Global Valuation Newsletter

BY EXPERTS FOR EXPERTS

Providing insights into key valuation topics, market developments, and emerging trends, offering valuable perspectives for valuation professionals worldwide.

Issue: February 2025

Dear readers,

Welcome to the inaugural issue of the Global Valuation Newsletter. As valuation professionals, we operate in a dynamic and constantly challenging environment shaped by evolving market conditions, regulatory developments, and academic discourse. Staying informed and continuously refining our methodologies and processes are essential to delivering reliable valuations and insightful reports.

The Global Valuation Newsletter offers regular updates and expert insights from the countries represented in the Rödl & Partner International Valuation Group. Each issue covers key valuation topics—ranging from legal considerations and industry trends to methodological advancements—while also providing practical resources for valuation professionals. By drawing on perspectives from our global network, we aim to deliver a clear and concise overview of the latest developments in the field.

The inaugural issue covers a range of subjects, including the role of ESG factors in business valuation, the ongoing debate around size premia in international valuations, and approaches to managing non-linear, seasonal, and cyclical working capital patterns. Our quarterly review on the cost of capital provides insights into recent market trends and long-term developments whilst our Expert Spotlights introduces professionals from our global network, sharing their perspectives and expertise.

We hope the newsletter serves as both a source of knowledge and a catalyst for discussion. As always, we welcome your feedback and look forward to continuing the dialogue on these important topics.

Best regards,

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ESG Factors in Business Valuation: A Key Driver for Long-Term Competitiveness

The Italian National Board of Accountants highlights how ESG factors influence business valuation, affecting cash flow, systematic risk, and cost of debt. Effective ESG practices can enhance growth, reduce risks, and improve credit access, making sustainability a crucial element for long-term business resilience and investor confidence.

THE ROLE OF ESG FACTORS

In July 2024 the Italian National Board of Accountants ("Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili") published the operational guide "ESG factors in business valuation: building the information base" on the influence of ESG factors in business valuation. It is becoming increasingly clear that ESG factors are a central element at economic level, with the potential to significantly influence the business development trajectories of companies. Indeed, potential and actual investors are increasingly viewing the ESG approach as a risk-reduction tool that enables companies to remain competitive in the medium to long term.

The pursuit of ESG objectives by a company does not necessitate any specific methodological approach to valuating the company. However, it does require careful consideration of factors that were previously not fully appreciated, but which must also be properly examined on the basis of appropriate ESG disclosure. The latest studies and research show that ESG factors affect business valuation in three main ways: cash flow and growth factors, systematic risk and cost of debt.

ESG IMPACT ON CASH FLOW AND GROWTH FACTORS

The integration of ESG factors at company level can generate tangible benefits for a company leading to improved cash flow and growth factors (g). The main impacts can be seen in terms of revenue growth, cost reduction, operational efficiency, increased productivity and optimisation of investments. The adoption of sustainable practices may result in consumers being willing to pay a premium price for environmentally friendly products. Additionally, the use of environmentally low impact technologies can result in a reduction in operational costs. Furthermore, a work environment where ESG values are emphasised and internalized ensures enhance productivity while attracting and retaining talent. A study conducted by the International Valuation Standard Council (2021)[1] found that the value created by ESG factors has similar characteristics to the return on investments made by intangibles in terms of sedimentation, that is cumulative growth.

The implementation of ESG policies often requires significant upfront investments, given that the benefits will only be seen in the medium to long term. It is therefore essential to conduct a careful and meticulous risk analysis and a thorough assessment of operating conditions.

EFFECT ON SYSTEMATIC RISK

Scholars have conducted a thorough analysis of the influence of ESG factors on systematic risk, which is expressed by the Beta factor which is part of the Capital Asset Pricing Model used to determine the cost of equity (Ke). In particular, Kroll's 'ESG and Global Investor Returns Study' (2023)[2] analysed the returns associated with ESG portfolios used to calculate the systematic risk of a security, i.e. the Beta factor. The research demonstrated that companies with robust sustainability policies and high ESG scores generally exhibited higher compound annual returns than those with lower scores. Additionally, the analysis revealed that these securities exhibited lower volatility compared to the market, as reflected in their Beta parameters. The research findings indicate a correlation between the implementation of the ESG policies, returns and stock volatility of the companies concerned across most geographic regions and sectors, at least for the period under analysis (2013-2021). Companies which follow ESG practices may generally be more resilient to regulatory pressures and external changes. This is because they may be better able to manage risks that are not expressed in cash flows, such as regulatory risk, reputational risk

and transition risk itself.

Another noteworthy aspect is the asymmetric market reaction to ESG information. Companies with poor ESG practices tend to face higher penalties than those with positive practices. This highlights the growing importance of sustainability policies in the market and the need for greater attention at corporate level to prevent events that could erode investor confidence.

IMPACT ON THE COST OF DEBT

Good ESG practices can positively influence access to credit. By enhancing their ESG disclosure, companies can mitigate information asymmetry and subsequently reduce their cost of debt (Kd). This can result in more favourable ratings and a decrease in perceived risk for lenders. Further advantages of ESG disclosure include the strengthening of relationships with financial stakeholders, which ultimately results in enhanced access to debt at competitive rates for companies with superior ESG scores. However, these benefits do not always materialise. In some cases, lenders view costs associated with such initiatives as not being directly related to the core business and consequently charge higher interest rates to compensate for the perceived risk. This phenomenon is particularly prevalent in the case of SMEs, where the ESG reporting system is less structured.

RELEVANCE OF THE ESG FACTORS

While the three ESG factors are interlinked, they do not all carry the same weight. The environmental (E) dimension has a more direct impact on economic value. For example, initiatives such as decarbonisation or waste reduction improve efficiency and reduce operating costs. The social (S) and governance (G) dimensions, while having less immediate impacts, are nevertheless crucial for corporate reputation and risk management. For example, strong governance reduces the risk of litigation or an inefficient decision-making process.

In light of the above, it is evident that a business valuation must take into account ESG factors and their influence on a company's value (in terms of cash flow, growth rate, beta factor and cost of debt) on the basis of a case-by-case analysis.

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Coming in the next Issue of the Global Valuation Newsletter: ESG Study 2024 – A survey of EACVA members and financial investors.

