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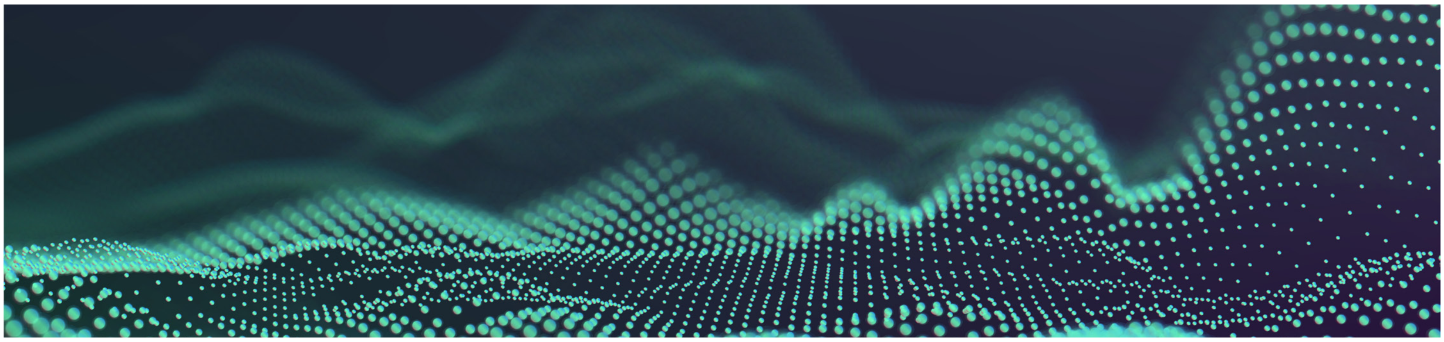


GIFT™ 2018

Global Intangible Finance Tracker (GIFT™) 2018
— an annual review of the world's intangible value
October 2018

Foreword - Brand Finance.

David Haigh
CEO, Brand Finance

Each year, Brand Finance plc analyses the fluctuating value of intangible assets on world stock markets. Once again the Global Intangible Finance Tracker (GIFT™) highlights important trends which have developed over the last 16 years:

1. The absolute scale of global intangible assets and the high percentage of global enterprise value represented by intangible assets

2. The volatility of intangible asset values caused by changes in investor sentiment over time

3. The confusion created by some intangible assets appearing in balance sheets while most do not

4. The failure of IFRS 3 to adequately report the current real value of both internally generated and acquired intangibles

The phenomenon of 'undisclosed intangibles' has arisen because accounting standards do not recognise intangible assets unless there has been a transaction to support intangible asset values in the balance sheet.

To many accountants, the Historical Cost Convention is a prudent measure to prevent creative accounting and the distortion of reported asset values. But the ban on intangible assets appearing in balance sheets unless there has been a separate purchase for the asset in question, or a fair value allocation of an acquisition purchase price, means that many highly valuable intangible assets never appear on balance sheets.

This seems bizarre to most ordinary, non-accounting managers. They point to the fact that while Smirnoff appears in Diageo's balance sheet, Baileys does not. The value of Cadbury's brands was not apparent in its balance sheet and probably not reflected in the share price prior to Kraft's unsolicited and ultimately successful contested takeover of that once great British company.

There are many other examples of this unfortunate phenomenon, which has led to the call for a new approach to financial reporting, with fair values of all assets determined and reported by management each year. Annual fair value reporting would be a significant help to managers, investors and other interested parties.

There is a growing demand, strongly supported by Brand Finance plc, that it is time for a new form of financial reporting, whereby boards should be required to disclose their opinion of the fair value of the underlying values of all key intangible assets under their control. We believe that this exercise should be conducted annually and include explanatory notes as to the nature of each intangible asset, the key assumptions made in arriving at the values disclosed and a commentary about the health and management of each material intangible assets. They could then be held properly accountable.

We believe that too many great brands have been bought and transferred offshore as a result of the ongoing reporting problem.

We hope that this GIFT™ report will start a reporting revolution which is long overdue. Instead of meaningless balance sheet numbers we want to see living balance sheets with values that the board really considers appropriate and useful for customers, staff, investors, partners, regulators, tax authorities and other stakeholders.

We urgently need a more imaginative approach towards a regular revaluation and reporting of intangible assets. If we could achieve a more meaningful reporting approach we believe that it would lead to better informed management, higher investment in innovation and intangible asset value creation, stronger balance sheets, better defence against asset strippers and generally serve the needs of all stakeholders.

In our opinion it is time for CEOs, CFOs and CMOs to start a long overdue reporting revolution.

Foreword - Brand Finance Spain.

Teresa de Lemus
Managing Director,
Brand Finance Spain

Brand Finance's 12th annual Global Intangible Finance Tracker (GIFT™) has revealed that 52% of the world's business value is intangible and almost 80% of that is totally undisclosed. In our view this has profound effects on companies' ability to manage their assets and for investors to make informed decisions on where to put their money.

The conceptual framework for financial accounting, outlined by IASB, states that the objective of financial accounts is to provide information to enable "potential investors, lenders and other creditors [make] decisions about providing resources to the entity". When an investor is not clear which assets a company owns and how much they are worth, it seems clear that they do not have enough information to make decisions about how the companies they invest in should maintain or improve those assets. If you do not know how a company should invest in its assets, how can you expect to appraise your investments before investing in them?

In Spain, the figure for all intangibles is 36% of total business value with slightly over 40% undisclosed (15% of the total). This is less than the global average and partly shows that the dominant sectors in Spain tend to be more dependent on tangible assets.

However, with all companies there is an opportunity to build value through better management of your brands. One need only look at Shell to see how companies in traditionally highly tangible sectors can improve the value of their business through the better management of their intellectual property, especially brands.

Given the value of all publicly listed Spanish companies has not yet reached its pre-crisis peaks, it seems evident that better managing those intangible assets – in particular technology and marketing IP – will grow Spanish companies faster in the new digital economy.

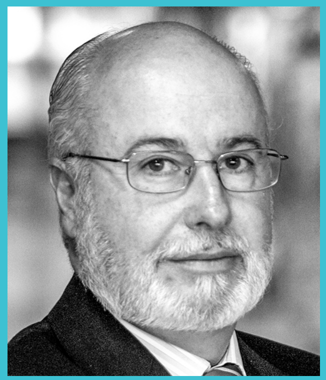
According to a 2016 Brand Finance study, 68% of equity analysts believe that internally generated brands should be valued every year and published in financial accounts. Currently, only acquired intangibles can be valued and reported on the balance sheet. Similarly, most internal brand and marketing managers continually ask how to invest their budgets. The only way to do that profitably is to identify where value is being created and exploited.

These concerns correspond with the concerns of potential acquirers: how can you be sure you are paying the right price, if you do not know what you are buying? In the UK, the construction giant Carillion's demise was the country's biggest trading liquidation in history. It happened as a result of what seemed like overpayment for various acquisitions. Most of the purchase price was allocated to goodwill rather than specific assets and so it was not clear until too late that too much had been paid. We believe these issues can be avoided if you understand the value of the assets held by an acquisition target.

It is not only investors and managers that are interested in intangibles, tax authorities are taking note too. In 2006, GSK paid more than US$3 billion in double taxation because the company could not prove where it held the value of its brands. However, the famous recent cases, for example those concerning Amazon, Coca-Cola, and Starbucks, are just the tip of the iceberg. There are many more audits being conducted, investigating the location of ownership of intangible assets and the payments for their use within groups.

Companies need to understand the existence, location, and value of their intangible assets and improve reporting in order to support financial stakeholders, enhance internal management, and avoid tax risk. At the moment, standards setters are not helping them achieve any of that.

Foreword - Corporate Excellence.



Ángel Alloza
CEO, Corporate Excellence

Each day we are closer to a scenario that, years ago, seemed unattainable; one where companies manage with excellence their assets and intangible resources. There is still a long way to go, but we can already appreciate a clear interest within different business strata, from management committees and boards of directors to investors. It's no wonder; once again the Global Intangible Financial Tracker's results point out that around 50% of business value in organizations belongs to intangible assets, reaching up to 80-85% in specific sectors.

Organizations have become aware of the importance of managing these resources due to the fact that, among other things, they need to be part of a society that is increasingly demanding and concerned about its future. Citizens and consumers expect businesses to hold an active part in the world they live in and to make a positive impact in it.

Companies are social actors that play an essential role in society, and that role they play must reflect itself in their actions. But all this can only be achieved if intangible assets are efficiently managed. Along these lines, Larry Fink (CEO, BlackRock) launched his petition in early 2018, when he appealed to investors and business leaders to focus on encouraging and implementing these resources. Organizations that don't understand this change will inevitably be left behind.

Year after year we see an increase in the presence of intangible resources as opposed to tangibles when we talk of an organization's total value, as this study clearly indicates. And research shows that, for executive directors, reputation and brand protection are the main risks or factors that affect company growth. Thus, investing in intangibles is a safe investment in the future. Specifically, reputation and brands are the most relevant resources and non-financial assets due to their direct impact on a business; today we have studies backed by empirical evidence that prove that improving reputation by five points increases purchases by 6,4%.

Without a doubt, an organization's value will depend on its support of adequate management of their intangible resources. And this paradigm shift is especially relevant when we speak about the future of reporting. It's precisely data that gives us the validity and justification to undertake actions related to reputation, brands or corporate social responsibility, to make better informed decisions and to prove their impact in a business. Comprehensive, cross-wise and holistic perspectives of a company must follow the same line and promote a reporting culture that shows the degree to which acquired commitments are fulfilled.

And here is where technology and data analysis will be a key element to generate dashboards where financial information coexists with non-financial one. Indicators such as brand strength, reputation, employee commitment, client satisfaction and tendency to recommend are destined to complement organizations' dashboards, mainly due to the fact that the protection and creation of future values lies within them.

Investors require this information, more holistic, comprehensive and integrated, but, above all, closer to the reality of any business project; it's also required by regulators, clients, employees and society as a whole. Thus, in the next few years we will see how reporting, recognizing the value of intangibles to business and the impact and positive contribution of organizations to the environments they operate within, become increasingly relevant.

About Brand Finance.

Brand Finance is the world's leading independent brand valuation and strategy consultancy.

Brand Finance was set up in 1996 with the aim of 'bridging the gap between marketing and finance'. For more than 20 years, we have helped companies and organisations of all types to connect their brands to the bottom line.

We pride ourselves on four key strengths:
• Independence
• Technical Credibility
• Transparency
• Expertise.

Brand Finance puts thousands of the world's biggest brands to the test every year, evaluating which are the strongest and most valuable.

For more information, please visit our website:
www.brandfinance.com

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Contents.

Definitions.

Intangible assets can be grouped into three broad categories — rights, relationships and intellectual property:

1 Rights. Leases, distribution agreements, employment contracts, covenants, financing arrangements, supply contracts, licences, certifications, franchises.

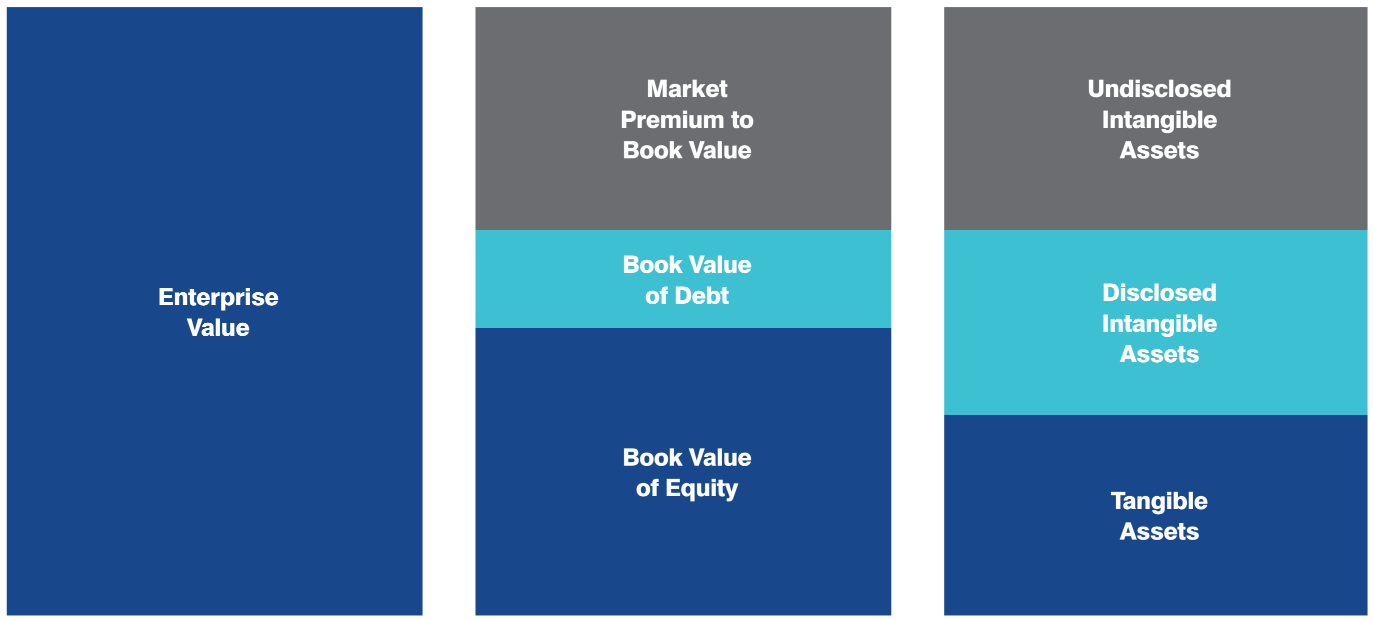
2 Relationships. Trained and assembled workforce, customer and distribution relationships.

3 Intellectual property. Patents; copyrights; trademarks; proprietary technology (for example, formulas, recipes, specifications, formulations, training programmes, marketing strategies, artistic techniques, customer lists, demographic studies, product test results); business knowledge — such as suppliers' lead times, cost and pricing data, trade secrets and knowhow.

Internally generated intangibles cannot be disclosed on the balance sheet, but are often significant in value, and should be understood and managed appropriately. Under IFRS 3, only intangible assets that have been acquired can be separately disclosed on the acquiring company's consolidated balance sheet (disclosed intangible assets).

The following diagram illustrates how intangible value is made up of both disclosed and undisclosed value.

Breakdown of corporate assets, including intangibles



'Undisclosed intangible assets', are often more valuable than the disclosed intangibles. The category includes 'internally generated goodwill', and it accounts for the difference between the fair market value of a business and the value of its identifiable tangible and intangible assets.

Although not an intangible asset in a strict sense — that is, a controlled 'resource' expected to provide future economic benefits (see below) — this residual goodwill value is treated as an intangible asset in a business combination on the acquiring company's balance sheet. Current accounting practice does not allow for internally generated intangible assets to be disclosed on a balance sheet. Under current IFRS only the value of acquired intangible assets can be recognised.

In accounting terms, an asset is defined as a resource that is controlled by the entity in question and which is expected to provide future economic benefits to it. The International Accounting Standards Board's definition of an intangible asset requires it to be non-monetary, without physical substance and 'identifiable'.

In order to be 'identifiable' it must either be separable (capable of being separated from the entity and sold, transferred or licensed) or it must arise from contractual or legal rights (irrespective of whether those rights are themselves 'separable'). Therefore, intangible assets that may be recognised on a balance sheet under IFRS are only a fraction of what are often considered to be 'intangible assets' in a broader sense.

However, the picture has improved since 2001, when IFRS 3 in Europe, and FAS 141 in the US, started to require companies to break down the value of the intangibles they acquire as a result of a takeover into five different categories — including customer- and market related intangibles — rather than lumping them together under the catch-all term 'goodwill' as they had in the past. But because only acquired intangibles, and not those internally generated, can be recorded on the balance sheet, this results in a lopsided view of a company's value. What is more, the value of those assets can only stay the same or be revised downwards in each subsequent year, thus failing to reflect the additional value that the new stewardship ought to be creating.

Clearly, therefore, whatever the requirements of accounting standards, companies should regularly measure all their tangible and intangible assets (including internally-generated intangibles such as brands and patents) and liabilities, not just those that have to be reported on the balance sheet. And the higher the proportion of 'undisclosed value' on balance sheets, the more critical that robust valuation becomes.

