Flossbach von Storch
RESEARCH INSTITUTE

COMPANY 20/11/2023

Corporate financing: The Apple effect

by CHRISTOF SCHÜRMANN

Summary

Market interest rates have risen sharply. When and to what extent this will be reflected in companies' income statements and what this could mean for the stock market.

Zusammenfassung

Die Marktzinsen sind stark gestiegen. Wann und in welcher Höhe sich das in den Ertragsrechnungen der Unternehmen niederschlägt, und was das für den Aktienmarkt bedeuten könnte.

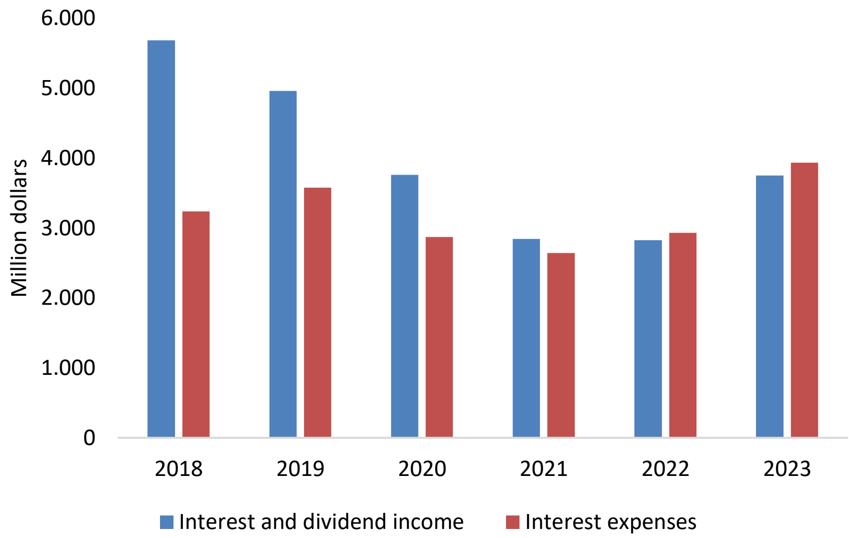
The days when the world's most valuable company earned a handsome extra income from the difference between interest and dividend income and interest expenses alone are over.

The term "turning point" is rather overused. However, it is striking how well the term fits these days not only to epochal upheavals in global politics and the economy, but also to what is happening in rather small-scale, comparatively unimportant areas - the stock market, for example.

Apple presented its annual results this November. Nothing special in itself. However, the details of the report on the financial year, which ends on 30 September for the Californian company, clearly show for the first time a turnaround that central banks around the world have initiated over the past two years: the turnaround in interest rates.

In the past financial year, the Group, which most recently traded at around USD 2,900 billion on the stock exchange, not only had to pay 34 per cent more in interest than in the same period of the previous year. These expenses are increasingly standing out from the income from interest and dividend investments, which first became apparent in the 2022 financial year and has now solidified (chart 1).

Chart 1: Apple's interest expenses and interest/dividend income



Financial years as at 30 September, source: Apple annual reports, Flossbach von Storch Research Institute, as at November 2023.

The times in which the world's most valuable company earned a handsome extra income from the difference between interest/dividend income and expenses alone are therefore over. As recently as 2018, the bottom line was just under 2.5 billion dollars - some DAX members don't even earn that much from their operating businesses.

When will the rise in interest rates impact corporate profits?

Even a financially strong company like Apple is therefore negatively affected by the general turnaround in interest rates. This suggests that the rise in interest rates is also slowly but surely eating into the profit and loss accounts of companies across the board. And that this is increasingly taking place "in the red".

In the spring, the findings were still clear: the revenue side was the main beneficiary. The *treasurers* in the companies reacted quickly to the higher interest rate levels and cashed in handsomely - while the more sluggish, because more long-term, financing hardly took advantage of the increase. [1]

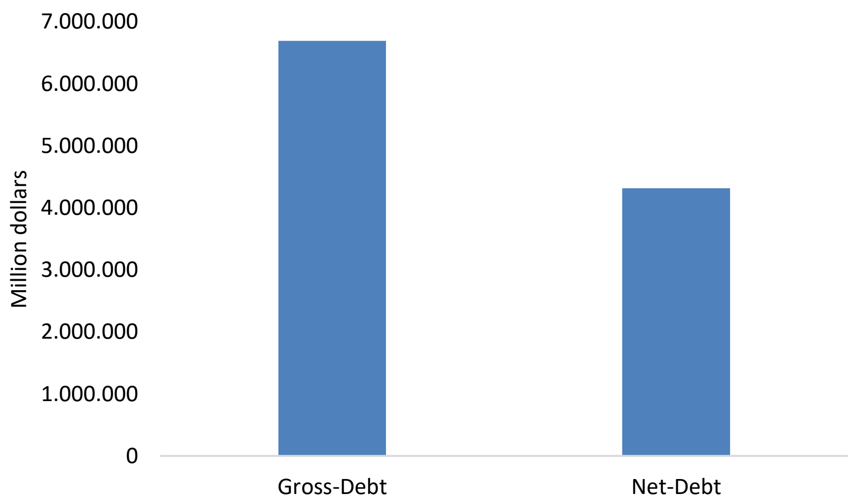
The question therefore arises as to when this could happen and to what extent - and what impact this will have on the earnings situation and therefore also on the valuation of shares.