Cost of Capital Parameters & Multiples

COST OF CAPITAL

The cost of capital reflects the return required by investors. They are used to discount the cash flows relevant to the valuation. Determining the cost of capital is therefore a key component of business valuations. In valuation practice, the capital market-based capital asset pricing model (CAPM) is used to determine the cost of equity, according to which the cost of equity can be broken down into a risk-free rate, a beta factor and a market risk premium. The cost of debt costs are essentially the result of the interest on a risk-free investment and a credit spread, which lenders demand primarily due to default risks. As compensation for the higher risk associated with an investment abroad compared to an investment in Germany, equity and debt capital providers may demand a country risk premium.

The cost of capital parameters described above are as follows as of 31.12.2024.

RISK-FREE RATE

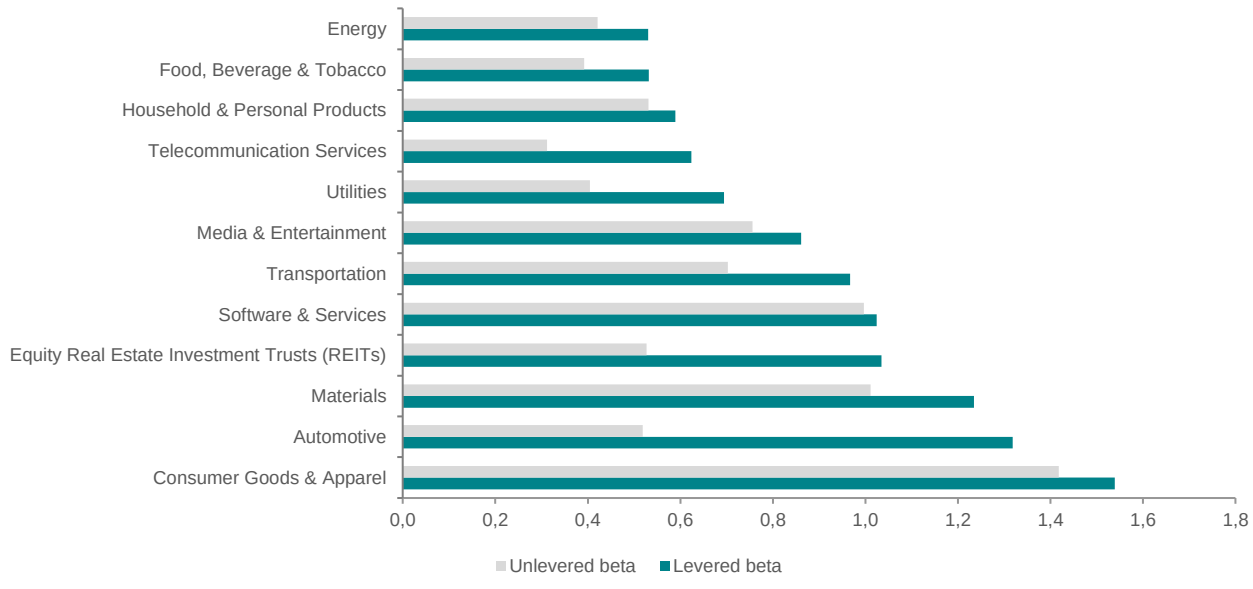
The risk-free rate represents the return on a risk-free investment, with German government bonds largely fulfilling this criterion. The German Federal Bank (BBk) publishes daily estimates of yield curves for Germany using the Svensson method, covering maturities from 1 to 30 years. For years beyond 30, the spot rate is consistently extrapolated. To account for potential inaccuracies in estimates, it is recommended to use an average yield curve over a three-month period prior to the reporting date. The present value equivalent risk-free rate for the entire term can be calculated, and as of 31.12.2024, the unrounded rate stands at 2.47%.

BETA FACTOR

The beta factor is a measure of company-specific risk and plays a central role in the CAPM. It is calculated through linear regression, which assesses how the risk of the individual security (such as shares) relates to the overall market risk, based on the fluctuation of the share price return compared to the market portfolio.

As part of our free cost of capital service, we regularly calculate and publish industry betas for stock markets across Europa, North America, South America, Asia, India and China. Figure 1 features the European industry betas for 12 selected industries as of 31.12.2024. These beta factors were calculated over a 2-year period using weekly returns, with the European equity index S&P Europe BMI serving as the reference index.

Fig. 1: European Industry Betas for Selected Industries as of 31.12.2024



Source: Raw data S&P Capital IQ, Analysis Rödl & Partner

The companies included in the individual industry indices are broadly diversified in terms of their product and service range. Industry betas are therefore suitable at best as approximate values for a rough valuation and cannot replace customised analyses of suitable peer groups and detailed calculations. Customised solutions are part of our premium cost of capital service.

IMPLIED MARKET RISK PREMIUM

The market risk premium (MRP) represents the return an investor expects for assuming risk beyond that of a risk-free investment. It can be derived either from empirical market returns (as a historical MRP) or forward-looking as an implied market risk premium (iMRP).

The iMRP is calculated using average analyst estimates of future profits (net incomes) for listed companies, which serve as the numerator in the valuation equation. The denominator includes cost of capital parameters such as the risk-free rate, beta factor and the perpetual growth rate. The MRP remains as the residual variable in the valuation model. By solving the valuation equation for the MRP, we derive the iMRP, which, with all other parameters fixed, results in the observable market capitalisation (equity value) on the valuation date.

As part of our free cost of capital service, we regularly calculate and publish iMRP for the German, European and global equity markets.

