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When tangible assets are missing from the balance sheet

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Abstract

The balance sheet is supposed to serve as a valid indicator for company valuation. But this often no longer works because the balance sheet rules lag behind the age of technology with its less tangible assets.

Zusammenfassung

Die Bilanz soll als valider Indikator für die Unternehmensbewertung dienen. Doch das funktioniert oft nicht mehr, weil die Bilanzregeln dem Zeitalter der Technologie mit seinen wenig fassbaren Vermögenswerten hinterherhinken.

Johann Wolfgang von Goethe considered double-entry bookkeeping to be "one of the most beautiful inventions of the human mind". Every transaction is recorded twice: Debit and credit are found in the bookkeeping of a company, expenses and income in the profit and loss account, assets and their sources (debt and equity) in the balance sheet. Luca Pacioli, a teacher of Leonardo da Vinci, was the first to explain this double-entry accounting in 1494 within the framework of a mathematical treatise - at least that is what historians say. "According to Pacioli, merchants should enter all their "transactions in due form" "so that both debts and credits can be known shortly".

Servant of shareholder value

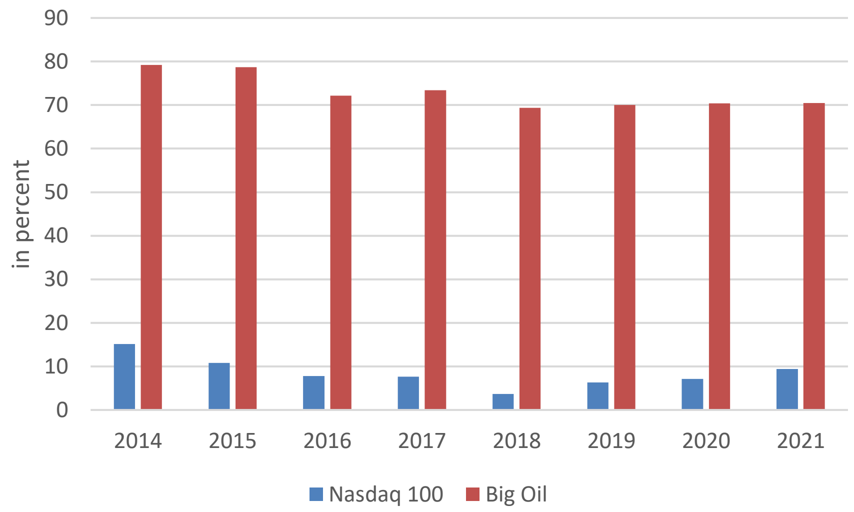
A good five centuries later, in the age of modern accounting theory, it hardly reads any differently. The International Financial Reporting Standards (IFRS), which are applied by companies in more than 150 countries, aim in principle to provide readers of financial statements with "decision-useful information about the economic situation of the company, as well as a detailed and realistic presentation of the asset, financial and earnings situation". True to its model and twin - the US Generally Accepted Accounting Principles (GAAP) - IFRS sees equity investors as the addressees, followed by creditors. Both sets of rules, the US GAAP as well as the IFRS, are thus primarily servants of the shareholder value concept, which addresses the shareholders. Ideally, the regulators based in London and Connecticut aim to provide companies with a framework of rules within which these investors are able to draw a realistic picture of their financial situation. The financial statements serve as the framework for this.

Book value one of the core ratios

In addition to numerous dynamic key figures, such as cash inflows or profits, investors use the static balance sheet as the foundation of an analysis. The book values of the assets and liabilities recognised here by the companies are supposed to be useful for the valuation, especially in comparison to the prices paid on the market for a company share. The price-to-book ratio (P/B ratio), based on net assets, has always been considered by investors to be next to the price-earnings ratio (P/E ratio) as one of the most important key figures. Even Benjamin Graham, the godfather of value investing, emphasised (among other things) the price-to-book value (P/B).

