

CORPORATE FINANCE

Capital Costs and Impairment Test Study

Empirical Survey of Companies in Germany,
Switzerland and Austria

ADVISORY

List of abbreviations

ATX	Austrian Traded Index
CAPM	Capital Asset Pricing Model
CGU	Cash Generating Unit
DAX	Deutscher Aktienindex (German share index)
DCF	Discounted Cash Flow
EK	Equity capital
FK	Debt capital
FER	Fachempfehlung zur Rechnungslegung
HFA	Hauptfachausschuss des IDW
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IDW	Institut der Wirtschaftsprüfer in Deutschland e.V.
IFRS	International Financial Reporting Standards
GoF	Goodwill
M & A	Mergers & Acquisitions
MDAX	Mid-Cap Share Index
MRP	Market Risk Premium
SMI	Swiss Market Index
SPI	Swiss Performance Index
US-GAAP	United States Generally Accepted Accounting Principles
WACC	Weighted Average Cost of Capital

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1 Foreword

In the fiscal year 2006, every third DAX company surveyed recognized an impairment. In Switzerland, it applied to 42 per cent of SPI-listed companies surveyed. The question as to the value of assets including goodwill is of key significance to business practice.

The internationalization of accounting has led to the introduction of rules for recognition, measurement and disclosure of impairment that were only rarely applied in Germany or Europe in the past. On account of the EU IAS directive, IASB rules, among others, have become binding for all listed companies.

The impairment test is very important since internationally the so-called impairment only approach is applied. This means that so-called goodwill from purchase of a business is no longer subject to scheduled depreciation. Rather IAS 36.9 prescribes an annual test to determine whether goodwill has been impaired and this has to be recognized in the corresponding accounting as expense. Regardless of this, an impairment test is to be performed when there is reason to suspect an impairment based on triggering events. Due to the more extensive capitalization requirements under IFRS, inter alia for intangible assets, the importance of the impairment test continues to increase.

The regulations for conducting impairment tests have been summarised by the IASB primarily in IAS 36. However practical implementation requires interpretation of the individual rules and scope of discretion. We are repeatedly confronted with the question of whether capital costs have been appropriately measured. This often triggers discussion about the capital costs recognized for external reporting purposes and which capital costs are to be assumed for corporate controlling and management.

We have made these questions the focus of our study and investigated them empirically. The results of this study present a current view of the impairment test practice in Germany, Switzerland and Austria. The focus is on capital costs and their components that are recognized in accounting practice when performing impairment tests.

Our study is a follow-up study to the one we conducted in Germany in 2005/2006. This year the focus expanded to include companies in Germany (201) as well as Switzerland (175) and Austria (49). 100 of the 426 primarily listed companies participated in the study. This led to a very good response rate of 23.5 per cent. An even higher response rate was attained in the leading indices of each country (DAX 30: 56.7 per cent; SMI: 64.0 per cent; ATX: 25.0 per cent).

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Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

2 Summary of Findings

1. In 41 per cent of the companies surveyed the goodwill impairment is determined for CGUs at segment level and 44 per cent at one level below segment level. 41 per cent define ten or more CGUs for goodwill impairment and 67 per cent for asset impairment.
2. Some 63 per cent of companies use differentiated capital costs for individual CGUs.
3. More than half of the companies surveyed distinguish between capital costs for impairment tests and for controlling purposes. Thus the number has increased again compared with the 2006 study (33 per cent).
4. Two-thirds of companies use the entity approach of the DCF methods for impairment tests. The multiplier method is only used in the M & A field.
5. The CAPM is the leading method applied to derive capital costs.
6. Some 91 per cent of companies will disclose their applied capital costs for 2007 (77 per cent in 2006). Only two per cent of German companies will refrain from disclosures compared with 15 per cent of Swiss companies.
7. Some 88 per cent of companies computing a value in use apply the capital structure of the company resp. cash-generating unit. Two-thirds of companies apply the capital structure of a peer group when computing the fair value.
8. Some 83 per cent of companies surveyed derive the beta-coefficients from historical data.
9. Some 44 per cent base their beta-coefficient computation on a peer group and 38 per cent on the beta-coefficient of the reporting company. In about 57 per cent of companies surveyed the beta-coefficient computation is based on a multi-year average.

10. Comparing countries, the basic interest rate of about 4.4 per cent in Germany exceeds substantially the basic interest rate of about 3.4 per cent in Switzerland. The risk premium from market risk premium multiplied by the debt-free beta-coefficient ranges from 3.2 per cent for Software & Technology to 5.0 per cent for Industrial Diverse and Banks respectively.
11. The average long-term growth rate for cash flow within the impairment tests in the most recent consolidated financial statements in Germany was about 1.6 per cent. About 2.2 per cent has been stated for the next financial statements.
12. The average WACC after tax was 7.3 per cent in 2006 and will be a somewhat lower 7.1 per cent in 2007.
13. The average composition of capital cost calculations in the published consolidated financial statements 2006 of the companies surveyed is as follows: base rate 3.9 per cent; market risk premium five per cent; debt-free beta-coefficient 0.9; leveraged beta-coefficient 1.0. The range of leveraged beta-coefficients in various industries lies between 0.8 and 1.3. The averaged leveraged beta-coefficient in the market is 1.0 by definition. Thus the average leveraged beta-coefficient of companies surveyed coincides with the beta-coefficient of the market portfolio.
14. The capital costs of the companies surveyed will be recognized on average as follows in the next published consolidated financial statements: basic rate 4.0 per cent; market risk premium 5.1 per cent; debt-free beta-coefficient 1.0; leveraged beta-coefficient 1.1.

3 Capital Costs and Impairment Tests – Implementation for Prime Standard Companies

3.1 Methodological overview

3.1.1 Principles and objectives

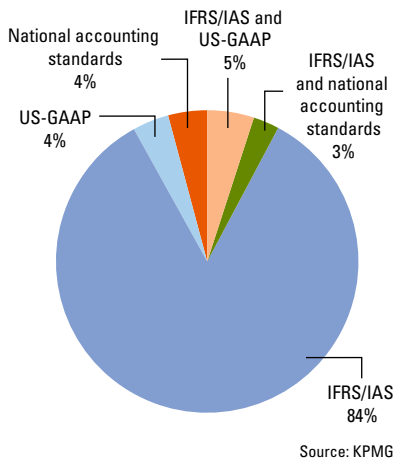
Due to the requirement imposed by the European Union since 2006, listed companies are obliged to prepare their consolidated financial statements according to international reporting regulations and hence companies must disclose more information. This also pertains to so-called impairments of assets, including goodwill and the valuation methods applied and costs of capital. On account of the disclosure requirements – especially IAS 36 – it is possible that the costs of capital will reveal important control figures which have rarely been disclosed voluntarily until now.

As a follow-up to the first Capital Cost and Impairment Test Study published in 2006, the study of impairment test practice in Germany has been expanded to include Switzerland and Austria. The current study concentrates on the criteria companies use to measure their capital costs, resp. which capital costs they use when performing impairment tests. In addition, we pursued the questions as to what extent publication of the capital costs used is intended.

In our 2006 study detailed questions were also asked with regard to US-GAAP. In light of the IAS directive issued by the EU Commission, this focus was no longer required. The IAS directive states that listed companies must prepare their consolidated financial statements in accordance with international accounting standards starting in 2005. In Switzerland, the reporting standards are defined by the Expert Recommendations on Accounting (*Fachempfehlungen zur Rechnungslegung (FER)*). However, since 2005 all companies listed on the big board of the Swiss stock exchange are obliged to apply either IFRS/IAS or US-GAAP.

The majority, i.e. 92 per cent of companies surveyed, report according to IFRS/IAS. Very few in the sample (4 per cent) apply US-GAAP reporting standards. These companies are also included in our assessment since there are no material conceptual differences in the derivation of cost of capital within the impairment test under US-GAAP or IFRS. The difference in US-GAAP is that only the fair value is to be applied when calculating recoverable amounts (see for example KPMG, IFRS compared to US-GAAP, July 2007, p. 143).

Composition of sample
by accounting standards



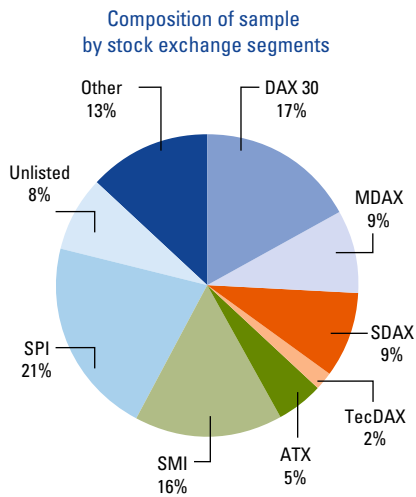
The aims of the study are:

- Presentation of prevailing practice for derivation of capital costs and identification of best practice
- Assessment of capital costs by country, industry, and stock market segment
- Comparison of the capital costs use for management and those capital costs published.