US equities remain representative

The USA sets the pace on the stock market. American stocks represent 46 per cent of the global market capitalisation of around 103 trillion dollars. The S&P 500 alone is worth 39 trillion dollars. The index is therefore suitable as a representative analysis.

This excludes financial groups whose financing structure differs from that of traditional industrial, pharmaceutical or technology companies. If you isolate these financial sector companies from the S&P 500, you are left with 431 companies to choose from. These companies recently reported gross debt of a good USD 6,690 billion and net debt of a good USD 4,313 billion (chart 2).

Chart 2: Debt of S&P 500 companies (excluding financial groups)

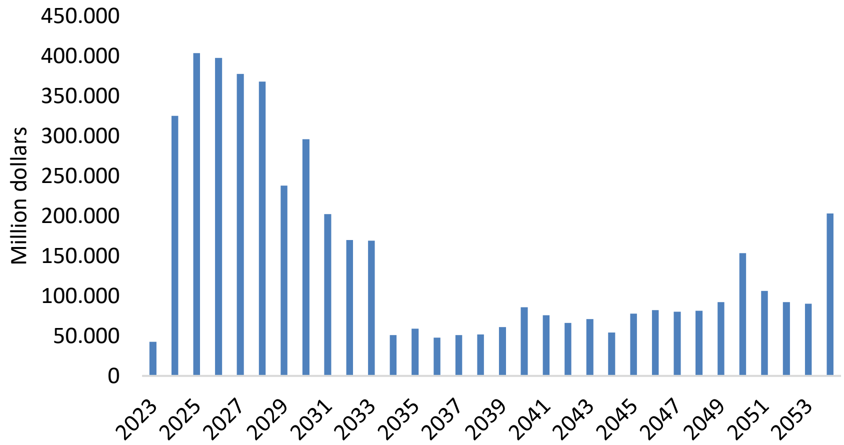


latest available data in each case. Source: Flossbach von Storch Research Institute, Bloomberg. As at: October 2023.

[1] https://www.flossbachvonstorch-researchinstitute.com/de/studien/zins-boerse-ein-schnaps-zu-viel/

These S&P 500 companies have a good USD 2,400 billion in debt maturing between 2024 and 2030 inclusive. That is 36 per cent of all debt and 51 per cent of all debt with maturities (chart 3). [2]

Chart 3: Debt maturities of S&P 500 companies (excluding financial groups)

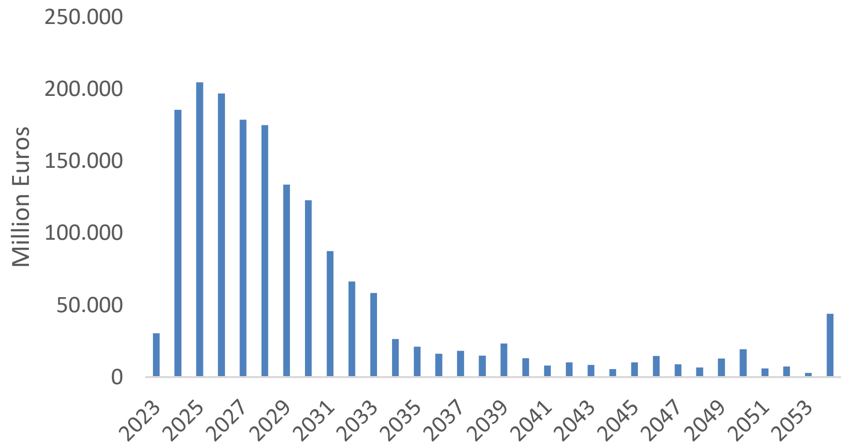


Total recorded maturities over USD 4,723 billion in debt, source: Flossbach von Storch Research Institute, Bloomberg. As at: October 2023.

Europe's corporations financed more short-term

By way of comparison: In the European Stoxx600 excluding financial groups, 69 per cent of all debt due for potential refinancing will fall due between 2024 and 2030, totalling just under EUR 1,200 billion (chart 4).

Chart 4: Debt maturities of Stoxx600 companies (excluding financial groups)



Total recognised maturities of over EUR 1,737 billion in debt, source: Flossbach von Storch Research Institute, Bloomberg. As at: October 2023.

[2] There is no maturity profile for almost 1,970 billion dollars. They are likely to be open-ended, but not necessarily non-cancellable.

European companies have significantly less long-term financing than their US counterparts. The turnaround in interest rates should therefore have a faster overall impact here.

What influences interest expenses?

However, how expensive it will be for an individual company or for all the groups in an index depends on several factors for which a forecast is subject to great uncertainty.