Investors generally expect the current economic reality to be reflected in the most recently reported assets and liabilities of a company. However, investors encounter two phenomena. Firstly, especially in the case of the most highly capitalised companies, assets that are difficult to grasp and value are taking up an increasing share of the asset positions. In turn, the share of tangible assets is low. In terms of total capital (gross assets = balance sheet total), this was recently only 9.5 percent in the Nasdaq 100, which is dominated by technology companies, whereas *Big Oil* (meaning the five largest integrated oil companies in the western industrial nations) has a good sevenfold share (Chart 1).

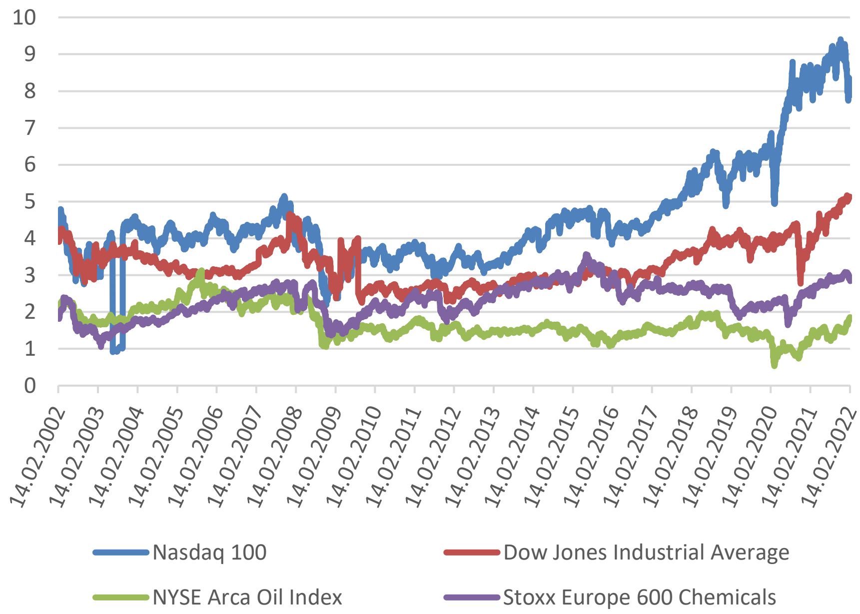
Chart 1: Share of tangible assets in total capital in the Nasdaq 100 and in total capital of Big Oil



Source: Bloomberg, as of February 2022, each as of year-end

Second, the price-to-book ratios of technology companies have moved sharply upwards, while valuations of "old economy" stocks, such as the European chemical or US oil industries, have hardly changed (chart 2).

Chart 2: Price-to-book ratios Nasdaq 100, Dow Jones, Stoxx Europe 600 Chemicals, NYSE Arca Oil Index