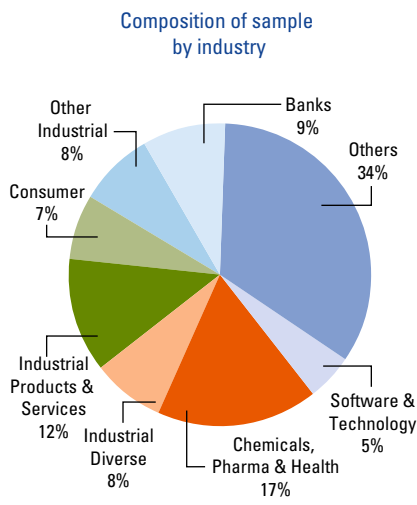
Moreover recognizable development trends in comparison to our 2006 study will be explained.

3.1.2 Data collection

For this year's study a total of 426 companies were contacted, among them companies in Switzerland and Austria for the first time. Of the 426 companies contacted, 201 are in Germany, 175 in Switzerland and 49 in Austria, and one company in Liechtenstein. The response rate was 23.5 per cent, significantly better than for the previous study (2006: 16.4 per cent). The response rate among companies in the leading indices of the respective countries (DAX 30, SMI and ATX) was higher than average with 50.7 per cent. The response rate for Austrian companies was only 8 per cent, significantly lower than for German and Swiss companies.



Source: KPMG



Source: KPMG

Classification of Participants in Study

Stock exchange segment	No. responses	Segment size	Response rate
DAX 30	17	30	56.7%
MDAX	9	47	19.1%
SDAX	9	48	18.8%
TecDAX	2	24	8.3%
ATX (Austria)	5	20	25.0%
SMI (Switzerland)	16	25	64.0%
SPI (Switzerland)	21	131	16.0%
Unlisted (D, A, CH)	8	39	20.5%
Other (D, A, CH)	13	62	21.0%
Total	100	426	23.5%

Listed companies with a market capitalization exceeding EUR 100 million were contacted. These comprise 181 companies in Germany, 156 in Switzerland, 49 in Austria and one company in Liechtenstein. In addition 39 further non-listed companies were contacted. On account of the low response rate for Austria in comparison to Germany, we have refrained from a separate analysis of the results from Austria.

Along with an assessment by country (Germany and Switzerland) and index listing, the survey results were also analyzed by industry. The segment "Industrial Diverse" comprises industrial companies active in various industrial fields. The segment "Other Industrial" contains firms involved in heavy engineering, high technology industrial plant and automobile manufacture. The group "Others" comprises companies from sectors that could not be evaluated in detail due to lack of an adequate sample; included here are construction, insurances, media, retail, transport & logistics and utilities.

The enterprises were also surveyed with regard to the amount of their individual capital cost parameters in the last published consolidated financial statements (2005/06) and the planned level for the next consolidated financial statements (2006/07). The assessment by industry was only performed for the 2005/06 consolidated financial statements since very few companies provided information regarding the next consolidated financial statements 2006/07.

3.2 Impairment tests in practice

3.2.1 IAS 36 principles

The IASB has stipulated that goodwill and an intangible asset are not to be subjected to scheduled depreciation. Rather depreciation is only to be charged in the event of an actual impairment (so-called impairment-only method). Goodwill, intangible assets with indefinite useful life, as well as assets not available for operating purposes are to be subjected to an impairment test annually and when there is a reason for a possible impairment (so-called triggering event).

The impairment test to be performed regularly in accordance with IAS is intended to determine that assets are not valued at more than their recoverable amount. If the book value exceeds the recoverable amount, then an impairment is to be recognized. All assets are to be tested for indications of a possible impairment as of the balance sheet date. IAS 36 contains a list of external and internal indicators of impairment. If there is indication of an impairment then the recoverable amount of the assets must be calculated (IAS 36.9).

The recoverable amount for an asset or so-called cash-generating unit, CGU, according to the IFRS is the higher of an asset's value in use or fair value less costs to sell (IAS 36.18). The value in use is the present value of estimated future cash flows expected to arise from the continuing use of an asset or a CGU (IAS 36.31). The fair value is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties (IDW RS HFA 16.8).

If when calculating either of the values, the result exceeds the book value, then according to IAS 36.19, it is unnecessary to calculate the value using the other value concept.

3.2.2 Definition of CGUs

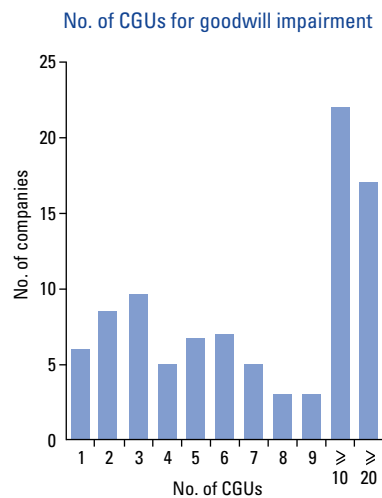
The impairment test is performed at the level of the CGUs. These are not usually identical with the segments stated in the segment reporting. They could lie below the segment level when performing the goodwill impairment test. Some 41 per cent of companies define CGUs for impairment tests at segment level and 44 per cent at one level below segment level.

The recoverable amount is to be computed for the respective asset. If this is not possible then the recoverable amount of the CGU is to be used. Goodwill is determined solely at the CGU level.

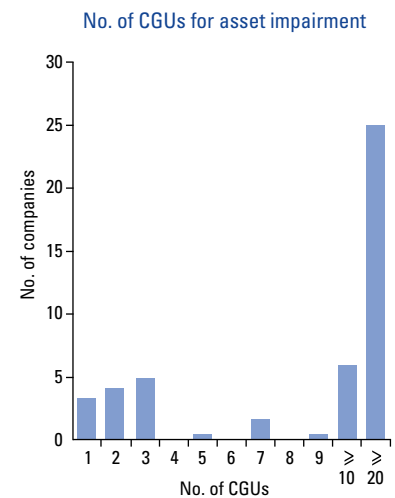
According to IFRS, a CGU is the smallest identifiable group of assets that generates cash in-flows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (IAS 36.6).

Of the companies assessed, 40 per cent distinguish the scope of the CGUs depending on whether an asset impairment or goodwill impairment is concerned. This is especially true for the companies in the respective country leading indices (DAX 30, SMI and ATX), 66 per cent of which distinguish between CGUs for asset impairment and for goodwill impairment.

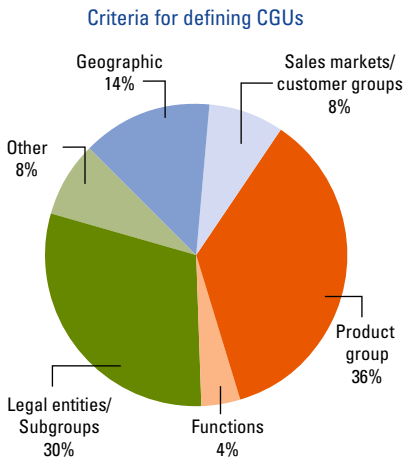
Some 59 per cent of companies define between one and nine distinct CGUs for goodwill impairment and 44 per cent identify ten or more CGUs. In the 2006 study about 49 per cent of the companies accounting according to IFRS still defined 10 or more CGUs. More than half of the companies define 20 or more units for asset impairment.



Source: KPMG



Source: KPMG



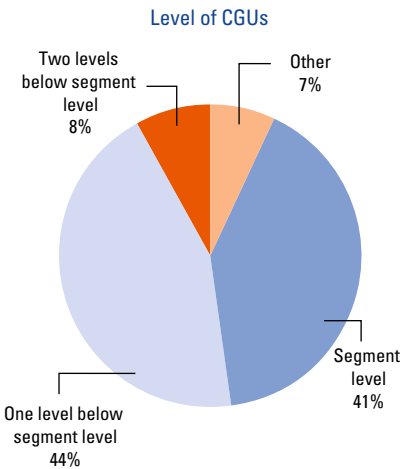
Source: KPMG

CGUs for goodwill impairment are mainly (66 per cent) defined according to product groups or legal entities.