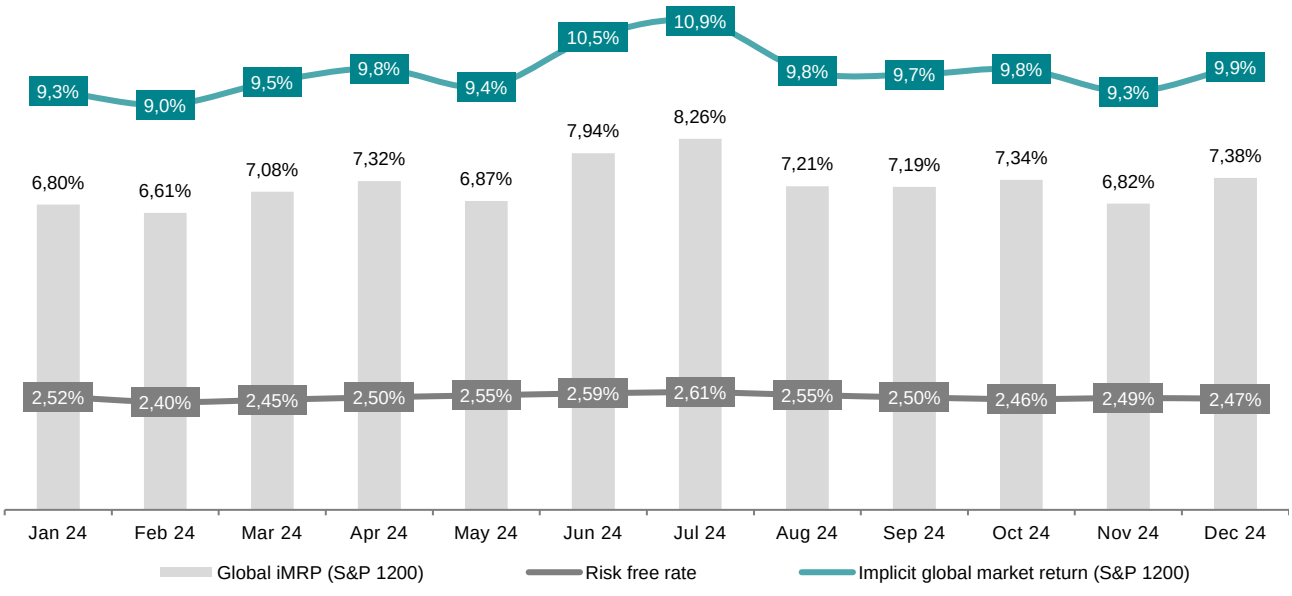
As of 31.12.2024, we calculated a global iMRP of 7.38% before personal taxes. This is derived as a market value-weighted average of the individual iMRPs for all companies listed in the S&P Global 1200. From this, a global implied market return of 9.86% can be calculated, combining the base interest rate and the global iMRP These calculations are illustrated in Figure 2.

COST OF DEBT

The expected cost of debt relevant to the business valuation is calculated by adding a premium for systematic default risks (credit spread) to the return on a risk-free investment (risk-free rate). In practice, the expected cost of debt is determined using capital market data. If a rating or credit score is available, the maturity-specific market interest rate can be derived from yield curves of listed corporate bonds. The credit spread is the difference between the market interest rate and the corresponding government bond rate for that maturity.

As of 31.12.2024, based on listed corporate bonds in EUR across all sectors ('All Corporates'), the expected cost of debt for a ten-year term is calculated as 3.60% p.a. for investment-grade (IG) bonds and 5.56% p.a. for high-yield (HY) bonds. After deducting the corresponding yield for a ten-year German government bond (2.30% p.a.), the credit spread is 1.20% p.a. (IG) or 3.26% p.a. (HY).

Fig. 2: Risk-free Rate, iMRP and Implied Market Return as of 31.12.2024 and Over Time (LTM)



Source: Raw data S&P Capital IQ, Analysis Rödl & Partner

COUNTRY RISK PREMIUM

Investments abroad are potentially associated with higher risks due to geopolitical and macro-economic uncertainties. These 'country risks' are difficult to incorporate directly into the business plan (i.e., the numerator of the valuation formula). In practice, they are therefore commonly accounted for as a premium added to the cost of capital (i.e., the denominator of the valuation formula).

Country risk premia (CRP) must be considered in international valuations, particularly for companies in developing countries or emerging markets, to adequately reflect the increased country risk in jurisdictions with a credit rating blow 'AAA'. Various methods exit to determine CRP.

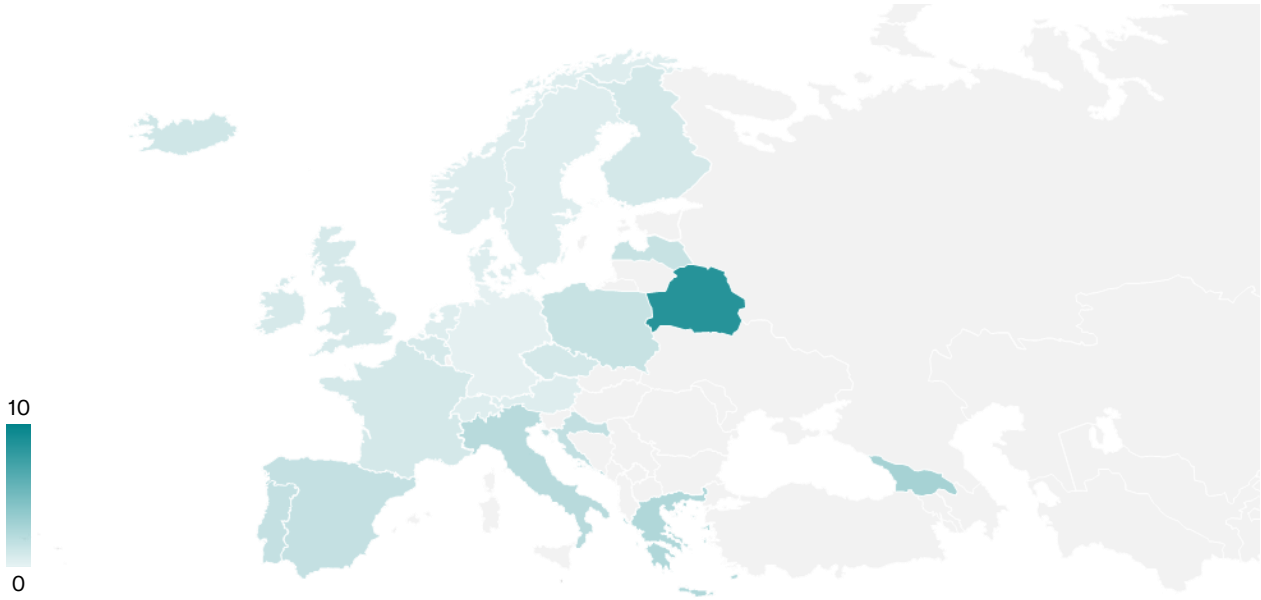
The CRP for selected European countries as of 31.12.2024 are presented in Figures 3 and 4. We derive these premia using the sovereign yield spread method. This approach measures the difference in yield (credit spread) between a country's government bonds and the risk-free rate. The credit spreads of all available government bonds are regressed against various scaled ratings from 'AAA' to 'C' (Moody's, Fitch, S&P). The scaled ratings are then applied to the regression parameters, yielding the corresponding country risk premia (CRP) for the individual ratings.