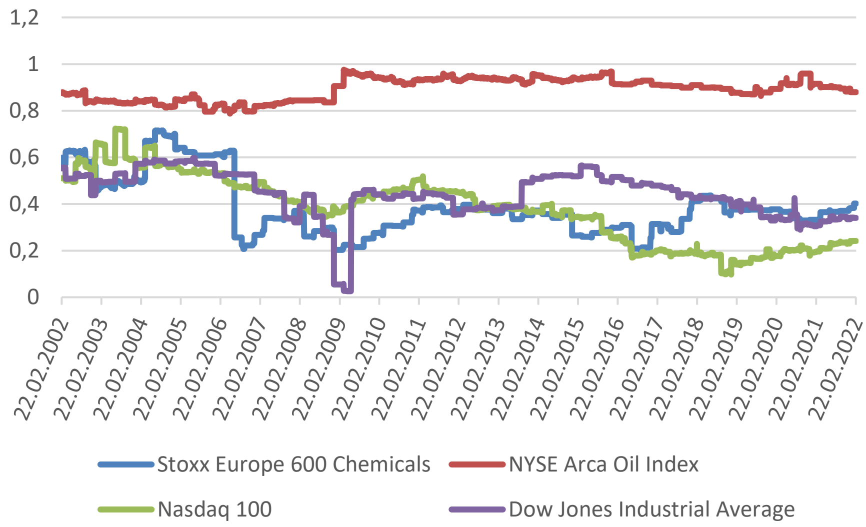
Source: Bloomberg, as of February 2022

Part of this development can be explained by a valuation expansion in shares of interest-sensitive technology companies in times of loose central bank policy. But another part of this market value-to-book value gap goes back to a deeper problem: accounting rules. Thus, the ratio of tangible book value to total book value illustrates the old world, with its regularly reportable assets; and it shows a new corporate landscape, with its - from a balance sheet perspective! - regularly low "hard" assets.

Slump in tangible book values in the Nasdaq

In the case of US oil stocks, for example, there are consistently few intangible assets. The book value of tangible assets in relation to total net assets has been constant over 20 years at between 0.8 and almost 1.0. In the Nasdaq 100, on the other hand, this ratio has declined over two decades from a peak of a good 0.7 to as low as 0.1 (chart 3). Most recently, the ratio in the Nasdaq 100 rose to 0.24, due to the significant price declines in technology stocks.

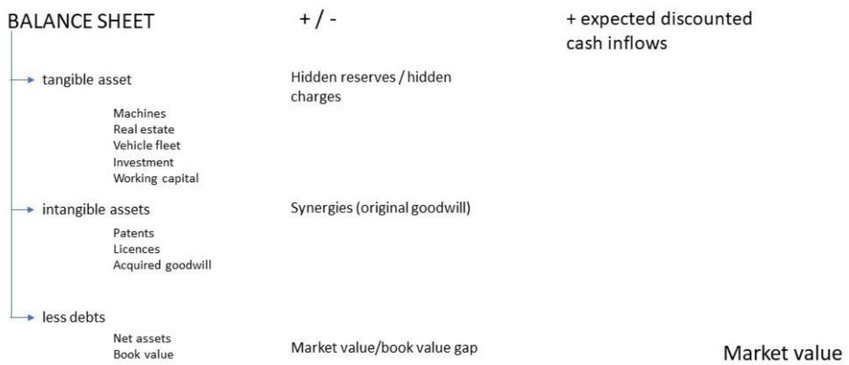
Chart 3: Tangible book value to total book value Stoxx Europe 600 Chemicals, NYSE Arca Oil Index, Nasdaq 100 and Dow Jones



Source: Bloomberg, as of February 2022

The book value is a present value and represents the owners' share of assets in a company. This is calculated in a simplified way according to the total capital minus debts and liabilities (Chart 4). For public limited companies, the traditional rule of thumb is: If a company is worth exactly as much on the stock market as the net assets on its balance sheet reflect (price-to-book ratio = 1), it is always undervalued if it earns at least somewhat more than its cost of capital on a sustained basis. Companies that do not earn their cost of capital but are regularly dependent on external financing (debt and/or equity) would still be considered overvalued even with a P/B ratio of only 1 or even below.

Chart 4: From balance sheet to market value



Source: Flossbach von Storch Research Institute

Asset accounting on the agenda of the rule makers

The International Accounting Standards Board (IASB), which is responsible for the IFRS, has also recognised the problem that the market now assigns high book values to numerous, even long-established groups, measured against their balance sheet assets. But the mills do not grind very fast there. Currently - among others - investors, companies and auditors are invited to contribute to a research forum in November 2023 on the possible new accounting treatment of intangible assets. According to the IASB, a "wide range of perspectives" is explicitly welcome.

In recent years, some academics have attempted to attribute market value-book value gaps to "profit increase expectations" that could not be explained on the reporting date and were thus nurtured by the market.[1] But this overlooks something fundamental: that the rules and regulations simply set limits for companies as to what can be reported as assets and what cannot.

