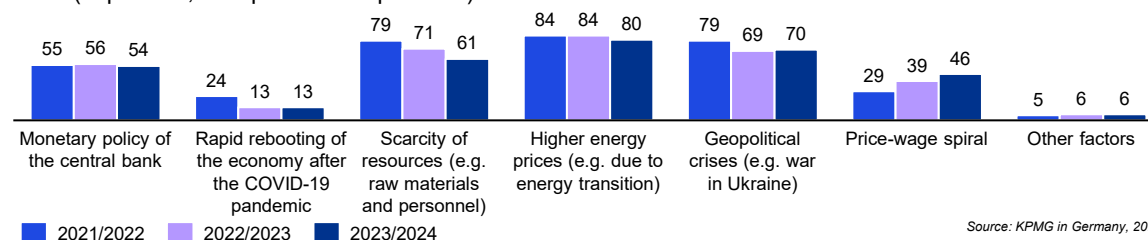


Figure 17:
Mid/Long-term company-specific inflation expectations
(in percent)



Source: KPMG in Germany, 2024

Figure 18:
Main drivers of the current level of inflation
Total (in percent, multiple choices possible)



Source: KPMG in Germany, 2024

The ability of a company to pass on its cost increases due to inflation to its (end) customers significantly affects the impact of inflation on the company. On average, participating companies reported that they are able to pass on inflationary cost increases to some extent (50–100 percent pass-on).

Additionally, the ability of companies to pass on inflation-related cost increases varies by sector. While participating companies in the Media & Telecommunications sector exhibit the lowest capability of passing on such cost increases, companies in the Automotive, Industrial Manufacturing, Transport & Leisure sectors demonstrate a comparatively better ability to transfer inflation-related cost increases to customers.

Furthermore, the ability to pass on inflation-related cost increases plays a crucial role in how inflation influences the company valuation.

Among the participating companies, 43 percent are aware of the impact of rising inflation rates on company valuations. Of these, 11 percent expect a positive impact on the valuation of their companies, while 32 percent anticipate a decline.

A considerable number of participating companies remain uncertain about the impact of rising inflation rates on company valuations. However, this proportion has decreased from 46 percent to 39 percent, continuing the trend observed in the previous year.

Figure 19:

Ability to pass on inflation-related cost increases to customers

(in percent)

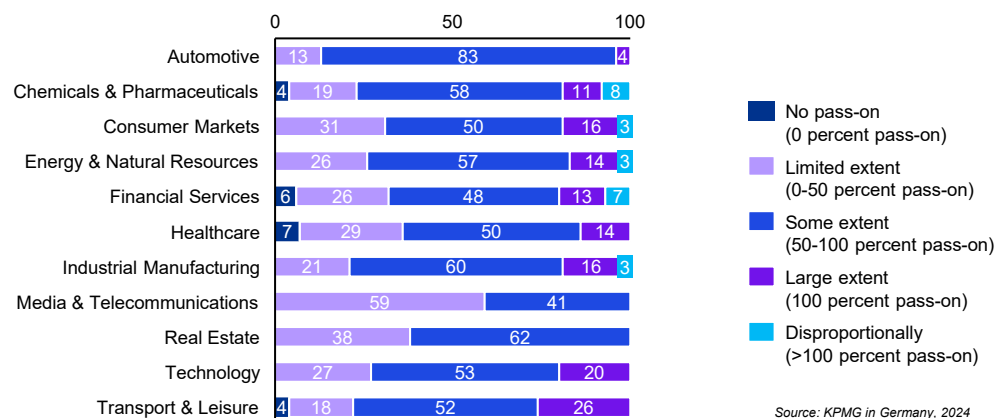
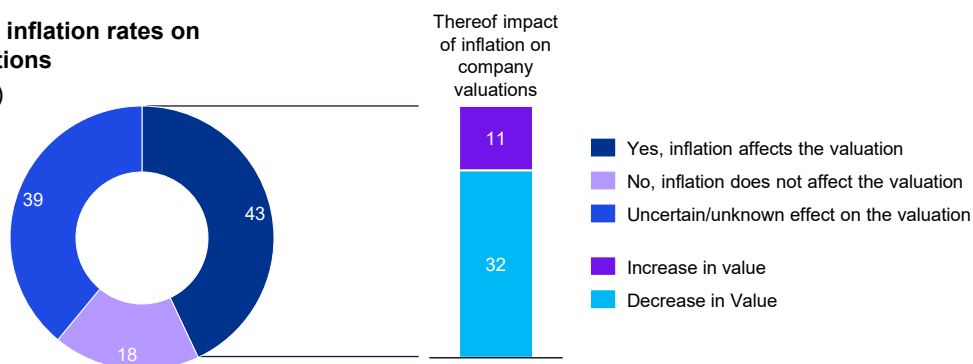


Figure 20:

Impact of rising inflation rates on company valuations

Total (in percent)



Inflation defeated? Inflation again proves particularly persistent toward the end of inflationary periods.

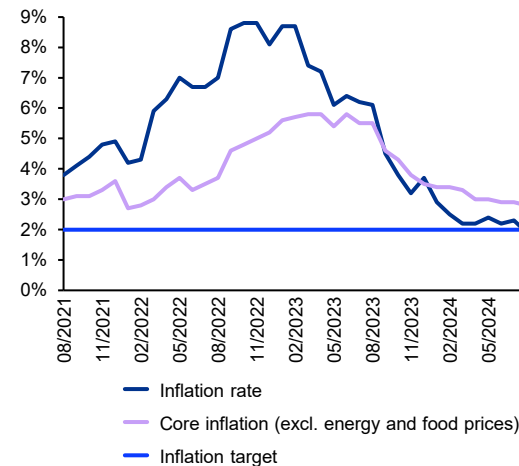
Last year, declining inflation rates were observed overall in both Europe and the USA. Consequently, extreme inflation rates of over 5 percent are now a thing of the past. Currently, headline inflation rates in both economic regions are clearly moving toward the respective central bank targets of around 2 percent, as shown in Figure 21 for Germany.

Is inflation thereby defeated? The question is not so easy to answer. In particular, public perception, the assessment of political and economic institutions, and the implicit expectations of the capital markets do not seem to be completely aligned. Answering this question first involves assessing the extent to which the causes of the recent inflationary phase have been effectively addressed. In this context, the differences between economic areas are also important. While global ramifications of the 2008 financial crisis and of the COVID-19 pandemic in 2020/21 were a major contributing factor to the decision on the part of central banks to ease their monetary policies, the sovereign debt crisis of 2012 and Russia's war of aggression against Ukraine had a much stronger impact on the eurozone. Whereas the USA saw prices surge on the back of a booming economy, Europe, and in particular Germany, struggled with significantly higher energy prices.

Figure 21 illustrates the significant differences in Germany between headline inflation – strongly driven by volatile food and energy prices – and core inflation, which is adjusted for such goods and services.

Institutions and markets focus primarily on core inflation when assessing future developments. Although core inflation in Germany is declining sharply, it currently appears to be leveling off at around 3 percent. A similar trend can be observed in the USA. Therefore, the central banks' target of around 2 percent does not seem achievable in the near future.

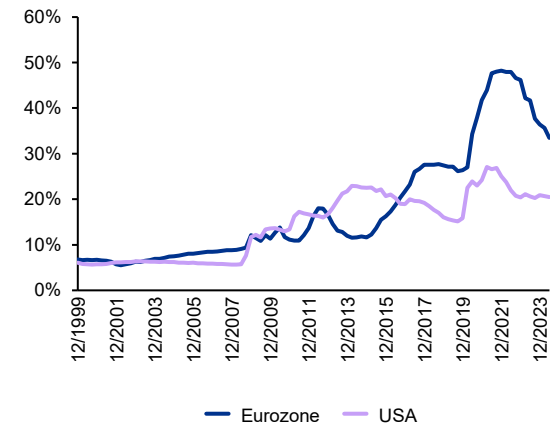
Figure 21:
Development of headline inflation and core inflation for Germany (CPI)



Note: Data for September 2024 is preliminary
Source: KPMG in Germany on the basis of data from Statistisches Bundesamt, 2024

Once again, it becomes evident that inflation can be very persistent, especially toward the end of inflationary phases – temporary increases in the future are conceivable and have been regularly observed in the past. Central banks and economic institutes remain cautiously optimistic about sustainably achieving the desired inflation target.

Figure 22:
Monetary supply development (monetary base/GDP) USA and eurozone



Source: KPMG in Germany on the basis of data from the Federal Bank of St. Louis, OECD Economic Outlook and European Central Bank, 2024

Nevertheless, the downward trend in the money supply, which is controlled by central banks, is an overall positive sign as this development is key to ensuring a lasting stabilization of inflation rates. Central banks are currently cutting interest rates even though inflation has not yet been completely or sustainably brought under control. However, the current economic developments in the observed economic areas are relevant for these interest rate cuts: to stimulate largely stagnating economic performance in Europe, and to avoid a potential recession in the USA. Both challenges can already be implicitly observed in the available capital market data, as well as in the implicit short-term and long-term inflation expectations of the markets, as illustrated by the graphs to the right.

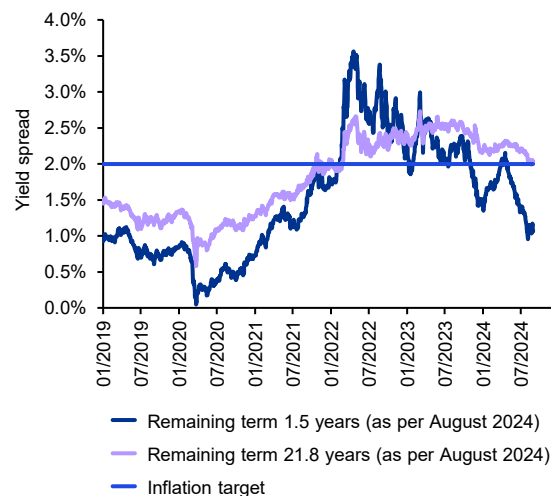
Implicit market expectations regarding the development of inflation over time can be determined by comparing the yields between normal and inflation-protected bonds. In both economic areas, a fundamentally similar trend is observed – the recent high inflation phase is clearly visible, where expected short-term inflation is significantly higher than expected long-term inflation.

While in the USA, short- and long-term inflation expectations are currently developing more in parallel, the short-term inflation expectation in Germany has significantly decreased. Nevertheless, in both economic regions, long-term inflation expectations remain above the central banks' target of 2 percent.

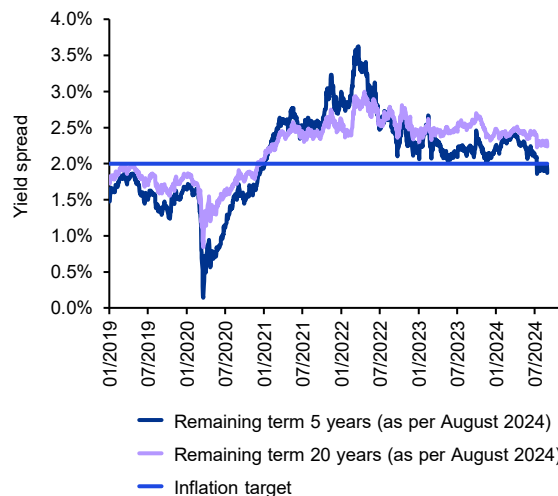
Overall, the macroeconomic data, statements by political and economic institutions, and market expectations indicate that, although inflation has currently been largely tamed, a sustainable achievement of central bank targets is not expected in the short term.

Figure 23:

Implied inflation expectations based on inflation-protected vs. “normal” bonds (short- & long-term maturity) – Germany on the left and USA on the right



Source: KPMG in Germany on the basis of data from the German Central Bank, 2024



Source: KPMG in Germany on the basis of data from the Federal Reserve, 2024

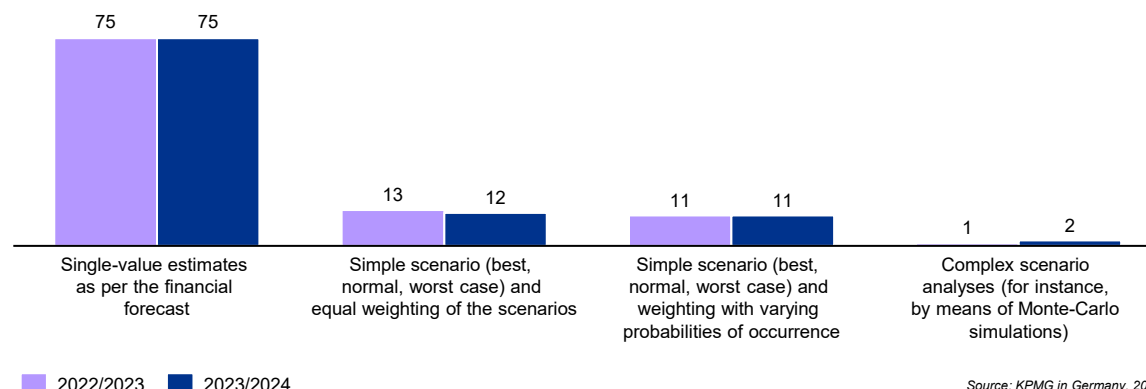
2.4 Determination of Expected Values

While single-value estimations of future cash flows may have been sufficient for long-established companies operating in relatively stable environments in the past, they are quite limited in times of great uncertainty.

In such economic environments, the use of multi-valued estimations based on scenarios and simulations is essential. This approach allows for a systematic and transparent consideration of performance and risk factors. It is essential due to the inherent challenges in accurately forecasting macroeconomic and microeconomic developments, as well as short-term disruptions that can significantly impact business models.

Nevertheless, most of the participating companies continue to rely on single-value estimates to forecast future cash flows. This suggests that alternative scenarios and potential changes in the future performance and risk of the current business model are not sufficiently considered when assessing expected values.

Figure 24:
Measurement of expected values
Total (in percent)



Source: KPMG in Germany, 2024

2.5 Consideration of Risks

Since future cash flows are subject to uncertainty, they should be determined by their expected value.

In order to increase the accuracy of expected values, it is essential to include all relevant opportunities and risks associated with the operating business during the preparation of the financial forecast. Those opportunities and risks can be macroeconomic or microeconomic in nature.

With respect to macroeconomic risk factors, the majority of participating companies continues to account for economic risks in their financial forecasts. Additionally, most participating companies also consider currency risks, as well as regulatory and legal conditions. Compared to the previous year, the number of participating companies considering currency risks as well as regulatory and legal conditions has increased slightly.