CGUs were seldom defined two levels below segment level for goodwill impairment.

3.2.3 Conducting impairment tests

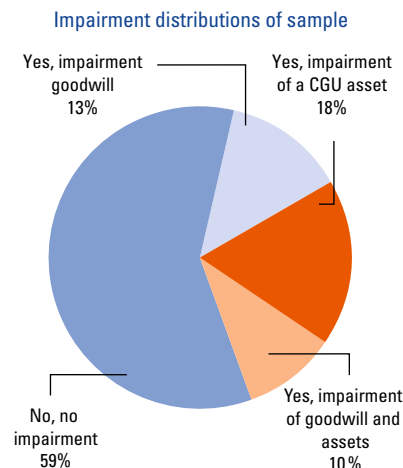
Some 41 per cent of companies stated that depreciation was charged against assets and goodwill in fiscal year 2006. This result is comparable to the findings of the 2006 study (just 50 per cent impairment in the 2004 consolidated financial statements). In Switzerland, the share of companies that recognized an impairment was above the overall result with 45 per cent whereas the number in Germany was somewhat lower with 35 per cent. The majority of companies determined the value in use (57 per cent) whereas in 2006, 66 per cent of companies stated that they calculate using both methods. In 2006, only 14 per cent made their determination solely on the basis of fair value less costs to sell. No country-specific differences were identifiable. However, larger companies use fair value less costs to sell more frequently than smaller enterprises.



Source: KPMG

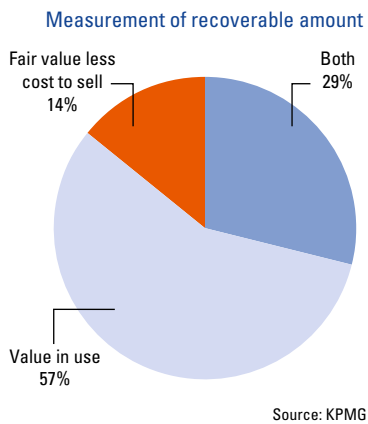
In fiscal year 2006, 23 per cent of companies surveyed recognized a goodwill impairment and 19 per cent recognized an asset impairment. The number of asset impairments in Swiss companies (36 per cent) reported in fiscal year 2006 is higher than the number of goodwill impairments (18 per cent).

The number of DAX listed companies that recognized an impairment of assets and/or goodwill was 32 per cent.



Source: KPMG

In 2006 42 per cent of companies listed in the SPI recognized an impairment. In contrast, 69 per cent of SMI listed companies recognized an impairment of assets and/or goodwill.



Again, companies that conducted impairment tests in 2006 were asked whether they computed a fair value or a value in use.

The majority of companies (86 per cent) computed a value in use. In comparison to the 2006 study, there is thus a growing trend towards application of value in use. In 2006, 15 per cent of the companies said they only computed value in use and 68 per cent answered that they used both value concepts.

Value in use is based on the future cash flows of the asset (IAS 36.30). The measurement of fair value is based primarily on market prices. If there is an active market for the asset, then the market price is determinant (IAS 36.25-26). If there is no market price for the asset then an alternative is to draw on information about recent comparable transactions in the same industry as a basis for estimating the value (IAS 36.27). Since there is rarely a market price or transaction information for CGUs, the next alternative is the capital asset pricing model. Thus, the DCF method can be used both for the value in use and for fair value under the WACC approach.

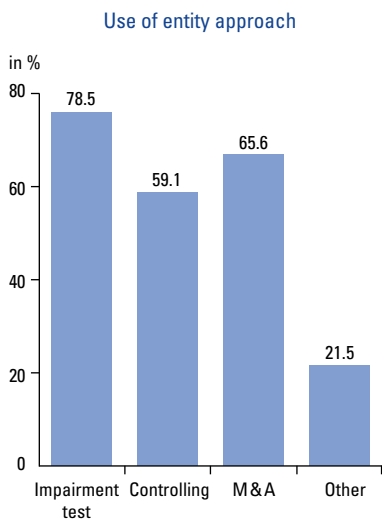
The advantage of the DCF method using fair value as opposed to value in use is that expansion investment and expected restructuring obligations do not have to be eliminated from the company's budget planning. However, synergy effects that only accrue to the reporting company and not to any conceivable purchaser of the CGU are not to be considered when deriving the cash flow to determine fair value.

3.2.4 Valuation approaches

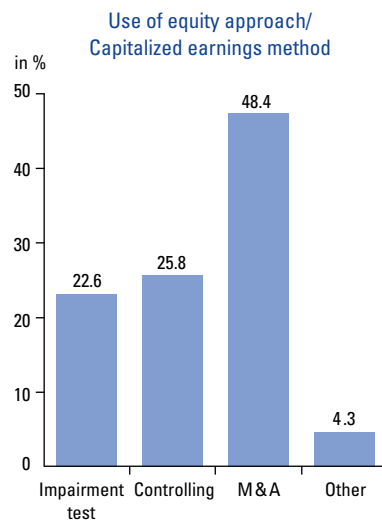
The DCF methods are applied for impairment tests as well as in the M&A and controlling departments. Multiplier methods play an especially important role in M&A decisions. Some 41 per cent of the companies apply multipliers for transaction decisions: however, only 7 per cent of companies use multiplier methods for impairment tests. Some 79 per cent of companies use an entity method, whereas 23 per cent of companies use the equity approach compared with 43 per cent in the previous study.

As a rule, fair value of a CGU is determined by the active market price found for the CGU as of the valuation date. If such a price cannot be determined then fair value can be determined based on another valuation method. The acceptable alternative methods are the DCF method or the multiplier method based on comparable market transactions (see also IAS 38.41). Nonetheless, the multiplier method can only be applied if there is appropriate information about comparable enterprises and their multipliers. Since this condition is rarely satisfied in practice, the DCF method is usually used to measure the fair value (see also IAS 36 BCZ 18).

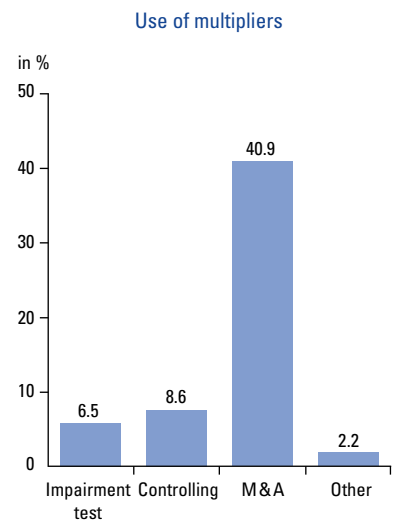
In contrast to fair value, only the DCF method is used to determine value in use.



Source: KPMG



Source: KPMG



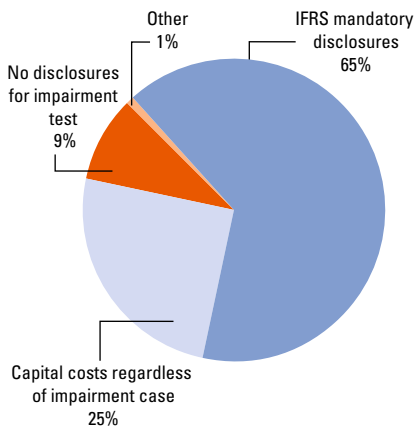
Source: KPMG

Regardless of whether fair value or value in use is measured, about three-quarters of the companies use the entity approach for impairment purposes. In these cases the measurement is based on the cash flow due to all capital contributors – the entity value.

3.2.5 Disclosure

Some 65 per cent of the companies surveyed stated that they will report within the framework of IFRS mandatory disclosures whereas 9 per cent did not want to make any disclosures regarding impairment. Compared to 2006, the number of companies that will not make any disclosures has significantly

Scope of future disclosures of capital costs for impairment tests



Source: KPMG

declined. Then 23 per cent of companies reporting according to IFRS planned to refrain from disclosures. According to IFRS disclosures in the notes regarding impairment are only mandatory if there has been a material impairment of goodwill or a group of assets and significant goodwill or intangible assets with indefinite useful life is allocated to the CGU (IAS 36.130).