In general, of course, the general current and future interest rate level plays a role for everyone. The level of previous interest rates must also be taken into account. In the case of a once long-dated bond that is now maturing soon, the new coupon does not necessarily have to be higher than 12 or 15 years ago. In this case, the previous interest burden would not change for the time being.

In addition to the company's individual debt maturities, there is also the extension period and the company's current and future credit rating.

Investor expectations also play a role: Anyone who fears even higher interest rates in the foreseeable future may be more hesitant about a new bond priced close to the current interest rate level. Yield premiums above the levels traded on the secondary market (i.e. the stock exchange or other trading centres) are regularly observed for new issues anyway.

Downward trend in credit ratings

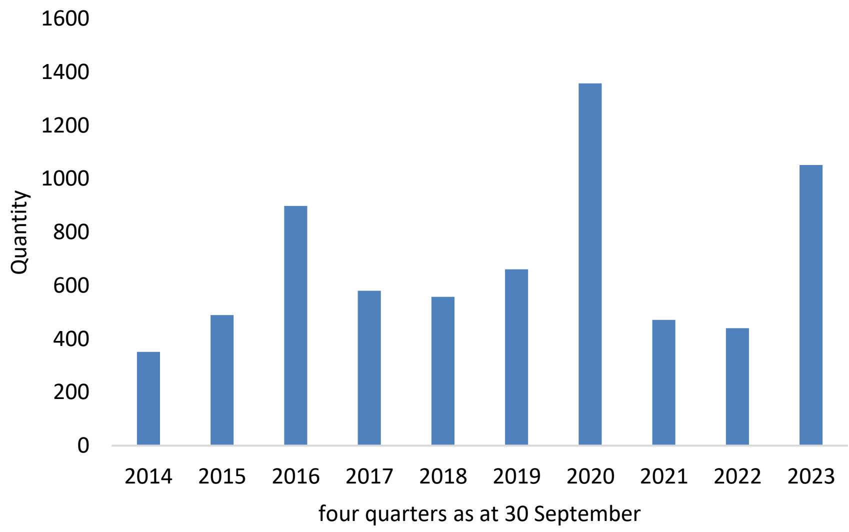
As far as credit ratings are concerned, the trend is clear: ratings have been falling for decades. According to a study by rating agency Moody's, an average of around 15 per cent of Aaa-rated corporate bonds have been downgraded every year since 1920. According to the data provider Bloomberg, less than one per cent of the credit universe it covers worldwide is still rated AAA. Eighteen years ago, for example, the chart was considerably higher at 7.4 per cent.

Only two companies still represent the crème de la crème in the US corporate sector: Microsoft and Johnson & Johnson are the only two index companies from the S&P 500 that still have the top AAA rating.

And the short-term trend also confirms the trend of the century. Most recently, in October, the three major rating agencies S&P Global, Moody's and Fitch downgraded twice as many US companies as they upgraded.

In 2023, for example, S&P Global downgraded the rating of US companies 812 times in the first three quarters of the year, improving their credit rating in only 489 cases. The so-called upgrade/downgrade ratio thus fell to 0.6 - since 2013, it has only been lower in the coronavirus year 2020 and briefly in 2015. Measured by the downgrades in the past four quarters, S&P Global has given US companies a weaker credit rating 1052 times. In the past ten years, the number has only been higher once, also in 2020 (chart 5).

Chart 5: Number of credit rating downgrades of US companies



S&P Global, source: Flossbach von Storch Research Institute, Bloomberg. As at: October 2023.

S&P Global itself expects that a prolonged period of high interest rates could become a "major challenge". The abundant credit volume maturing in 2025 could "exclude" the weakest borrowers from refinancing. According to the rating agency, most issuers would then be "confronted with higher ongoing debt servicing costs".

This could be exacerbated if inflation were to slow and the level of real interest rates (market interest rates minus inflation) were to rise. In conjunction with potentially lower economic growth, lenders would generally become "even more selective" or demand "higher compensation for the increased risk".

According to S&P Global, this could contribute to default rates for speculative loans (*junk), for* example, rising above the pessimistic forecast of 6.5 per cent in the USA and 5.5 per cent in Europe over the next twelve months.

82 Weaklings in the S&P 500

Of course, defaults cannot be ruled out for the companies in the S&P 500, even if the groups have the comparatively best chances of raising capital or refinancing maturing debt precisely because they are listed on the stock exchange.

If you take an intersection of the S&P 500 companies (excluding financial groups) with fairly high debt (over ten billion dollars) and those with fairly weak interest coverage, you sort 82 of the 431 industrial companies into the bucket (table 1).

The interest cover, the ratio of *earnings before interest and taxes (EBIT*) to interest expenses, is less than five for the selection based on the last four quarters as at 30 June. In some cases, it is negative because losses have already been incurred before taxes and interest.