With regard to microeconomic risk factors, the majority of companies continue to consider customer-side risks, followed by risks associated with new technologies and digitalization, as well as supply-side risks. Compared to the previous year, the responses provided by the participating companies have changed only marginally.

Figure 25:

Consideration of risks in the financial forecast – macroeconomic risks

Total (in percent, multiple choices possible)

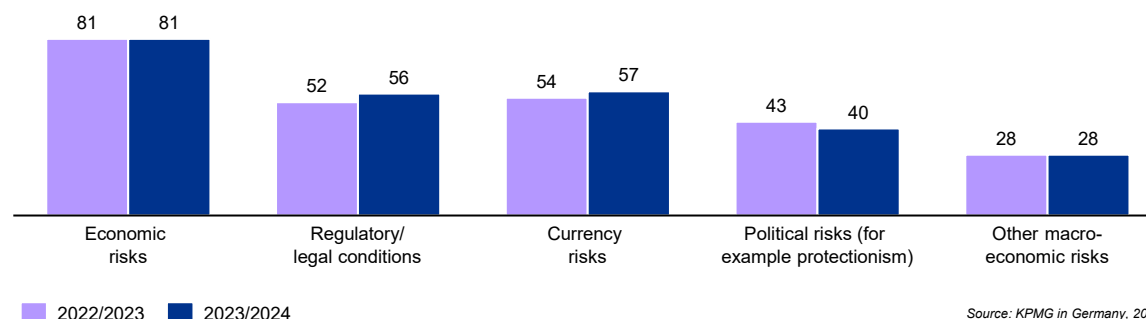
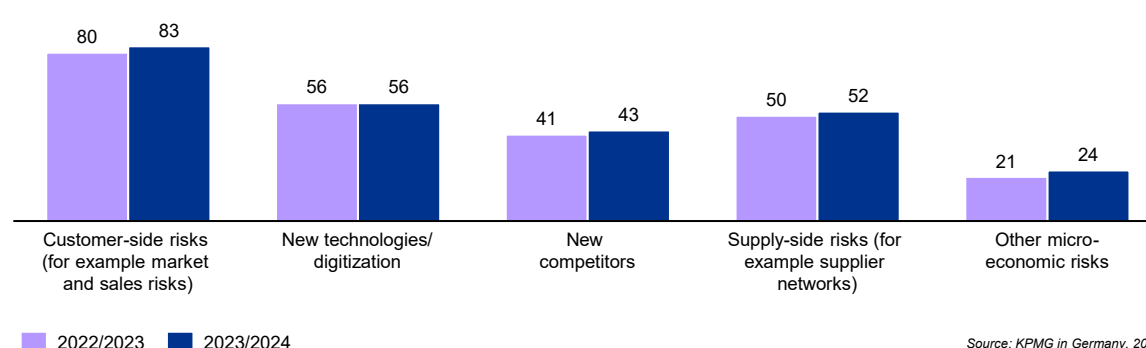


Figure 26:

Consideration of risks in the financial forecast – microeconomic risks

Total (in percent, multiple choices possible)



2.6 Dealing with Uncertainty

The sequence of increasingly short-term successive crises and the consequent negative economic effects continued last year and were further intensified by ongoing global uncertainties. Examples include Russia's ongoing war against Ukraine, the conflict in the Middle East, and rising tensions between China and the West.

The results of this year's Cost of Capital Study indicate that approximately 76 percent of the participating companies report that uncertainty has a (highly) negative impact on their business plans. Overall, the findings are consistent with those of the previous year.

A comparison across industries, however, shows that for some companies, especially in the Energy & Natural Resources, Financial Services and Healthcare sectors, uncertainty had a positive or even highly positive impact on business plans.

Although most participating companies acknowledge that uncertainty negatively affects their business plans, the majority of them do not feel compelled to modify their planning processes in response.

Among the 17 percent of participating companies indicating a need to adjust their planning process due to uncertainty, 69 percent report an increased use of scenario analyses. This marks a significant rise from just 12 percent in last year's study.

Figure 27:
Impact of uncertainty on companies' business plans
(in percent)

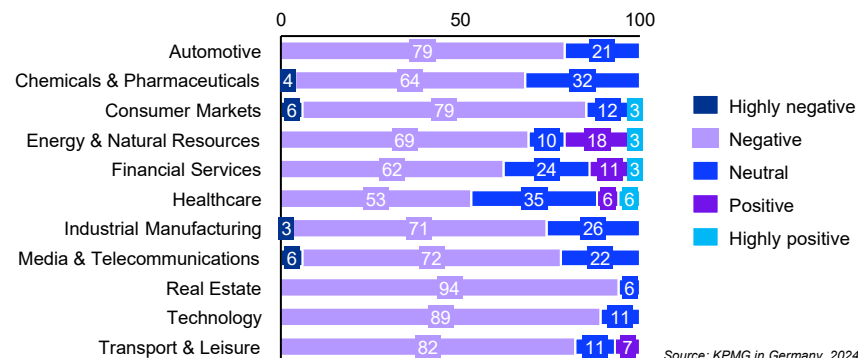
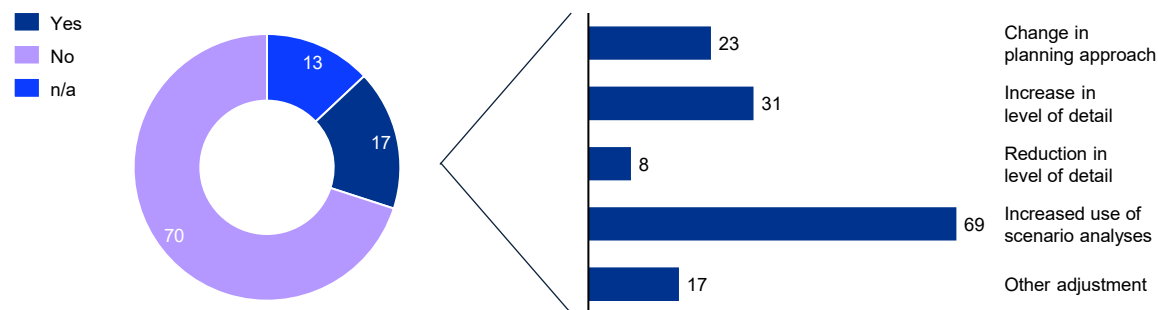


Figure 28:
Need and level for adjustment of planning process due to uncertainty
Total (in percent, level for adjustment, multiple choices possible)



3

Determination of the Cost of Capital Parameters

3.1 WACC Overview

3.2 Risk-free Rate

3.3 Market Risk Premium

3.4 Beta Factor

3.5 Cost of Equity

3.6 Other Risk Premiums

3.7 Perspective used to derive Cost of Capital

3.8 Cost of Debt and Debt Ratio

3.9 Terminal Value & Sustainable Growth Rate



3.1 WACC Overview

The most commonly used discounted cash flow (DCF) method used to determine the enterprise value of a company is the "WACC approach".

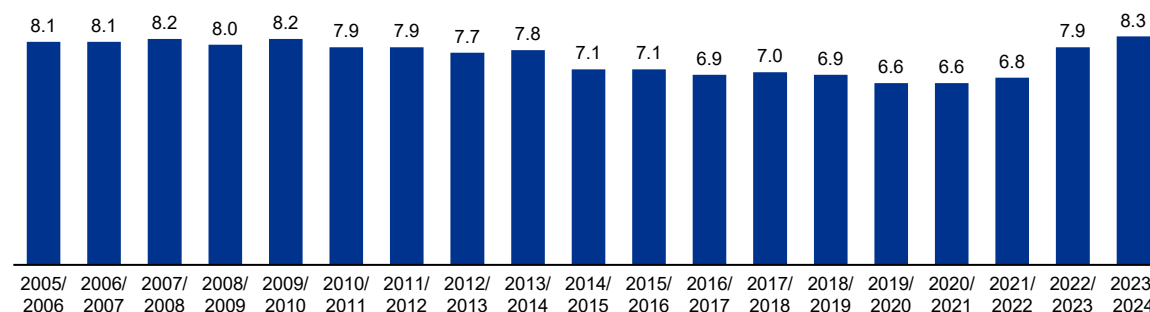
Under this approach, the company's future cash flows are discounted with the weighted average cost of capital (WACC). In order to determine the WACC, the cost of equity and cost of debt are weighted by their respective shares of the market value of equity and market value of debt relative to the total capital (entity value).

This year's study results show an increase in the overall WACC from 7.9 percent in the previous year to 8.3 percent. This continues the upward trend observed over the past three years, elevating the WACC to its highest level since 2005/2006.

Although consistent principles should be applied and maintained across different projects when determining the cost of capital, a significant proportion of study participants do not compare the cost of capital used in M&A transactions and investment decisions.

The decisive factor when deriving the cost of capital is not consistency on a value basis, but rather ensuring methodological consistency throughout the various valuation scenarios.

Figure 29:
WACC (after corporate taxes)
Total (in percent)



Source: KPMG in Germany, 2024

Relevant cost of capital parameters at a glance

In times of uncertainty, it is more important than ever for companies to keep an eye on cost of capital parameters in order to be prepared for changing market conditions and to protect their companies against losses. How can companies keep track of the most important capital market data? The KPMG Valuation Data Source collates relevant cost of capital parameters and guides the user through the derivation of the individual weighted average cost of capital (WACC) or the cost of equity relevant for the financial sector: the user simply specifies the preferred reporting date, the desired country, the currency and the peer group and selects the desired settings for the calculations. The KPMG Valuation Data Source provides access to cost of capital parameters from more than 150 countries and peer group-specific data from over 17,500 companies worldwide. Historical cut-off dates are available from 2012 to the present.

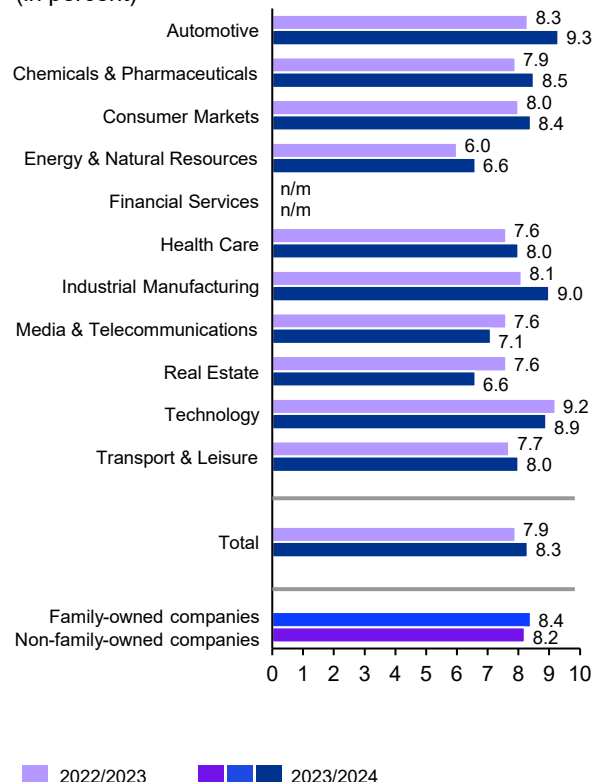
For further information see www.kpmg.de/valuation-data-source.

This year's increase in the aggregate WACC is driven by sector-specific trends that vary significantly. Most substantial increases in the WACC can be observed in the Automotive (8.3 percent to 9.3 percent), Industrial Manufacturing (8.1 percent to 9.0 percent), Energy & Natural Resources (6.0 percent to 6.6 percent) as well as Chemicals & Pharmaceuticals (7.9 percent to 8.5 percent) sectors.

While most sectors report an increase in the WACC, a few sectors have experienced a decline. Compared to last year's study, the most significant decline in the WACC has been observed in the Real Estate sector (7.6 percent to 6.6 percent). This may be attributed to an increased proportion of debt by real estate companies during periods of crisis. Additionally, a decline in the WACC was noted in the Media & Telecommunications sector (7.6 percent to 7.1 percent) as well as the Technology sector (9.2 percent to 8.9 percent).

On average, non-family-owned companies applied a lower WACC of 8.2 percent compared to family-owned companies, which applied a WACC of 8.4 percent.

Figure 30:
WACC (after corporate taxes) by sector
(in percent)



Source: KPMG in Germany, 2024
Note: n/m = not meaningful



Chemicals & Pharmaceuticals

Compared to last year's study, the WACC in the Chemicals &

Pharmaceuticals sector increased substantially. This development is particularly pronounced in its Chemicals sub-sector. The WACC in the Chemicals sub-sector increased significantly from 7.9 percent to 9.2 percent, surpassing the WACC of 7.9 percent observed in the Pharmaceuticals sub-sector. This results in a gap of 1.3 percentage points between the two sub-sectors.



Media & Telecommunications

The decrease in the WACC within the Media & Telecommunications sector is also reflected in its sub-sectors. In the Media sub-sector, the WACC decreased from 8.5 percent to 7.6 percent. In line with this, the Telecommunications sub-sector also saw a decrease in WACC from 7.3 percent to 6.7 percent compared to last year.

3.2 Risk-free Rate

Theoretical capital market models, such as the Capital Asset Pricing Model (CAPM), are commonly used as a basis for determining the cost of equity. Under the CAPM, the cost of equity comprises the risk-free rate and a premium that compensates investors for the risks associated with the investment.

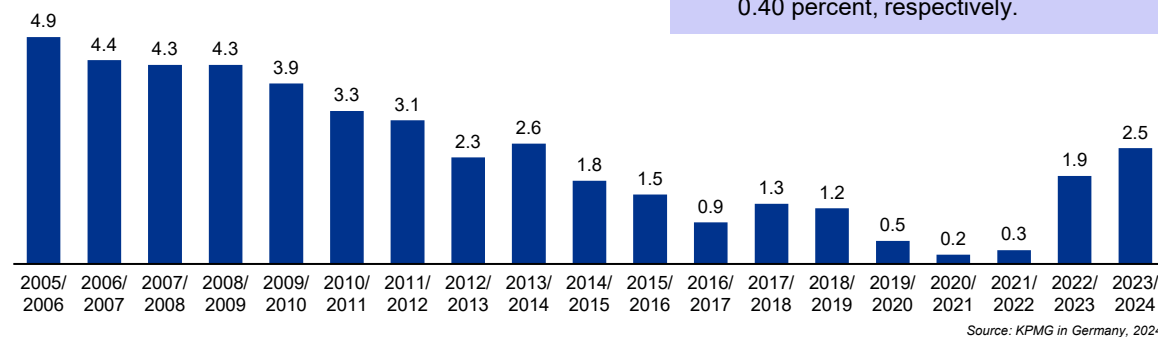
To ensure term equivalence, the term structure of interest rates from the relevant central banks should be used to determine the risk-free rate when deriving the cost of capital.