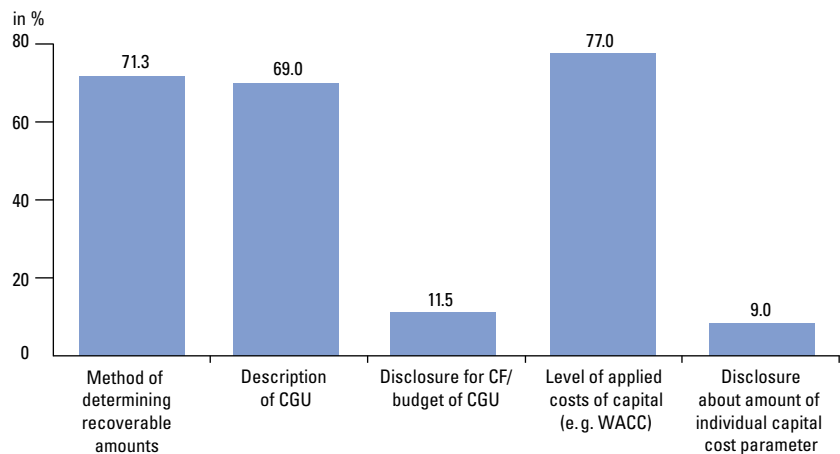
Along with the events and conditions that led to the impairment, the amount of the expense as well as the type and segment of the impaired asset are to be disclosed. For CGUs that report a material impairment, the valuation method applied and the discount rate used are to be disclosed to the extent the impairment test was determined by value in use. If significant goodwill is ascribed to the CGU, then the growth rates used to extrapolate the cash flow are to be disclosed (IAS 36.134).

Only two per cent of German companies made no disclosures. In Switzerland, 15 per cent of the companies refrained from disclosures as to capital costs in their annual financial statements. All the companies participating in our study that are listed on the DAX 30 will make disclosures as to the capital costs.

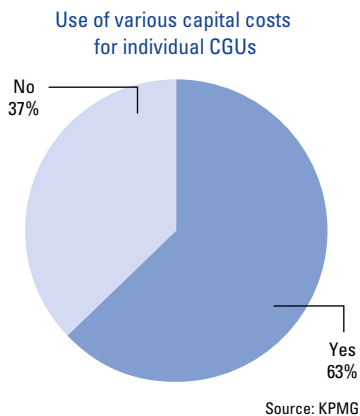
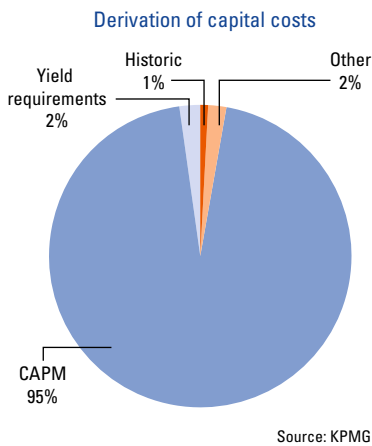
The companies surveyed will primarily disclose the method for measuring recoverable amounts, description of CGUs and the amount of capital costs recognized.

Very few companies will make detailed disclosures as to the amount of the individual capital cost parameters in the 2007 annual report.

Published data on impairment tests in annual financial statements/Notes (observation period)



Source: KPMG



3.3 Capital costs used for impairment tests

3.3.1 Capital cost concepts and calculation mode

With respect to the methods used to derive capital costs, use of the CAPM predominates by far with 95 per cent. No country-specific differences were identifiable. One exception was a respondent who mentioned the real option approach as a possibility for deriving the capital costs. More than half the companies surveyed distinguished between capital costs for impairment test and those for controlling purposes. In the previous study, 33 per cent of the companies stated that they used different capital costs. The reason for different capital costs could be the use of so-called hurdle rates for controlling purposes. However, the differences also arise from the measurement perspectives in accounting regulations, especially with regard to capital structure applied.

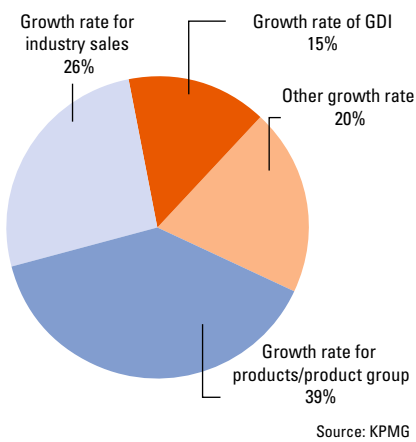
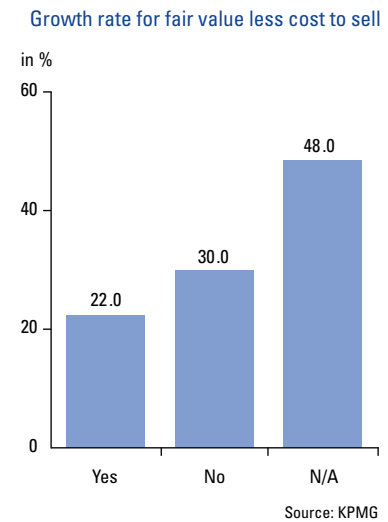
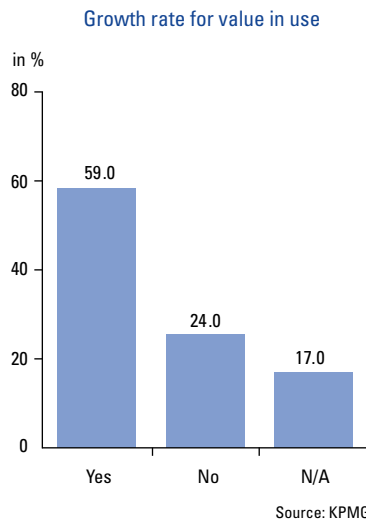
The number of enterprises using differentiated capital costs for individual CGUs increased from 51 per cent in 2006 to 63 per cent. The frequency of differentiated capital cost derivation for CGUs increases with the size of the enterprise. The number of Swiss companies that use individual capital costs for each CGU is 70 per cent, slightly higher than in Germany.

3.3.2 Growth rates for extrapolation of cash flow projections after the detailed planning period

According to IAS 36 financial plans and related forecasts should not exceed a five-year period. An extrapolation is appropriate for the period following this detailed planning period. A growth rate can be applied here to determine the expected cash flow. This has substantial influence on the value of a CGU to the extent a capital asset pricing model is used.

To determine the value of a CGU according to the capital asset pricing model it is necessary to define a sustained cash flow target that reflects the earning capacity of the unit valued after conclusion of the detailed planning period. As a rule, a growth factor is used to extrapolate from the results realized at the end of the detailed planning period. This growth factor has enormous influence on the valuation result since it also helps define the sustained and therefore long-term earnings potential. The assumed future growth potential is represented mathematically by means of a growth discount to the capital cost rate.

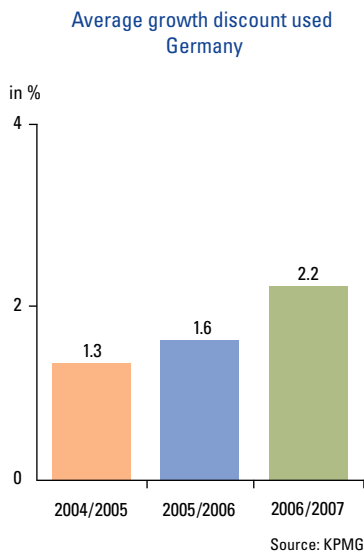
IAS 36 provides orientation for the determination of the growth rate. According to this the cash flow after the detailed planning period is to be extrapolated using either a constant or declining growth rate. Justification must be provided for use of an increasing growth rate. Moreover, IAS 36 requires justification if a growth rate is used that exceeds the long-term growth rate for the respective product, industry or country or the growth rate of the markets. Whereby it must be considered that the statement in IAS 36 solely pertains to value in use when measured according to the capital asset pricing model. There are no explanations for fair value since the preferred method to be used in that case is the market value oriented one.



Whereas 59 per cent of companies said they use a growth rate for value in use, only 22 per cent use one to compute fair value. This appears to be the case in all countries and indices with the exception of the DAX 30. The majority of companies included in this leading index compute using a growth rate even for fair value.

In contrast to the computation of fair value, future restructuring measures and expansion investment are to be eliminated when determining value in use. That is intended to result in lower sustained growth rates (IAS 36.44).

The companies surveyed primarily orient themselves towards growth of products and industries when measuring growth rates regardless of their origin or size.



With respect to the level of average growth discount applied, a rise within the entire sample can be seen from 1.3 per cent in 2004/05 to 2.2 per cent for 2006/07. The evaluation of the individual capital cost parameters in Germany can be performed for three years since the companies in the 2006 study, which was limited to an investigation of the impairment test practice in German, were asked about the capital costs in the 2004/05 financial statements.