Table 1, Part 1: S&P 500 companies (excluding financial groups) with high debt and weak interest coverage

Company	total gross debt	of which liabilities with	weighted	weighted
	(billions of dollars)	known maturity	maturity	fixed coupon
		(billions of dollars)	(in Jahren)	(per cent)
3M Co	16,8	14,4	10,3	3,1
AES Corp/The	26,0	5,5	3,6	4,0
Alexandria Real Estate Equities Inc	11,7	11,5	12,8	3,6
Ameren Corp	16,0	2,5	4,1	2,7
American Airlines Group Inc	41,2	15,8	2,7	7,0
American Electric Power Co Inc	44,7	7,3	4,0	8,9
American Tower Corp	46,8	35,6	6,3	3,1
American Water Works Co Inc	12,3	1,0	2,6	3,6
Amgen Inc	60,5	66,6	14,6	4,3
AT&T Inc	159,3	143,0	16,0	3,7
Ball Corp	10,1	9,4	3,7	4,0
Baxter International Inc	14,6	16,0	5,4	2,2
Boeing Co/The	52,3	52,1	11,9	4,2
Boston Properties Inc	15,6	k.A.	k.A.	k.A.
Caesars Entertainment Inc	25,0	12,4	4,1	6,5
Carnival Corp	32,6	24,5	3,7	6,9
Celanese Corp	14,8	12,1	4,6	5,3
Centene Corp	19,1	18,4	5,6	3,4
CenterPoint Energy Inc	18,5	5,3	4,8	3,4
Charter Communications Inc	97,8	k.A.	k.A.	k.A.
CMS Energy Corp	15,5	5,0	20,7	4,3
Comcast Corp	97,3	97,5	16,1	3,6
Consolidated Edison Inc	23,8	0,7	0,1	0,7
Crown Castle Inc	28,7	19,8	8,1	3,4
CVS Health Corp	80,1	56,2	12,1	4,3
DaVita Inc	11,5	8,4	5,1	4,3
Digital Realty Trust Inc	18,3	17,6	4,0	2,6
Dominion Energy Inc	48,1	20,2	7,1	4,2
Dow Inc	16,3	k.A.	k.A.	k.A.
DTE Energy Co	19,9	6,0	10,8	3,5
Duke Energy Corp	79,4	24,6	11,7	4,0
Edison International	34,8	6,5	5,0	5,4
Entergy Corp	27,5	4,4	7,4	2,4
Equinix Inc	17,4	13,2	7,5	2,3
Evergy Inc	12,9	2,1	2,6	2,7
Eversource Energy	24,4	9,9	5,6	3,7
Exelon Corp	42,6	11,1	12,1	4,5
FirstEnergy Corp	24,5	6,8	8,9	3,9
General Electric Co	22,8	20,4	9,9	4,4
HCA Healthcare Inc	41,1	35,9	10,2	4,9
Intel Corp	48,9	48,8	15,6	4,0

Selection: Gross debt > USD 10 billion, interest cover <5 based on average of four quarters as at 30 June 2023, debt due >total debt can be explained by preferred capital due and/or credit lines due but not utilised, debt in each case latest available data, source: Flossbach von Storch Research Institute, Bloomberg, as at: October 2023. **The isolated consideration of the debt situation is not suitable for a recommendation for action in a company's securities.**

Table 1, Part 2: S&P 500 companies (excluding financial groups) with high debt and weak interest coverage

Company	total gross debt (billions of dollars)	of which liabilities with known maturity (billions of dollars)	weighted maturity (in Jahren)	weighted fixed coupon (per cent)
International Flavors & Fragrances Inc	11,3	10,3	10,5	2,8
IQVIA Holdings Inc	13,8	6,8	2,2	5,7
Iron Mountain Inc	14,1	10,3	5,4	5,2
Kinder Morgan Inc	31,0	29,1	12,2	5,3
Kroger Co/The	19,8	14,4	9,4	4,4
Las Vegas Sands Corp	14,4	4,0	2,3	3,4
MGM Resorts International	32,0	3,3	2,9	5,6
Micron Technology Inc	13,9	12,2	6,6	4,9
NiSource Inc	14,1	13,5	9,8	4,3
Norwegian Cruise Line Holdings Ltd	13,9	3,8	2,5	2,6
NRG Energy Inc	12,3	14,4	5,5	4,6
Oracle Corp	22,1	22,3	14,0	5,1
Paramount Global	15,6	17,1	14,1	5,1
PG&E Corp	55,1	4,7	3,3	5,1
Pinnacle West Capital Corp	10,1	0,5	1,6	1,3
PPL Corp	14,8	3,0	13,2	4,2
Prologis Inc	27,6	2,3	7,5	3,1
Public Service Enterprise Group Inc	19,9	5,3	4,2	3,3
Realty Income Corp	20,1	17,5	5,8	3,7
Royal Caribbean Cruises Ltd	20,6	4,1	4,3	5,2
RTX Corp	36,8	4,3	10,8	4,1
SBA Communications Corp	14,9	5,6	3,0	3,5
Sempra	31,0	9,5	14,5	4,4
Simon Property Group Inc	25,4	k.A.	k.A.	k.A.
Southern Co/The	62,4	22,4	16,7	4,1
TransDigm Group Inc	20,0	15,8	3,8	5,8
Tyson Foods Inc	10,3	8,7	10,0	4,4
United Airlines Holdings Inc	35,0	13,7	3,1	5,3
Ventas Inc	13,6	10,1	5,3	3,8
Verizon Communications Inc	172,1	130,2	13,7	3,2
Viatris Inc	18,9	17,9	9,7	3,3
VICI Properties Inc	16,7	k.A.	k.A.	k.A.
Walgreens Boots Alliance Inc	34,5	14,9	5,3	3,4
Walt Disney Co/The	47,2	43,0	12,5	4,0
Warner Bros Discovery Inc	47,3	29,3	4,7	15,9
WEC Energy Group Inc	18,2	5,8	6,9	4,0
Welltower Inc	16,2	12,2	6,3	3,8
Williams Cos Inc/The	25,7	19,6	10,3	4,8
Wynn Resorts Ltd	13,8	0,6	1,7	k.A.
Xcel Energy Inc	27,1	6,2	8,3	3,8
Yum! Brands Inc	11,5	7,5	6,8	4,8