In order to smooth out short-term market fluctuations and mitigate potential estimation errors, especially for long-term returns, the risk-free rate should be based on the average of the three months preceding the valuation date.

Following last year's significant increase, the average risk-free rate has continued its upward trend, rising to 2.5 percent, primarily driven by persistently high inflation.

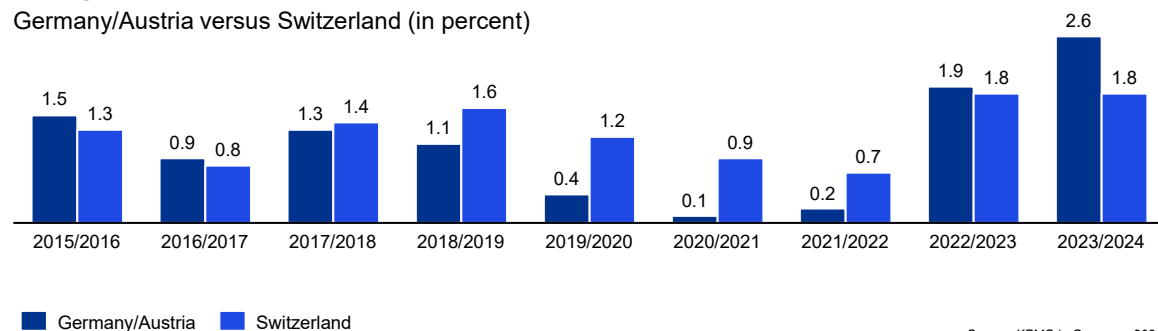
A cross-country comparison between Germany/Austria and Switzerland reveals a heterogeneous development. While the applied risk-free rate in Germany and Austria increased from 1.9 percent to 2.6 percent, it remained stable at 1.8 percent in Switzerland.

Figure 31:
Average risk-free rate applied
Total (in percent)



As of September 2024, the risk-free rate in Germany was 2.50 percent. In Austria and Switzerland, the risk-free rate amounted to 2.49 percent and 0.40 percent, respectively.

Figure 32:
Average risk-free rate applied
Germany/Austria versus Switzerland (in percent)



3.3 Market Risk Premium

The market risk premium, which is a parameter not directly observable in the capital markets, is derived by subtracting the risk-free rate from the total market return.

In October 2019, the Technical Committee for Business Valuation and Economics (FAUB, Fachausschuss für Unternehmensbewertung) of the Institute of Public Auditors in Germany (IDW, Institut der Wirtschaftsprüfer) released an updated recommendation for the appropriate range of the market risk premium. This adjustment was made in response to recent developments in the capital markets and the monetary policy of the European Central Bank. As a result, the newly recommended range for the market risk premium in Germany is between 6.0 and 8.0 percent.

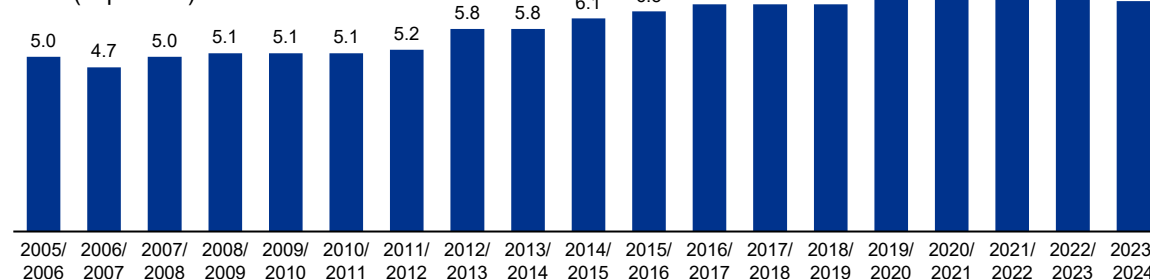
At the end of 2017, the Council of Experts for Business Administration (KFS/BW, Fachsenat für Betriebswirtschaft) of the Chamber of Tax Advisors and Auditors in Austria (KSW, Kammer der Steuerberater und Wirtschaftsprüfer) recommended a nominal market return of 7.5 to 9.0 percent. By the end of 2022 however, it was noted by the Council that due to changed market conditions (war, inflation, etc.) it can be appropriate to assume market returns exceeding this range.

Individual analyses to determine the market risk premium should always be conducted based on the aforementioned ranges recommended by the standard-setting bodies.

Figure 33:

Average market risk premium

Total (in percent)

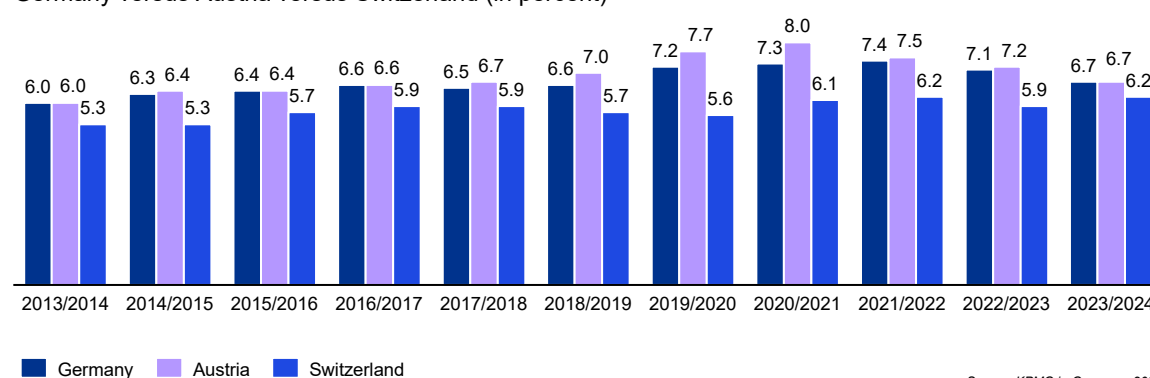


Source: KPMG in Germany, 2024

Figure 34:

Average market risk premium

Germany versus Austria versus Switzerland (in percent)



Source: KPMG in Germany, 2024

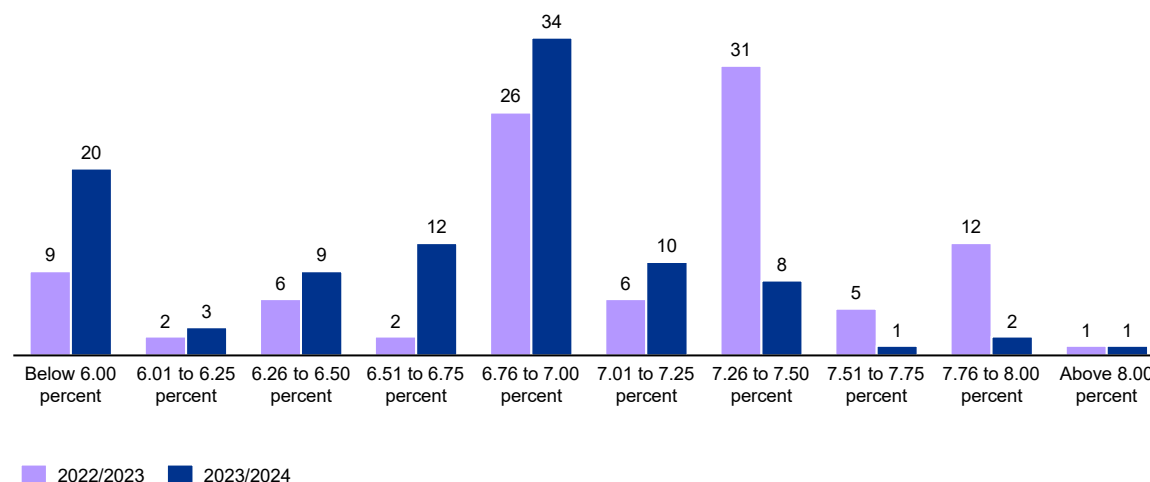
Notably, the number of German companies applying a market risk premium of between 7.26 percent and 7.50 percent has significantly decreased compared to the previous year. By contrast, there has been a substantial increase in the number of participating companies applying a market risk premium of between 6.76 percent and 7.0 percent, as well as below 6.0 percent.

Overall, the decline in the average market risk premium from 6.9 percent to 6.6 percent has not offset the increase in the average risk-free rate from 1.9 percent to 2.5 percent.

By definition, the market risk premium is an industry-independent parameter. Accordingly, the market risk premiums applied by the study participants were in a narrow range without any significant differences between specific sectors.

Figure 35:
Distribution of the market risk premiums of German companies

Total (in percent)



As of September 2024, the market risk premium for German companies amounted to 6.75 percent according to KPMG's analysis.

Source: KPMG in Germany, 2024

3.4 Beta Factor

The beta factor quantifies the volatility of an individual security in comparison to the market portfolio, serving as a quantitative indicator of a company's operational risk. Although intended to capture the company's future risk in relation to the general market risk, the beta factor is typically determined on the basis of historical data. This is due to the lack of alternative approaches.

Beta factors are observable solely for publicly traded companies, thereby often necessitating their derivation from the analysis of comparable listed companies within a peer group. Given that new business models may not have an adequate number of listed companies in their peer group, there may be a need for innovative approaches in the future.

While the unlevered beta factor represents the operational risk independent of a company's capital structure, the levered beta factor serves as a measure of the systemic risk to equity providers, taking into account the risk associated with debt in the capital structure.

Compared to last year's study, the average unlevered beta factor has remained stable at 0.85. The most significant changes were seen in the Consumer Markets sector (0.90 to 0.77) and the Healthcare sector (0.74 to 0.82).

Figure 36:
Average unlevered beta factors by sector

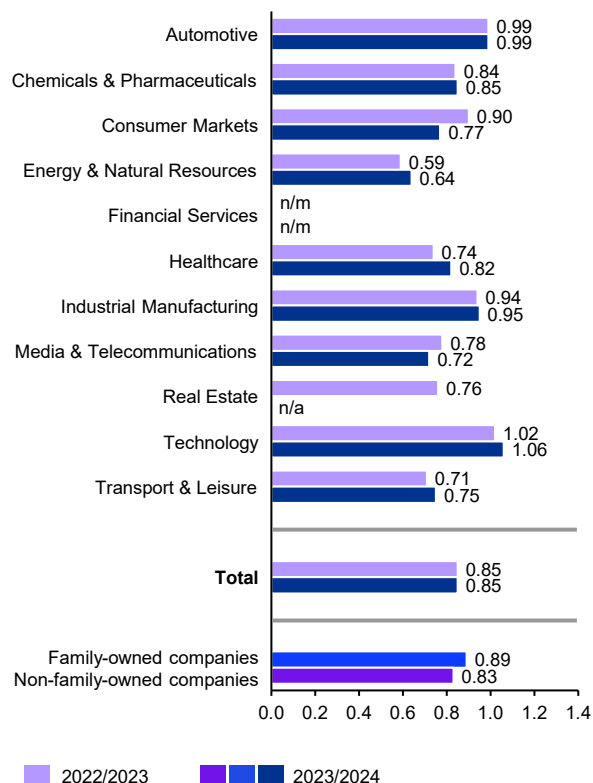
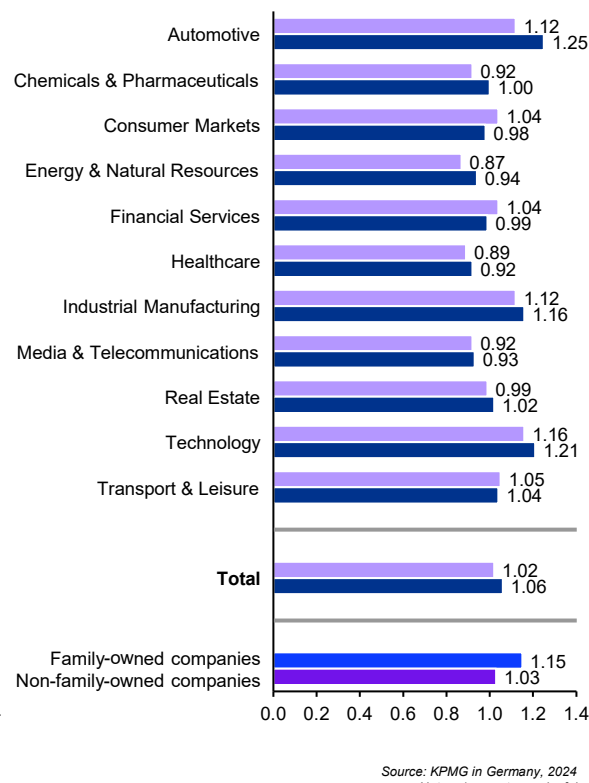


Figure 37:
Average levered beta factors by sector



Source: KPMG in Germany, 2024
Note: n/m = not meaningful
n/a = not available

3.5 Cost of Equity

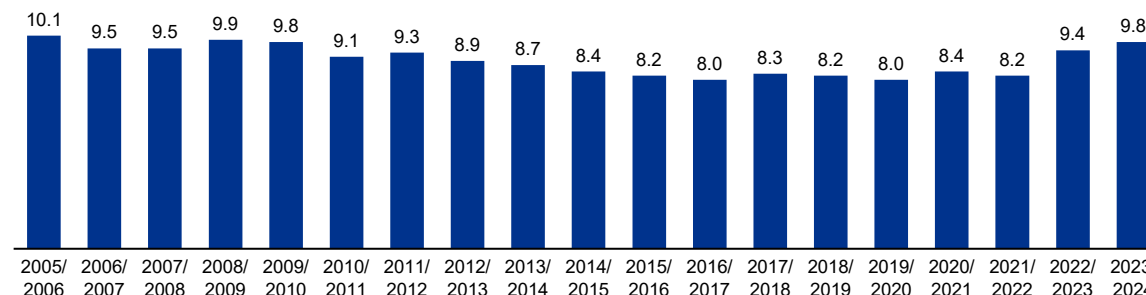
The levered cost of equity is determined on the basis of the CAPM's underlying mathematical equation using the risk-free rate, the company's specific levered beta factor, and the market risk premium.

Compared to previous year's study, the average levered cost of equity applied by the participating companies increased from 9.4 percent to 9.8 percent, reaching a level not observed since 2009/2010.

A cross-country comparison between Germany, Austria and Switzerland reveals a heterogeneous development. While the average levered cost of equity in Germany and Switzerland increased from 9.4 percent to 9.9 percent and from 8.6 percent to 9.2 percent, respectively, a decrease from 10.2 percent to 9.8 percent was observed in Austria.