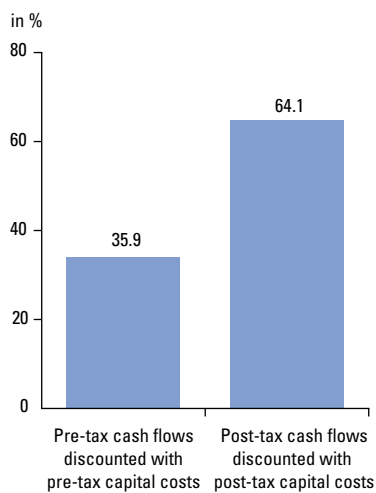
3.3.3 Influence of taxes on impairment

In practice, there is no indication of a clear preference for or against considering corporate taxes in the impairment test. The companies surveyed use both pre-tax and post-tax approaches. Many of the companies following IFRS accounting standards do not choose the method prescribed in IAS 36.55 – but practically impossible to use – pre-tax model. Rather they base their computations on post-tax values – in compliance with IDW RS HFA 16.

In business practice valuation concepts can be found using both pre-tax and post-tax perspectives. IAS 36 prescribes that a value concept excluding corporate taxes is to be applied to the cash flow and capitalization rate when determining value in use. The prevailing opinion is to define the fair value after corporate taxes since market prices as best estimator for fair values generally take tax effects into account.

The problem with the pre-tax perspective is that there is no empirical capital market data for the risk premium before (corporate) taxes. Rather the representative capital market studies are generally based on a post-tax view. If applicable, there is a further distinction made between whether the shareholder's income tax is to be considered along with the corporate tax or not. In light of the present empirical data, a post-tax concept is frequently used to determine fair value and value in use, in compliance with IDW RS HFA 16. IAS 36 also permits an indirect post-tax computation: "In theory discounting post tax cash flows at post-tax discount rate and discounting pre-tax cash flows at pre-tax discount rate should give the same result, as long as the pre-tax discount rate is the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax cash flows." (IAS 36.BCZ85). Corresponding to this consideration, the first step is usually to determine a value in use as well as a fair value post-tax. The second step when determining the value in use is then the retrograde determination of the pre-tax capitalization rate, leading to the same result as in the post-tax concept.

Considerations of corporate taxes



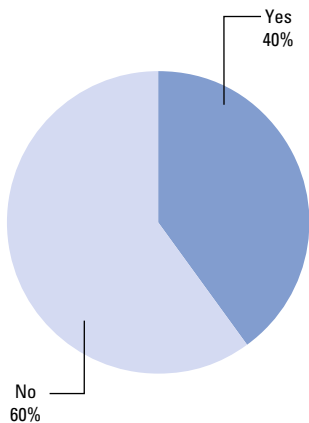
Source: KPMG

This year's study shows that 36 per cent of companies surveyed apply the pre-tax concept. Whereas only 42 per cent of the companies surveyed in 2006 selected the post-tax approach, this has now risen to 64 per cent. Thus the post-tax approach is gradually taking firm hold.

In particular, more than 70 per cent of the larger German companies use the post-tax concept.

The propensity of the entire survey sample to use the post-tax concept reflects the problem that there is no empirical capital market data about pre-tax risk premiums. Since both concepts should lead to the same result, companies were asked whether they back-calculate the pre-tax capital costs based on the post-tax computations. In fact, only 40 per cent of companies surveyed that perform the post tax calculation then calculate back to the pre-tax capital costs.

Back computation of pre-tax capital costs from post-tax capital costs

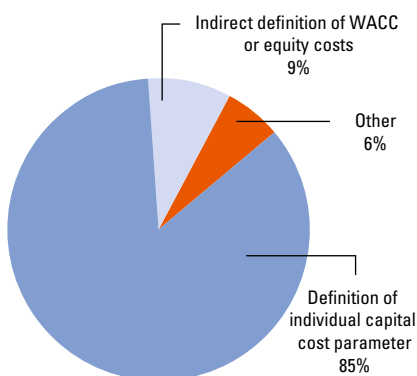


Source: KPMG

3.3.4 Derivation and levels of individual capital cost parameters

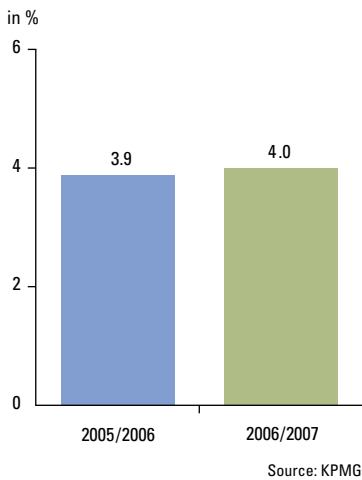
The degree of detail to be observed in the derivation of capital costs among the companies surveyed is high. Some 85 per cent of the companies stated that they define individual parameters composing the capital costs. Only 9 per cent of those surveyed directly define the WACC or equity costs – without other differentiation. In Switzerland this share is 16 per cent. All German listed companies define individual capital cost parameters. Whereas some 17 per cent of Swiss listed companies directly apply the capital costs.

Degree of detail for capital cost definition



Source: KPMG

Average base interest rate used – overall



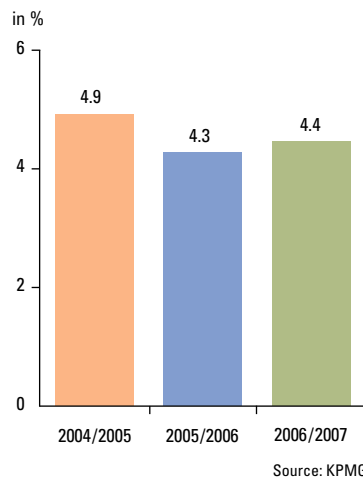
In the following sections we will discuss the definition of individual capital cost parameters in detail.

There is no agreement among the surveyed companies as to the reference yields to be used to derive the **risk-free basic interest rate**. Some companies follow the recommendations of the IDW, according to the interest curve or government bonds with various maturities. IDW S1 recommends derivation of the basic interest rate from interest curves.

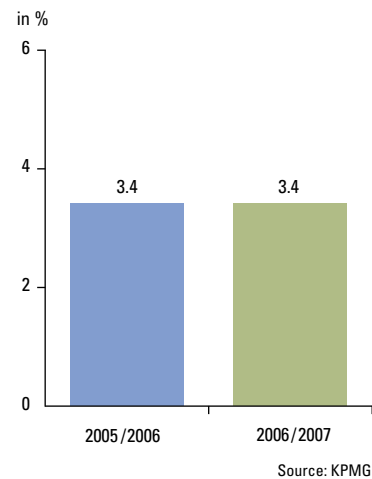
As to the average basic interest rate used, no material change in the total sample between 2005/06 (3.9 per cent) and 2006/07 (4.0 per cent) was observed.

The average basic interest rate in Germany used (around 4.4 per cent) is significantly higher than the basic rate used in Switzerland (3.4 per cent). This difference between Germany and Switzerland is generally explained by the lower interest level in Switzerland.

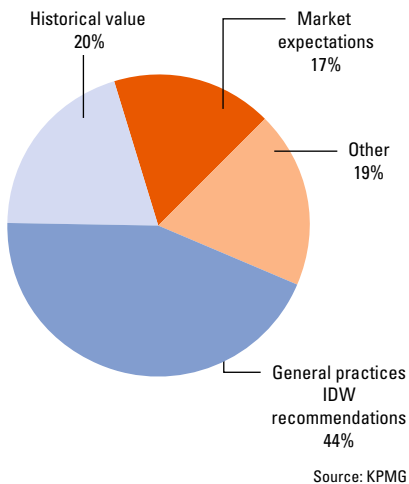
Average base interest rate used – Germany



Average base interest rate used – Switzerland



Derivation of market risk premium



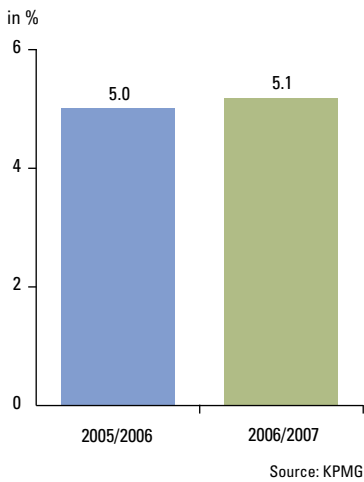
Nearly half of the companies surveyed (44 per cent) used the generally accepted practices and recommendations of the IDW to derive the **market risk premium**.