Selection: Gross debt > USD 10 billion, interest cover <5 based on average of four quarters as at 30 June 2023, debt due >total debt can be explained by preferred capital due and/or credit lines due but not utilised, debt in each case latest available data, source: Flossbach von Storch Research Institute, Bloomberg, as at: October 2023. **The isolated consideration of the debt situation is not suitable for a recommendation for action in a company's securities.**

Under constant circumstances, five (or fewer) annual interest expenses eat up one annual profit (measured in terms of EBIT). In some cases, this may be due to a short-term, temporary negative operating profit trend. However, this group is also likely to include some so-called zombie companies whose survival could only be ensured with an injection of external capital or in the event of a surprising downward turn in interest rates.

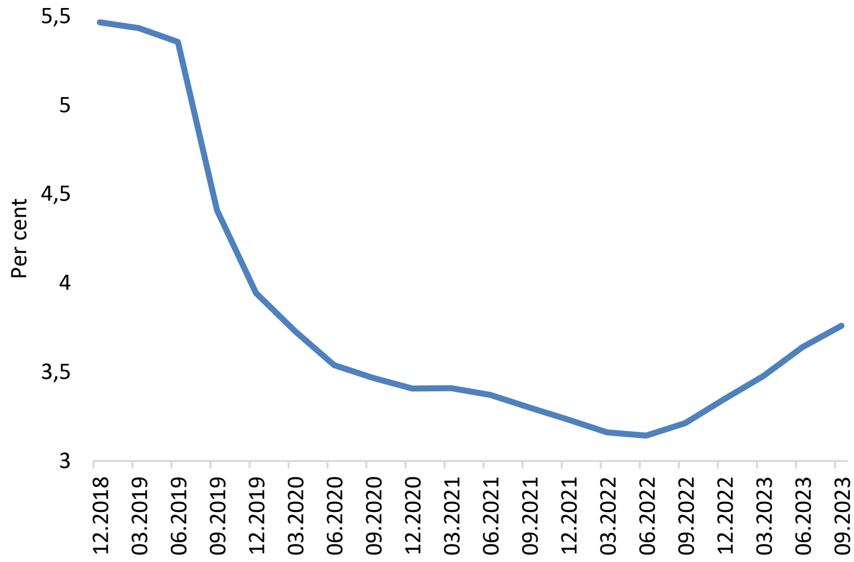
In any case, the 82 corporations alone reported gross debt of USD 2.56 trillion (USD 30.9 billion on average), a good 38 per cent of all debt of the 431 S&P companies excluding financial groups. Maturities can be determined for 1.44 trillion dollars of this. Here too (as in the overall index excluding financial groups), the weighted average maturity of 7.7 years provides a fairly comfortable time cushion.

However, with an average weighted coupon of 4.3 per cent, the 82 companies are already transferring more to their creditors than the majority of S&P 500 companies, which is only logical given the weak interest cover.

Interest charges rise slowly but surely

For all S&P 500 companies excluding financial groups, the interest burden recently averaged a good 3.7 per cent - 0.6 percentage points above the historic low of the second quarter of 2022 (chart 6).

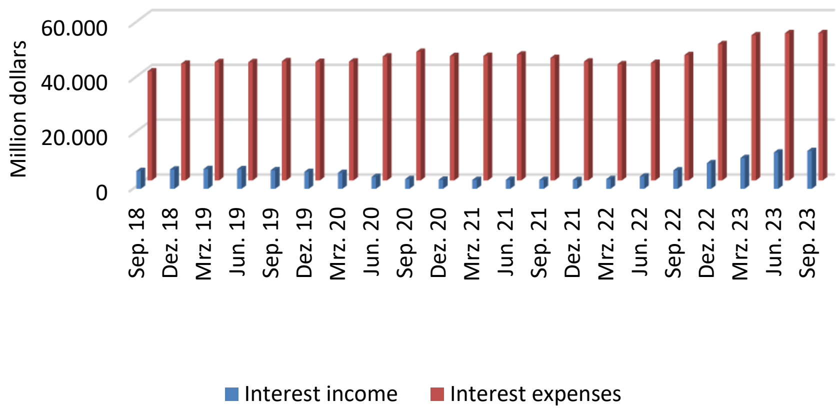
Chart 6: Effective interest rate on gross debt of S&P 500 companies (excluding financial groups)