Categories of intangible asset under IFRS 3

Marketing-Related Intangible Assets	Customer-Related Intangible Assets	Contract-Based Intangible Assets	Technology-Based Intangible Assets	Artistic-Related Intangible Assets
Trademarks, tradenames Service marks, collective marks, certification marks Trade dress (unique colour, shape, or package design) Newspapers Internet Domain Names Mastheads Non-competition agreements	Customer lists Order or production backlog Customer contracts & related customer relationships Non-contractual customer relationships	Licensing, royalty, standstill agreements Advertising, construction, management, service or supply contracts Lease agreements Construction permits Permits Franchise agreements Operating and broadcast rights Use rights such as drilling, water, air, mineral, timber cutting & route authorities Servicing contracts such as mortgage servicing contracts Employment contracts	Patented technology Computer software and mask works Unpatented technology Databases Trade secrets, such as secret formulas, processes, recipes	Plays, operas and ballets Books, magazines, newspapers and other literary works Musical works such as compositions, song lyrics and advertising jingles Pictures and photographs Video and audio-visual material, including films, music, videos etc.

Reporting: Background.

In 2001, FAS 141 introduced the requirement for US companies to capitalize acquired intangibles following an acquisition. Intangible assets should be separately disclosed on the acquiring company's consolidated balance sheet. In 2004 , IFRS 3 introduced the same requirement as a global standard.

In 2005, all listed companies in EU member countries adopted IFRS.

At present, approximately 90 nations have fully conformed with IFRS, with further 30 countries and reporting jurisdictions either permitting or requiring IFRS compliance for domestically listed companies.

The adoption of IFRS accounting standards means that the value of disclosed intangible assets is likely to increase in the future. Strong advocates of 'fair value reporting' believe that the requirements should go further and that all of a company's tangible and intangible assets and liabilities should regularly be measured at fair value and reported on the balance sheet, including internally generated intangibles such as brands and patents, so long as valuation methods and corporate governance are sufficiently rigorous.

Some go as far as to suggest that 'internally generated goodwill' should be reported on the balance sheet at fair value, meaning that management would effectively be required to report its own estimate of the value of the business at each year end together with supporting assumptions.

However, the current rules state that internally generated intangible assets generally should not be recognised on the balance sheet. Under IFRS, certain intangible assets should be recognised, but only if they are in the "development" (as opposed to "research") phase, with conditions on, for example, technical feasibility and the intention and ability to complete and use the asset. "Internally generated goodwill", as well as internally generated "brands, mastheads, publishing titles, customer lists and items similar in substance", may not be recognised.

IFRS: Allocating the cost of a business combination

At the date of acquisition, an acquirer must measure the cost of the business combination by recognising the target's identifiable assets (tangible and intangible), liabilities and contingent liabilities at their fair value. Any difference between the total of the net assets acquired and the cost of acquisition is treated as goodwill (or gain on a bargain purchase).

Goodwill: After initial recognition of goodwill, IFRS 3 requires that goodwill be recorded at cost less accumulated impairment charges. Whereas previously (under IAS 22) goodwill was amortised over its useful economic life (presumed not to exceed 20 years), it is now subject to impairment testing at least once a year. Amortisation is no longer permitted.

Gain on a bargain purchase: Gain on a bargain purchase arises where the purchase price is determined to be less than the fair value of the net assets acquired. It must be recognised immediately as a profit in the profit and loss account. However, before concluding that "negative goodwill" has arisen, IFRS 3 says that an acquirer should "reassess" the identification and measurement of the acquired identifiable assets and liabilities.

Impairment of assets

A revised IAS 36 'Impairment of Assets' was issued at the same time as IFRS 3, on 31 March 2004. Previously an impairment test was only required if a 'triggering event' indicated that impairment might have occurred.

Under the revised rules, an annual impairment test is still required for certain assets, namely:

- Goodwill
- Intangible assets with an indefinite useful economic life and intangible assets not yet available for use.

Brands are one major class of intangible assets that are often considered to have indefinite useful economic lives. Where acquired brands are recognised on the balance sheet post-acquisition, it is important to establish a robust and supportable valuation model using best practice valuation techniques that can be consistently applied at each annual impairment review.

The revised IAS 36 also introduces new disclosure requirements, the principal one being the disclosure of the key assumptions used in the calculation. Increased disclosure is required where a reasonably possible change in a key assumption would result in actual impairment.

Impact on managers and investors

a) Management

Perhaps the most important impact of new reporting standards has been on management accountability. Greater transparency, rigorous impairment testing and additional disclosure should mean more scrutiny both internally and externally. The requirement for the acquiring company to attempt to explain at least a part of what was previously lumped into "goodwill" should help analysts to analyse deals more closely and gauge whether management have paid a sensible price.

The new standards are also having a significant impact on the way companies plan their acquisitions. When considering an acquisition, a detailed analysis of all the target company's potential assets and liabilities is recommended to assess the impact on the consolidated group balance sheet and P&L post-acquisition.

Companies need to pay close attention to the likely classification and useful economic lives of the identifiable intangible assets in the target company's business. This will have a direct impact on the future earnings of the acquiring group. In addition to amortisation charges for intangible assets with definite useful economic lives, impairment tests on assets with indefinite useful economic lives may lead to one-off impairment charges, particularly if the acquired business falls short of expectations post-acquisition.

The requirement for separate balance sheet recognition of intangible assets, together with impairment testing of those assets and also goodwill, is expected to

result in an increase in the involvement of independent specialist valuers to assist with valuations and on appropriate disclosure.

b) Investors

The requirement for companies to attempt to identify what intangible assets they are acquiring as part of a corporate transaction may provide evidence as to whether a group has paid too much in a deal. Subsequent impairment tests may also shed light on whether the price paid was a good one for the acquiring company's shareholders.

Regular impairment testing is likely to result in a greater volatility in financial results. Significant one-off impairment charges may indicate that a company has overpaid for an acquisition and have the potential to damage the credibility of management in the eyes of the investor community.

Maximise the value of your intangibles, minimise your tax compliance risk.

Alex Haigh
Director, Brand Finance

By highlighting over US$50 trillion worth of tax base assets at stake, Brand Finance's Global Intangible Finance Tracker (GIFT™) 2018 exposes the need for tax payers and tax authorities to pay attention to where valuable intangible assets are owned and what can be charged for their use.

Accounting for intangible value

At Brand Finance, we started to study the value of companies' intangible assets in 2001 principally to show the glaring inaccuracies of financial statements globally due to the underreporting of intangible asset values. Although already a key issue when we began, the impact of our findings on tax and transfer pricing policy was not as clear nor deliberate then as it is now.

The study's impact on tax planning has become particularly prescient in light of newly coordinated international action on the prevention of erosion of countries' corporate tax incomes – the OECD's Base Erosion and Profit Shifting (BEPS) initiative.

By highlighting the enormous value of intangible assets and the lack of due diligence performed in accounting for them, we have come to use the GIFT™ 2018 study to expose the need to identify where value is created and exploited internally, by large corporates, and taxed, by authorities.

The total value of assets on global stock markets at the end of the financial year surpassed US$100 trillion for the first time in history to reach US$109.3 trillion. At the start of our study 17 years ago, that figure was only US$30.9 trillion. The value has grown 254% over the 17 years, an equivalent growth rate of 8.22% per year.

Of the US$30.9 trillion in 2001, US$14.5 trillion was disclosed on companies' balance sheets and US$16.4 trillion was not. Today, US$65.6 trillion is internally understood and disclosed on balance sheets while US$43.7 trillion is not.

Between 2001 and 2007, the proportion of value explained by balance sheets was on average 50% of total value, with 50% of value unexplained and undisclosed. Following the financial crisis, there was greater clarity on the value of businesses since the "new normal" proportion of undisclosed value became 37% - excluding 2008 which most would consider an extraordinary year.

One would think that this reduction in undisclosed value was a sign that reporting of business assets was improving and to some extent they would be right: the proportion of disclosed intangible assets and goodwill increased to around 20% of total value in 2011 and unexplained value was only 29% at that point.

However, since 2011 we have seen a downward trend and now explained value is at a nadir – disclosed intangible assets (including goodwill) make up only 12% of global enterprise value, a number almost equivalent to the 11% we saw all the way back in 2001.

While the quality of financial reporting does not necessarily mean poor quality of internal reporting and management accounting, a lack of external oversight often correlates with a lack of internal understanding. Where there is a lack of understanding of what is owned and operated by the company, management's ability to direct investment, price functions, and enhance those assets' values is obviously made more difficult.

Managing and pricing the use of intangibles internally

'Transfer pricing' refers to the practice of pricing transactions between companies within a commonly controlled group. The concept is originally a management accounting one, used by companies to ensure that individual divisions profit maximise in the absence of a true market for what they buy and sell – this true market not existing since the common control gives incentives to buy internally.

Most everyday transactions, such as selling raw materials in a production process, are obvious and simple as there is an easily recordable transaction and, generally, a market price comparable. However, there are many transactions which are more complicated to recognise, understand and account for. Charging for the use of brands and intellectual property (IP) is one of those types of transactions.

Brands and other IP are assets that one party owns and another uses. In any third party transaction, the user would usually be expected to pay the owner for the privilege of use. Internally, the use by one group company of IP owned by another group company would therefore be a transaction just like any other and is usually covered by a licence agreement.

How does this relate to brand and intellectual property management?

A profit-seeking brand owner and its profit-seeking brand user counterpart would both aim to maximise the return they receive from the deal partly through forceful negotiation but also through the professional management of processes for developing, protecting and exploiting the value inherent in its brand.

Virgin, which owns its brand in a subsidiary called *Virgin Enterprises*, is a particularly clear case in point. Virgin does not own majority stakes in most of its companies. Instead, it operates a minority stake and brand licence model where management identify opportunities that will maximise royalties to the brand-owning company while also developing and enhancing the brand to promote its other enterprises. It expects its licensees to invest in substantial amounts of advertising, PR and other types of promotion but keeps strategic control of the brand's positioning and direction firmly under the remit of Virgin Enterprises.

The company audits any brand-related investments or partnerships, prevents improper use by licensees or counterfeiting by unscrupulous third parties, and manages its valuable intellectual property much like one would manage a real estate portfolio. By doing that, Virgin has become one of the world's most recognised brands and one of the most valuable licencing operations in the world.

Surprisingly, this sort of commercial management is often not present within group companies despite the fact that brands are on average between 10% and 20% of a company's enterprise value and intangible assets generally are between 40% and 50% collectively.

As a result, companies are often unable to say where their brands are owned or by whom; which is both complicated by new BEPS rules on "economic" versus "legal" ownership requirements and essential for managing a complicated portfolio of trademark registrations across a global business.

Maximise the value of your intangibles, minimise your tax compliance risk.

This lack of understanding means that subsidiaries are often unclear on how they can use their brands. This can be as basic a point as what colours should be used for a business card or as important a question as which brand should be used on the launch of a new business.

This frequently means that a company's portfolio of brands becomes confused, slowing down business and reducing the efficacy of attempts to focus around a business strategy or create corporate change.

Most people now accept that brands hold significant value, principally as a result of the demand that they generate through customers' perceptions of their quality and reputation. Where brands or brand portfolios are managed in a confusing way, the ability of those perceptions to drive business performance is hindered.

As a simple example of this, consider what would happen to milk sales in a supermarket if the "Dairy" sign was on the wrong side of the shop floor.

It could be argued that formally granting a licence between different parts of the same company – where ultimately the same set of shareholders will benefit from the licence exploitation – is bureaucratic and unnecessary. However, every part of an organisation should be expected to contribute as effectively as possible to the overall results of the group. Formalising the relationship between those who own the brand and those who use it acts as an incentive to maximise the use of the licensed brand rights and to ensure that the rights and obligations on both sides are more fully understood and adhered to.

What relevance does this have for tax?

As far back as 2001, the UN noticed the relevance and importance of allocating appropriate value to activities within as well as between multinationals. In that year, the Ad Hoc Group of Experts on International Cooperation in Tax Matters identified that over 60% of international trade was carried out within multinationals, so an actual majority of trade was seen to be between connected parties.

The transfer pricing of goods, services and assets is therefore a hugely important concept for understanding what value is generated where and therefore how it should be taxed.

On one side, transfer pricing is important because it can be used by corporations to minimise or avoid their taxable income in high tax countries thereby reducing the tax base of countries already struggling with tax income reduced by the so-called Great Recession.

There are many examples of companies using corporate vehicles or opaque accounting practices seemingly for the sole purpose of reducing tax. One need only look at the recent example of the IRS' objection to Amazon's sale of its EU trademark rights to a Luxembourg subsidiary to see tax authorities' fear of this happening.

On the other side, it is important because transfer pricing can expose multinationals to significant amounts of double tax. For example, in 2006, GSK was forced to pay US$3.1 billion in double taxation of its income when arbitration between US and UK tax authorities could not agree on the amount of value created in building the Zantac and other brands in each of their representative countries.

The key challenge when it comes to intangibles stems from the underlying "separate and independent" principle adopted by Article 7 and Article 9 of the OECD's Model Tax Convention – the model for OECD country bilateral tax treaties. These articles essentially state that profits accruing to a branch or company within a group should be equivalent to what you would expect to accrue to an independent party.

This principle has also been incorporated into the UN's Model Tax Convention and the default tax conventions of many countries, such as the US. Collectively, these model conventions act as the basis for the clear majority of bilateral tax treaties meaning almost all countries tax inter-company income under this principle.

This means that the functions performed, assets owned and risks borne by group companies should command payments commensurate to what one would expect a third party to receive in an arm's length transaction.

Herein lies the challenge: how does a tax manager establish where value would be created or charged for in an arm's length transaction between independent parties when the parties have not been acting independently or at arm's length for many years?

So how do you set the correct rate of return for the use of a brand?

Action point 8 of the OECD's BEPS initiative relates to intangibles. Intangibles are identified as one of the highest risk issues in transfer pricing as a result of: the lack of comparable transactions due to the unique nature of such assets; the difficulty of separating earnings specifically related to the IP from the earnings derived from the rest of the business; and the difficulty of determining ownership over their value.

Lack of comparables

The OECD specifies that taxpayers should use the "most appropriate" method for determining a transfer price. This can be any method provided it is agreed that it is the most appropriate. However, as a guide, it specifies five methods that can be used. In practice, only two can be used for the transfer pricing of intangibles which are:

- The "Comparable Uncontrolled Price" (CUP) method which determines a price based on similar agreements – usually with an adjustment to make the fee seen in the market transaction more comparable – and;
- The "Profit Split" method which determines the price by identifying the profits made from the transaction and attempting to split these profits according to each party's contribution.

Establishing comparability in transfer pricing is notoriously hard. Companies operate in slightly different geographies, sell slightly different products, at different times, and with brands that have different strengths in the minds of consumers. Databases for agreements are small, often out of date, skewed towards particular regions (in particular the US) and contain limited information on the underlying businesses to the transactions. This causes significant issues when using comparables to defend a transfer price. In the UK's landmark 1997 case, DSG retail v HMRC, every single one of the comparables put forward was rejected for various reasons that made them non-comparable. This inevitably means that most documentation will require a combination of the CUP method and the Profit Split method.

Some practitioners consider the Profit Split method to comprise solely of what is known as the "25% Rule" or "Rule of Thumb" which assumes that most IP licensing negotiations start with an assumption that a licensee will pay between 25% and 40% of their earnings before interest and tax on licenced IP. This 'rule' is widely discarded by tax courts due to incomparability and is therefore at best a useful corroborative check after a more fundamental review of the impact of the functions performed, assets owned and risks borne of each party to a transaction.

Determining the value of IP earnings

The *Amazon.com, Inc. v. Commissioner* 148 T.C. 8 (2017) case confirmed what most intangible asset valuers and transfer pricing consultants already knew: that the best method for determining the value that a brand owner should receive is a royalty on sales. Where a valuation is necessary, this precipitates a discounted cash flow method known as the "Royalty Relief" approach whereby the value of a brand is determined by the present value of hypothetical intercompany royalty payments.