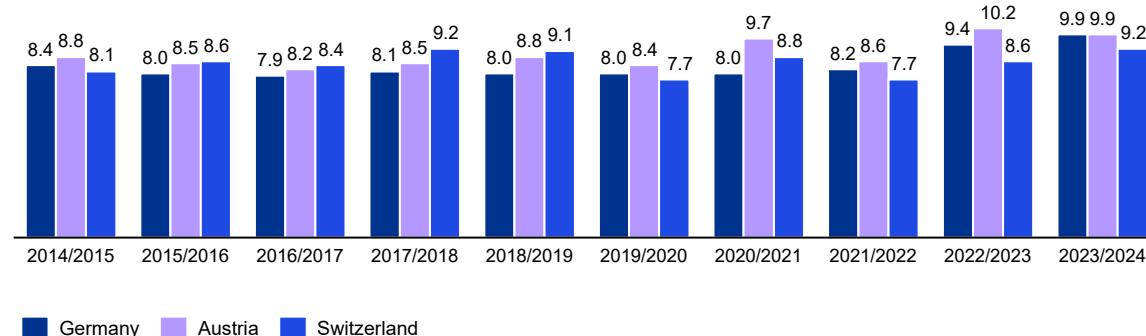
The observation that the average levered cost of equity in Switzerland is lower than in Germany and Austria can be attributed to the average lower risk-free rate and market risk premium in Switzerland.

Figure 38:
Average levered cost of equity
Total (in percent)



Source: KPMG in Germany, 2024

Figure 39:
Average levered cost of equity
Germany versus Austria versus Switzerland (in percent)



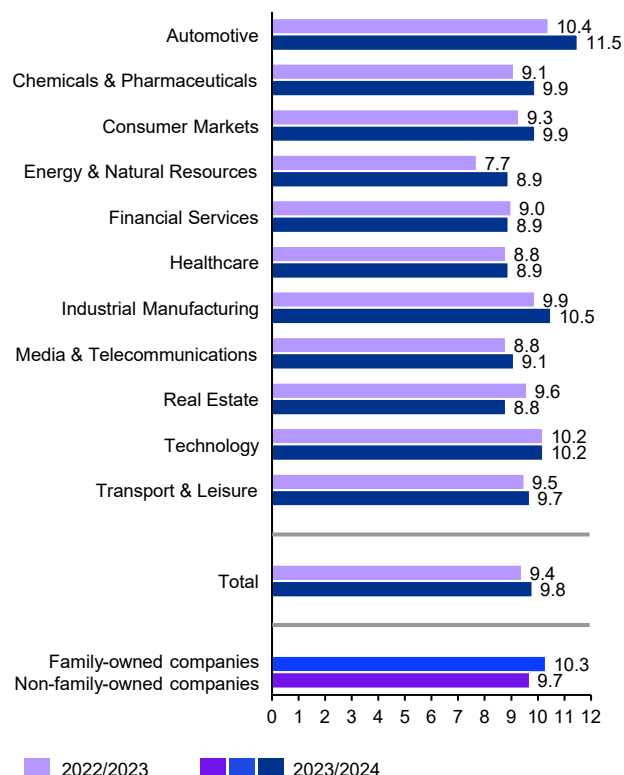
Source: KPMG in Germany, 2024

Following a significant increase in last year's Cost of Capital Study, the average levered cost of equity continued to rise, albeit at a less pronounced rate during the survey period. A key driver of the increase is the heightened expectations for total market returns, due largely to a higher risk-free rate influenced by ongoing high inflation, which more than offsets a slight decline in the average market risk premium during the survey period.

The observable increase in the average levered cost of equity is also evident across most sectors. The most significant increases were observed in the Energy & Natural Resources (7.7 percent to 8.9 percent), Automotive (10.4 percent to 11.5 percent), and Chemicals & Pharmaceuticals (9.1 percent to 9.9 percent) sectors. By contrast, participating companies within the Real Estate sector experienced the most substantial decrease in the levered cost of equity (9.6 percent to 8.8 percent).

The average levered cost of equity for the participating family-owned companies is 10.3 percent, which is 0.6 percentage points higher than that applied by non-family-owned companies. This observation is consistent with the findings from last year's study.

Figure 40:
Average levered cost of equity by sector
(in percent)



Source: KPMG in Germany, 2024



Consumer Markets

Compared to last year's study, the levered cost of equity in the Consumer Markets sector increased from 9.3 percent to 9.9 percent. By contrast, the levered cost of equity in its sub-sector Retail decreased from 10.5 percent to 9.0 percent. Within the Consumer Markets sub-sector, the levered cost of equity remained stable at 8.4 percent.



Media & Telecommunications

Compared to last year's study, the increase in the levered cost of equity in the Media & Telecommunications sector is primarily attributable to the Telecommunications sub-sector, where the levered cost of equity increased from 8.2 percent to 9.4 percent. By contrast, the levered cost of equity in the Media sub-sector declined by 0.3 percentage points to 9.2 percent.

3.6 Other Risk Premiums

Given the inherent difficulty in precisely forecasting future developments, particularly future cash flows, it is essential to acknowledge the uncertainty and associated risks of cash flows and to accurately incorporate these factors into the expected value and the cost of capital.

In addition to the option of risk adjusting cash flows, specific risk premiums (as components of the cost of capital) may be employed to mitigate this uncertainty.

Consistent with the findings from previous years, the country risk premium remains the most frequently applied other risk premium. This trend is also evident in the cross-country comparison between Austria, Germany and Switzerland. Furthermore, it is notable that nearly half of the participating companies from Switzerland apply a small company premium, while a significantly larger number of German companies do not use any additional other risk premiums compared to their counterparts in Austria and Switzerland.

Figure 41:
Other risk premiums: 2022/2023 versus 2023/2024
Total (in percent, multiple choices possible)

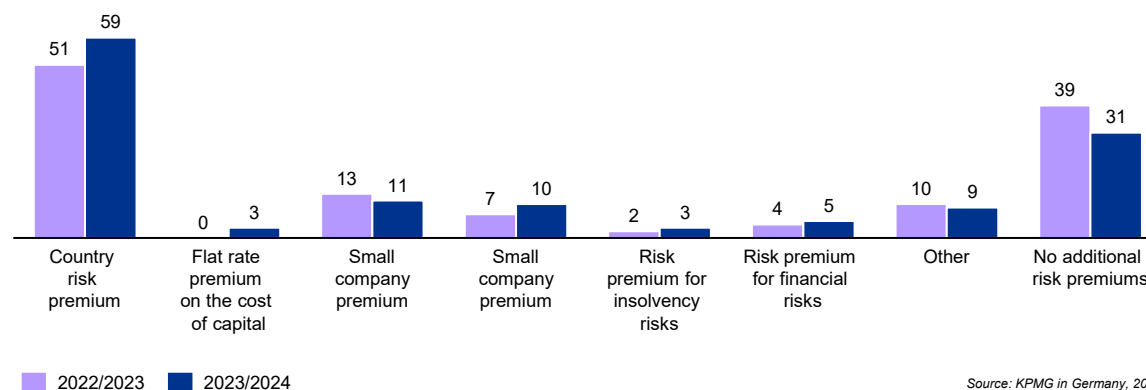
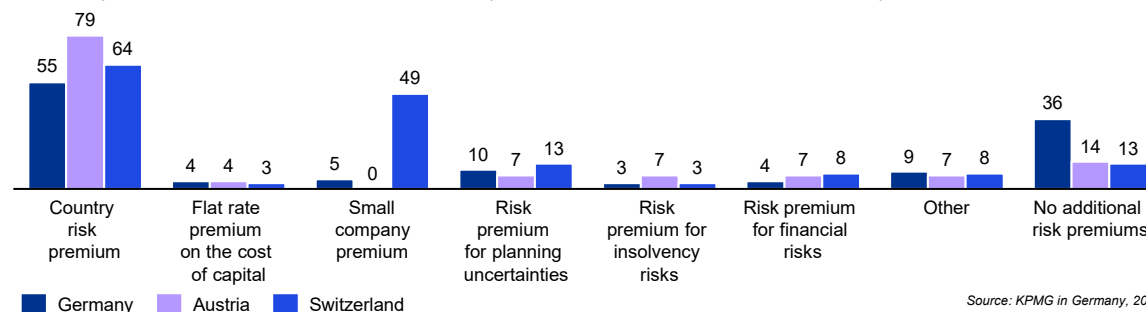


Figure 42:
Selected other risk premiums: 2023/2024
Germany versus Austria versus Switzerland (in percent, multiple choices possible)



3.7 Perspective used to derive Cost of Capital

Cost of capital parameters can be derived from either a global or local perspective.

The global perspective assumes the full integration of local capital markets, utilizing global indices to derive the market risk premium and the beta factor. By contrast, a local perspective assumes the separation of regional capital markets, employing local indices to derive the market risk premium and beta factors.

Real capital markets are neither fully separated nor fully integrated. In practice, both perspectives are frequently used to derive the cost of capital, as substantiated by this year's study results.

The most important consideration is not the choice of perspective, but rather the consistent application of the approach when deriving cost of capital parameters such as the risk-free rate, the market risk premium, and the beta factor.

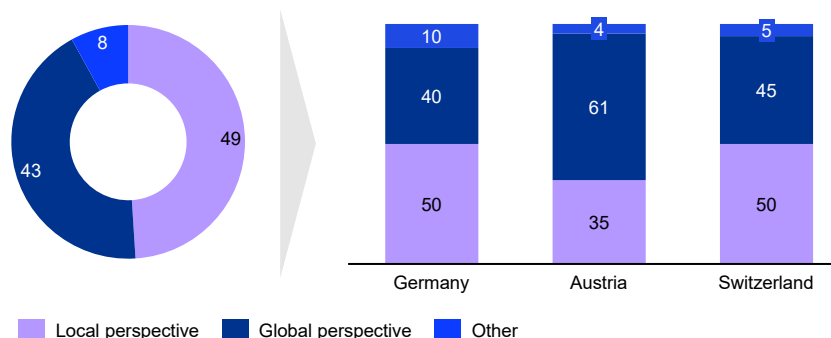
As long as the cost of capital parameters are derived consistently, it should make no significant difference in the level of the cost of capital whether a global or local perspective is taken.

On average, we observe no significant difference in the cost of capital parameters for German companies that have adopted a global versus a local perspective.

Figure 43:

Perspective used to derive cost of capital

Total (in percent) and Germany versus Austria versus Switzerland (in percent)

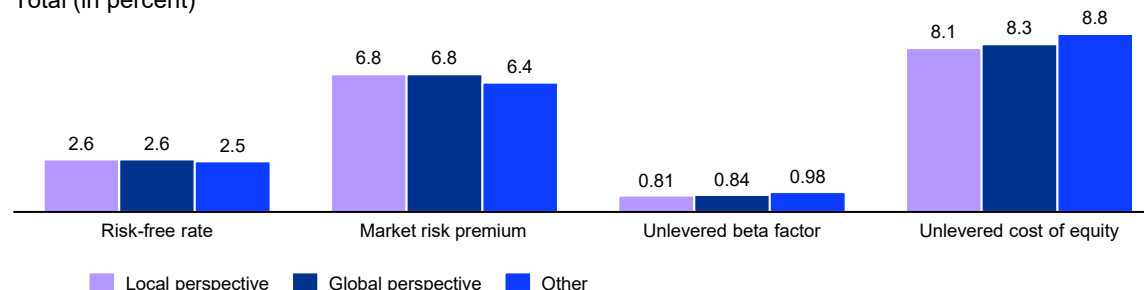


Source: KPMG in Germany, 2024

Figure 44:

Average of cost of capital parameters based on perspective (Germany only)

Total (in percent)



Source: KPMG in Germany, 2024

3.8 Cost of Debt and Debt Ratio

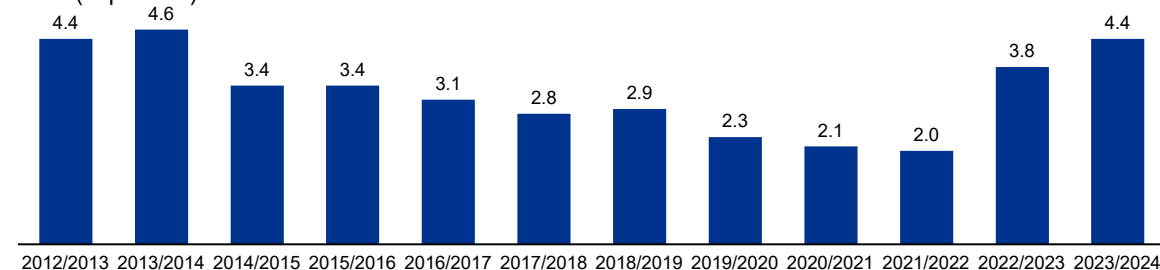
The second major component when deriving the WACC is the cost of debt and the debt ratio.

While the first component represents the expected rate of return of an entity's debt lender, the second is defined as the ratio of the market value of (net) debt to the market value of total capital (entity value).

Following a significant increase last year, the average cost of debt for companies participating in this year's study has further risen to 4.4 percent.

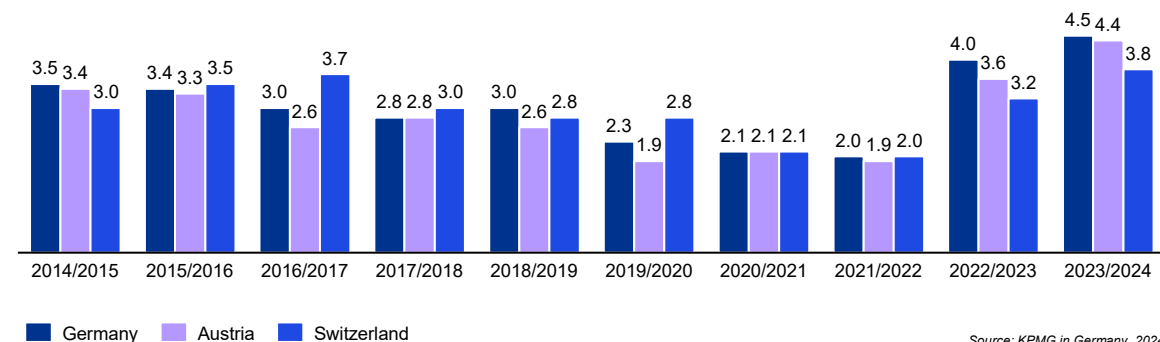
A cross-country comparison reveals that the cost of debt is rising across Germany, Austria, and Switzerland. However, the extent of the increase varies. The most significant increase in the average cost of debt is observed in Austria (3.6 percent to 4.4 percent), bringing it nearly on par with the average cost of debt of the participating German companies. In Switzerland, the average cost of debt increased from 3.2 percent to 3.8 percent. This reflects the differences in the risk-free rates within these regions during the survey period.