Quarterly charts, latest available data, if Q3/2023 data not yet available, extrapolation from Q2/2023, source: Flossbach von Storch Research Institute, Bloomberg, as at October 2023. **Historical performance is not a reliable indicator of future performance.**

Since the cyclical low in 2022, interest expenditure has risen only slightly on a quarterly basis, by just under USD 11.4 billion or just under 27 per cent. In view of the still manageable refinancing requirements, there has therefore been no major turnaround. In contrast, interest income has almost quadrupled from the low - the increase of a good USD 10.2 billion almost covers the rise in interest expenditure (chart 7).

Chart 7: Gross interest expenses and interest income of S&P 500 companies (excluding financial groups)



Quarterly charts, latest available data, if Q3/2023 data not yet available, extrapolation from Q2/2023, source: Flossbach von Storch Research Institute, Bloomberg, as at October 2023. **Historical performance is not a reliable indicator of future performance.**

Overall, the income statements have therefore hardly deteriorated over this shorter period from an interest perspective alone. However, an upward trend in interest expenditure is also slowly becoming apparent.

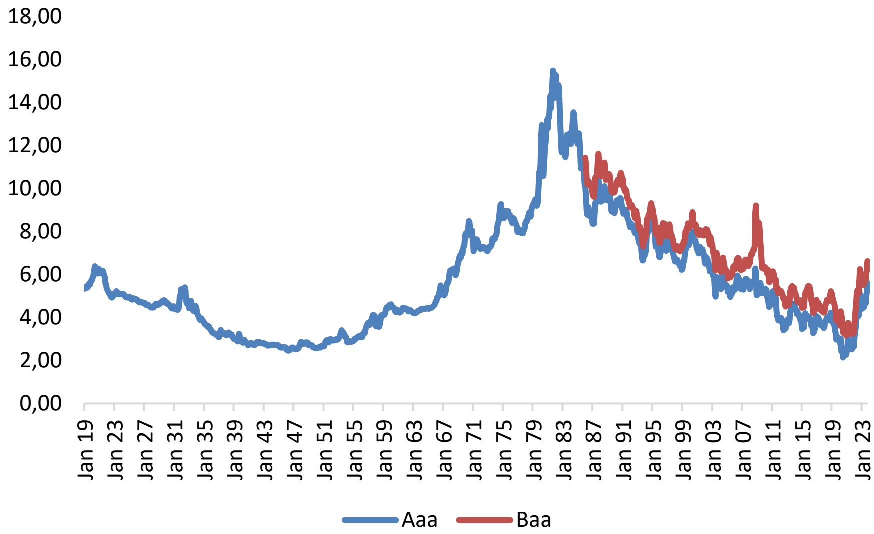
Abrupt end to the bull market with falling interest rates

By contrast, market interest rates have risen much more significantly - to levels last demanded by investors during the financial crisis. For companies with a mediocre credit rating, yields are a good 6.6 per cent on average for maturities of 20 years or more, a good double the low at the end of 2020. This means they are currently only around 0.6 percentage points higher than a one- or even ten-year interest rate.

For AAA/Aaa borrowers, market interest rates have even risen by a good 160 per cent to 5.6 per cent most recently.

In a long-term comparison, it is easy to recognise the end of the roughly 40-year bull market on the credit market with steadily falling interest rates. After the end of the penultimate, overarching bull market, interest rates then rose for around 36 years (chart 8).

Chart 8: Yields on US corporate bonds with prime and medium ratings with maturities of 20 years and longer



Moody's Seasoned Aaa & Baa Corporate Bond Yield, Monthly, Not Seasonally Adjusted, Baa data only available since 1986, Source: Flossbach von Storch Research Institute, Federal Reserve of St. Louis, as of November 2023. **Historical performance is not a reliable indicator of future performance.**

The recent sharp rises always immediately translate into cash to be paid by companies when they refinance debt with lower coupons than the current market interest rate. It is clear that new loans are in any case more expensive than they have been for around 14 years.

Scenarios as a forecasting aid

But what are the effects?

From 1991 to 2022, EBIT in the S&P 500 (overall index) increased by an average of 5.2 per cent annually. We also assume this for the future, in this case for the S&P 500 excluding financial groups.

We also assume three different scenarios: Firstly, the interest rates to be paid by companies increase by one percentage point from the last level (3.7 per cent), secondly by two percentage points and thirdly by three percentage points.

The latter scenario would therefore reflect the current interest rate level for long-term corporate loans with a medium credit rating. The other two scenarios assume a mild to stronger decline in current market interest rates over the coming years.