The challenge with this method comes in determining that royalty. Since brands and other IP are unique both in strength and in application, it is generally necessary to at least make comparability adjustments to market rates. In the case of Amazon, it was necessary to review the business model since profits were kept deliberately low through reinvestment in order to drive higher revenues.

Maximise the value of your intangibles, minimise your tax compliance risk.

The brand was therefore valuable for driving growth rather than for driving profitability and therefore it was determined that the final rate on sales must be lower than comparable market agreements since sales were higher and growing faster than in those transactions.

However, rather than making arbitrary changes to non-comparable "comparables", it is generally preferable – given the paucity of even vaguely comparable transactions – to assess the overall earnings from a brand from first principles. This is also beneficial from a commercial perspective since it can also be used as a tool to help management use their brands to maximise earnings and therefore their business' value.

In various cases we at Brand Finance have established value via the statistical analysis of brand attractiveness data to understand brands' impact on demand (and some costs), comparing what earnings would be under a "generic" brand and identifying the difference to estimate the yearly uplift. This is a challenging approach but it tends towards a more satisfactory approach when faced with strong, unique and large global brands.

A related challenge occurs here when considering the case of rebrands. Head office might decide to rebrand in order to reduce central costs or to create a strong global brand but in the short run this may actually destroy brand value in the rebranded company. The net effect may be neutral or negative and so many tax authorities will argue that a charge to a brand outside their country is unacceptable (since there is a perfectly good brand that could be used and would keep value in their own country).

The case of Suzuki Maruti in India highlights this issue. When Suzuki acquired Maruti it decided to cobrand under 'Suzuki Maruti' and charge for the use of the Suzuki brand. Indian authorities argued that the effect of this cobranding was that Suzuki was actually building its own value in India by associating itself with Maruti which was a strong brand. They argued that Suzuki should actually pay Maruti for the privilege – a reverse royalty.

The result ended with no royalty chargeable but the case highlights the fact that taxpayers need to be careful when charging royalties to rebranded subsidiaries either by waiting to charge or by charging a ratcheted royalty dependent on performance.

Determining ownership and the right to make a charge

The new BEPS rules – as well as the domestic rules now being adopted by many states – outline that while legal ownership is the starting point, the ability to charge a share of profit rate of return is more dependent on economic ownership of the asset. Legal ownership refers to contractual rights whereas economic ownership refers to rights created through Development, Enhancement, Maintenance, Protection, and Exploitation (DEMPE) functions that create value in the IP. The idea is that, since a group relationship is not exactly equivalent to a licensor-licensee one, group subsidiaries sometimes spend time and energy adding value to IP that a normal licensee would not be expected to do.

The OECD therefore believes that assets should be owned by (and therefore charged from) the parties that generate the value since, in the absence of tax considerations, that is where they would legally be registered and owned in many cases.

Often, tax authorities take this principle and assume it is equivalent to where money is being spent on marketing and advertising. However, when thinking again of Virgin, one can see why this argument does not hold up to scrutiny. As we have seen, Virgin is involved in strategic decision-making and legal protection but does not spend much itself. Despite this, it is still able to charge high royalties to a large number of parties.

Granted, there are examples of companies where central spend is high – if you consider the amounts spent by Nike on global celebrity endorsements you will see how this can be the case – but typically licensors do not spend much and instead expect licensees to spend large amounts on promotion in their markets, albeit under strict rules.

Therefore, to determine where economic ownership lies, one must establish what constitutes 'strategic' spend and activities and what constitutes 'tactical' spend and activities, and split these. Preferably this will have been completed before an audit, because it is easier to state ownership is central when strategic spend or activities (that will often occur in subsidiaries) have already been compensated for.

Taking a different type of IP as an example: if a new type of Mars bar were created in Mars's UK subsidiary and the group decided it wanted to sell it around the world, it is easier for the centre to claim ownership and charge a share of profit from the centre when it has already paid the routine payments for the R&D facilities that created that product. Otherwise, the UK would be the party that owns it and can charge for it.

In the case of a rebranded enterprise, it should be made clear that as well as making the change in brand there should also be a scaling back of strategic activities to the centre. In practice, this is generally easy since a primary reason of rebranding is often to reduce headcount and cost in marketing and brand functions.

Conclusion

The management of brand and other IP is often ad hoc at best in large, complicated multinational enterprises. This is very understandable at least partly because of four core issues: investors do not demand scrutiny since they do not see the assets' value on balance sheets; management knowledge of how brands and other IP impact businesses mean information is often limited; brand managers have historically lacked the knowledge to explain the importance of the assets they manage; and tax authorities did not care much until very recently.

If the Brand Finance GIFTTM study highlights the issue of companies not understanding their IP well, the new BEPS rules highlight its importance. Tax authorities are getting more and more aggressive coming after big companies they deem to be exploiting the principles of transfer pricing to avoid tax. The transfer pricing of companies' brands is one of their biggest areas of contention.

This highlights the need for companies to confront the complicated issue of charging for brands. The steps to confront it are as follows:

1. Identify where all intellectual property is legally owned and registered and identify where new IP is likely to be developed.
2. Identify where each piece of intellectual property is being used.
3. Review marketing and IP related functions performed, assets owned and risks borne by each group company to establish where "DEMPE" activities are being performed.
4. Analyse customer and other research to determine the likely impact of the brand's reputation on demand drivers and cost pressures, and translate this into an earnings figure.
5. Review comparable licencing transactions and licencing best practice in your industry in order to identify what are common DEMPE obligations for licensor and licensee and to find comparable rates.
6. Decide on the appropriate royalty rate and determine whether any compensation should be paid for value-adding activities by brand users that would not usually be expected of a licensee.
7. Repeat the process for all other IP, markets and group companies and document in country by country reports.

Although a large task, with the prospect of large audits on the horizon for many companies, the diligence of this approach should avoid the threat of double tax that can rise up in to the billions. While financial accountants still avoid thinking about the huge value of IP that companies control, it is clear managers and tax planners cannot.

Risky Business: The Accounting Treatment of Goodwill.

Annabel Brown
Senior Analyst,
Brand Finance

When one company is bought by another, a fair value exercise (FVE) must take place to allocate the consideration paid to net tangible assets and identifiable intangible assets. Any remaining unallocated value is classified as goodwill. Since 2001, the IASB has adopted the policy that goodwill identified on acquisition of a company will subsequently be accounted for through impairments and not annual amortisation. This policy contends that goodwill does not necessarily decrease in value as time goes on.

However, it can also allow persistent high levels of goodwill on company balance sheets, the reported value of which is dependent on management judgment. Where neither managers nor auditors feel an impairment is due, no impairment charge is taken against the carrying amount of the goodwill asset. In extreme cases, persistent non-impairment can inflate the balance sheet, leaving investors, employees and entire economies vulnerable.

Real impairment vs reality

The Brand Finance GIFT™ study compares this distribution of asset value. We identify the value of listed companies' tangible net assets, disclosed goodwill and other disclosed intangibles (such as brand value) present on their balance sheets. The sum of these three disclosed items is then compared with the companies' market enterprise values. The balancing figure is allocated to undisclosed intangible value.

This undisclosed value is the excess of market value over book value created through changing share price. Share prices fluctuate due to changing expectations of future earnings, which are driven by signals on future performance, such as innovative technology, popularity of the brand, and announcements of new contractual agreements, which are examples defined under IAS 38 as intangible assets. When undisclosed intangible value is negative, book value exceeds market value, indicating real economic impairment.

The Brand Finance GIFT™ 2018 study found 1,215 publicly traded companies domiciled in countries which use IFRS and had negative undisclosed intangible value for both financial years 2017 and 2016. In our view, this indicates the need for impairment of goodwill. However, 70% of these companies had either no reduction or an increase in disclosed goodwill over these two years, which can be treated as a proxy for non-impairment.

One would expect that companies with a more significant value of goodwill, if exercising prudence, would be more likely to impair when economic goodwill impairment is indicated. We tested this hypothesis. Surprisingly, we found very little relation between the ratio of goodwill to market enterprise value and propensity to impair. 69% of companies with the ratio at 10% or less did not impair, compared with 70% of companies with the ratio at more than 100%.

When a firm has been acquiring aggressively, and thus has accrued significant amounts of goodwill, it would not be unusual to have high levels of goodwill relative to market enterprise value. However, if those acquisitions are strategically weak, and the benefits of expected synergies are not realised, then goodwill would be a high proportion of market value over a longer term. This would indicate an inflated balance sheet as the expected earnings that determine goodwill do not prove true in time.

Goodwill recognised in a business combination is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised. The future economic benefit may result from synergy between the identifiable assets acquired or from assets that, individually, do not qualify for recognition in the financial statements.

IAS 38

When this goodwill is not impaired, the balance sheet and retained earnings are likely overstated, reducing the reliability of financial statements. Even if the initial recognition of goodwill is accurate, subsequent non-impairment can be misleading and harmful to investors. Management are incentivised not to impair; it reflects badly on the incumbent CEO as it suggests they may have overpaid for an acquisition. Often it is new executives that initiate impairment; for example on the day that GE introduced Larry Culp as CEO, the company announced a US$23 billion goodwill impairment.

The construction mammoth and the elephant in the balance sheet

Last January, news headlines resounded with the announcement of the UK's biggest trading liquidation to date. Carillion's bankruptcy destroyed jobs and further destabilised confidence in the UK economy. But the downfall was not a complete surprise to the hedge-funds that made £200 million by short-selling shares in Carillion. A review of Carillion's performance in the Brand Finance GIFT™ 2018 study also indicates that downfall was more inevitable than shocking. A closer examination of historic disclosure of goodwill illuminates a worrying indicator that Carillion's collapse may have been years in the making. What remains in

Risky Business: The Accounting Treatment of Goodwill.

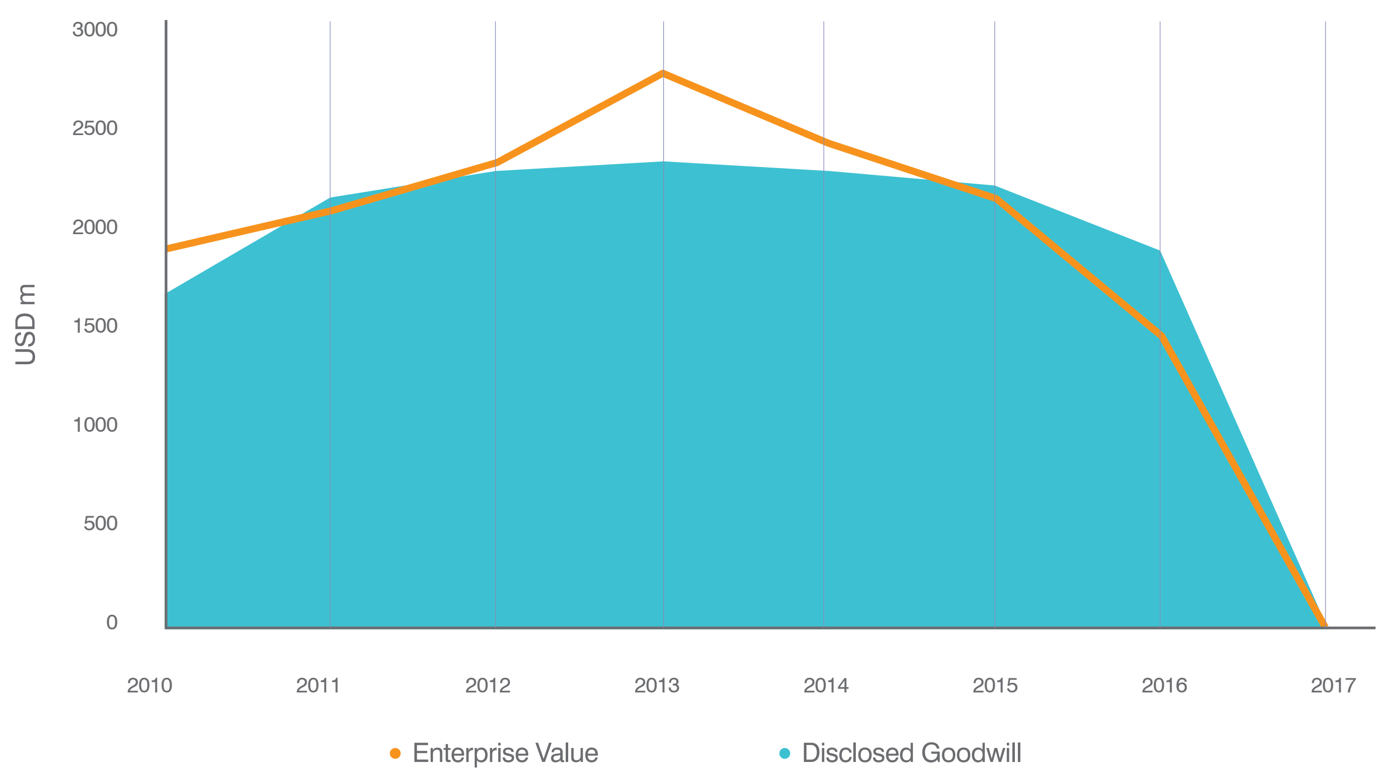
the construction mammoth's wake is a stark cautionary tale about heavy M&A and the improper accounting of goodwill.

Many critics cite Carillion's subsidiary Eaga as the main problematic treatment of group acquired goodwill. While it was substantial at £329 million, Eaga contributed to just 19% of Carillion's disclosed goodwill. Since 2011, disclosed goodwill accounted for at least 84% of Carillion's market enterprise value, and in the years 2012, 2016, and 2017, book value of goodwill even exceeded the total market worth of the company (see Graph 1). Consider that the average share of market enterprise value disclosed as goodwill for the global set of trading companies between 2011-2017 was a mere 6% and join the critics of KPMG that wonder why goodwill was not impaired.

KPMG conducted a sensitivity analysis on the earnings forecasts and valuation assumptions for the relevant CGUs and concluded that no impairment was necessary. However, a sensitivity analysis is only reliable when the forecasts are approximately correct. Eaga, which was rebranded to Carillion Energy Services ("CES"), had suffered a decrease in revenue of 95% in the five years after acquisition. This decrease in performance should have indicated that future earnings may be lower than originally expected, which would imply goodwill should be impaired. However, in this five-year period, no impairment was charged against the goodwill that arose on acquisition.

To be fit for purpose, a balance sheet must present a true and fair view of the reporting entity's financial position. This relies heavily on auditors' diligence surrounding the figures provided by management. This diligence is often lacking. In the case of Carillion, despite a weakened financial outlook, no impairment charges were elicited by management or the auditors. As goodwill impairment is an expense against retained earnings, it can eliminate the reserves from which dividends are paid. Because of non-impairment, Carillion was able to pay out a record amount of £78 million in dividends in 2016.

Graph 1. Carillion Historic Goodwill vs. Market Enterprise Value



Prudence. Prudence. Prudence.

If, unlike so far assumed in this article, goodwill on acquisition is inaccurate, then either:

1. the high value of goodwill demonstrates that management overpaid for the target company, or

2. management did not overpay, but the allocation of intangible value is inaccurate, and the value of other specific intangible assets acquired, such as brand, are underestimated.

Under both scenarios, it would be understandable for the carrying amount of goodwill to then be improperly impaired, given that CEOs don't like to admit to having overpaid for an acquisition. However, both scenarios could be avoided if specific intangible assets are more accurately valued.

Goodwill is neither transparent nor understandable. Other intangibles, such as brands and software are easier for investors to interpret. For example, a major scandal would signal that brand value should be impaired. Goodwill on the other hand is more obscure, making impairment less obvious.