Strongly limited accounting options

What qualifies as an accountable asset in the sense of international accounting à la IFRS or US-GAAP? In theory, intangibles include "non-monetary assets" that are intangible but "identifiable". The latter results from the fact that the asset can either be recognised individually or is fed by contractual or legal rights. The list of such assets that may be recognised in the balance sheet is long: they may include, for example, patented technology, computer software, databases, trademarks, commercial rights, customer lists, internet domains, films, TV programmes, licences, franchise agreements or marketing rights. The important point is that the company must expect economic benefits from the intangible asset, for example in the form of cash inflows. It is also possible for companies to show internally generated assets in the balance sheet. However, this is more (according to US GAAP) or somewhat less (according to IFRS) restricted: While many rules are very similar under IFRS and US GAAP, internal development costs are not allowed to appear as an asset item under US rules (exceptions to this are allowed for software), while this is possible under IFRS. The list of assets that can be recognised in the balance sheet is long, but the recognition is regularly limited at most (and only under IFRS) to the expenses incurred in the development of products. The brainpower of employees, possibly high research costs, cannot be recognised, but are only reflected in the income statement as expenses.

[1] Dirk Honold, Rolf Uwe Fülbier, Andreas Weese; Future potential from a capital market perspective: Market value-book value-present value gap using the example of DAX companies.

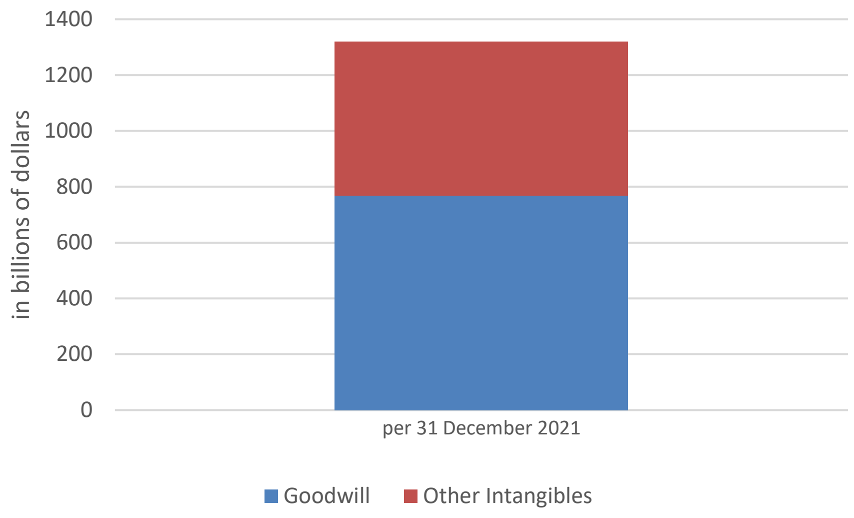
According to US GAAP, the expense items also include almost all development costs, which are initially not offset by any profits that increase the book value. This leads to considerable differences between market and book values.

Acquisitions preferred on the balance sheet

The most important source for getting substantial assets - whether tangible or intangible - onto the balance sheet is a takeover, which has clear advantages from an accounting point of view. This is because not only are the acquired assets of the new subsidiary recognised as an asset, but the entire purchase price is recognised immediately - without deduction. If there is a difference between the purchase price and the acquired net assets - which is regularly the case - then this is entered in the balance sheet as so-called goodwill. This goodwill has long been recognised by many companies as a significant intangible asset. Goodwill is considered to be the most difficult balance sheet item for outsiders to value, as it is primarily based on (internal) management assumptions. Goodwill is intended to reflect possible future synergies from a merger.