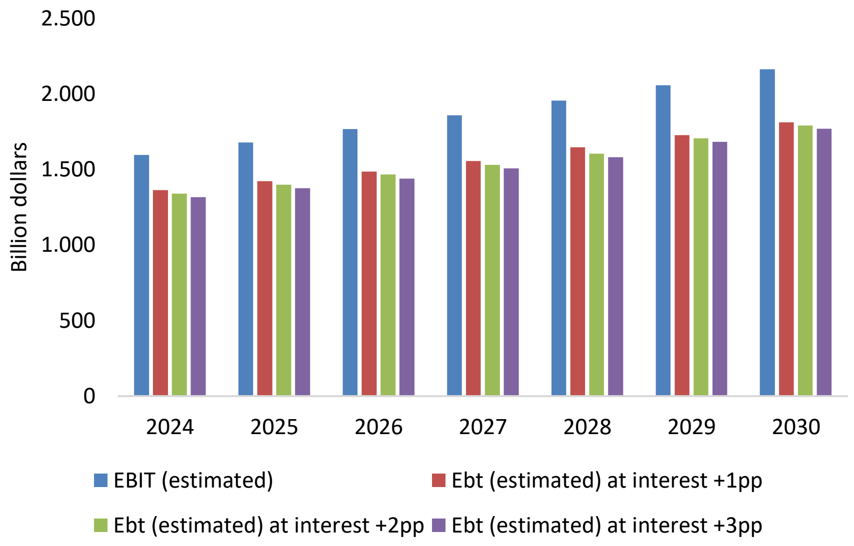
As a rough guide: assuming a constant premium for corporate loans on government bonds, this would mean unchanged risk-free US yields for 20-year maturities of around 4.7 per cent at the time of the survey. In the other two cases, the average yield level for US Treasuries would fall to 3.7 and 2.7 per cent.

In the combinations mentioned, this is not a pessimistic scenario in any of the cases; on the contrary, it is rather favourable to favourable. In addition, we initially assume that there is no new borrowing; companies are merely refinancing maturing debt.

Profit growth sometimes less, sometimes more restrained

The effect: an assumed increase in EBIT to USD 2,165 billion by 2030 would leave USD 1,813 billion (one percentage point higher interest than the previous 3.7 per cent), USD 1,791 billion (plus two percentage points) or USD 1,770 billion (plus three percentage points) in earnings before taxes (EBT) (chart 9).

Chart 9: Theoretical earnings performance in the S&P 500 (excluding financial groups) under different interest rate scenarios, excluding new debt



Assumptions: EBIT growth 2024-2030 of 5.2% p.a., debt remains constant over the period under review, debt over USD 1,970 billion without a maturity date immediately (from 2024) bears higher interest than before (by 1, 2 or 3 percentage points p.a.), maturing debt bears higher interest than before (by 1, 2 or 3 percentage points p.a.). Source: Flossbach von Storch Research Institute, as at October 2023. **These scenario calculations are hypothetical. Actual developments will differ.**

EBIT would grow cumulatively by 35.5 per cent in the years 2024 to 2030, while pre-tax profits would increase by almost the same rate of 32.9/33.6/34.3 per cent.

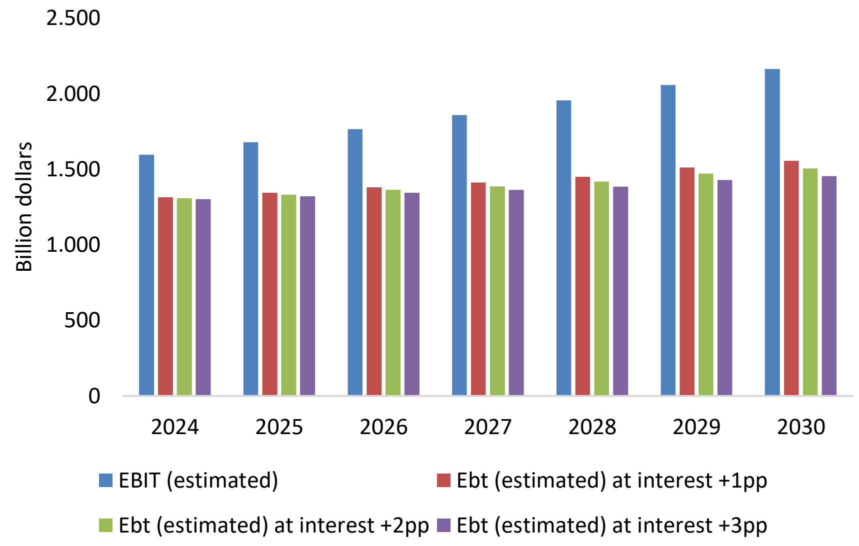
In the worst-case scenario, the S&P 500 companies (excluding financial groups) would have to pay a total of USD 43 billion more in interest expenses than in the best-case scenario - that would be two per cent of assumed EBIT in 2030.

More debt put significant pressure on profits

In a second projection, we assume that companies will maintain the pace of new debt they have incurred over the past ten years. Debt growth has been 8.3 per cent per year. Accordingly, gross debt would rise from 6,690 billion dollars to 11,690 billion dollars in 2030.