Figure 45:
Average cost of debt
Total (in percent)



Source: KPMG in Germany, 2024

Figure 46:
Average cost of debt
Germany versus Austria versus Switzerland (in percent)



Source: KPMG in Germany, 2024

This overall increase in the average cost of debt was observed across all sectors, with the exception of the Chemicals & Pharmaceuticals sector. The most substantial increase in the cost of debt was reported by participating companies in the Consumer Markets sector, which rose from 3.6 percent to 4.9 percent.

The average cost of debt for family-owned companies is 4.2 percent, which is 0.3 percentage points lower than that of non-family-owned companies.

Consistent with last year's Cost of Capital Study, the trend towards higher cost of debt is accompanied by a further increase in the total average debt ratio. Specifically, the average debt ratio has risen to 27.6 percent, although there were significant variations across specific sectors. The most substantial increases in debt ratios were observed in the Media & Telecommunications (20.8 percent to 33.9 percent), Real Estate (22.7 percent to 35.1 percent) and Chemical & Pharmaceuticals (16.9 percent to 25.3 percent) sectors. Conversely, the Healthcare sector reported the most noticeable decline, dropping from 24.2 percent in last year's study to 16.1 percent.

Figure 47:
Average cost of debt by sector
(in percent)

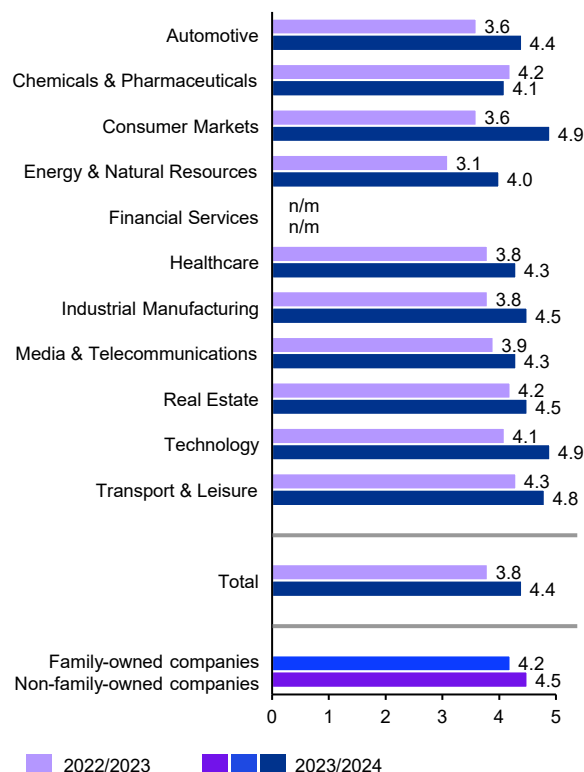
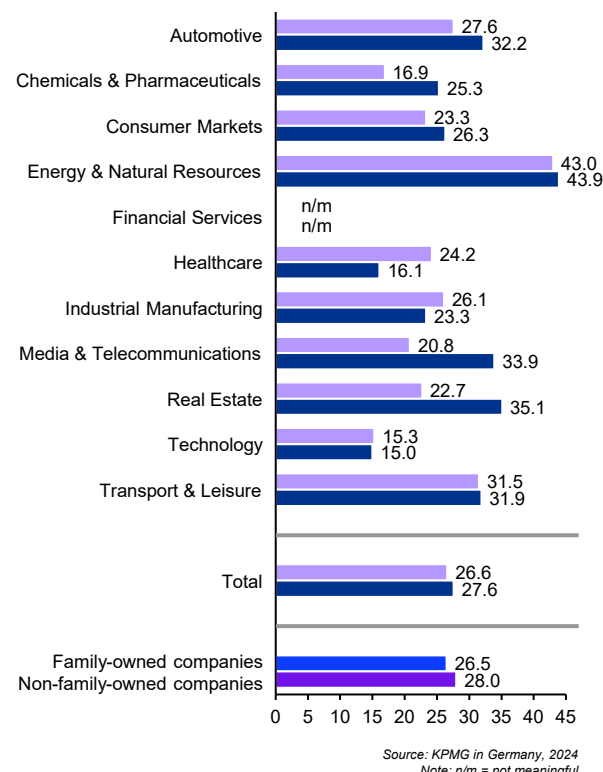


Figure 48:
Average debt ratio by sector
(in percent)



Source: KPMG in Germany, 2024
Note: n/m = not meaningful

3.9 Terminal Value & Sustainable Growth Rate

Based on the assumption of perpetuity, the terminal value is usually the primary contributing factor to the value of an enterprise. The terminal value requires the company to be in a sustainable state of equilibrium, a condition that is generally not achieved by the end of the planning horizon. Given its significant importance, the determination of the sustainable year should be based on a scenario-based approach, such as Monte Carlo simulations. However, we observed that the majority of the participating companies use the last planning year (unadjusted) as the basis for the terminal value.

The sustainable growth rate of a company is a crucial component in order to determine the terminal value. It reflects the company-specific inflationary growth in a sustainable state.

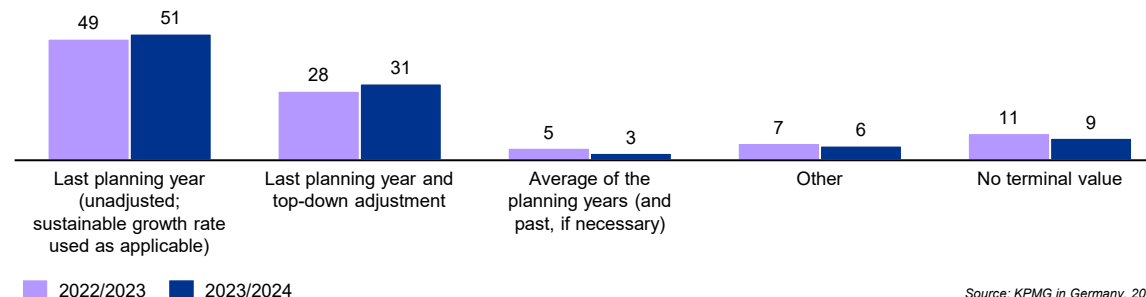
While the company-specific sustainable growth rate should ideally be derived through an analysis of the company's specific operating activities, the most common method among study participants for estimating the sustainable growth rate is the application of a simplified approach (e.g., 50 percent of the general consumer-based inflation rate).

A comparison of the sustainable growth rates applied by participating companies reveals that those employing a simplified approach tend to apply slightly lower sustainable growth rates on average compared to those conducting a thorough analysis.

Figure 49:

Determination of the terminal value

Total (in percent)

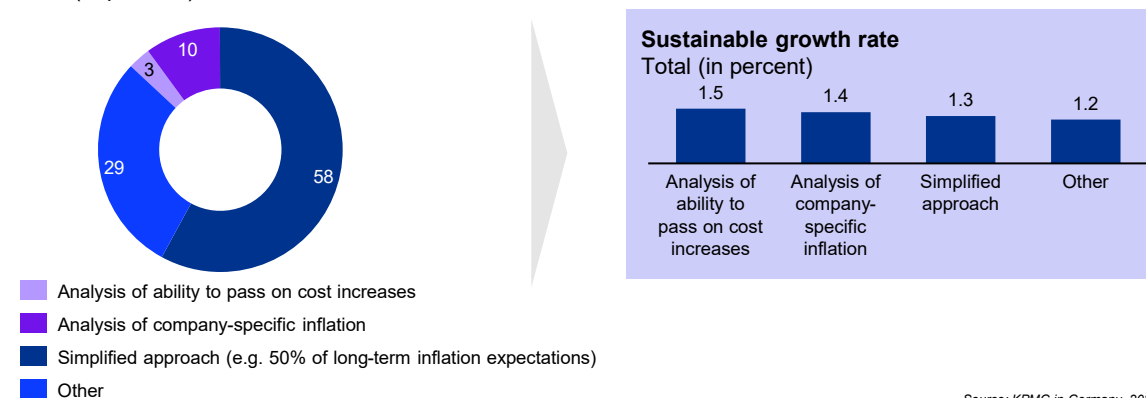


Source: KPMG in Germany, 2024

Figure 50:

Measurement of the sustainable growth rate

Total (in percent)



Source: KPMG in Germany, 2024

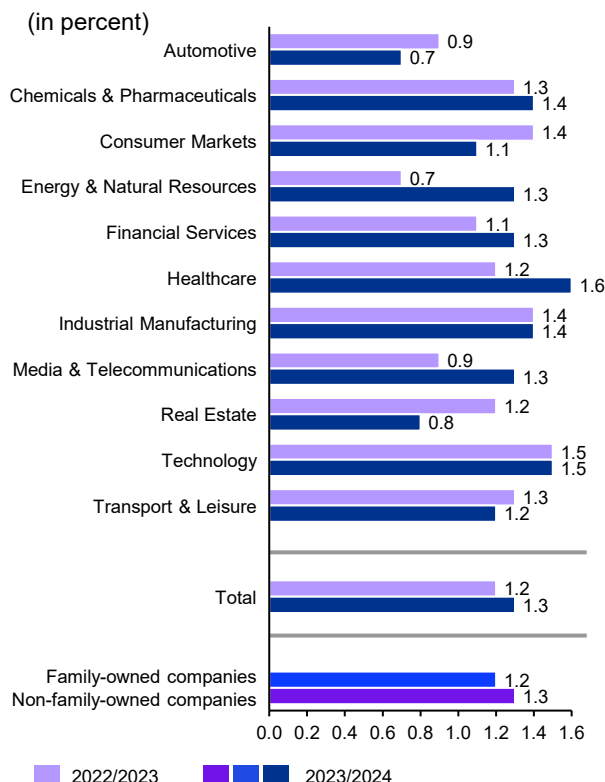
Compared to last year's study, the overall average sustainable growth rate for the participating companies has slightly increased from 1.2 percent to 1.3 percent.

The change in the average sustainable growth rate is relatively heterogeneous across sectors. The sectors that experienced the most significant increases compared to the previous year include Energy & Natural Resources (from 0.7 percent to 1.3 percent), Healthcare (from 1.2 percent to 1.6 percent) and Media & Telecommunications (from 0.9 percent to 1.3 percent). By contrast, the Real Estate sector saw the most substantial decrease in the average sustainable growth rate, declining from 1.2 percent in last year's study to 0.8 percent.

The overall increase in the average sustainable growth rate is also reflected on a country level. In Germany and Switzerland, the average sustainable growth rate increased slightly from 1.1 percent to 1.3 percent and from 1.4 percent to 1.5 percent, respectively. In Austria, the average sustainable growth rate remained constant at 1.2 percent.

When interpreting the applied growth rate, it is also essential to consider the length of the specific detailed planning horizon, and the growth rates used therein.

Figure 51:
Average sustainable growth rate by sector



Chemicals & Pharmaceuticals

The growth rate in the Chemicals & Pharmaceuticals sector increased slightly from 1.3 percent to 1.4 percent. This development is also reflected in the individual sub-sectors. Both the Chemicals sub-sector (previous year: 1.3 percent) and the Pharmaceuticals sub-sector (previous year: 1.2 percent) show an increase in the sustainable growth rate to 1.5 percent.



Consumer Markets

In contrast to last year's study, the Consumer Markets sector experienced a decrease in the average sustainable growth rate by 0.3 percentage points. This trend is also reflected in both sub-sectors. While the sustainable growth rate in the Consumer Markets sub-sector decreased from 1.3 percent to 0.8 percent, the sustainable growth rate in the Retail sub-sector decreased from 1.5 percent to 1.1 percent.

Growth or stagnation? The coming years will reveal whether Europe's anemic growth is cyclical or structural.

As outlined earlier on pages 10 *et seq.*, the development of the major economic areas continues to diverge. This divergence may also be influenced by temporary local crises, such as the European sovereign debt crisis in 2012 or Russia's war against Ukraine, which have simultaneously exacerbated global crises, such as the financial crisis of 2008 or the COVID-19 pandemic of 2020/21. Nevertheless, analyses of long-term data beyond crisis-related special effects clearly indicate significant differences in the growth of individual economic regions, which are more likely attributable to structural causes. The chart to the right illustrates the annual and cumulative growth of real GDP between the USA and Germany starting from the year 1999, just before the burst of the dot-com bubble.

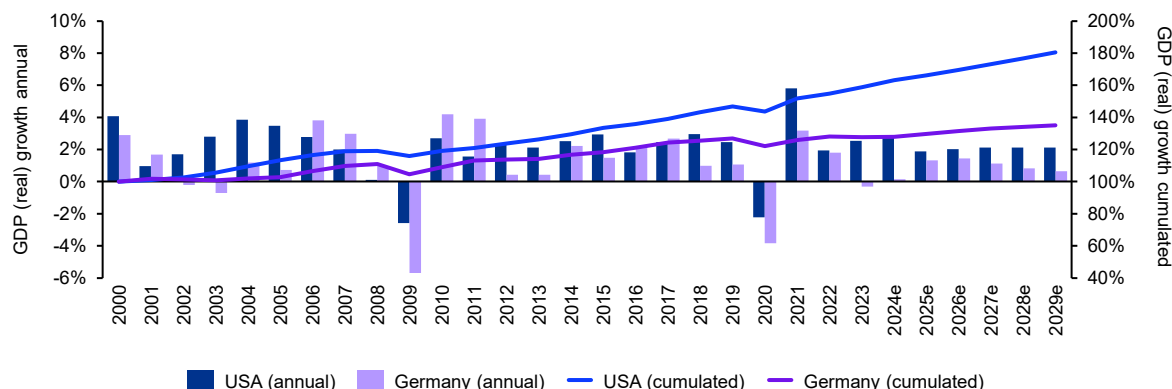
The crisis-induced declines in absolute economic performance are clearly visible in 2009 (financial crisis) and 2020 (COVID-19 pandemic), which also caused slight decreases in the respective long-term assessments. Nevertheless, these special effects have minimal impact on overall long-term growth trends. Over the past nearly 25 years since 2000, a fairly clear trend has emerged. While Germany's GDP increased by nearly 35 percent during this period, the USA's GDP grew by approximately 81 percent, almost twice as fast. In 2008, the US economy was about 10 percent larger than the European economy; this gap has now widened to over 40 percent.