After a takeover, however, investors ultimately get a much better overview of assets, purchase price premium and the associated opportunities and risks. In contrast, competitive advantages that have been painstakingly developed internally or future synergy potentials that have been worked out internally are not reflected in the balance sheet. This is probably one of the reasons why companies like to overdraw their accounts during takeovers, as can be seen from the enormous amount of goodwill. In 2020, the goodwill reported by companies worldwide amounted to 8800 billion dollars. A sum that pays directly into the book value. Unlike virtually all other intangible assets, goodwill is not amortised on a regular basis, which means that this item gains in weight on corporate balance sheets year after year. In the Nasdaq 100, for example, goodwill now accounts for a good 58 per cent of all intangible assets (chart 5).

Chart 5: Intangible assets in the Nasdaq 100



Source: Bloomberg, as of February 2022

Since all current accounting standards prohibit the capitalisation of (original) goodwill created by building up competitive advantages, value-creating knowledge developed in companies, which is reflected in patents, licences or rights, is only rudimentarily taken into account in balance sheets. This is especially true for digital companies or biotechnology firms. For example, intangible assets and rights of use at one of the key mRNA covid19 vaccine manufacturers only accounted for a good 260 million euros in its balance sheet at the end of 2020, with equity of just under 1.4 billion euros. From this, the company drew a profit before interest and taxes of a good 10.5 billion euros in the first nine months of 2021. The market valuation is a multiple of this profit. The price-to-book ratio was at times factors of around 100. The example also shows: investors have to look outside the balance sheet for value-driving factors. Indications are regularly found in the management reports, but quantification remains open. Brand names may count as one of the most important external factors; numerous and regular rankings quantify their value. It goes without saying that soft drinks or sneakers sell much better and more expensively if they are backed by a brand that is coveted by consumers. Again and again, and discussed for a long time, is a so-called human capital approach, which aims to implement the value added per employee as capitalisable in the balance sheet. There are various approaches to calculating this, which will not be discussed here, as they involve numerous problems in recording and implementing them in the balance sheet. Only the following will be mentioned here Problem of key employees who would have to be identified and, in case of doubt or departure, literally written off in isolation.

Conclusion

Objectively speaking, and also observable in stock market prices, assets that cannot be recognised on the balance sheet are just as much value drivers as the assets deemed by the standard setters to be eligible for recognition on the balance sheet. Depreciation can logically only be applied to recognised assets; it is an important indicator for assessing the performance of a company and individual business units. Traditional accounting rules are designed for companies that create tangible and intangible assets in accordance with the reading of accounting. US GAAP and IFRS prefer values created through acquisitions, as can be seen from the high and steadily increasing goodwill as well as the dominant share of goodwill in all intangible assets. Book values continue to reflect the economic reality well for traditional industrial companies. The rather low price-to-book ratios observed in the market can therefore serve investors as in the past as a good guide to possibly finding fairly or undervalued companies - which then requires further analysis such as the cost of capital. In the case of technology-driven companies, on the other hand, key drivers of the operating businesses cannot be accounted for. Strict rules on the recognition of internally generated intangible assets understate the potential for value creation. Thus, investors can draw few conclusions from the balance sheet itself, especially in the case of companies whose business model is not, or only slightly, driven by acquisitions. Price-to-book ratios are therefore practically unsuitable for arriving at a *fair value* for the enterprise value. Lack of accounting information requires further analysis and quantification of off-balance sheet value drivers. This can lead to misallocations if care is not taken.

If balance sheets are to retain or regain their justification according to IFRS and US GAAP as the basis for an analysis of all companies, then it is necessary not to discriminate between internal and purchased value creation as before. Increased consideration of value drivers within non-financial reporting tends to tempt companies into marketing, as experience has shown. If companies should be given an increasing opportunity to report intangible assets, they should therefore be required to provide more information to counteract window dressing. In particular, the expected useful life of assets should be a mandatory disclosure. In the course of an evolution of the accounting rules, this should not only apply to intangible assets that have not been accounted for so far, but to all intangible assets. Companies should be required to amortise over the expected useful life - last but not least, this should also apply to goodwill after acquisitions.

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