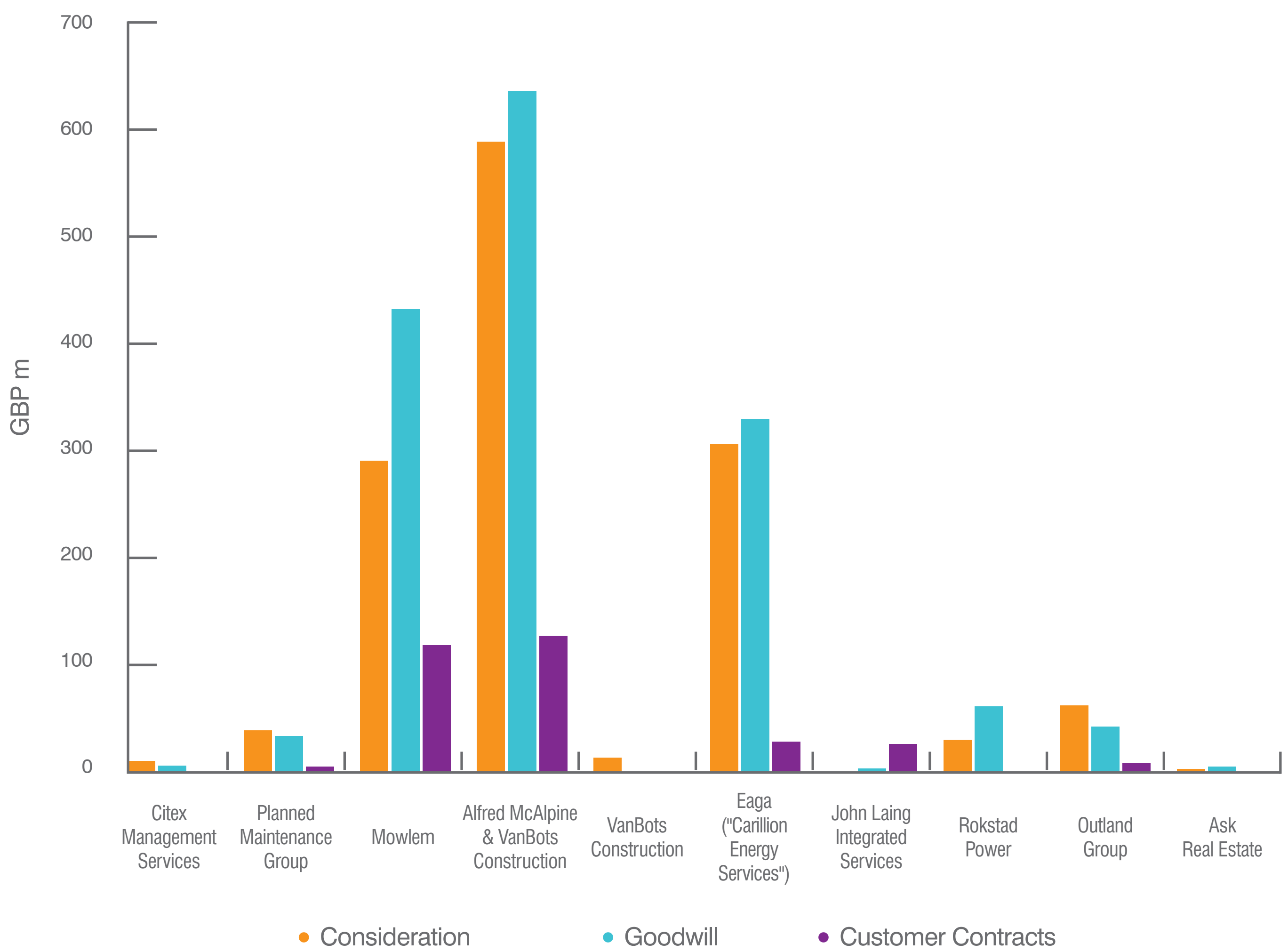
On the acquisition of Eaga, Carillion rebranded it to CES. Had the FVE accounted for the brand value of Eaga, such a rebrand would have likely resulted in the impairment of this brand value immediately. However, the only intangible asset separated in the FVE was customer contracts and lists, which were recognised at £29.4 million, and amortised completely over 4 years. This value is just 9% of what was recognised as goodwill.

Brands can live forever

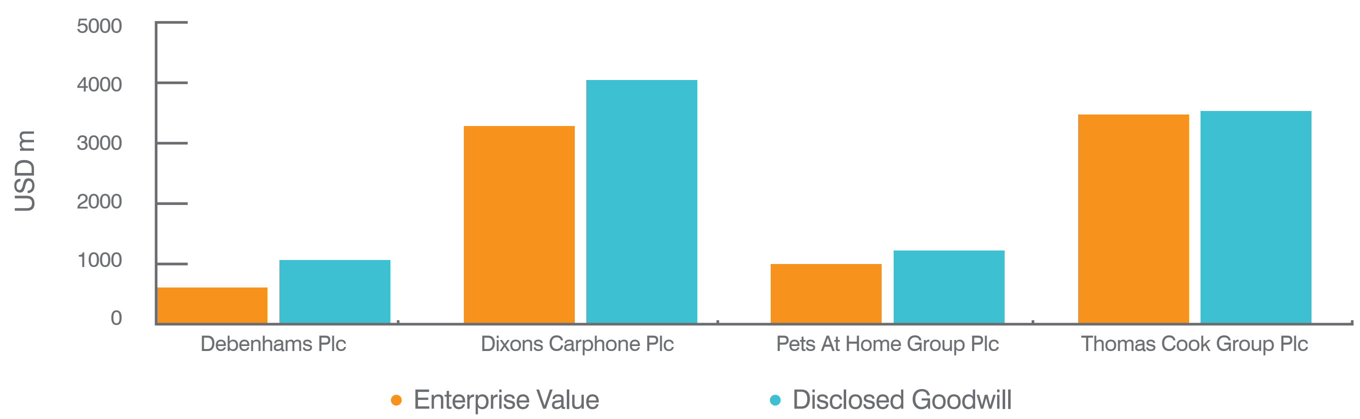
Managers are incentivised to allocate as much intangible value to goodwill as possible, to minimise amortisation expenses. Granted, the allocation of purchase price to specific assets instead of goodwill can sometimes result in lower earnings due to amortisation charges. But if the useful economic life is determined by expert independent parties, this amortisation should be more accurate of economic amortisation and impairment than under the current model.

In addition, in some cases, intangible assets can have an indefinite useful economic life; the implications of which are three-fold. Firstly, the original fair value attributed to the intangible asset will be higher since their longer life will make them more valuable. Secondly, there will be no amortisation charges required against these assets

Graph 2. Carillion Acquisition FVE Breakdown



Graph 3. Enterprise Value vs. Disclosed Goodwill 2017



– as with goodwill, only impairment testing is required. Thirdly, goodwill on acquisition will be suppressed. Unlike with goodwill, specific intangible assets, such as brands, are more transparent – they are implicitly more understandable. Therefore, an auditor is held more accountable to external indicators of impairment.

Fair value to all

One could argue that reallocating goodwill to other intangible assets is too costly to justify and serves no use since impairment is still not charged. However, an accurate understanding of specific intangibles is useful, relevant and increasingly material. To ensure that designation of useful economic life and fair market value are accurate, an objective and transparent valuation is required. In 2016, Brand Finance partnered with the Institute of Practitioners in Advertising (IPA) to survey equity analyst and CFO opinions on this matter. We found that the majority (58% of analysts and 46% of CFOs) think that independent third-party intangible asset valuers should prepare the valuations of intangible assets included in financial accounts. While this would increase the reliability of intangible assets, there would likely remain some goodwill.

If goodwill is accurate – only reflective of excess earnings due to synergies, and these future earnings are achieved – then as earnings grow post-acquisition, a constant level of goodwill should represent a decreasing proportion of business value.

As demonstrated in Graph 1, this was not the case with Carillion. It is reasonable to assume that the original recognition of goodwill was not just representative of synergies. A glance at the FVE details of Carillion's most recent acquisitions in Graph 2 demonstrates the exaggerated amount allocated to goodwill.

Carillion managers can be forgiven for overpaying for target companies, as the future is unpredictable. However, in subsequent years, where financial performance did not meet with initial expectations, there should have been impairment to goodwill. The current accounting policy allows goodwill impairment tests to be subjective, and this case study shows that a lack of clarity in the reporting of a business's assets can obscure the true performance of that business, exposing investors to risk that need not be inevitable.

Who's next?

Of course, Carillion is not alone. Graph 3 shows a handful of UK-based companies with goodwill exceeding market enterprise value. Restructuring at Debenhams, 92 planned store closures at Dixons, upward pressure on payroll costs at Pets at Home, and the recent 25% plunge in shares at Thomas Cook; 2018 has been a tough year so far for these companies. As evidenced by disproportionately high levels of goodwill booked for 2017, management expected higher earnings than the market did.

In fact, investors do not seem convinced that high levels of goodwill suggest higher future earnings. On the contrary, there is a vast body of research which shows that where goodwill announced following FVE is higher than expected, market participants react negatively. This implies two things. Firstly, that investors are not fooled by high levels of goodwill – they recognise it may mean management overpaid for an acquisition. Secondly, it demonstrates that information provided through FVE disclosure is used by investors. In line with the FASB objectives, if financial information is used, it must be useful. To be useful, these FVE disclosures must be accurate.

There are many valuable learnings from the collapse of Carillion. We see the improper accounting treatment of intangible assets as the most critical. In an increasingly intangible global economy, it is vital that the financial reporting standards keep up with the tide. Ensuring that post-acquisition FVE information is based on objective, accurate valuations will help with corporate transparency, reduce risk, and boost investor confidence. Assuming this will result in lower levels of disclosed goodwill, this will help to reduce the impact of management reluctance to impair. Logically, it would make sense for intangible valuations to be conducted pre-acquisition too, to assist with corporate governance, reduce the occurrence of reckless M&A, and lower the risk of subsequent corporate collapse. In an age where confidence in audit quality is waning, higher standards for FVE accounting are vital.

Executive Summary.

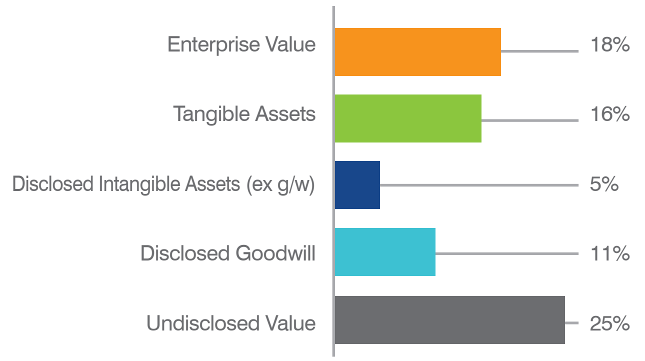
Global trends

Global enterprise value, understood as the total worth of the world's publicly traded companies, has surpassed US$100 trillion for the first time in history and stood at US$109.3 trillion at the beginning of the current financial year.

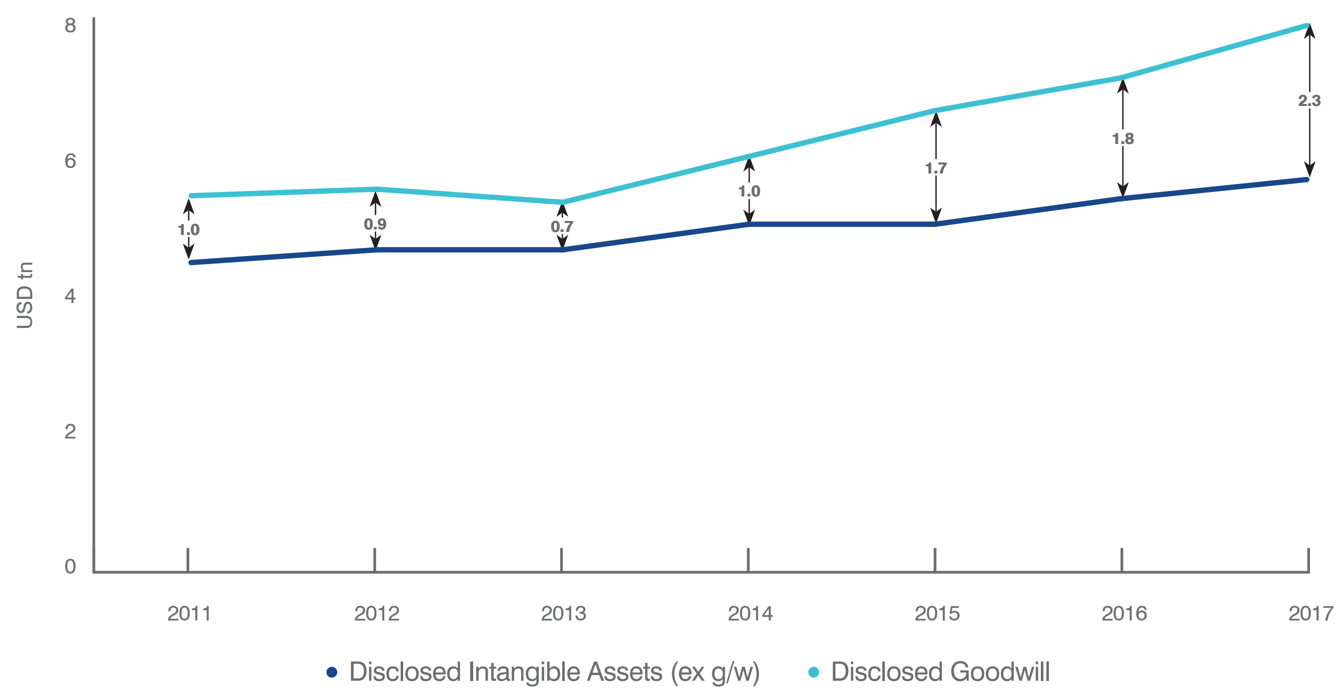
Looking behind that number, the importance and prevalence of intangible assets grows at a significant pace as the global economy continues to embrace the digital revolution. Indeed, it is now recognised that intangibles have become one of the growth engines of the economy, a trend that looks set to gather momentum for some years. The Brand Finance Global Intangible Finance Tracker (GIFT™) has found that 52% of the overall enterprise value of all publicly traded companies worldwide resides in intangibles, whose total worth has reached US$57.3 trillion – more than ever before.

Worryingly, however, the vast majority of those intangible assets remain unaccounted for on balance sheets. Brand Finance GIFT™ has valued the world's undisclosed intangibles at US$43.7 trillion, which constitutes 40% of global enterprise value. Undisclosed intangibles are the only asset category to have increased their share of global enterprise value this year, reaching the highest proportion since the time of the global financial crisis. Their overall worth has grown by

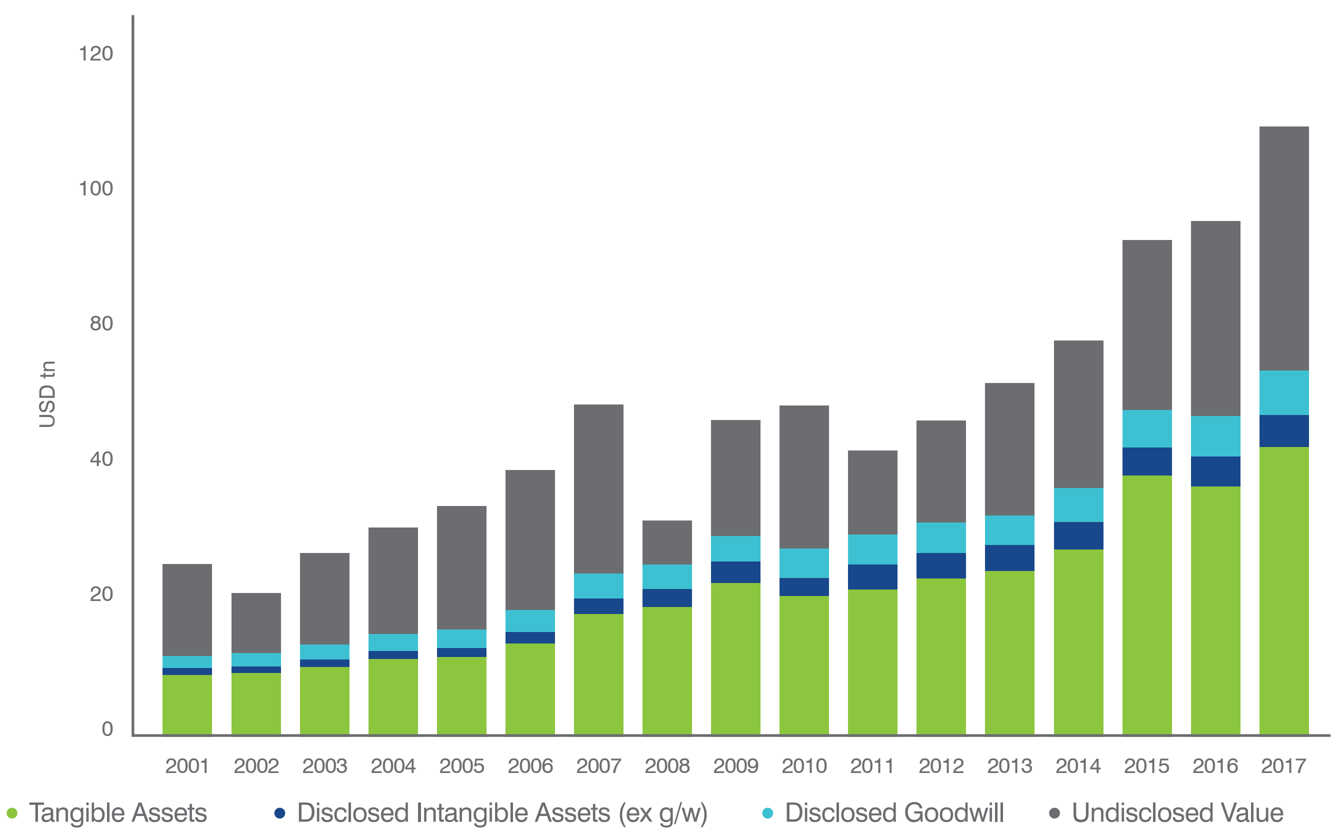
Global Enterprise Value Change (%) 2016-2017