The effect: an assumed increase in EBIT to USD 2,165 billion by 2030 would leave USD 1,556 billion (one percentage point higher interest), USD 1,506 billion (plus two percentage points) or USD 1,456 billion (plus three percentage points) in pre-tax earnings (chart 10).

Chart 10: Theoretical earnings development in the S&P 500 (excluding financial groups) under different interest rate scenarios, with new debt



Assumptions: EBIT growth 2024-2030 of 5.2% p.a., total debt over USD 6,690 billion most recently increases at an annual rate of 8.3% over the period under review, debt over USD 1,970 billion with no maturity date is immediately subject to higher interest rates (by 1, 2 or 3 percentage points), maturing debt is subject to higher interest rates (by 1, 2 or 3 percentage points p.a.), new, additional debt is subject to interest rates of 4.7%, 5.7% or 6.7% p.a. Source: Flossbach von Storch Research Institute, as at October 2023. **These scenario calculations are hypothetical. Actual developments will differ.**

In the years 2024 to 2030, EBIT would grow cumulatively by 35.5 per cent, while pre-tax profits would fall significantly by only 18.4/15.1/11.7 per cent due to the significantly higher interest payments**.**

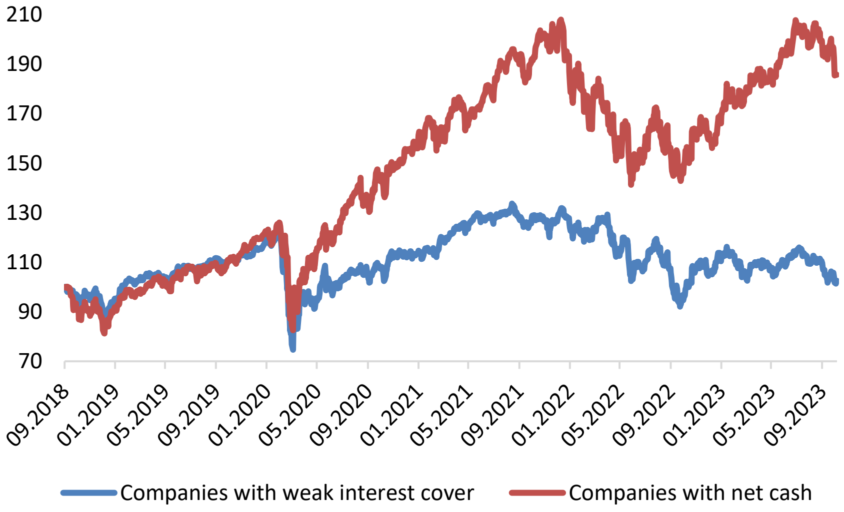
A comparison of the worst case scenario here with the best case scenario from the first extrapolation without new borrowing reveals a difference in the two pre-tax profits of USD 357 billion. This would correspond to a pre-tax profit for the index excluding financial groups that is almost 20 per cent lower than in the assumed *best case*.

What is important on the stock market

As I said, these theoretical assumptions are not forecasts, but they do give an indication of future developments. And on the stock market, investors have evidently been anticipating the adversity that threatens more highly indebted companies with weak interest cover for some time.

Since the coronavirus low in spring 2020, companies that regularly have a net cash position have performed significantly better than the debt groups. Over a five-year period, the latter now show virtually no share price growth, while the "rich" group is 85 per cent ahead on average (chart 11).

Chart 11: Share price performance of companies with high debt and weak interest coverage compared to companies with net cash positions



indexed, companies with more than ten billion dollars in debt and an interest cover (EBIT to interest expenses) of less than 5, number: 82, 76 of which also had net debt above ten billion dollars. Number of companies with net cash: 67, all had a net cash position in their last available quarterly statement; 49 of the 67 have consistently had a net cash position over the past 5 years, source: Flossbach von Storch Research Institute, Bloomberg. As at: October 2023. **Historical performance is not a reliable indicator of future performance.**

Conclusion

Assuming rising operating profits and, from today's level, at most constant to falling yield levels, there would only be a minor braking effect on share prices ceteris paribus - assuming that the companies in the S&P 500 exercise debt discipline.

If this is not the case, then, under the given assumptions, profits and thus probably also cash inflows will be so weak on balance that the stock market as a whole will receive little tailwind from the earnings side in the coming years.

This would apply all the more if interest rates were to be higher than assumed on average over the period under review and/or operating profits were to develop more weakly than assumed.

It is worth mentioning that debt discipline could also have a braking effect: debt-financed share buybacks, which are an important price driver, would probably be lower. In addition, price-driving takeover activities would not be able to play a particularly large role. Instead, companies would have to focus their debt financing on productive investments in order to maintain the value of the company and take advantage of growth opportunities.

Anyone assuming that interest rates will not fall back to historic lows for some time is generally more likely to be in good hands with solidly financed companies with a balanced to positive cash/debt ratio.

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