There were significant differences between the countries. Of German enterprises, 69 per cent follow the recommendations of the IDW/generally accepted practice. The Swiss companies derive their market risk premium mainly using historical values (31 per cent), i.e. by comparison of bond and share yields observed in the past.

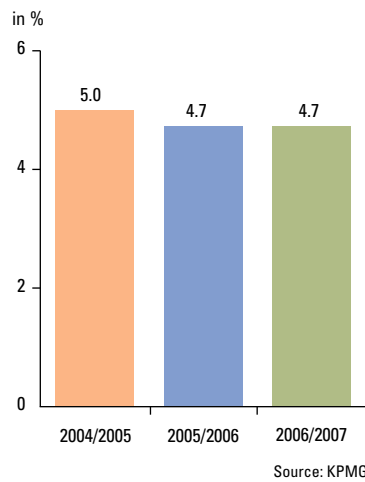
Within Switzerland there are significant differences between enterprises listed on the SMI and those listed on the SPI. Companies listed on the SMI are increasingly oriented towards market expectations (31 per cent) and generally accepted practice (37 per cent). Companies on the SPI generally derive their market risk premium from generally accepted practice (34 per cent) and from the past (24 per cent). Some companies out of the sample engage consultants to determine their market risk premium.

There was no substantial change in the market risk premium within the sample as a whole between 2005/06 and 2006/07.

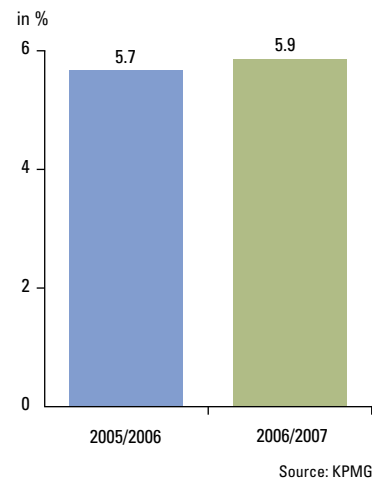
Average MRP used – overall



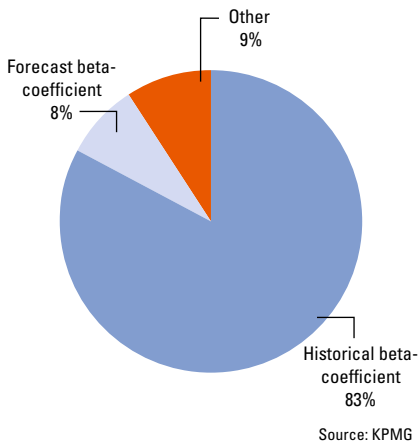
Average MRP used – Germany



Average MRP used – Switzerland

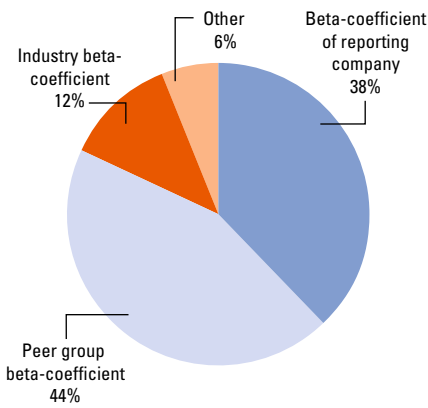


Derivation of beta-coefficient



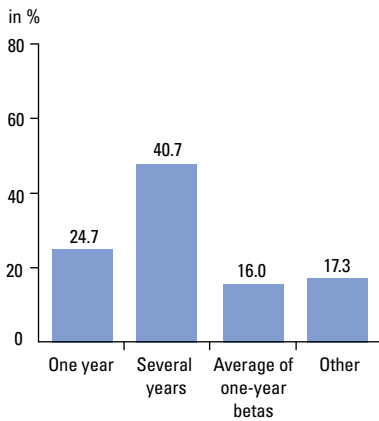
Primarily historical beta-coefficients (83 per cent) are used to derive the beta-coefficient. There are no significant differences among countries when selecting beta-coefficients. Most larger enterprises do not choose forecast beta-coefficients.

Beta-coefficient based on what company



Source: KPMG

Data collection period for beta-coefficient computation



Source: KPMG

The majority of companies surveyed perform an industry analysis to determine the beta-coefficient. Some 44 per cent use peer group beta-coefficients and 12 per cent apply industry beta-coefficients. Furthermore many companies use the beta-coefficient of the reporting company (38 per cent). The results for Switzerland differ from the sample as a whole since the greater part of the companies (44 per cent) base the beta-coefficient on that of the reporting company and 34 per cent identify a peer group beta-coefficient. Some 29 per cent of the unlisted companies where no beta-coefficient is observable use industry beta-coefficients and 57 per cent use peer group beta-coefficients.

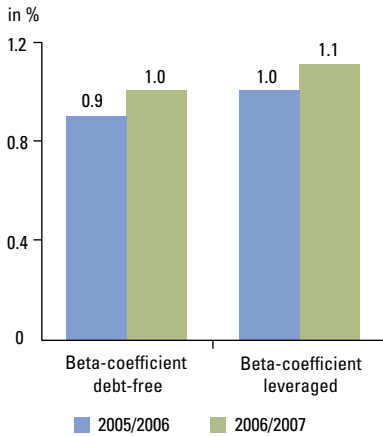
To the extent that historical beta-coefficients are applied, 25 per cent of the companies surveyed use a one-year beta-coefficient and 41 per cent compute a multi-year beta-coefficient, i.e. the beta-coefficient used is based on an observation period of several years. Some 16 per cent of the companies use an average of several one-year beta-coefficients.

On average those companies using a multi-year beta-coefficient base it on an observation period of just about 4 years. If an average of several one-year beta-coefficients is applied, then the average period on which it is based is about 4.5 years.

The responses summarised under "Other" include determination of the beta-coefficient by investment banks and commissioning of a valuation opinion.

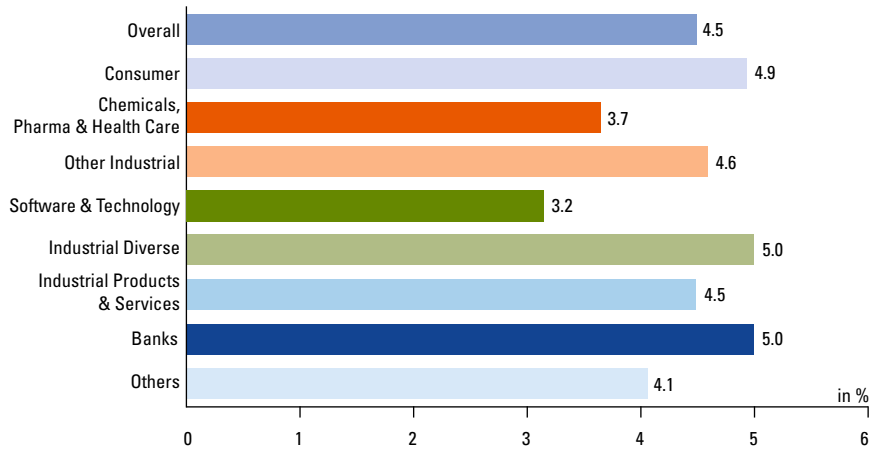
The debt-free beta-coefficient used on average rose only slightly from 0.9 in 2005/06 to 1.0 in the subsequent year. The same course can be seen in the leveraged beta-coefficient (1.0 to 1.1). There were no significant differences observable between Germany and Switzerland.

Average beta-coefficient used – overall



Source: KPMG

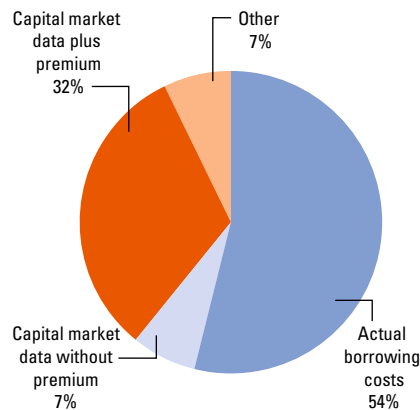
Average risk premium (MRP * debt-free beta-coefficient) by industry (2005/2006)



Source: KPMG

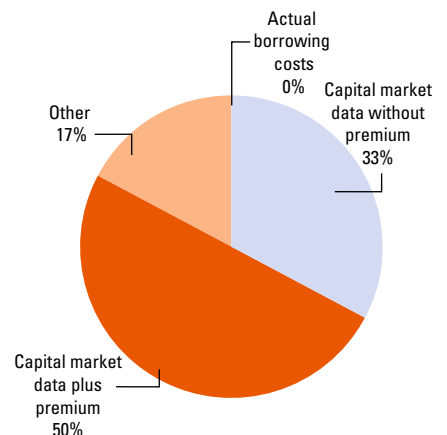
With respect to defining the **borrowing costs**, there is a difference between the requirements for calculating value in use and for calculating a fair value. Borrowing costs for value in use consist of a risk-free interest rate and the spread of the reporting company, resp. the CGU. In contrast borrowing costs for a fair value are calculated using the risk-free interest rate of the average spread for comparable enterprises. In fact, 54 per cent of companies surveyed that compute value in use apply the company's actual borrowing costs and 39 per cent of the companies use capital market data with or without a company-specific surcharge. The majority of companies that compute a fair value (83 per cent) use capital market data. No company computing a fair value said that it used the company's actual borrowing costs to derive the fair value.