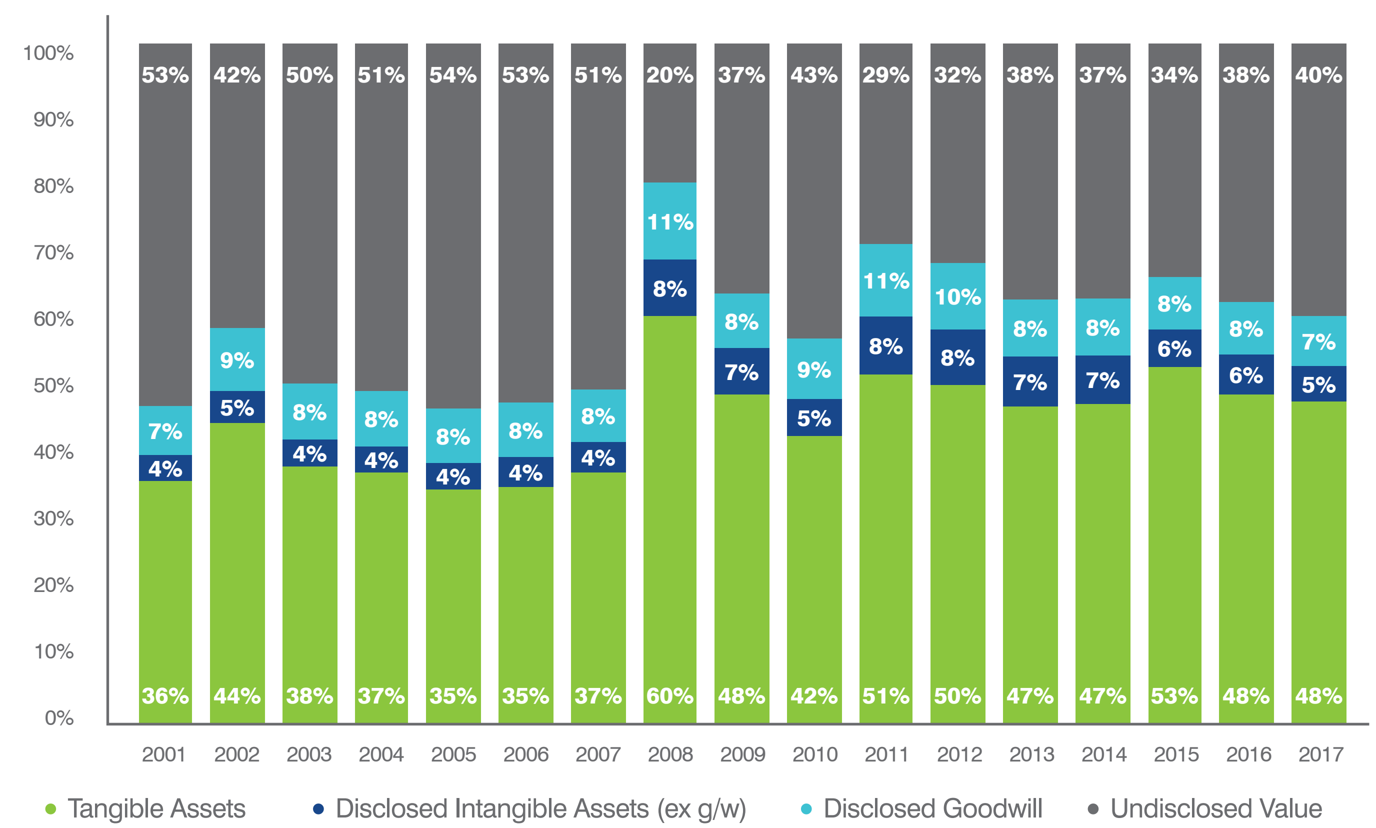
Goodwill and Disclosed Intangible Assets - Absolute Difference (USD tn) 2011-2017



Global Enterprise Value - Absolute Breakdown (USD tn)



Global Enterprise Value - Relative Breakdown (%)



25% year on year - five times faster than the value of disclosed intangible assets (up 5%) and outpacing the overall global enterprise value growth (up 18%).

The past year has also seen a decline in the granularity of intangible asset reporting as the gap between the so-called goodwill and disclosed intangible assets – accounted for in detail on balance sheets – has widened dramatically.

Companies now list US$2.3 trillion more goodwill than disclosed intangible assets, compared to US$1.8 trillion last year and only US$1.0 trillion at the beginning of the decade.

Sector trends

Sectors possessing high levels of patents, technology and marketing intellectual property are invariably those with a larger proportion of intangible assets within their overall enterprise value.

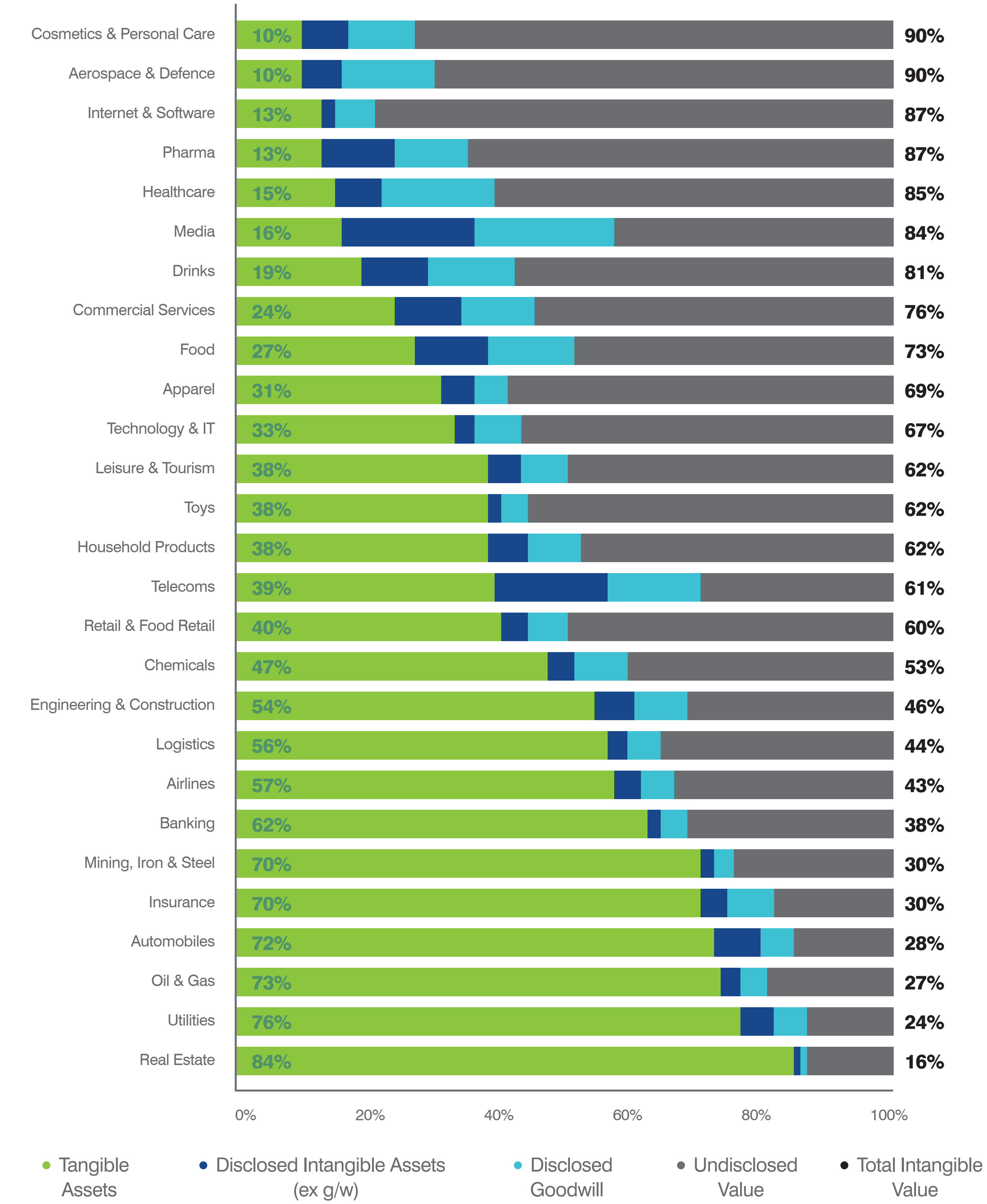
Therefore, industries such as Aerospace & Defence, Cosmetics & Personal Care, Internet & Software, Pharma, and Media are heavily reliant on their ability to innovate, develop patents and leverage technology.

The Cosmetics & Personal Care sector, which is dependent to a large degree on brand recognition and the need to continually roll-out new marketing and advertising, has the highest percentage of its enterprise value attributable to intangibles – 90.0%. Naturally, the leading companies within the sector have high levels of intangibles, notably Procter & Gamble (97%), Unilever (96%) and L'Oréal (88%).

The Aerospace & Defence sector is not far behind on the intangible spectrum (89.5%). Spearheaded by companies like Boeing, United Technologies, Safran, and Lockheed Martin, this industry group is technology and patent-heavy, even though airplanes and rockets are intuitively associated with the tangible realm.

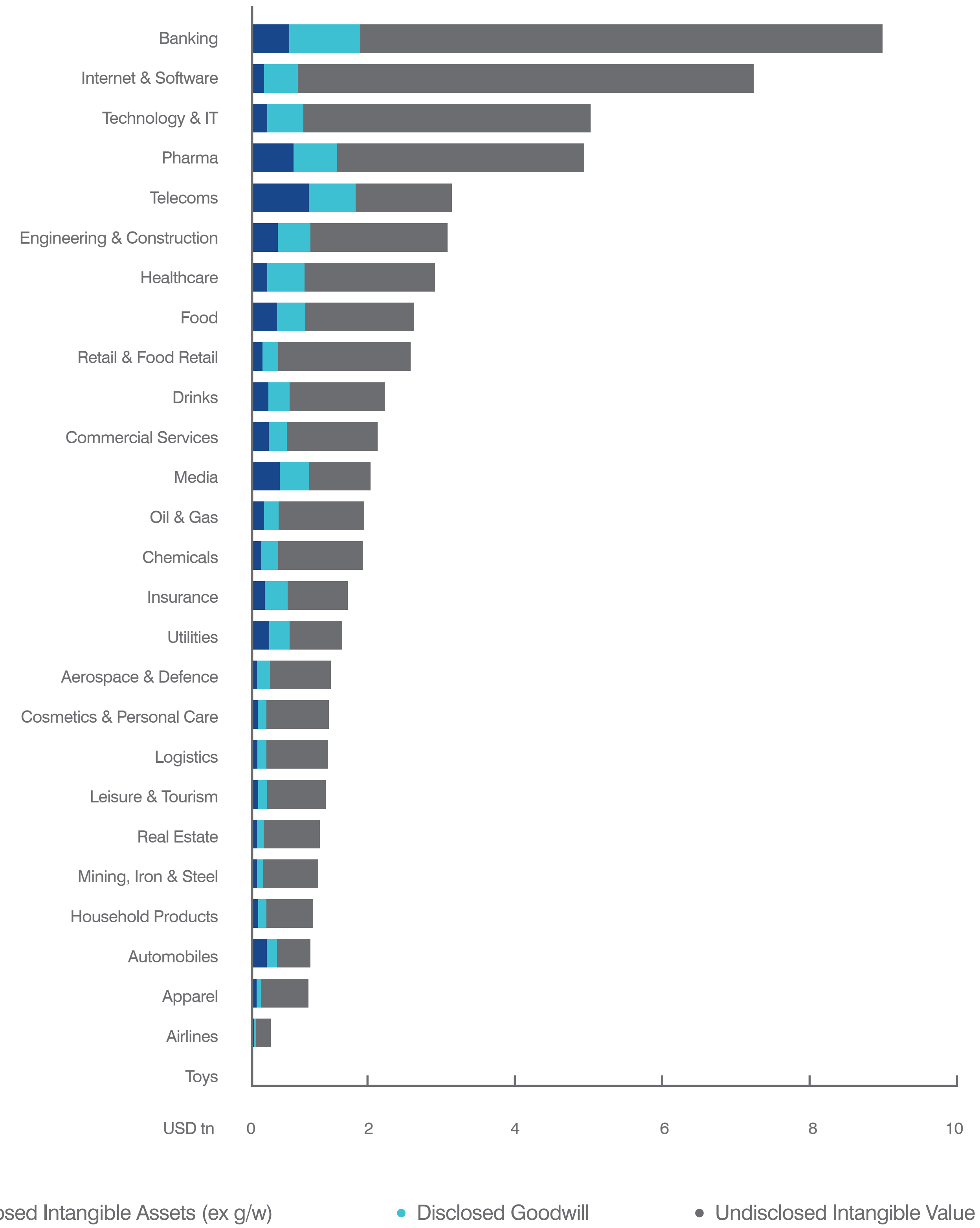
While these sectors include high levels of intangibles, in absolute terms, the value-rich banking sector has the greatest number, US$8.5 trillion. That said, intangibles account for just 38.3% of the sector's combined enterprise value.