Fig. 3: Selected European CRP as of 31.12.2024

Country	CRP (in %)
Belarus	8.96
Georgia	2.08
Greece	1.48
Italy	1.20
Croatia	0.86
Spain	0.75
Portgual	0.74
Poland	0.69
Latvia	0.69
Iceland	0.52
Finland	0.42
Czech Republic	0.40
France	0.40
Belgium	0.37
United Kingdom	0.37
Ireland	0.35
Austria	0.26
Switzerland	0.21
Norway	0.21
Denmark	0.21
Netherlands	0.21
Sweden	0.21
Germany	0.00

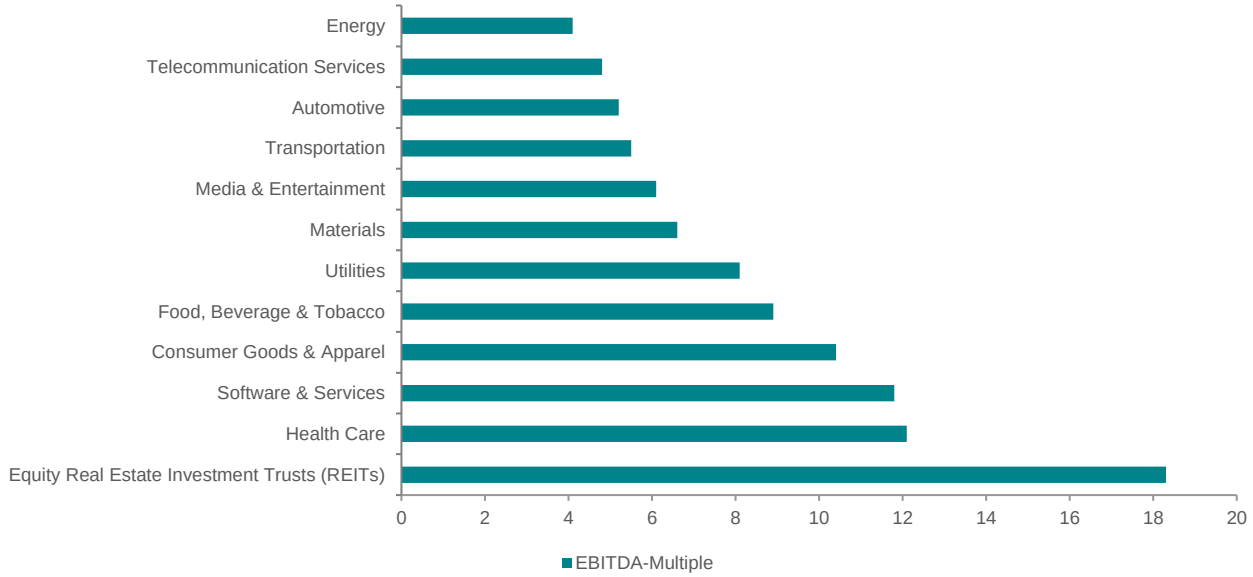
Source: Raw data S&P Capital IQ, Analysis Rödl & Partner

Fig. 4: Heat Map – Selected European CRP as of 31.12.2024 (in %)



Source: Raw data S&P Capital IQ, Bloomberg, Analysis Rödl & Partner

Fig. 5: European Industry Multiples (EV/EBITDA) for Selected Industries as of 31.12.2024



Source: Raw data S&P Capital IQ, Analysis Rödl & Partner

MULTIPLES

The multiples method is, in principle, one of the simplest business valuation approaches. It estimates a company's value by multiplying a reference value of the valuation object (usually a key figure from the profit and loss statement, such as EBITDA) by a valuation multiple derived from comparable data. This comparative data is obtained either from capital market data of listed peer companies (trading multiples) or from completed transactions (transaction multiples).

However, this method has limitations, particularly due to the often-imperfect comparability of the valuation object with peer companies in terms of profitability, growth prospects, diversification and business segment weighting. Consequently, the multiples method does not replace a fundamental valuation based on a DCF method. Instead, it provides an initial indication of value or serves as a plausibility check for a DCF valuation.

As part of our free cost of capital service, we regularly calculate and publish EV/EBITDA sector multiples for the equity markets in Europe, North America, South America, Asia, India and China.

Figure 5 depicts European EV/EBITDA sector multiples for 12 selected sectors as of 31.12.2024. These are shown as median multiples for companies within sector indices.

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The cost of capital parameters and multiples presented in this newsletter are only and excerpt. Further data and customised analyses can be provided upon request. Visit our free and premium cost of capital service or contact us directly under robert.schmidt@roedl.com.

Size Premia in International Valuations: Theory, Practice & Controversy

The role of the size premium in valuation remains a contentious issue among international valuation practitioners. This article explores the theoretical underpinnings of the size premium, its practical implications, and the varying acceptance across different jurisdictions.

THEORETICAL FOUNDATIONS

The size premium is based on the "size effect," first documented by Banz (1981)[3] and later supported by Fama & French (1993).[4] Their research found that US stocks with lower market capitalisation ("small caps") exhibit higher returns than companies with larger market capitalisation. This is rooted in the higher risk of small caps and thus investors demanding a higher rate of return, leading to a higher cost of equity. The primary explanations for this phenomenon include:

- Liquidity constraints: Smaller firms are less liquid with higher associated transaction costs.
- Higher risk exposure: Increased volatility and risk of financial distress justify a higher required returnerefore require more analysis per dollar invested. Small caps tend to have higher fixed costs relative to variable costs, therefore revenue growth is translated into profit more easily. However, in the event of low revenue growth or decline, , the level of fixed costs leads to higher losses.
- Information asymmetry: Limited analyst coverage and data availability lead to greater uncertainty. Small caps th.