Last year, the Brussels-based think tank European Centre for International Political Economy noted in an analysis that if current economic trends continue, "the wealth gap between the average European and the average American in 2035 will be as large as the gap between the average European and the average Indian today."

In light of this, crisis-related cyclical influences only partially explain Europe's chronic growth weakness. The focus has increasingly shifted to structural causes.

While all industrial nations are struggling with demographic changes and an increasingly aging population, the success of attracting and integrating skilled labor from abroad varies across different economic regions. In Europe, there is also a decline in working hours per capita compared to other regions. Additionally, the historically strong production factor of human capital, particularly in Germany, is generating diminishing returns due to untapped educational potential. Education systems are being adapted to new challenges only hesitantly.

Figure 52:
Real GDP Growth in Germany and the USA



Source: KPMG in Germany on the basis of data from International Monetary Fund, 2024



This, along with slow digitalization, has led to productivity declines for some time now. The high density of regulations, particularly driven by European institutions, is overwhelming individual states and companies in an increasingly dynamic environment. Divergent interests within Europe have resulted in a fragmented European trade policy, with over 20 years' of fruitless negotiations with the South American economic area. This occurs in the context of global players like China and the USA, who are vying for economic supremacy. Additionally, Russia's war against Ukraine has highlighted Europe's security challenges. In this context, the high dependency on energy imports and the resulting significantly higher energy prices compared to the USA or China have also become evident.

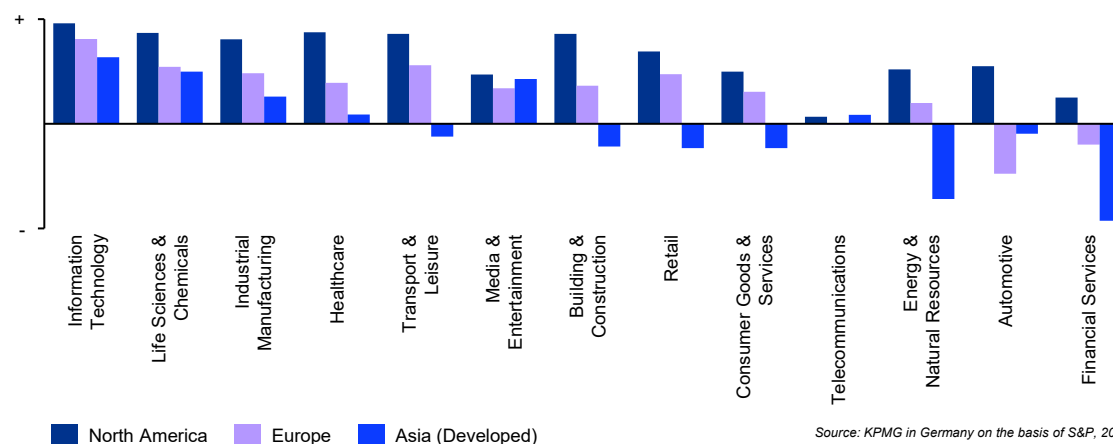
Even for economic areas as large as Europe, which have historically focused on industrial production and global trade (particularly in the case of Germany), the structural upheavals driven by the shift towards a digitalized and high-tech economy, coupled with rising geopolitical tensions threatening global supply chains, present a formidable structural challenge. Significant efforts are required from both governmental institutions, which need to establish economically favorable frameworks, and capital markets, which must allocate private capital to the most efficient uses, in order to keep pace with the growth dynamics of other economic regions such as the USA.

In light of empty public cash registers in Europe and the high expenditures associated with security policy and ESG-driven challenges, there is a growing call for an integrated European capital market. This market aims to offset the disadvantages of the currently fragmented capital market and, in particular, to facilitate easier access to the necessary innovation capital.

The significant growth differences between economic regions are also clearly reflected in the implicit growth expectations of capital markets for individual sectors, as shown in the graph below.

The significantly higher growth expectations of the US capital market are clearly evident, driven largely by the Tech sector, which is almost non-existent in Europe. Instead, the "old" economy dominates Europe, with correspondingly low growth prospects. While the developed Asian markets are heavily influenced by Japan's prolonged growth weakness, rising inflation expectations may also be impacting emerging markets such as India and China.

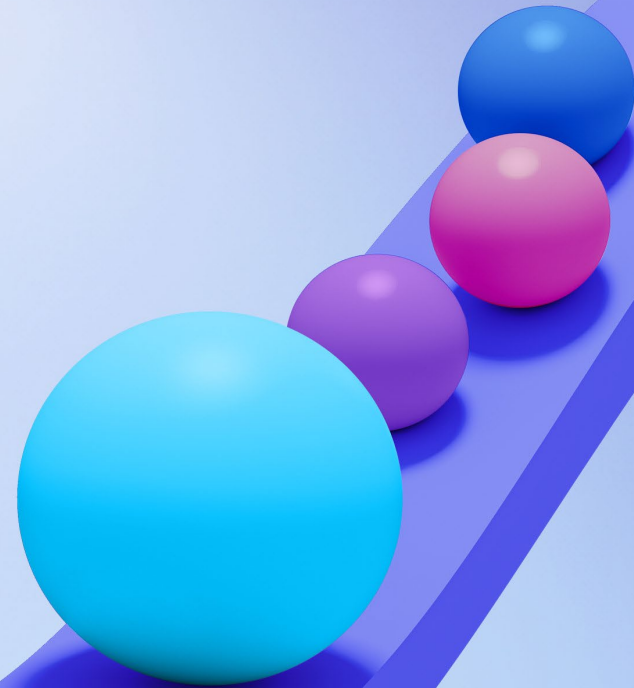
Figure 53:
Median of implied growth rates based on income multiples



Source: KPMG in Germany on the basis of S&P, 2024

4

Impairment Test



4.1 Recognition of an Impairment

4.2 Triggering Event

4.3 Plausibility – Market Capitalization and Multiples

4.1 Recognition of an Impairment

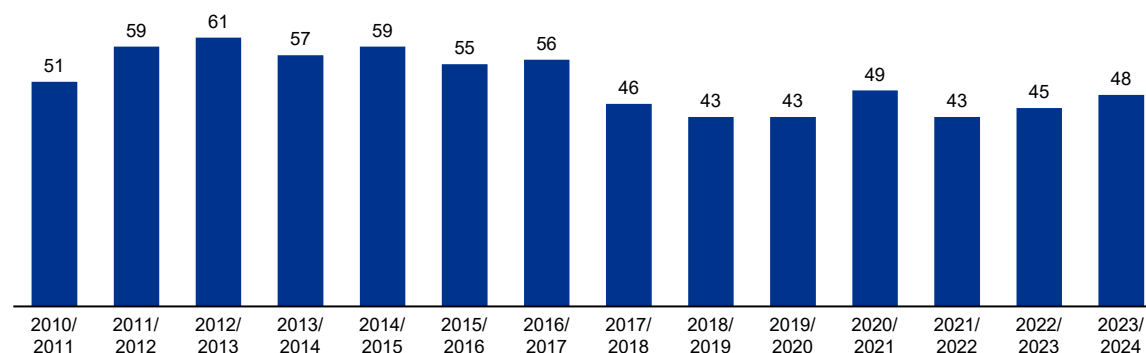
Since 2017/2018, the number of companies recognizing an impairment has leveled off between 43 percent and 49 percent, with 2020/2021 being an exception at 49 percent due to the COVID-19 pandemic.

Compared to the previous year, the number of participating companies recognizing an impairment has increased slightly from 45 percent to 48 percent. This may be attributed to the economic effects of various ongoing geopolitical crises, particularly Russia's war against Ukraine, as well as the recent rising tensions in the Middle East.

Consistent with previous years, the majority of recognized impairments are due to asset impairment. The number of participating companies recognizing an asset impairment increased from 32 percent in the previous year to 34 percent in the current year. Concurrently, the number of companies recognizing goodwill impairment decreased slightly from 21 percent to 20 percent.

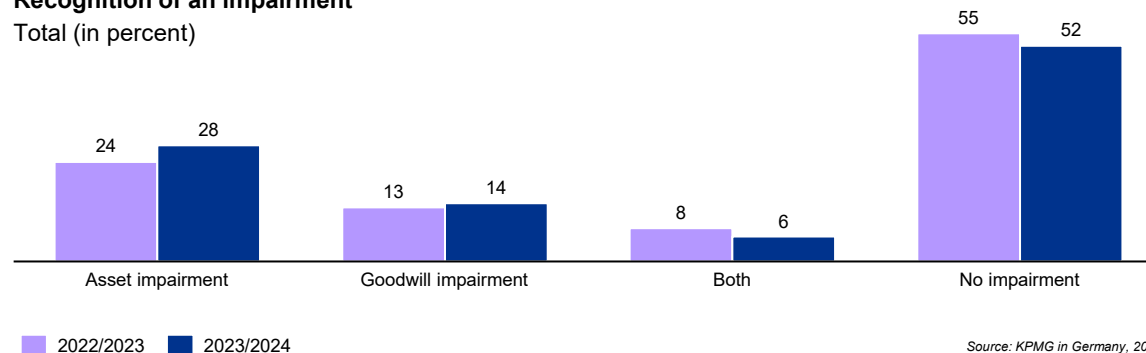
Overall, the number of participating companies not recognizing impairments declined slightly from 55 percent to 52 percent.

Figure 54:
Recognition of an impairment over time
Total (in percent)



Source: KPMG in Germany, 2024

Figure 55:
Recognition of an impairment
Total (in percent)



Source: KPMG in Germany, 2024

4.2 Triggering Event

Under IAS 36.10 (b), goodwill recognized in the balance sheet as part of the annual financial statements must be tested for impairment annually.

Additionally, IAS 36.9 requires an analysis of any triggering events, i.e., indicators of impairment, at the end of each reporting period. Compared to the previous year, the number of participants that reported conducting an impairment test due to a triggering event declined by 4.0 percentage points to 40 percent.

Consistent with previous years, the majority of triggering events were attributable to lower long-term expectations and other factors. Notably, compared to last year, a significantly higher number of participants cited a decrease in orders as the cause for the triggering event, with this figure rising from 9 percent in the previous year to 17 percent in the current year. This trend may be partially attributed to the economic repercussions of the numerous geopolitical crises as well as persistently high inflation. Despite the increase in the WACC observed in this year's study, the proportion of participants who cited the cost of capital as the reason for the triggering event decreased significantly from 35 percent to 19 percent.

Figure 56:
Triggering event
Total (in percent)

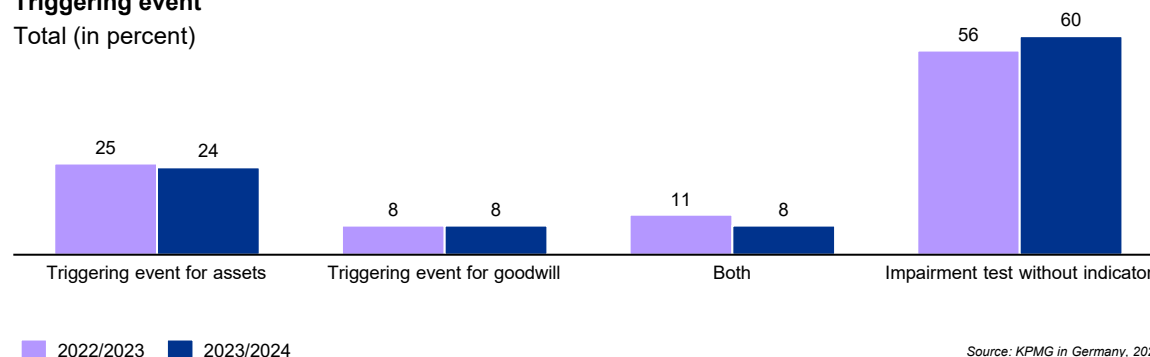
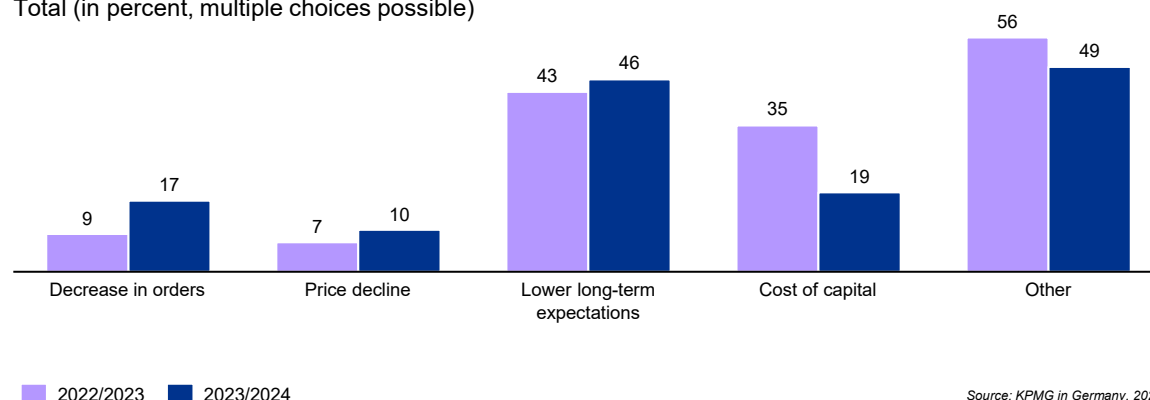


Figure 57:
Cause of the triggering event
Total (in percent, multiple choices possible)



4.3 Plausibility – Market Capitalization and Multiples

The fair value less costs of disposal concept concentrates on the exit price and therefore mainly on estimates of prospective buyers. According to IAS 36, it is not specifically required to perform a plausibility check of the resulting valuation.

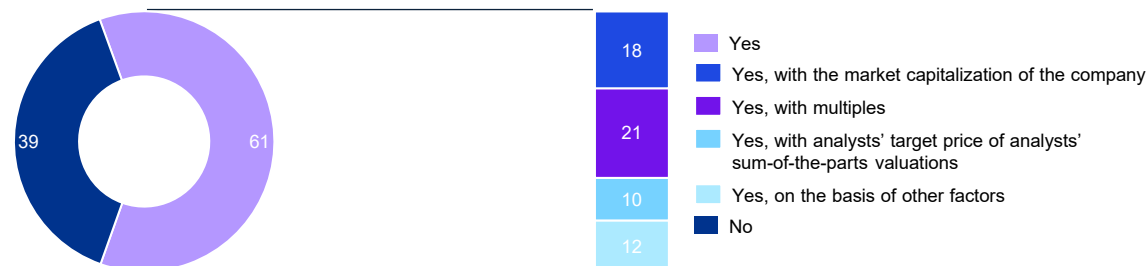
Nevertheless, we recommend performing a plausibility test against market expectations when performing an impairment test to ensure the risk equivalence of the cost of capital.