Most Intangible Sectors - Relative Breakdown (%)

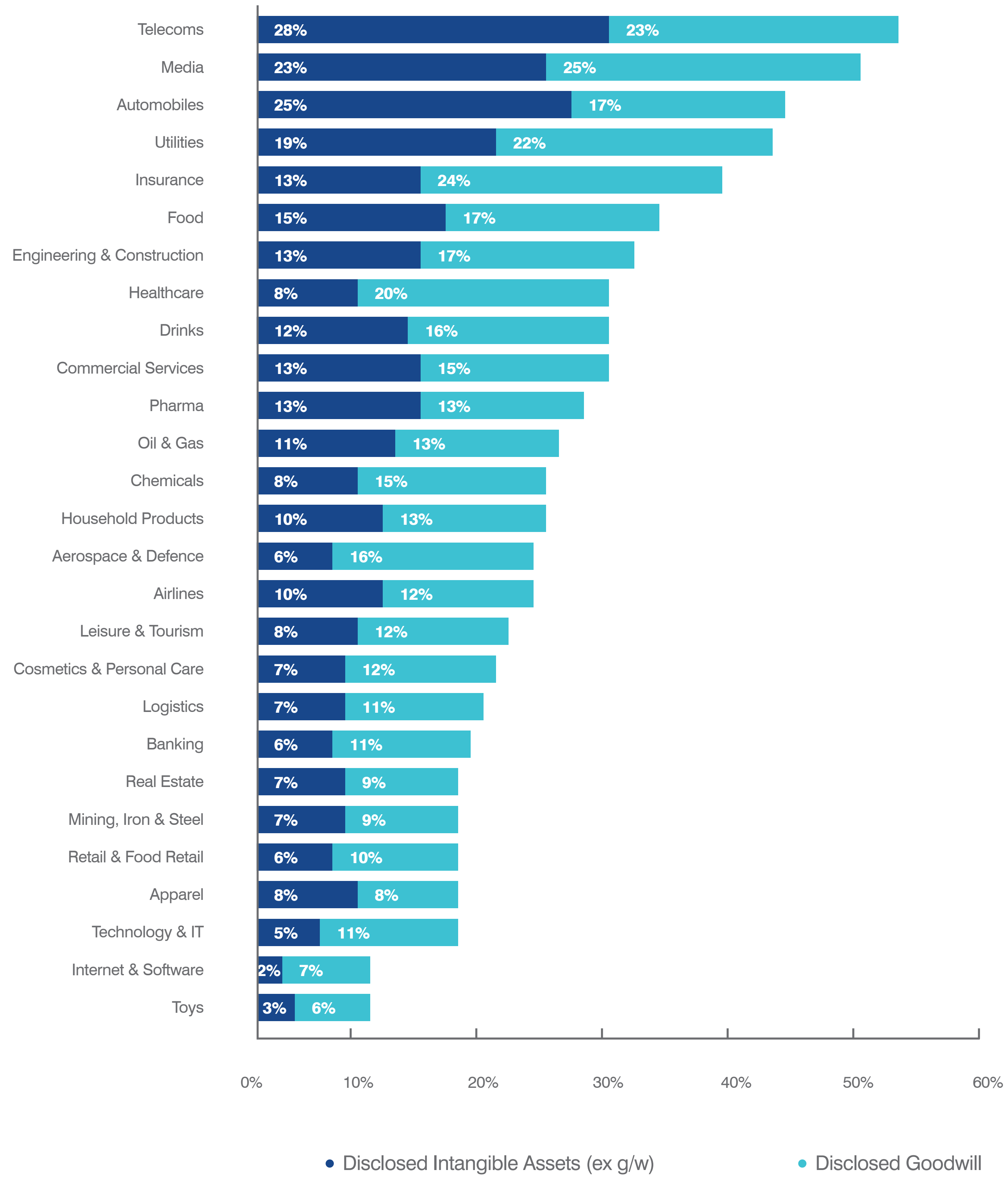


Executive Summary.

Most Intangible Sectors - Absolute Breakdown (USD tn)

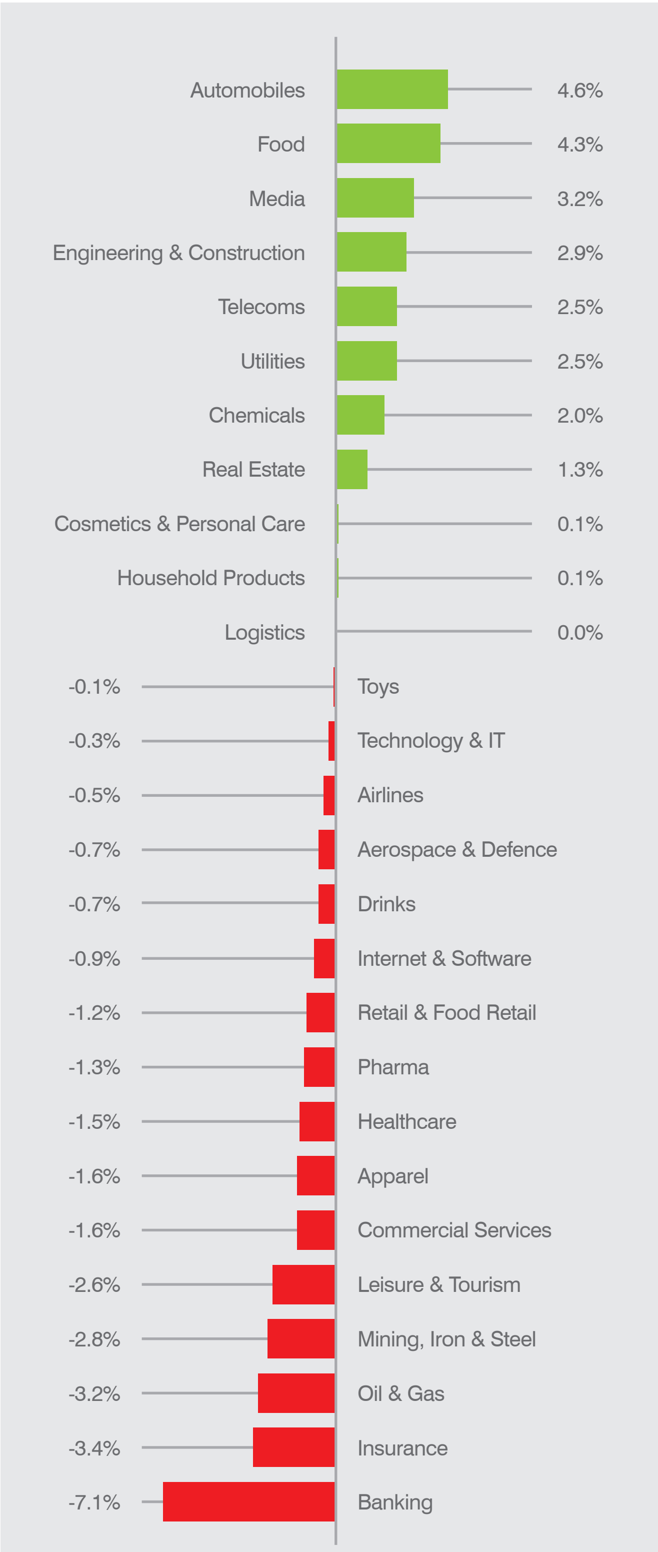


Most Intangible Sectors - Best Disclosure Disclosed Intangibles (including g/w) / Total Intangible Value (%)

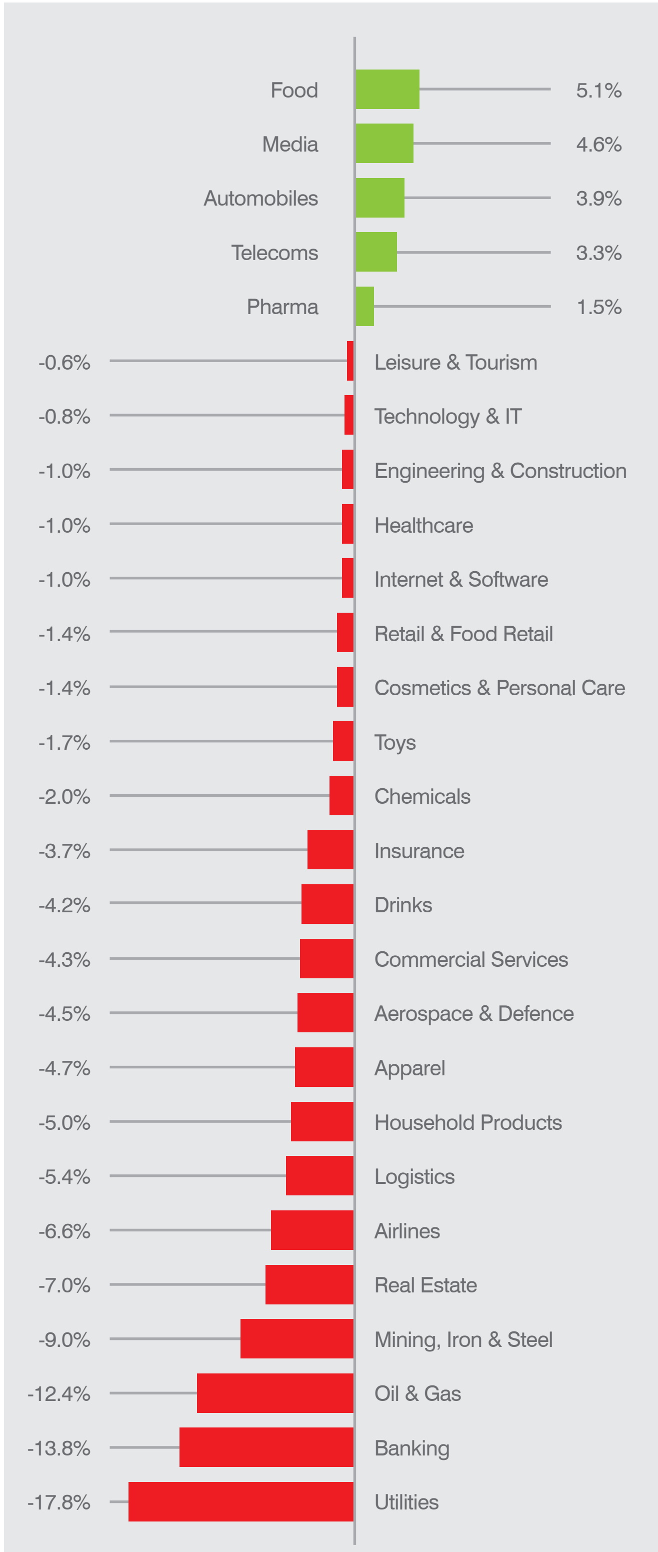


Executive Summary.

Most Intangible Sectors - Change in Disclosure 2016-2017 (% points)



Most Intangible Sectors - Change in Disclosure 2013-2017 (% points)



The story is very different for Internet & Software, which has a high percentage of enterprise value attributable to intangibles (86.8%) and also the second highest absolute total at US$6.8 trillion. Internet & Software, however, is among those sectors which account for a very low value of their intangibles, reporting just 9.1% of its overall total intangible value in goodwill and disclosed assets.

By contrast, Telecoms is the best group for disclosure, standing at 51.8% of the total intangible value. It is no surprise that AT&T, the leading company from the sector, discloses 70.6% of total intangibles, amounting to US$220 billion – more than any other corporation in the world. Other telecommunications giants, Verizon, Softbank, and Deutsche Telekom all figure highly among the top 20 companies worldwide in terms of intangible reporting.

Generally, the sectors with the highest proportion or worth of intangibles in enterprise value are not the best at disclosing the detail. As mentioned, Internet & Software lags behind most industries, while Cosmetics & Personal Care (18.8%), Aerospace & Defence (22.5%), and Banking (17.2%) are all below the all sector average of 25.3%. At the top end, the industries leading the way along with Telecoms are Media (48.4%), Automobiles (42.7%), and Utilities (41.3%).

Of some concern is that over the past year, less than half of the 27 sectors under review (11), have improved their levels of granular disclosure, with Automobiles and Food showing rises of 4.6 and 4.3 percentage points respectively. Some sectors have reported marked declines. The financial services groups, Banking and Insurance, have fallen the most – by 7.1 and 3.4 percentage points respectively.

Over a five-year period, only five sectors have improved their reporting, most notably Food (5.1), Media (4.6), and Automobiles (3.9). The declines in granular disclosure have been the highest in the Utilities (17.8), Banking (13.8), and Oil & Gas (12.4) sectors.

Executive Summary.

Country trends

Belgium has the highest percentage of disclosed intangibles versus total enterprise value (39.8%). The composition of Anheuser-Busch InBev's balance sheet has clearly impacted the national figures, demonstrating how a large, globally active company can influence the financial reporting practice in a given country. AB InBev has the second-highest value of disclosed intangibles worldwide, totalling US$187 billion.

The large European economies, France, Italy, the UK, Germany and Spain are just behind Belgium among the countries with the highest relative levels of disclosed intangibles to enterprise value, all between 28.2% and 21.5%.

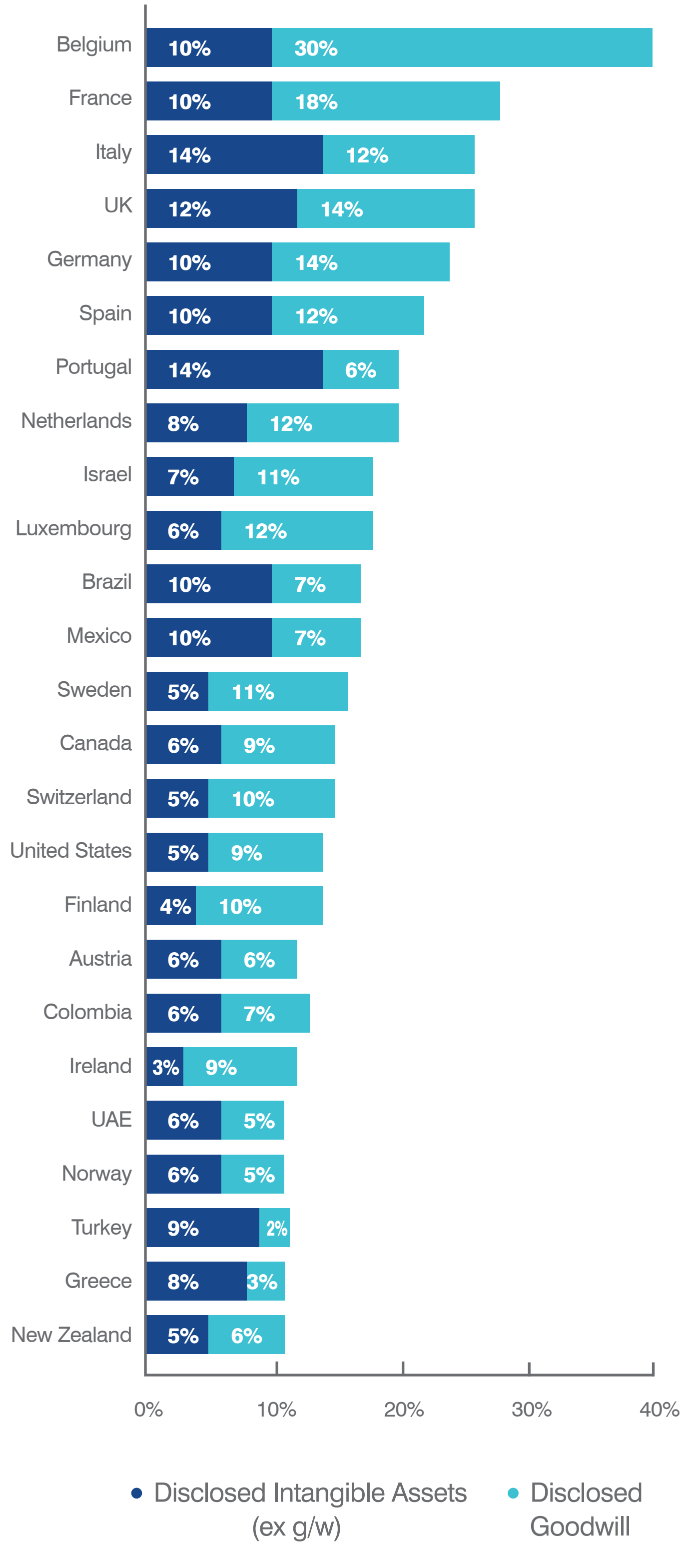
In absolute terms, the US boasts more intangible value than any other country in the world (US$28.3 trillion), but 78.3% remains undisclosed. In effect, intangibles reported on balance sheets account for only 14.3% of total enterprise value in the US. This is reinforced by the fact that the leading companies from the Banking & Financial Services and Internet & Software sectors, both with high undisclosed intangible value, are headquartered in the US.

After the US, China has the next highest value of intangibles, at US$5.7 trillion, with 90.3% undisclosed. Companies like Alibaba and Tencent have very high levels of intangibles (93% and 91% of enterprise value respectively). These companies share the intangible characteristics of their US competitors from the Internet & Software sector.