The size premium is typically derived by sorting stocks into deciles based on market capitalisation. These decile-based premia are then aggregated into broader size categories, such as mid cap, low cap, and micro cap, depending on the methodology of the study and the level of aggregation used.

To extend the CAPM in a such a way that it incorporates idiosyncratic risk, a multi-factor model is used, adding the size premium as per the equation, where r_s is an additive component to the cost of equity and initially represents the factor loading β_s resulting from a multivariate regression multiplied with the yield SMB ('small Minus big') of the respective portfolio of small companies over big companies. of the study and the level of aggregation used.

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$$r_e = r_f + \beta_m \cdot (r_m - r_f) + \beta_s \cdot SMB$$
$$\Leftrightarrow r_e = r_f + \beta_m \cdot (r_m - r_f) + r_s$$

PRACTICAL IMPLICATIONS & APPLICATIONS

United States: A Standard adjustment in valuations

In the U.S., the size premium is widely accepted and integrated into valuation by reputable sources such as Kroll (formerly Duff & Phelps) (2018)[5] and Damodaran (2012)[6] as it is widely accepted that the classical CAPM is insufficient in capturing all risk factors important to equity holders. The size premium is therefore commonly used in:

- Private business valuations where market-based risk assessment is less straight forward (e.g. beta from the CAPM model).
- Mergers & acquisitions, particularly for smaller targets where market comparables are limited.
- Litigation and tax valuations, where adjustments for company-specific risks are required.

Empirical studies in the U.S. support the persistence of the size effect, though some suggest its magnitude has diminished over time. However, valuation practitioners argue that ignoring it would understate the required return for

small firms, potentially distorting valuations.

GERMANY: DIFFERING TREATMENT BASED ON VALUATION CONTEXT

Objective valuations: Prohibition of size premia

For valuations aimed at determining objective value, the Institute of Public Auditors (IDW) explicitly prohibits the use of size premia. IDW PH 1/2014 states that the application of such adjustments lacks empirical evidence and is not sufficiently supported by capital market theory. The rationale for this stance includes:

- Lack of empirical evidence: Studies such as Baetge & Schulz (2009)[7] and Hachmeister et al. (2012)[8] found no empirical evidence for a size premium in the German sotck market.
- Conceptual inconsistencies: The CAPM is based on the idea that only systematic risk determines asset prices, while the size premium introduces elements of idiosyncratic risk, which can be diversified away in a portfolio.

As a result, size premia cannot be applied in valuations that must adhere to German regulatory and auditing standards, such as tax assessments or court proceedings. Misapplying valuation principles in these contexts could lead to disputes or regulatory challenges.

Subjective valuations: Size premia in practice

By contrast, size premia are often taken into account in valuations for subjective decision values – such as in M&A transactions or investment analyses. The reasoning behind this is that the risk factors reflected in the classic CAPM are insufficient for calculating the decision and that further premia must be applied if the alternative return is to be determined as transparently and market-consistently as possible and not merely based on general return expectations or gut feeling. In Germany, empirical findings from the US stock market are often used with the justification that this stock market has a very long measurable history and a high range of different size classes. This distinction underlines the importance of adapting valuation methods to the specific context and purpose of the valuation in order to ensure both theoretical accuracy and practical applicability.

GLOBAL PERSPECTIVES: WHERE DO OTHER JURISDICTIONS STAND?

Beyond U.S. and Germany, the treatment of size premia varies:

- United Kingdom: While the CAPM is the dominant model, practitioners sometimes include size adjustments, particularly in private equity valuations.
- France & Italy: While research indicates that the CAPM remains relevant in explaining the size anomaly in Spain and Italy, findings for France suggest that no tested asset pricing model fully accounts for the effect, implying potential opportunities to exploit this anomaly. Empirical studies suggest a weaker size effect, leading to mixed acceptance.[9]
- Emerging markets: Higher market inefficiencies and risk factors may justify a size premium, but data limitations often constrain application.

Global valuation standards, such as International Valuation Standards (IVS), do not mandate or prohibit size premia but emphasise consistency with market evidence.

PRACTICAL EXAMPLE: HOW DOES THE SIZE PREMIUM AFFECT VALUATIONS?

As a practical example, consider a privately held mid-sized manufacturing firm being valued for a potential sale. Under the CAPM approach, the base cost of equity is estimated at 9%. If a U.S.-based valuation firm applies a 2.5% size premium, the revised cost of equity rises to 11.5%, impacting the company's discounted cash flow (DCF) valuation significantly. Baetge & Schulz (2009)[10] elaborate for instance that an exemplary size premium of 2% decreased enterprise value by 18% in their research case. A German valuation under IDW guidelines would retain the 9% cost of equity, resulting in a higher enterprise value. Such discrepancies highlight the importance of jurisdictional alignment in valuation engagements, as they have the potential to significantly skew the value. This is especially important for cross-border valuations, as country-specific adjustments could be required. Depending on the reason for which the valuation is conducted, a deliberately faulty valuation by the standards of local authorities (e.g. tax authorities), can have legal ramifications. It is therefore imperative to be knowledgeable about all local requirements when performing a business valuation.

CONCLUSION: NAVIGATING THE COMPLEXITY OF SIZE PREMIA

The size premium remains a highly controversial topic in valuation. While its empirical foundation is well-established in the U.S., skepticism persists in Germany and other jurisdictions. Practitioners

must carefully assess local regulatory frameworks, empirical evidence, and valuation standards to ensure compliance and accuracy in the corresponding market. Given the potential for material differences in enterprise value, understanding whether and how to apply a size premium is crucial for cross-border valuations.

By maintaining awareness of international valuation standards and evolving research, professionals can make informed, defensible adjustments that align with both theoretical rigor and practical necessity.