Consistent with our observations from the previous year, the majority of the participating listed companies conducted a plausibility test of the valuation results.

Figure 58:

Plausibility of the valuation results

Listed companies, total (in percent, multiple choices possible)

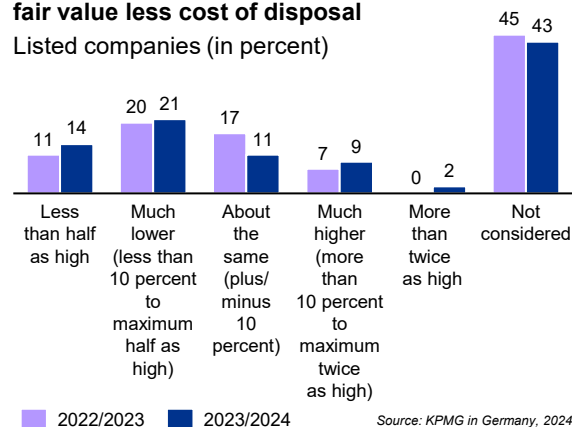


Source: KPMG in Germany, 2024

Figure 59:

Comparison of market capitalization to fair value less cost of disposal

Listed companies (in percent)

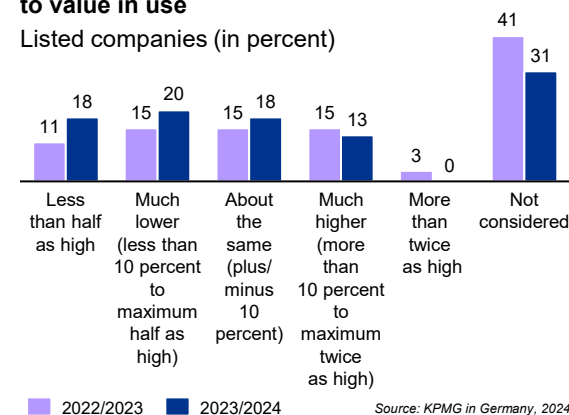


Source: KPMG in Germany, 2024

Figure 60:

Comparison of market capitalization to value in use

Listed companies (in percent)



Source: KPMG in Germany, 2024

One method to validate valuation results is the multiples approach. This approach adheres to a capital market-oriented valuation method. It involves applying a multiple to a financial metric such as EBITDA, EBIT, or, in some cases, revenue, to derive a company's value in a simplified manner.

By examining capital market data based on comparative pricing (e.g., peer group), appropriate multiples are identified and then applied to the company being valued.

In this year's study 75 percent of the participating companies reported using plausibility calculations based on multiples (e.g., for valuations in general), while only 19 percent consider them an essential component.

The most commonly used multiples are EBITDA multiples, followed by revenue and EBIT multiples.

To assist in price determination, [KPMG Multiples](#) offers insights into valuable benchmark data. The tool offers quick access to up-to-date market multiples.

Figure 61:
Application of multiples
Total (in percent)

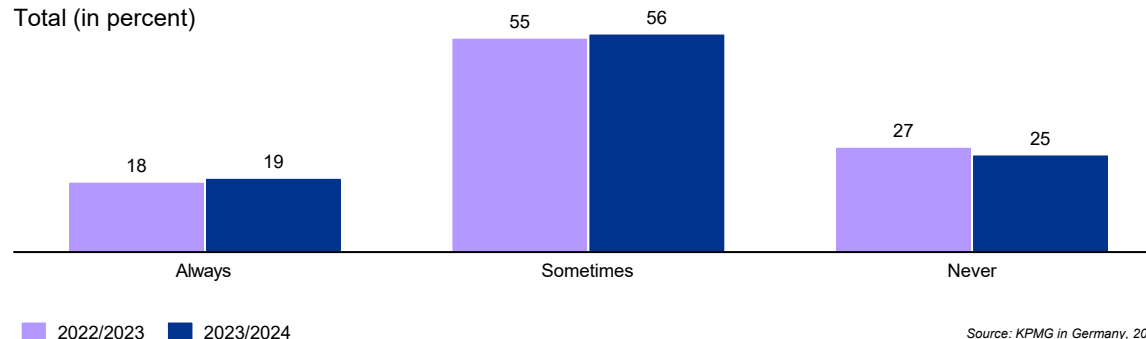
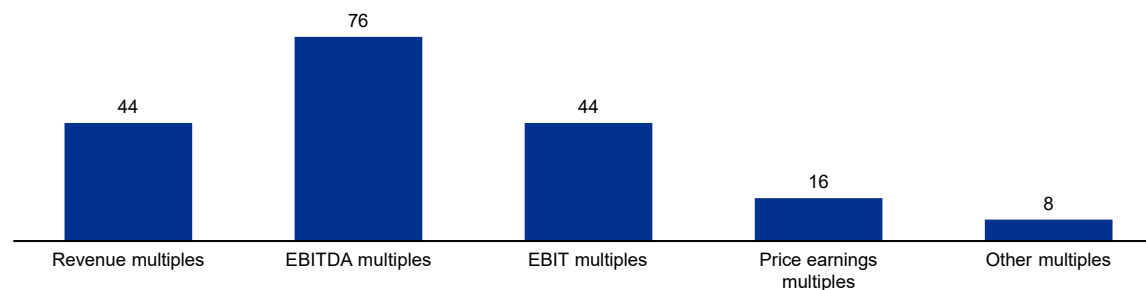


Figure 62:
Type(s) of multiples used for plausibility testing valuation results or other valuation considerations
Total (in percent, multiple choices possible)



5

Relevance of Value and Value Enhancement

5.1 Monitoring Value Enhancement

5.2 Relevance of Megatrends



5.1 Monitoring Value Enhancement

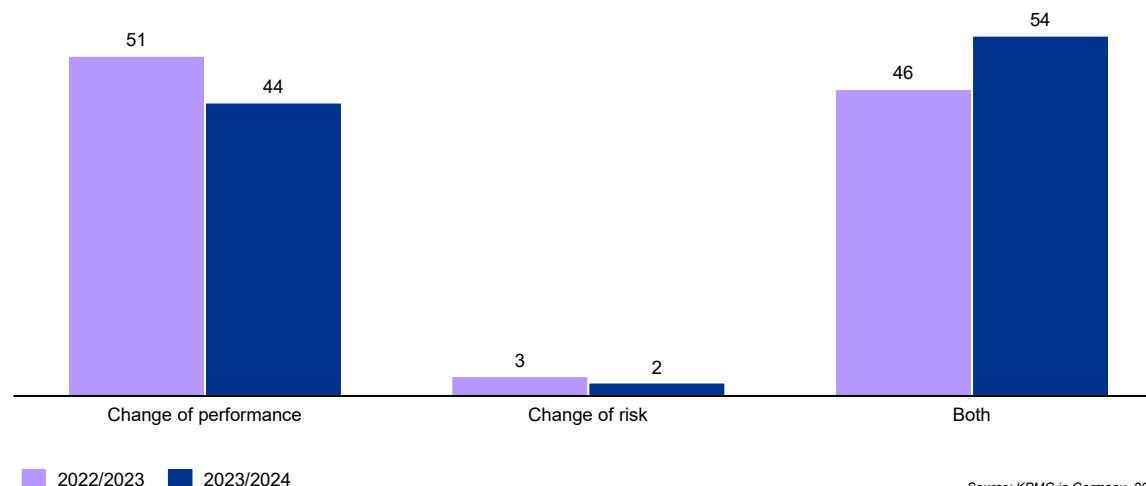
The future value of a company is influenced significantly by its investments. To mitigate potential losses in future value due to the ever-evolving market dynamics, it is vital to continuously monitor risk and performance trends.

Analyzing past investments is crucial for enhancing the decision-making process regarding future investments.

This year, we observed a 7-percentage-point decline in the proportion of respondents who solely monitor performance changes compared to the previous year. Conversely, there was an 8-percentage-point rise in the number of companies that now monitor both risk and performance trends.

This trend indicates that, in an era where long-term megatrends such as AI and ESG factors are becoming increasingly tangible and impactful, the concurrent monitoring of both risk and performance is gaining significance. These megatrends present opportunities for value enhancement but also heighten risk exposure, necessitating a more comprehensive approach to monitoring.

Figure 63:
Monitoring of value enhancement
Total (in percent)



Source: KPMG in Germany, 2024

5.2 Relevance of Megatrends

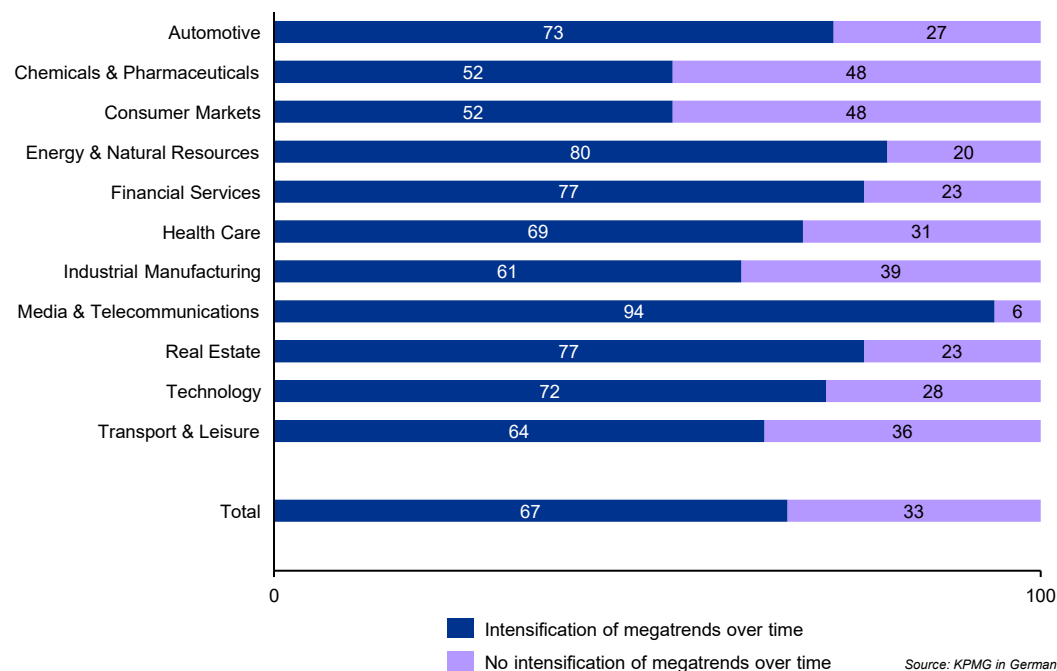
In all sectors, at least half of the participating companies perceive that megatrends have intensified over time and will significantly alter business models. This underscores the growing influence of megatrends across industries.

Companies in the Media & Telecommunications, Energy & Natural Resources, Financial Services, and Real Estate sectors particularly emphasize the rising importance of megatrends. This may be attributed to the impact of sustainability regulations on energy-generating industries and the advancements in AI and Digitization affecting data-reliant sectors.

Contrary to initial expectations, the number of companies in the Technology sector that perceive an intensification of megatrends impacting their business models is broadly consistent with the average across all sectors.

In the Chemicals & Pharmaceuticals and Consumer Markets sectors, the increase in the significance of megatrends is less pronounced, with only about half of the participants acknowledging this trend.

Figure 64:
Intensification of megatrends with impact on business model
Total (in percent)



Source: KPMG in Germany, 2024

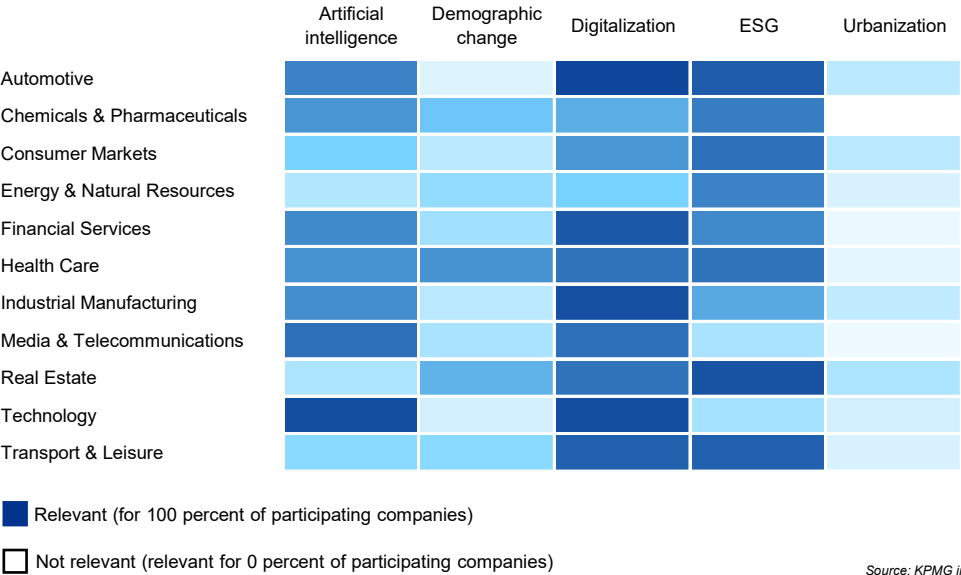
Overall, we have observed that the megatrends AI, Digitalization and ESG are the most relevant across the various analyzed sectors.

Notably, AI, despite being a relatively new trend, is already affecting a wide array of companies, particularly those in information and data-driven industries such as Technology, Media & Telecommunications, and Financial services. This can be attributed to AI's substantial benefits in data analysis, automation, and decision-making processes, which are highly valuable for industries reliant on data.

Digitalization impacts nearly all sectors, in particular participating companies from the Automotive, Financial Services, Industrial Manufacturing and Technology sectors. Reasons for this could be enhanced operational efficiency, driven innovation, and improved customer experience.

ESG particularly impacts the transportation and mobility-oriented sectors, such as Automotive and Transport & Leisure. ESG is also highly relevant for participating companies from the Real Estate sector. Overall, these sectors face stringent regulations and societal expectations regarding environmental sustainability, social responsibility, and governance practices.