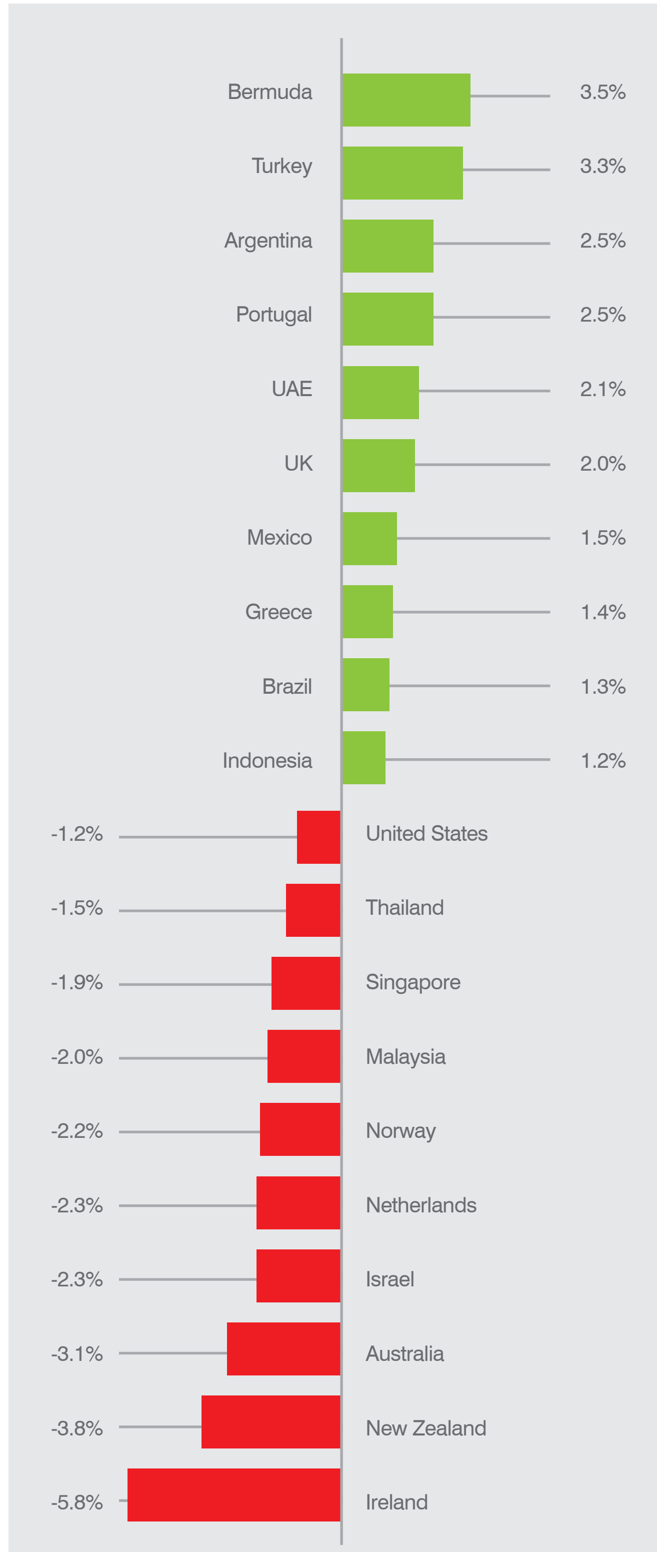
The largest improvement in granular financial reporting in the past year and over five years, measured in percentage point change in the proportion of net disclosed intangible assets to enterprise value, has come from developing and smaller economies. Bermuda (3.5 pp), Turkey (3.3) and Portugal (2.5) have all grown their disclosures at a faster rate over the past year, along with Argentina (2.5), the UAE (2.1) and the UK (2.0). Similarly, Turkey has grown by 4.6 pp over five years, far more than most other countries.

Conversely, some countries have regressed in their granular reporting of intangibles. Over the past year, Ireland has fallen by 5.8 percentage points, followed by New Zealand (3.8) and Australia (3.1). Over five years, Kuwait has seen an 11.4 percentage point deterioration, while the decrease in the granularity of reporting across Denmark (7.8), Norway (6.7) and Sweden (6.2) has highlighted a possible regional trend in the north of Europe.

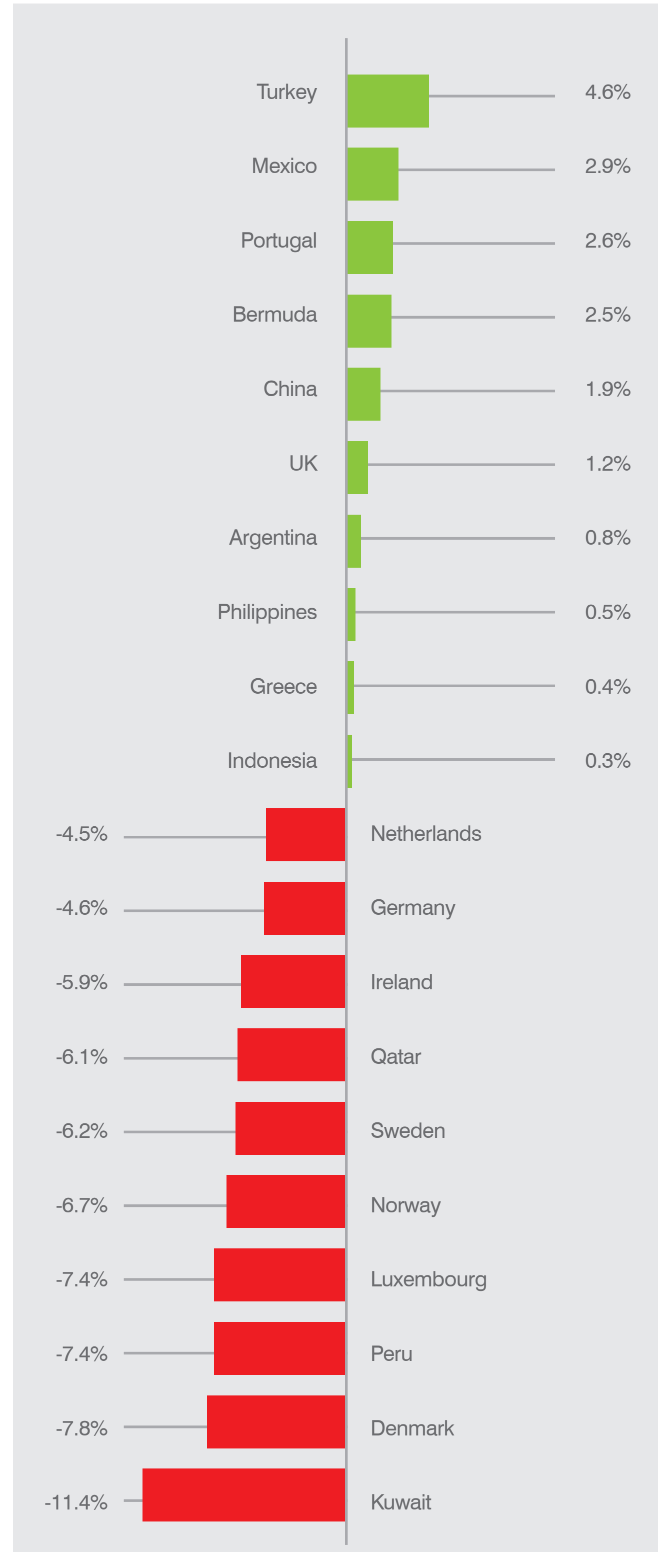
Most Intangible Countries - Best Disclosure Disclosed Intangibles (including g/w) / Enterprise Value (%)



Most Intangible Countries - Change in Disclosure 2016-2017 (% points)



Most Intangible Countries - Change in Disclosure 2013-2017 (% points)



Executive Summary.

Company trends

The nature of the Internet & Software and Technology & IT sectors, heavily reliant on intangible assets – from patents to brands, shapes the top of the ranking of the world's most intangible companies.

The top seven companies come from these sectors, each of them representative of the zeitgeist – Amazon, Microsoft, Apple, Alphabet (Google), Alibaba, Facebook and Tencent. Although accounting for a high percentage of their enterprise values, the vast majority of these companies' intangibles remain undisclosed.

Of Amazon's US$827 billion of intangibles, US$810 billion are undisclosed. Amazon's acquisition of Whole Foods is an example of how companies tend to allocate the majority of their newly-amassed intangible value to goodwill, as the move added around US$10 billion of goodwill value to Amazon's balance sheet. At the same time, the value of all the company's net disclosed intangible assets amounts to US$3 billion only.

Despite Amazon's market position and prominence in this report, they are absent from the top 100 list of companies by disclosed intangibles.

Telecoms feature prominently in the top 20 for transparent reporting, with four companies, led by AT&T and Verizon as well as Japan's Softbank and Germany's Deutsche Telekom.

AT&T's disclosed intangibles amount to US$220 billion, representing 62% of its enterprise value and 71% of the company's overall intangibles.

AT&T also dominate in terms of reporting net disclosed intangibles (US$114 billion). The US company, like other Telecom providers, depends on securing contracts and high levels of customer engagement.

In other sectors, there are huge gaps between the leaders and the companies pursuing them. In Aerospace & Defence, for instance, United Technologies' net disclosed intangibles, at US$16 billion, are more than double the total for Rolls Royce, in an industry that relies substantially on technology in its pursuit of value.

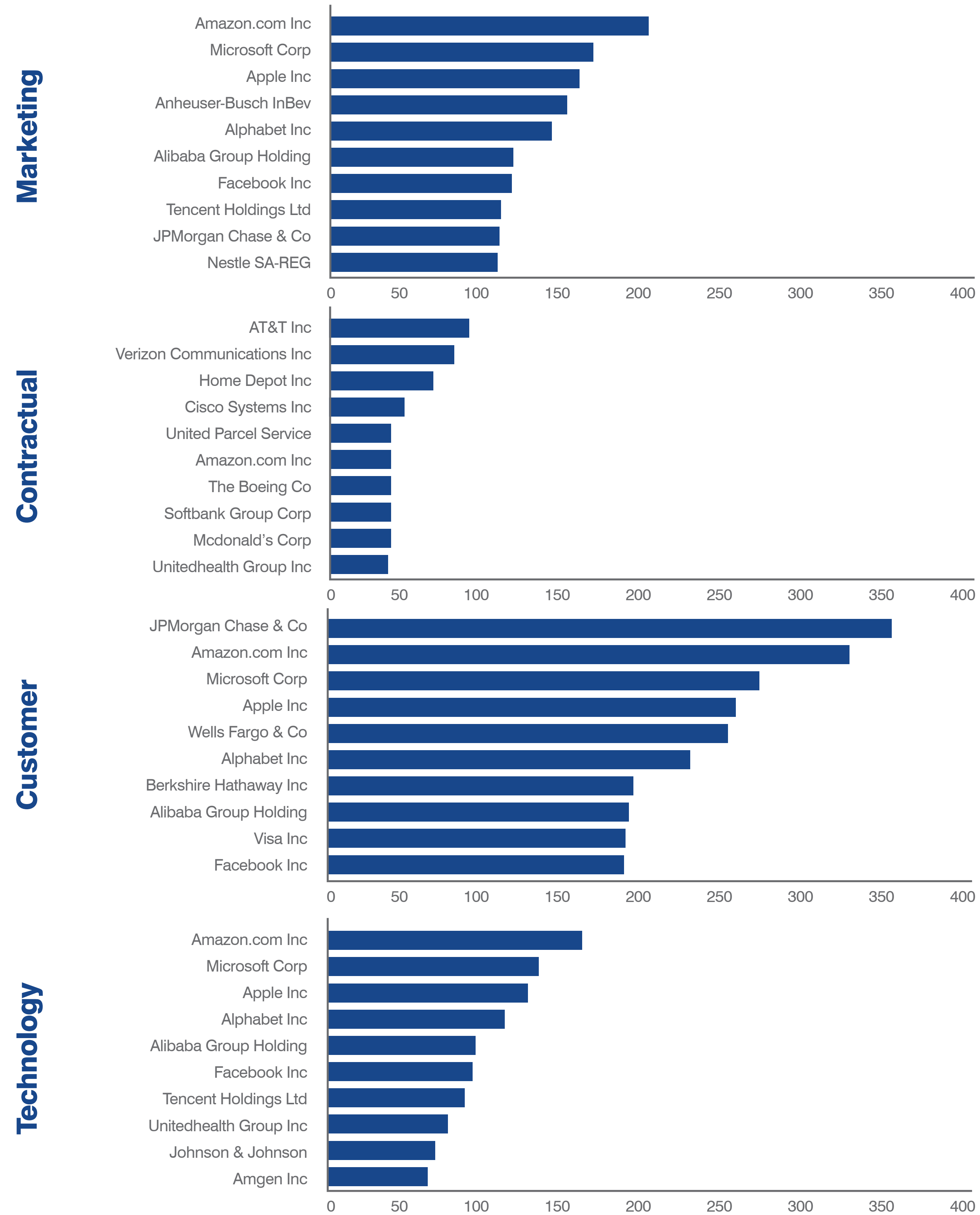
Likewise, in the Automobiles sector, Volkswagen's net disclosed total of US$48 billion dwarfs its competitors, while in Chemicals, DowDuPont's net disclosed figure is five times its nearest rival.

The Drinks sector has a runaway leader in AB InBev, which disloses three times the value of net intangibles than its nearest rivals, partly due to the company's trail of acquisitions and joint ventures. Strong marketing practices are key to both AB InBev and the industry as a whole.

The Cosmetics & Personal Care industry's leader in granular intangible reporting is Procter & Gamble (more than US$24 billion), a company that can attribute half of its enterprise value to marketing.

In other sectors, such as Oil & Gas and Pharma, the leading companies have similar levels of net disclosed intangibles.

Top Companies by Illustrative Value by Asset Class (USD bn)



Top Companies by Total Intangible Value.