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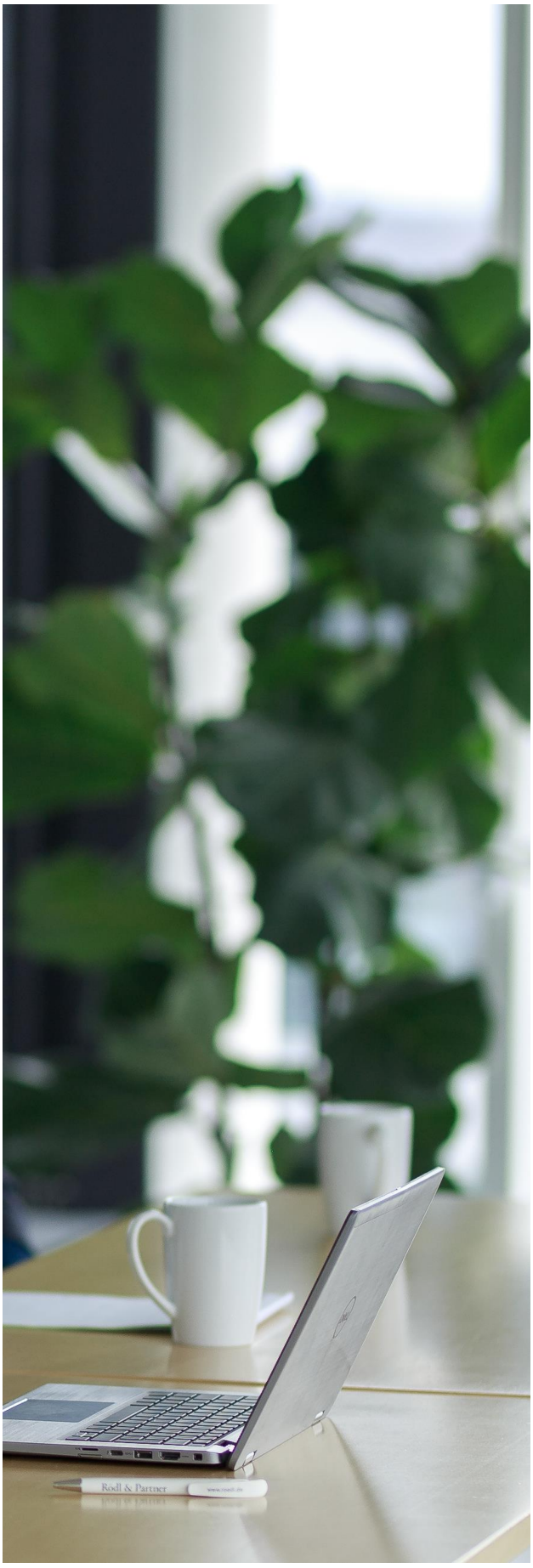


Working Capital: Managing Seasonality & Cycles

GENERAL EFFECTS

While there is no formal definition of 'Working Capital (WC),' finance practice generally considers it to include operating short-term non-cash assets and liabilities – primarily inventories, accounts receivable, and accounts payable. Working capital is calculated as the net difference between these assets and liabilities.

$$WC = Inventories + AR - AP$$

$$A_R: Accounts\ Receivable,\ AR: Accounts\ Payable$$

In financial analysis, business valuation, or M&A, working capital is highly relevant for three key reasons. First, changes in working capital typically have an immediate cash impact that is not reflected in a company's income statement. For example, when a company builds up inventory, it requires cash outflows. If customers delay payments, accounts receivable increase, reducing the company's cash position. Conversely, if the company extends payment terms with suppliers, accounts payable rise, allowing cash to be retained. Naturally, these effects also work in reverse.

Second, working capital can be highly volatile in both magnitude and frequency. For certain business models, it's not uncommon for inventory levels to double or halve within a few weeks due to bulk orders from both suppliers and customers. Other models exhibit seasonal fluctuations, with working capital positions peaking in summer and declining in winter, or vice versa. The significant magnitude of these fluctuations underscores the material impact of working capital on cash flow, while the high frequency of changes highlights the need for close monitoring of intra-year developments, rather than relying solely on annual reports.

Thirdly, since working capital can be subject to manipulation and may be artificially high or low at the key date, it is crucial to factor in the need for investment or excess cash tied up in working capital when calculating the price. The primary concern is determining an appropriate working capital target.

A useful way to analyse the cash effects of working capital is to trace the flow of funds through the typical business cycle – from ordering raw materials and paying suppliers, to producing and selling goods, and finally collecting outstanding invoices from customers. A single turnover of funds within a business process is called the Cash Conversion Cycle (CCC), measured in days, also known as the Cash-to-Cash Cycle (C2C). The CCC provides insight into the net number of days between cash outflows and inflows, based on the average duration inventories, accounts receivable, and accounts payable remain on the balance sheet. A longer CCC indicates a longer payback period for production and supply expenditures, and vice versa. The following equation outlines how to calculate the CCC :

$$CCC = DIO + DSO - DPO$$

$$DIO: Days\ inventory\ outstanding\ \left(\frac{Inventory}{COGS} * 365\ days\right)$$

$$DSO: Days\ sales\ outstanding\ \left(\frac{Receivables}{Sales} * 365\ days\right)$$

$$DPO: Days\ payables\ outstanding\ \left(\frac{Payables}{COGS} * 365\ days\right)$$

Days inventory outstanding (DIO) measures how long it takes until inventory on the balance sheet finds to be reflected in the income statement, or how many operating days the current stock is expected to cover. DIO is calculated by dividing the average annual inventory by the annual cost of goods sold (COGS) and multiplying the result by 365 days. Similarly, Days Sales Outstanding (DSO) is determined by dividing average annual receivables by annual sales, while Days Payables Outstanding (DPO) is calculated by dividing average annual payables by annual COGS. Both DSO and DPO are also multiplied by 365 days to express the values in days.

Different business models have varying CCC lengths. Production-heavy B2B businesses typically exhibit longer CCCs, while service-oriented or B2C models tend to have shorter CCCs. Some business models even have negative CCCs – for example, a food retailer that sells products for cash (no DSO), has a short shelf life (low DIO), and pays suppliers on standard credit terms (normal DPO).

Therefore, the length of the CCC at any given time is not inherently meaningful. It is important to assess it in relation to industry benchmarks and

the company's typical state, i.e., without a working capital deficit or surplus.

LOCAL FEATURES

Since CCC patterns are industry-specific and regions have distinct economic structures and business practices, working capital is also a regional consideration. It is particularly relevant for financial analysis to identify non-linear, seasonal, or irregular working capital patterns, as analysing linear patterns is straightforward. This article therefore focuses on two typical examples with such non-linear patterns from the Baltic States.