Definition of borrowing costs for value in use



Source: KPMG

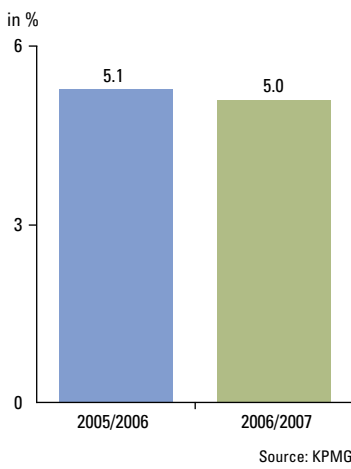
Definition of borrowing costs for fair value



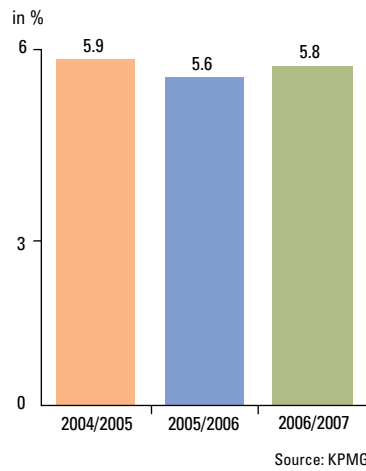
Source: KPMG

For the companies surveyed the development has been widely constant for average borrowing costs before taxes from 2005/06 to 2006/07. However they were significantly higher in Germany than in Switzerland and are to be seen in the light of the lower market interest rates.

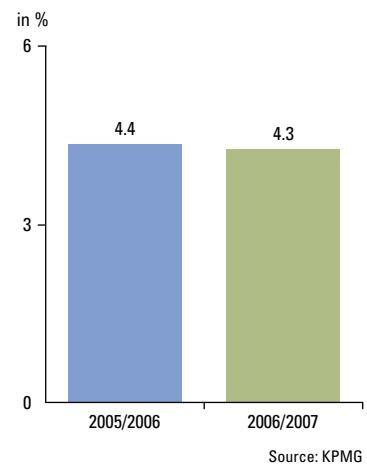
Average borrowing costs used (pre-tax) – overall



Average borrowing costs used (pre-tax) – Germany

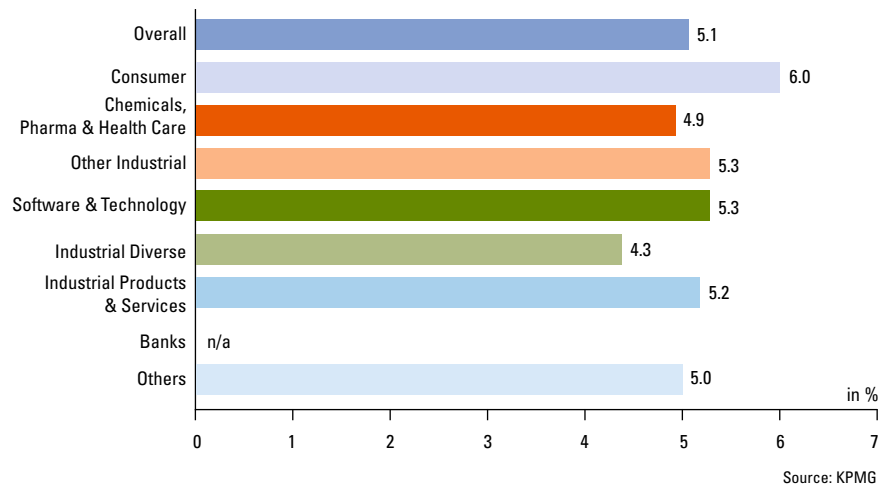


Average borrowing costs used (pre-tax) – Switzerland



Among the individual industries, Industrial Diverse lies at the lower end of the scale with average borrowing costs of 4.3 per cent. Consumer companies use the highest borrowing costs with an average of 6.0 per cent.

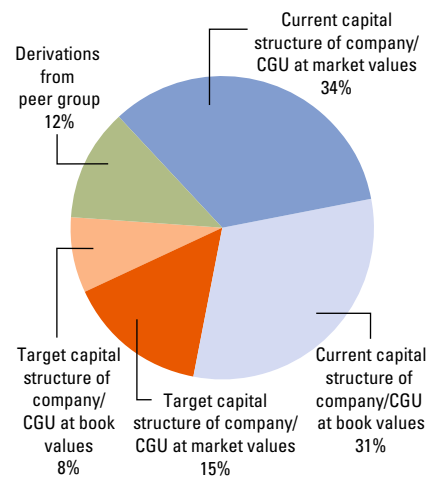
Average borrowing costs (pre-tax) by industry (2005/2006)



Of the companies that compute value in use, 88 per cent use either the current **capital structure** of the company/CGU or the target capital structure of the company/CGU. Only 12 per cent derive the debt-equity ratio from a peer group.

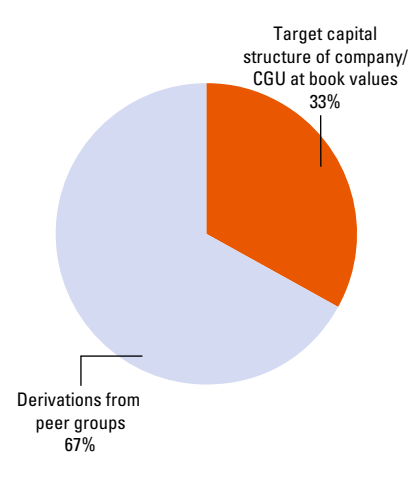
Two thirds of the companies (67 per cent) that compute a fair value, derive the capital structure from a peer group. The rest of the companies use a target capital structure of the company or CGU at book value.

Definition of capital structure for value in use



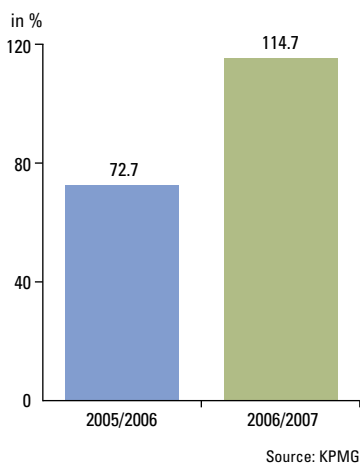
Source: KPMG

Definition of capital structure for fair value



Source: KPMG

Average debt/equity ratio used – overall

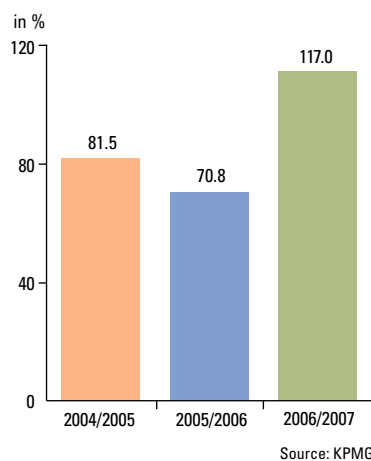


Source: KPMG

There was a significant rise in the average debt-to-equity ratio from 72.7 per cent in 2005/06 to 114.7 per cent in the subsequent year.

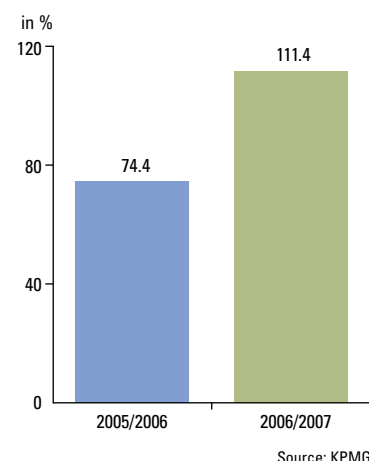
No material deviations between Swiss and German companies exist.