Figure 65:
Relevance of megatrends by sector
Total (in percent, multiple choices possible)



Source: KPMG in Germany, 2024

6

Further Information

6.1 Latest KPMG Insights

6.2 KPMG Digital Solutions

6.3 KPMG Valuation Publications

6.1 Latest KPMG Insights

Selected results from the Cost of Capital Study 2024, as well as those from previous years, can be accessed via the following link: [KPMG Cost of Capital Study](#)

This newly designed website for the Cost of Capital Study features selected analyses of key cost of capital parameters, including industry-specific ranges for the WACC, beta factor, cost of debt and other metrics. It also provides essential findings for the performance of impairment tests.

Furthermore, interested parties can stay up-to-date on cost of capital parameters via the following link: [Multiples and Cost of Capital Parameters](#)

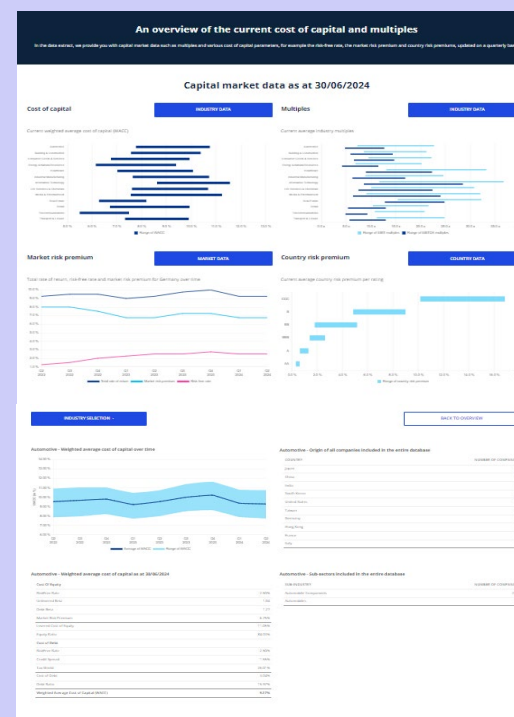
The freely accessible data extract of the KPMG Valuation Data Source provides you with capital market data such as multiples and various cost of capital parameters, for example the risk-free rate, the market risk premium and country risk premiums, updated on a quarterly basis.

In addition, we regularly offer our webcast “KPMG Cost of Capital Insights”, where you can participate free of charge. During the webcast, we analyze current developments in the capital markets and provide guidance on how these should be considered in company valuations, particularly in the cost of capital. For more information, please visit: [KPMG Cost of Capital Insights](#)

Figure 66:
New KPMG Cost of Capital Study Website



Figure 67:
Overview of current cost of capital and multiples

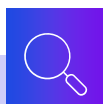


6.2 KPMG Digital Solutions

In addition to the Cost of Capital Study, KPMG Valuation Germany offers a range of digital solutions. Our offerings seamlessly combine our transaction expertise with the technological know-how of our global network. This enables you to effectively overcome challenges related to transactions and business valuations, and ultimately make more informed decisions.

For more information, please visit:

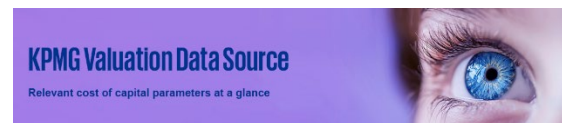
[KPMG Deal Advisory Digital Products](#)



- Ready-to-use solutions
- Global availability
- Access at any time
- Download functionality
- Developed by our valuation and technology experts

Figure 68:

Additional KPMG tools for self-use



- All relevant parameters available from a single data source (risk-free interest rate, market and country risk premium, inflation spread, tax rate, beta coefficients, credit spread, gearing)
- WACC and cost of equity calculation based on your individual peer group
- Monthly update of quality-assured data
- Access to more than 150 countries and 17,500 companies



- Purchase price analysis: attribution of success/risk potentials to relevant assets or debt
- Analysis and consideration of attributable synergies and dyssynergies and their impact on purchase price
- Impact of transaction on asset, financial and profit position
- KPMG PPA benchmark data and sector expertise to support the validation and categorization of results



- Peer-group-specific company valuation based on trading multiples (revenue, EBITDA, EBIT, earnings, book value to market value of equity)
- Individual analysis and adjustment options: exclusion of outliers or specification of multiples range for the display of results
- Monthly update of quality-assured data
- Access to more than 17,500 companies worldwide



- Performance of impairment tests in accordance with IAS 36 and IDW RS HFA 10 (HGB)
- Integrated business planning and direct cost of capital derivation in the tool
- Analysis options for impairment, value drivers, sensitivities, etc. in one dashboard
- Collaborative authorization management for productive cooperation

6.3 KPMG Valuation Publications

For over 13 years, KPMG Germany has been publishing its Valuation News. This online newsletter, issued three times annually, provides updates on current topics related to company and asset valuation. The latest edition, released in September 2024, addresses the proposed amendments to IFRS 3 and IAS 36 by the IASB in March 2024, continues the thematic focus on the valuation of employee benefit programs, and discusses IRR and WARA analyses in the context of purchase price allocations. The newsletter can be accessed via the following link: [Valuation News – September 2024– KPMG Germany](#).

In December 2020, the second edition of the book *Praxiswissen Unternehmensbewertung* was released. It provides explanations and assistance on several topics related to the valuation of companies and assets under the following sections:

- Regulatory-driven valuations
- Company valuations in the context of transactions and other decision-making processes (value-based management)
- Company valuations for tax purposes
- Accounting-driven valuations
- Industry- and company-specific valuation issues
- Valuations of individual assets
- Determination of the cost of capital

Figure 69:
KPMG Valuation publications



Editorial

Sehr geehrte Leserinnen und Leser,

wir freuen uns, Ihnen mit dieser 42. Ausgabe unserer Valuation News aktuelle Themen im Bezug auf die Bewertung von Unternehmen und Vermögenswerten vorstellen zu können.

Zunächst stellen wir den im März 2024 vom IASB veröffentlichten Exposure Draft bezüglich geplanter Änderungen des IFRS 3 und des IAS 36 vor. Die Änderungen des IFRS 3 beziehen sich im Wesentlichen auf erweiterte Angabenpflichten bei Unternehmenszusammenschlüssen. Im Hinblick auf den IAS 36 sieht der Entwurf vor allem Vereinfachungen bei der Bestimmung des Value in Use und Konkretisierungen bezüglich der Goodwill-Allokation vor.

Der zweite Beitrag setzt die Themenstellungen rund um die Bewertungen im Rahmen von Mitarbeiterbeteiligungsprogrammen fort. Gegenstand des nunmehr vorliegenden Beitrags ist die Vorgehensweise zur Ermittlung des Zeitwerts unterschiedlich ausgestalteter Mitarbeiterbeteiligungsprogramme. Da hierbei zur Anwendung kommenden finanzmathematischen Bewertungsmethoden umfassen das Black-Scholes-Merton-Modell, das Binomialmodell sowie die Monte-Carlo-Simulation.

Abschließend befassen wir uns mit der IRR-Analyse und der WARA-Analyse. Im Kontext einer Purchase Price Allocation (PPA) werden regelmäßig zur Verifizierung der bei der Bewertung angewendeten Kapitalkosten und zur Plausibilisierung des Gesamtwerts eine IRR-Analyse sowie eine WARA-Analyse durchgeführt. Als Ergebnis dieser Analysen können sich nicht nur Auswirkungen auf die im Rahmen der PPA

Inhalt

- 1 Business Combinations und Goodwill Impairment Test – Überblick über die geplanten Änderungen im IFRS 3 und im IAS 36 Seite 2
- 2 Bewertung im Rahmen von Mitarbeiterbeteiligungsprogrammen (Teil II) – Beizulegender Zeitwert bei unterschiedlich ausgestalteten Programmen Seite 5
- 3 IRR-Analyse und WARA-Analyse – Instrumente zur Plausibilisierung einer Kaufpreisallokation Seite 9

verwendeten Kapitalkosten ergeben; möglicherweise sind auch die Zahlungsströme anzupassen.

Wir wünschen Ihnen eine spannende Lektüre und freuen uns über Ihr Feedback. Auch Anregungen, Themenvorschläge und weiterführende Diskussionen sind jederzeit willkommen.

Gerne stehen wir darüber hinaus für Ihre individuellen Fragen zur Verfügung. Sie erreichen uns unter de-valuation-news@kpmg.com.

Mit freundlichen Grüßen

Stefan Schöninger Dr. Andreas Tschöpel
Partner Partner

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Participate in our survey

Participate in our 2025 anniversary edition of the Cost of Capital Study and benefit by being among the first to gain access to our preliminary insights.

Support us in building the largest benchmarking on cost of capital in the DACH region. Participate in our survey and become part of the next Cost of Capital Study.



List of Abbreviations

AI	Artificial Intelligence	IAS	International Accounting Standards
ATX	Main Austrian stock exchange	IASB	International Accounting Standards Board
CAGR	Compound annual growth rate	IDW	“Institut der Wirtschaftsprüfer in Deutschland e.V.”: Institute of Public Auditors in Germany, Incorporated Association
CAPM	Capital asset pricing model	IFRS	International Financial Reporting Standards
CGU	Cash-generating unit	IRR	Internal Rate of Return
DAX	Main German stock exchange	KFS/BW	“Fachsenat für Betriebswirtschaft in Österreich des KSWÖ”: Council of Experts for Business Administration
DAX-40	The 40 largest blue chips on the main German stock exchange	KSW	“Kammer der Steuerberater und Wirtschaftsprüfer in Österreich”: Chamber for Tax Advisors and Auditors in Austria
DCF	Discounted cash flow	M&A	Mergers & acquisitions
Debt ratio	Ratio of market value of (net) debt to market value of total capital (entity value)	MDAX	German mid-caps stock index
EBIT	Earnings before interest and taxes	MRP	Market risk premium
EBITDA	Earnings before interest, taxes, depreciation and amortization	P&L	Profit & loss
ECB	European Central Bank	PPA	Purchase price allocation
ESG	Environmental, social and governance	SDAX	Small caps, the companies following the MDAX with market capitalization and exchange turnover
EU	European Union	SMI	Main Swiss stock exchange
FamDAX	DAXplus Family 30 Index, consists of the 30 largest and most liquid family-owned businesses	USA	United States of America
FAUB	“Fachausschuss für Unternehmensbewertung und Betriebswirtschaft des IDW”: Technical Committee for Business Valuation and Economics of the IDW	WACC	Weighted average cost of capital
		WARA	Weighted average return on assets

Your Industry Specialists

KPMG in Germany



Automotive

Oliver Dickmann

Partner

Head of Valuation Germany

T +49 711 90604-1818

odickmann@kpmg.com



Automotive

Dr. Fabian Bähr

Partner

T +49 40 32015-5142

fbaehr@kpmg.com



Consumer Markets

Retail

Karen Ferdinand

Partner

T +49 69 9587-6500

kferdinand@kpmg.com



Consumer Markets

Retail

Stephan Fetsch

Partner

T +49 221 2073-5534

stephanfetsch@kpmg.com



Building & Construction

Industrial Products

Michael Hahn

Director

T +49 711 90604-1163

michaelhahn@kpmg.com



Financial Services

Gudrun Hoppenburg

Director

T +49 351 494-4473

ghoppenburg@kpmg.com



Insurance

Christian Kern

Director

T +49 69 9587-3524

christiankern@kpmg.com



Energy & Natural Resources

Michael Killisch

Partner

T +49 251 596-8470

mkillisch@kpmg.com



Chemicals & Pharmaceuticals

Healthcare

Christian Klingbeil

Partner

T +49 89 9282-1284

cklingbeil@kpmg.com



Chemicals & Pharmaceuticals

Healthcare

Patrick Klingshirn

Director

T +49 89 9282-4594

pklingshirn@kpmg.com



Technology

Media & Telecommunications

Private Equity/Venture Services

Dr. Michael Kramer

Partner

T +49 89 9282-4213

michaelkramer@kpmg.com



Technology

Telecommunications

Dr. Gunner Langer

Director

T +49 69 9587-2830

glanger@kpmg.com



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Your Industry Specialists



Financial Services

Rudolf Maurer

Director

T +49 89 9282-1348

rudolfmaurer@kpmg.com



Retail

Stephan Pastusiak

Director

T +49 221 2073-00

spastusiak@kpmg.com



Automotive

Jens Schmoll

Partner

T +49 89 9282-4297

jschmoll@kpmg.com



Consumer Markets

Telecommunications

Transport & Infrastructure

Stefan Schöninger

Partner

T +49 40 32015-5690

sschoeniger@kpmg.com



Industrial Manufacturing

Dr. Jakob Schröder

Partner

T +49 89 9282-1471

jakobschroeder@kpmg.com



Media

Heike Snellen

Director

T +49 211 475-7062

hsnellen@kpmg.com



Automotive

Olaf Thein

Partner

T +49 89 9282-1579

othein@kpmg.com



Public Sector

Transport & Infrastructure

Dr. Andreas Tschöpel

Partner

T +49 30 2068-1488

atschoepel@kpmg.com



Private Equity/Venture Services

Christian Weidinger

Partner

T +49 89 9282-1694

cweidinger@kpmg.com



Chemicals & Pharmaceuticals

Dr. Annette Witzleben

Partner

T +49 89 9282-3877

awitzleben@kpmg.com



Industrial Manufacturing

Ralf Weimer

Director

T +49 89 9282-1150

rweimer@kpmg.com



Financial Services

Frieder Zschiesche

Partner

T +49 711 9060-43797

fzschiesche@kpmg.com

Your Industry Specialists

KPMG in Austria



Dr. Klaus Mittermair
Partner
Head of Deal Advisory Austria
T +43 732 6938-2151
kmittermair@kpmg.at



Dr. Victor Purtscher
Partner
Head of Valuation
Services Austria
T +43 1 31332-3700
vpurtscher@kpmg.at

KPMG in Switzerland



Johannes Post
Partner
Deal Advisory
Global Head of Valuation Services
T +41 58 249-3592
jpost@kpmg.com



Rolf Langenegger
Director
T +41 58 249-4271
rlangenegger@kpmg.com



Simon Laval
Director
T +41 58 249-4630
slaval@kpmg.com



Contact
KPMG in Germany

Overall responsibility

Heike Snellen

Director

Deal Advisory, Valuation

T +49 211 475-7062

hsnellen@kpmg.com

KPMG AG

Wirtschaftsprüfungsgesellschaft

Tersteegenstraße 19–23

40474 Düsseldorf

Dr. Andreas Tschöpel

Partner

Deal Advisory, Valuation

T +49 30 2068-1488

atschoepel@kpmg.com

KPMG AG

Wirtschaftsprüfungsgesellschaft

Heidestraße 58

10557 Berlin



kpmg.de/socialmedia

kpmg.de

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