The first example, where this issue is particularly pronounced, relates to crop farming with a single harvest per year, common in the Baltic States. Such companies typically have a CCC of around twelve months. Inventory accumulates throughout the year, with a single point—or rather, a very short period – of inventory reduction (harvesting and sale), followed by a single customer payment date. After this, the cycle begins anew.

Another local example involves small and medium-sized companies that manufacture large or complex equipment (e.g., mechanical engineering, metalworking, advanced manufacturing) or undertake construction and engineering projects on credit, i.e., without receiving significant advance payments. In this case, each project may have its own CCC, and collectively they result in a highly unpredictable working capital pattern with no clear seasonality. At any given time, the normal level of working capital may be high or low, primarily depending on the progress of the projects the company is involved in. In this context, the simple arithmetic mean—the most common approach to calculating target working capital in practice – would be an inadequate measure.

Fig. 8: WC Development: Long Cycle

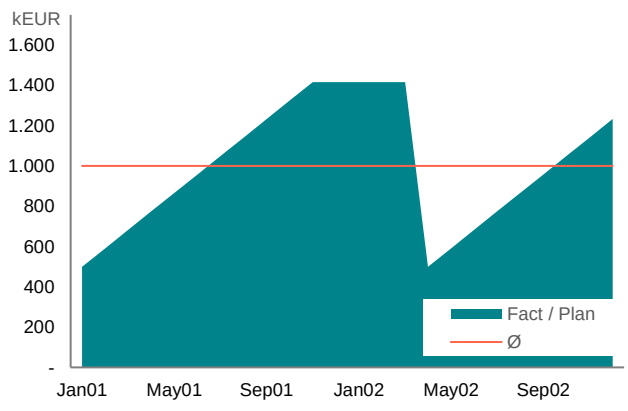
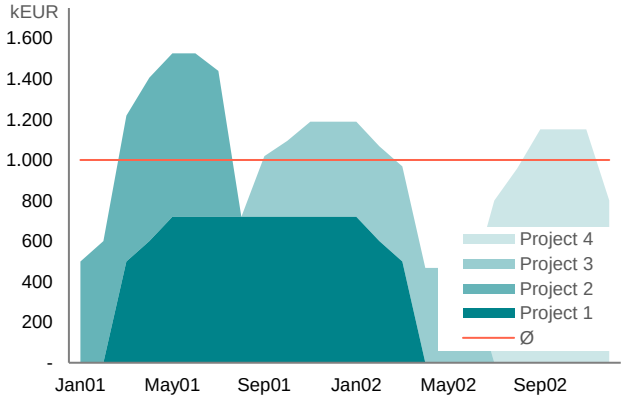


Fig. 9: WC Development: Project Production



Source: Raw data S&P Capital IQ, Analysis Rödl & Partner

It is clear that measuring working capital at a specific moment, as well as forecasting its development, is critical in cases with non-linear working capital patterns. For example, in an M&A transaction, there is a high likelihood that the working capital measured at the time of valuation or signing will differ from that at the time of the final transaction, i.e., at closing. However, the buyer wants to pay for what they receive, and the seller wants to be paid for what they deliver – both at the exact time of the company's transfer at closing. This typically requires a more detailed and dynamic analytical approach to address non-linear working capital patterns. Specifically in M&A cases, the following solutions are possible.

PRACTICAL SOLUTIONS FOR SPECIFIC CASES

Carve-out of Working Capital

In cases where work in progress (WIP) constitutes the majority of working capital, it can be valued separately as an asset. This approach works well with the two examples above, as WIPs in both cases can be independently valued – such as land with future crops or unfinished engineering projects.

This can be done either on an accounting basis, using cumulative costs, or on a value basis, using expected future revenue. However, this method requires a reliable and consistent valuation basis, which is not always available.

The WIP is then treated as a cash-like item and fully recognised in the transaction price. Simultaneously, to avoid double counting, the value of the business is calculated as if the WIP – or the entire working capital – were zero at the time of the transaction, with the assumption that it

would need to be financed separately by the buyer.

In our experience, this approach has proven effective, particularly for agricultural businesses. However, it is subject to uncertainties, as valuation methods can vary, and statutory accounting data may be manipulated. this is also why the risks associated with this approach are generally higher for the buyer than for the seller.

Applying Planned Working Capital

If the company's budget for the following year aligns with the buyer's business plans, the target working capital can be defined as the minimum required for the next twelve months, based on the budget. This assumes that excess working capital can be converted into liquidity without incurring losses and that any potential capital requirements can be met without significant additional costs.

This approach has been successfully used in our practice. It is typically more favourable to the buyer than to the seller, as it is based on the buyer's forward plans. However, its main limitation is that it requires very stable planning and transparent liquidity reserves, which can be challenging to achieve in volatile industries.

Indirect Benchmark for Working Capital

A pragmatic approach is to define the target working capital based on a key figure that is difficult to manipulate, such as annual sales or historical averages. This method reduces the risk of distortion from manipulation or extraordinary short-term changes in working capital. As a result, it is generally more favourable to the buyer.

While deriving target working capital from sales or another independent indicator can be practical, it becomes problematic in industries where working capital does not scale linearly.

Extension of the Observation Period

Obviously, in cases of long CCCs and irregular working capital patterns, even an arithmetic mean can become a viable tool when applied over a longer period. Calculating a multi-year average of working capital can smooth out short-term fluctuations. This method can be particularly useful in stable business environments. However, there is a risk that historical working capital levels may no longer align with future business requirements, especially in the event of changes due to growth or contraction.

Depending on the trend in recent years, this approach may benefit either the buyer or the seller.

CONCLUSION

This article has outlined several approaches for dealing with non-linear, seasonal, or cyclical working capital patterns, as commonly seen in the Baltic States, in valuation and M&A. Naturally, other approaches and solutions for addressing working capital challenges are also available. In real transaction scenarios, a compromise must be reached between computational effort and the potential for price deviations when using rough estimates. There is no one-size-fits-all solution that works in every case, but by understanding the limitations and strengths of different methods, and maintaining transparent communication between buyer and seller, potential conflicts can be avoided, ensuring a fair purchase price.