Average debt/equity ratio used – Germany



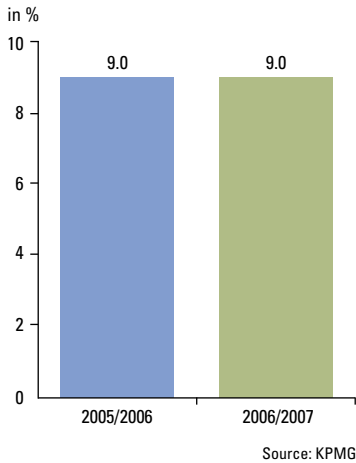
Source: KPMG

Average debt/equity ratio used – Switzerland



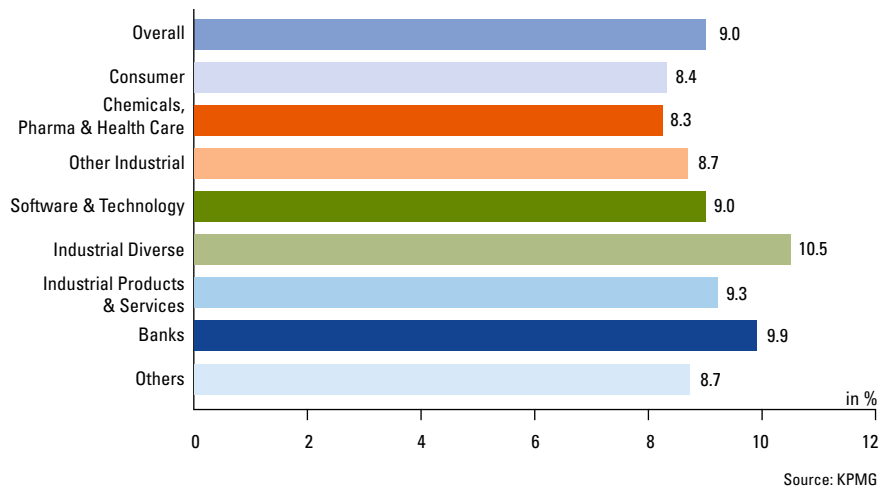
Source: KPMG

Average cost of equity used (post-tax) – overall



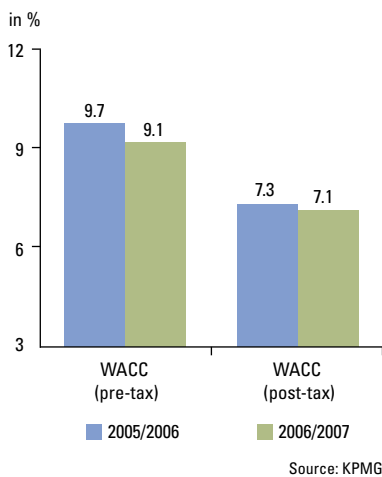
The cost of equity before taxes for the whole sample changes only insignificantly.

Average cost of equity (post-tax) by industry (2005/2006)

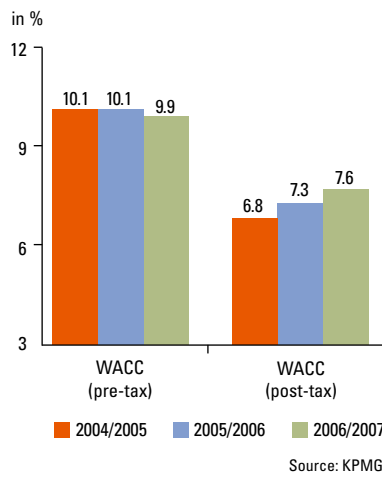


Altogether the average capital costs for the entire sample in 2006/07 are lower than in the prior year. However, an inverse effect between Germany and Switzerland can be observed. The WACC after taxes increased among German companies surveyed from 6.8 per cent (2004/05) to nearly 7.6 per cent in 2006/07. In Switzerland on the other hand, the WACC declined to 7.0 per cent in 2006/07.

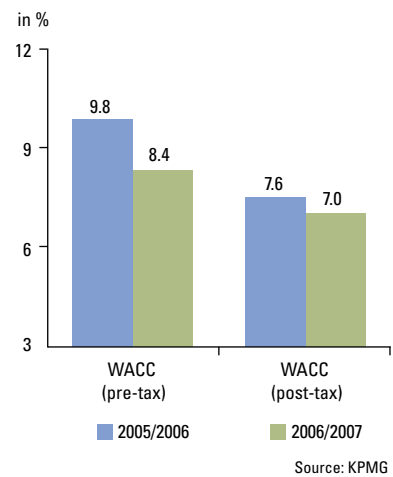
Average WACC used – overall



Average WACC used – Germany

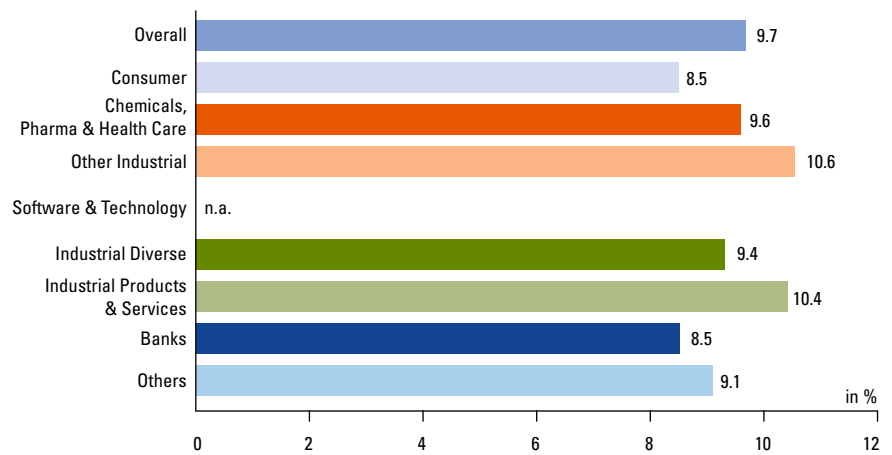


Average WACC used – Switzerland



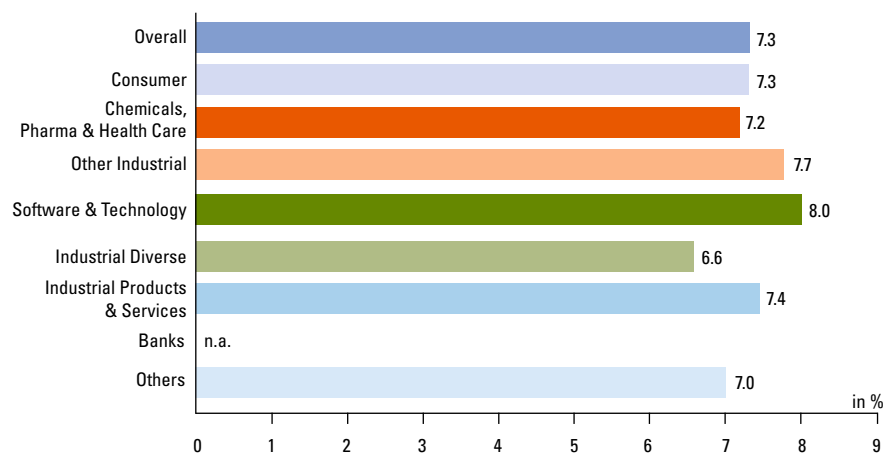
Compared across industries, the range for WACC pre-tax lies between 8.5 per cent (Consumer/Bank) and 10.6 per cent (Other Industrial). The range for WACC post-tax lies between 6.6 per cent (Industrial Diverse) and 8.0 per cent (Software & Technology).

Average WACC (pre-tax) by industry (2005/2006)



Source: KPMG

Average WACC (post-tax) by industry (2005/2006)



Source: KPMG

About KPMG

KPMG is a global network of legally independent professional firms with about 123,000 employees in 145 countries.

In Germany too, KPMG is one of the leading auditing and advisory firms and has about 8,000 employees at over 20 locations. Our services are divided into the following functions: Audit, Tax and Advisory. Our Audit services are focused on the auditing of consolidated and annual financial statements. The Tax function incorporates the tax advisory services provided by KPMG. Our high level of specialist know-how on business, regulatory and transaction-related issues is brought together within our Advisory function.

We have established teams of inter-disciplinary industry specialists for key sectors of the economy. These pool the experience of our specialists around the world and further enhance the quality of our advisory services.

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