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Expert Spotlight

CYRIL PRENGEL

Partner
Valuation Services (Nuremberg)
EMBA, CVA (EACVA)

With over 21 years of experience in in advising on corporate transactions and in carrying out company valuations for any occasion, Cyril Prengel has been a leading figure at Rödl & Partner since 2003. As a partner and team leader in the Transactions Valuation Restructuring division at the Nuremberg and Berlin offices, he advises clients comprehensively in all transaction phases. He specialises in:

- Leading financial due diligence processes for M&A transactions, carve-outs, and business valuations, advising corporate clients as well as private equity, hedge funds, and venture capital investors
- Business valuations for various purposes, including startup-valuations, squeeze-outs, tax-related valuations, and valuations for transaction purposes (e.g. IDW S 1 valuations and fairness opinions for listed companies)
- Advising on purchase price mechanisms and financial aspects of share purchase agreements, ensuring alignment with due diligence findings and valuation assumptions

His track record includes successful project management for numerous M&A transactions, carve-outs and company valuations, particularly in the industrial sector.

As a speaker at workshops and industry events on business valuation, financial due diligence, and M&A transactions, he regularly shares insights on best practices and market trends.

EXPERT IN CONVERSATION

In addition to your project work, you've also contributed to academic and professional discussions, such as your recent article in the Corporate Finance Magazin ('WACS on, WACS off' with Matthias Meitner). How do research and publishing complement your daily work in company valuation assignments, and why do you think it's important to engage with industry developments in this way?

The field of company valuation in particular requires extensive specialist knowledge and theoretical expertise in order to correctly map the value drivers for a wide range of valuation objects and various valuation occasions. This ability can only be acquired through years of practical experience but also through extensive study of the literature. It is also helpful to have your own publications and presentations, as this requires a very intensive study of detailed questions and sharpens your own profile.

What is one piece of advice you would give to a company preparing for an M&A transaction?

We often find that companies are not sufficiently prepared for a sale or a M&A Process. In our view, it is advisable to start preparing the company or group of companies for the sale at an early stage from a tax, legal and business perspective and to sharpen the equity story. We recommend conducting exit readiness workshops to analyse weak points and set the right course. Our interdisciplinary approach with experts from the fields of M&A / Tax / Legal / Transaction & Valuation Services and IT provides an all-round view of the company.

What's the best career advice you've ever received, and how has it shaped your approach to leadership?

Build up as much expertise as possible in the first few years, don't climb the career ladder too quickly and to avoid being overwhelmed, give your best every day, be reliable and find the right mentors to support you. In addition, always be humble and treat all colleagues fairly. And don't seek your own advantage at the expense of others. This will not lead to success in the medium or long term.

Recommended Publications

The valuation of startups and their shares: A survey of venture capital investors

In the current issue of CORPORATE FINANCE (CF 1-2/2025), Tim Büttner (Associate, Rödl & Partner), Armin Hagel (Manager, Rödl & Partner) and Cyril Prengel (Partner, Rödl & Partner) examine the valuation of start-ups and their shares by venture capital (VC) investors based on a survey in collaboration with Prof. Dr. Dirk Honold (Professor for Finance, Nuremberg Institute of Technology Georg Simon Ohm).

The results show that the expected return - measured by the IRR - is significantly dependent on the type of investor (e.g. business angel, Institutional VC, Corporate VC), possibly due to their different investment motives. Furthermore, the study reveals that VC investors use several methods simultaneously, especially for company valuation, to narrow down derived value ranges. At the same time, the use of valuation methods is strongly dependent on the development stage of the start-up and generally less dependent on the type of investor. In terms of share valuation, where special rights (e.g. liquidation preferences) play a critical role, simplified approaches often dominate. In addition, past transactions represent a key reference point for determining the value on future valuation dates. Finally, the results suggest that a quantitative value derivation is becoming the standard in the early stage (compared to a purely heuristic value derivation).

Language: German

Access the article here

Accounting and valuation of employee stock options and similar forms of remuneration in accordance with IFRS 2 – A descriptive analysis of the DAX40 companies

In issue 1/2025 of the Zeitschrift für internationale und kapitalmarktorientierte Rechnungslegung (KoR 1/2025), Armin Hagel (Manager, Rödl & Partner) provides an overview of the design as well as the accounting and valuation practice of employee stock options and similar forms of remuneration in accordance with IFRS 2 at the DAX40 companies together with Aaron Kasischke (Research Assistant, Otto-Friedrich-Universität Bamberg).

Despite the comprehensive reporting obligations, the study shows that DAX40 companies do not adequately fulfill their disclosure obligations. At the same time, increasingly complex remuneration programs are being used that include variable strikes or need to be valued using Monte Carlo simulations. As a result, the information quality of the IFRS financial statements is adversely affected.

Language: German

Access the article here

Upcoming Events

Industry knowledge and professional exchange are essential to staying up to date. In this section, we regularly inform you about upcoming events on business valuation, M&A, and related fields – from expert conferences and specialised seminars to hands-on, practice-oriented workshops.

Mergermarket M&A Forum

SAVE THE DATE
6 May 2025

Frankfurt Marriott Hotel
Hamburger Allee 2
60486 Frankfurt am Main
Germany

At the Mergermarket M&A Forum Germany 2025, leading experts from the business and financial sectors will discuss current developments and challenges in the transaction market.

Take advantage of this opportunity to connect with dealmakers, investors, and advisors while gaining valuable insights into the future of the industry.

Key highlights: A panel on value creation through carve-outs and the evolution of private equity activities in Germany, as well as a fireside chat on the role of the German Mittelstand in the coming decades.

Further information, including the agenda, can be found here.

Rödl & Partner 9th M&A Dialogue

SAVE THE DATE
6 May 2025

Munich Hoch5
Atelierstr. 10-18
81671 Munich
Germany

Political elections, economic changes, and geopolitical developments shape the global transaction market. But what are the specific impacts on M&A processes?

At our 9th M&A Dialogue, we will analyze these developments together with experts from the business world and discuss the opportunities and challenges that arise from them.

A special highlight: Prof. Dr. Stephan Bierling, Chair of International Politics and Transatlantic Relations at the University of Regensburg, will provide valuable insights into global frameworks and their influence on the M&A market.

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