Rank 2018	Rank 2017	Rank +/-	Company	Sector	Total Intangible Value (USD bn)	Total Intangible Value/ Enterprise Value (%)	Tangible Net Asset Value (USD bn)	Net Disclosed Intangibles (USD bn)	Disclosed Goodwill (USD bn)	Undisclosed Intangible Value (USD bn)	Enterprise Value (USD bn)
1	3	2	Amazon.com Inc	Internet & Software	827	96%	34	3	13	810	861
2	2	0	Microsoft Corp	Internet & Software	686	95%	89	10	35	641	775
3	1	-2	Apple Inc	Technology & IT	648	85%	264	2	6	640	913
4	4	0	Alphabet Inc	Internet & Software	576	80%	239	3	17	556	815
5	12	7	Alibaba Group Holding	Internet & Software	478	93%	46	2	18	458	524
6	6	0	Facebook Inc	Internet & Software	470	89%	101	2	18	450	572
7	11	4	Tencent Holdings Ltd	Internet & Software	443	91%	44	3	4	437	486
8	9	1	Johnson & Johnson	Pharma	351	101%	-5	53	32	265	346
9	5	-4	AT&T Inc	Telecoms	311	88%	42	114	105	91	353
10	7	-3	Anheuser-Busch InBev	Drinks	308	101%	-2	46	141	121	306
11	18	7	Visa Inc	Banking	290	102%	-7	28	15	248	284
12	8	-4	Verizon Communications Inc	Telecoms	277	87%	42	99	29	150	319
13	25	12	Unitedhealth Group Inc	Healthcare	259	100%	1	8	55	196	259
14	13	-1	Pfizer Inc	Pharma	246	102%	-5	49	56	142	242
15	16	1	Berkshire Hathaway Inc	Insurance	243	93%	377	38	81	123	619
16	27	11	Home Depot Inc	Retail & Food Retail	230	91%	22	-	2	228	252
17	17	0	Nestle SA-REG	Food	219	88%	31	21	31	167	249
18	41	23	Intel Corp	Technology & IT	213	85%	37	13	24	176	250
19	44	25	Mastercard Inc	Banking	209	101%	-0	1	3	204	208
20	14	-6	The Procter & Gamble Co	Cosmetics & Personal Care	207	97%	6	24	45	139	213
21	46	25	The Boeing Co	Aerospace & Defence	206	102%	-4	3	6	198	201
22	15	-7	Comcast Corp	Media	196	92%	18	78	37	81	214
23	37	14	Abbvie Inc	Pharma	195	107%	-12	28	16	152	183
24	38	14	British American Tobacco Plc	Food	188	109%	-16	100	60	29	172
25	24	-1	Oracle Corp	Internet & Software	187	102%	2	8	43	136	189
26	21	-5	The Coca-Cola Co	Drinks	183	85%	33	7	9	166	215
27	New	-	Netflix Inc	Internet & Software	182	101%	-2	10	-	172	180
28	22	-6	Novartis AG-REG	Pharma	178	83%	38	30	32	116	215
29	New	-	Roche Holding AG	Pharma	175	91%	18	9	10	156	193
30	32	2	Unilever	Cosmetics & Personal Care	175	96%	7	14	20	141	182
31	53	22	LVMH	Apparel	171	95%	8	16	20	135	179
32	23	-9	Pepsico Inc	Drinks	168	97%	5	14	15	139	173
33	67	34	Cisco Systems Inc	Telecoms	165	92%	41	3	30	133	206
34	31	-3	Merck & Co Inc	Pharma	163	90%	18	14	18	131	181
35	10	-25	General Electric Co	Engineering & Construction	161	82%	36	20	84	57	197
36	26	-10	Intl Business Machines Corp	Technology & IT	154	97%	5	4	37	114	159
37	29	-8	Exxon Mobil Corp	Oil & Gas	153	40%	231	-	-	153	385
38	30	-8	The Walt Disney Co	Media	151	83%	32	7	31	113	183
39	20	-19	Philip Morris International	Food	148	95%	7	2	8	138	155
40	28	-12	Charter Communications Inc	Media	147	94%	9	79	30	38	156
41	New	-	Nvidia Corp	Technology & IT	146	95%	12	0	1	145	158
42	New	-	DowDuPont Inc	Chemicals	146	81%	34	33	60	53	180
43	New	-	Fannie Mae	Banking	145	4%	3,294	-	-	145	3,439
44	42	-2	SAP Se	Internet & Software	142	98%	3	4	26	113	145
45	35	-10	Softbank Group Corp	Telecoms	137	62%	83	62	38	37	220
46	50	4	Mcdonald's Corp	Retail & Food Retail	137	87%	21	-	2	134	158
47	39	-8	Glaxosmithkline Plc	Pharma	133	107%	-9	24	8	101	124
48	52	4	Amgen Inc	Pharma	131	103%	-4	9	15	108	127
49	40	-9	Medtronic Plc	Healthcare	128	97%	3	23	39	67	132
50	96	46	Abbott Laboratories	Healthcare	123	97%	4	21	24	78	127
51	59	8	Taiwan Semiconductor	Technology & IT	122	69%	71	0	0	122	193
52	47	-5	3M Co	Engineering & Construction	121	93%	9	3	11	107	130
53	New	-	Adobe Systems Inc	Internet & Software	117	98%	7	0	6	111	124
54	73	19	L'Oréal	Cosmetics & Personal Care	117	88%	18	3	11	103	135
55	57	2	Broadcom Inc	Technology & IT	116	95%	6	11	25	81	122
56	New	-	Kweichow Moutai Co Ltd	Drinks	116	88%	27	0	-	116	143
57	62	5	Honeywell International Inc	Technology & IT	115	97%	3	4	18	92	118
58	61	3	Astrazeneca Plc	Pharma	114	108%	-8	26	12	76	106
59	34	-25	The Kraft Heinz Co	Food	114	107%	-7	59	45	10	106
60	56	-4	United Technologies Corp	Aerospace & Defence	113	93%	9	16	28	70	122
61	New	-	Royal Dutch Shell Plc	Oil & Gas	113	32%	244	11	14	89	357
62	49	-13	Deutsche Telekom AG-REG	Telecoms	110	76%	35	61	15	35	145
63	36	-27	Altria Group Inc	Food	110	92%	9	12	5	92	119
64	80	16	Nike Inc	Apparel	109	92%	11	0	0	109	120
65	New	-	Ping An Insurance Group Co	Insurance	107	32%	230	9	-	97	336
66	55	-11	Siemens AG-REG	Engineering & Construction	107	80%	27	13	33	61	134
67	83	16	Texas Instruments Inc	Technology & IT	106	95%	5	1	4	101	111
68	64	-4	United Parcel Service	Logistics	103	88%	14	2	4	98	118
69	68	-1	Lockheed Martin Corp	Aerospace & Defence	101	103%	-3	4	11	87	98
70	75	5	Novo Nordisk	Pharma	101	94%	8	1	-	101	109
71	86	15	Thermo Fisher Scientific Inc	Healthcare	100	96%	4	17	25	58	104
72	93	21	Accenture Plc	Technology & IT	98	96%	7	1	5	93	105
73	New	-	Salesforce.com Inc	Internet & Software	97	97%	7	1	7	89	104
74	New	-	Christian Dior Se	Apparel	96	91%	10	19	15	61	105
75	New	-	Chevron Corp	Oil & Gas	94	34%	180	-	5	90	274
76	81	5	Diageo Plc	Drinks	92	89%	11	13	4	75	103
77	45	-32	Allergan Plc	Pharma	91	109%	-8	55	50	-14	83
78	85	7	Naspers Ltd	Media	90	86%	14	1	2	86	104
79	New	-	Freddie Mac	Banking	90	4%	1,957	-	-	90	2,046
80	New	-	Booking Holdings Inc	Internet & Software	90	94%	13	2	3	85	103
81	89	8	Gilead Sciences Inc	Pharma	90	101%	2	17	4	69	92
82	66	-16	Bayer AG-REG	Pharma	89	84%	17	14	18	57	106
83	76	-7	Eli Lilly & Co	Pharma	89	87%	13	4	4	80	102
84	60	-24	Schlumberger Ltd	Oil & Gas	89	84%	17	9	25	54	105
85	New		Paypal Holdings Inc	Commercial Services	87	90%	13	0	4	82	100
86	97	11	Union Pacific Corp	Logistics	86	68%	41	-	-	86	126
87	65	-22	CVS Health Corp	Retail & Food Retail	85	90%	10	14	38	33	95
88	63	-25	Industria De Diseno Textil	Retail & Food Retail	84	85%	22	1	0	83	106
89	New	-	Tata Consultancy Svcs Ltd	Technology & IT	84	87%	19	0	1	83	103
90	New	-	Blackrock Inc	Banking	83	98%	15	17	13	53	99
91	New	-	Twenty-First Century Fox	Media	83	85%	14	7	13	64	97
92	79	-13	Bristol-Myers Squibb Co	Pharma	82	95%	6	1	7	74	88
93	New	-	Asml Holding Nv	Technology & IT	81	92%	7	1	5	74	88
94	New	-	Vinci Sa	Engineering & Construction	80	105%	-4	32	10	37	76
95	88	-7	Danaher Corp	Healthcare	79	100%	-0	12	25	43	79
96	New	-	BP Plc	Oil & Gas	79	41%	112	18	12	50	192
97	90	-7	Reckitt Benckiser Group Plc	Household Products	79	110%	-7	24	16	39	72
98	New	-	Caterpillar Inc	Engineering & Construction	79	91%	8	2	6	70	87
99	77	-22	Starbucks Corp	Retail & Food Retail	77	92%	7	0	2	75	84
100	71	-29	Telefonica Sa	Telecoms	76	69%	35	22	32	22	111

Top Companies by Disclosed Intangible Value.

Rank 2018	Rank 2017	Rank +/-	Company	Sector	Disclosed Intangible Value (USD bn)	Disclosed Intangible Value/ Total Intangible Value	Tangible Net Asset Value (USD bn)	Net Disclosed Intangibles (USD bn)	Disclosed Goodwill (USD bn)	Undisclosed Intangible Value (USD bn)	Enterprise Value (USD bn)
1	1	0	AT&T Inc	Telecoms	220	71%	42	114	105	91	353
2	2	0	Anheuser-Busch Inbev Sa	Drinks	187	61%	-2	46	141	121	306
3	New	-	British American Tobacco Plc	Food	159	85%	-16	100	60	29	172
4	3	-1	Verizon Communications Inc	Telecoms	128	46%	42	99	29	150	319
5	4	-1	Berkshire Hathaway Inc	Insurance	119	49%	377	38	81	123	619
6	5	-1	Comcast Corp	Media	115	59%	18	78	37	81	214
7	6	-1	Charter Communications Inc	Media	109	74%	9	79	30	38	156
8	8	0	Pfizer Inc	Pharma	105	42%	-5	49	56	142	242
9	7	-2	Allergan Plc	Pharma	105	115%	-8	55	50	-14	83
10	9	-1	The Kraft Heinz Co	Food	104	92%	-7	59	45	10	106
11	11	0	General Electric Co	Engineering & Construction	104	65%	36	20	84	57	197
12	10	-2	Softbank Group Corp	Telecoms	100	73%	83	62	38	37	220
13	New	-	DowDuPont Inc	Chemicals	93	64%	34	33	60	53	180
14	29	15	Johnson & Johnson	Pharma	85	24%	-5	53	32	265	346
15	15	0	Volkswagen AG	Automobiles	76	275%	60	48	28	-49	88
16	17	1	Deutsche Telekom AG-REG	Telecoms	76	68%	35	61	15	35	145
17	12	-5	Bank Of America Corp	Banking	71	103%	274	2	69	55	400
18	13	-5	The Procter & Gamble Co	Cosmetics & Personal Care	69	33%	6	24	45	139	213
19	20	1	Unitedhealth Group Inc	Healthcare	63	24%	1	8	55	196	259
20	14	-6	Medtronic Plc	Healthcare	62	48%	3	23	39	67	132
21	18	-3	Novartis AG-REG	Pharma	62	35%	38	30	32	116	215
22	21	-1	Altice Europe Nv	Media	56	88%	-18	29	27	8	46
23	25	2	Telefonica Sa	Telecoms	54	71%	35	22	32	22	111
24	23	-1	Shire Plc	Pharma	53	84%	3	33	20	10	66
25	26	1	CVS Health Corp	Retail & Food Retail	52	61%	10	14	38	33	95
26	24	-2	Nestle SA-REG	Food	52	24%	31	21	31	167	249
27	28	1	Oracle Corp	Internet & Software	51	27%	2	8	43	136	189
28	27	-1	Sprint Corp	Telecoms	50	109%	8	44	7	-4	54
29	35	6	Orange	Telecoms	50	77%	17	17	33	15	82
30	19	-11	Vodafone Group Plc	Telecoms	49	158%	66	21	29	-18	97
31	30	-1	Jpmorgan Chase & Co	Banking	48	102%	-184	1	48	502	366
32	16	-16	Teva Pharmaceutical Ind Ltd	Pharma	46	87%	3	18	28	7	56
33	52	19	Siemens AG-REG	Engineering & Construction	46	43%	27	13	33	61	134
34	New	-	Abbott Laboratories	Healthcare	45	37%	4	21	24	78	127
35	31	-4	Microsoft Corp	Internet & Software	45	7%	89	10	35	641	775
36	41	5	Telecom Italia SpA	Telecoms	44	131%	17	9	35	-10	51
37	36	-1	United Technologies Corp	Aerospace & Defence	44	39%	9	16	28	70	122
38	34	-4	Abbvie Inc	Pharma	43	22%	-12	28	16	152	183
39	86	47	Centurylink Inc	Telecoms	43	109%	17	13	30	-4	57
40	37	-3	Visa Inc	Banking	43	15%	-7	28	15	248	284
41	44	3	Vinci Sa	Engineering & Construction	43	54%	-4	32	10	37	76
42	48	6	Thermo Fisher Scientific Inc	Healthcare	42	42%	4	17	25	58	104
43	43	0	Express Scripts Holding Co	Pharma	42	61%	-10	10	31	27	58
44	38	-6	Intl Business Machines Corp	Technology & IT	41	26%	5	4	37	114	159
45	New	-	Reckitt Benckiser Group Plc	Household Products	40	51%	-7	24	16	39	72
46	42	-4	Mondelez International Inc	Food	40	55%	4	19	21	33	77
47	53	6	Exor Nv	Banking	39	87%	27	22	17	6	72
48	50	2	The Walt Disney Co	Media	38	25%	32	7	31	113	183
49	39	-10	Astrazeneca Plc	Pharma	38	33%	-8	26	12	76	106
50	62	12	T-Mobile Us Inc	Telecoms	37	57%	16	36	2	28	82
51	89	38	Intel Corp	Technology & IT	37	17%	37	13	24	176	250
52	45	-7	Danaher Corp	Healthcare	37	46%	-0	12	25	43	79
53	55	2	Enel SpA	Utilities	37	68%	78	20	17	18	132
54	80	26	LVMH	Apparel	36	21%	8	16	20	135	179
55	40	-15	Broadcom Inc	Technology & IT	36	31%	6	11	25	81	122
56	56	0	Banco Santander Sa	Banking	34	111%	133	4	31	-30	137
57	49	-8	Schlumberger Ltd	Oil & Gas	34	39%	17	9	25	54	105
58	76	18	Fresenius Se & Co	Healthcare	34	56%	13	4	30	27	74
59	64	5	Unilever	Cosmetics & Personal Care	34	20%	7	14	20	141	182
60	65	5	Christian Dior Se	Apparel	34	36%	10	19	15	61	105
61	59	-2	Atlantia SpA	Commercial Services	33	72%	-4	28	5	13	42
62	47	-15	Merck & Co Inc	Pharma	32	20%	18	14	18	131	181
63	63	0	Cisco Systems Inc	Telecoms	32	20%	41	3	30	133	206
64	74	10	Wells Fargo & Co	Banking	32	121%	-122	6	27	358	268
65	54	-11	Bayer AG-REG	Pharma	32	36%	17	14	18	57	106
66	57	-9	Glaxosmithkline Plc	Pharma	32	24%	-9	24	8	101	124
67	51	-16	Valeant Pharmaceuticals	Pharma	31	88%	-2	15	16	4	33
68	58	-10	Blackrock Inc	Banking	31	37%	15	17	13	53	99
69	New	-	Enbridge Inc	Engineering & Construction	30	70%	74	3	28	13	117
70	New	-	Danone	Food	30	48%	5	8	22	33	68
71	67	-4	Fiat Chrysler Automobiles	Automobiles	30	85%	1	14	16	5	36
72	60	-12	BP Plc	Oil & Gas	30	38%	112	18	12	50	192
73	New	-	Bollore	Banking	30	96%	13	12	17	1	44
74	New	-	Financiere De L'odet	Banking	30	95%	10	12	17	2	42
75	66	-9	SAP Se	Internet & Software	29	20%	3	4	26	113	145
76	79	3	Engie	Utilities	29	132%	48	8	21	-7	70
77	69	-8	Pepsico Inc	Drinks	29	17%	5	14	15	139	173
78	77	-1	Anthem Inc	Healthcare	28	47%	4	8	19	31	62
79	71	-8	Cme Group Inc	Banking	27	44%	5	20	8	34	67
80	70	-10	Citigroup Inc	Banking	27	187%	234	5	22	-12	249
81	82	1	Nippon Telegraph & Telephone	Telecoms	27	75%	114	15	12	9	149
82	61	-21	Liberty Expedia Hold	Internet & Software	27	100%	-8	11	15	0	19
83	73	-10	Imperial Brands Plc	Food	26	50%	-3	10	16	26	50
84	68	-16	Johnson Controls Internation	Automobiles	26	70%	8	7	20	11	45
85	75	-10	Merck KGaA	Pharma	26	52%	3	10	16	24	53
86	New	-	Baker Hughes	Oil & Gas	26	107%	14	6	20	-2	38
87	New	-	Altice Usa Inc	Media	26	78%	-1	18	8	7	32
88	88	0	Mylan Nv	Pharma	25	79%	2	15	10	7	35
89	New	-	Iberdrola Sa	Utilities	25	89%	65	16	10	3	94
90	97	7	Kinder Morgan Inc	Engineering & Construction	25	80%	47	3	22	6	79
91	90	-1	Schneider Electric Se	Technology & IT	25	50%	4	5	20	25	54
92	85	-7	Newell Brands Inc	Household Products	25	106%	0	14	11	-1	23
93	New	-	CCCC	Engineering & Construction	25	106%	27	24	1	-1	50
94	84	-10	Liberty Media Corp	Media	25	84%	-1	11	14	5	29
95	91	-4	AXA Sa	Insurance	25	2088%	95	6	19	-23	96
96	87	-9	Royal Dutch Shell Plc	Oil & Gas	24	21%	244	11	14	89	357
97	New	-	Dish Network Corp	Media	24	74%	-2	24	0	9	30
98	98	0	Abertis Infraestructuras Sa	Commercial Services	24	58%	-1	18	5	17	40
99	New	-	Hsbc Holdings Plc	Banking	23	173%	-18	10	14	185	191
100	81	-19	Amgen Inc	Pharma	23	18%	-4	9	15	108	127

Top Companies by Disclosed Intangible Value by Sector (USD m).

Aerospace & Defence	
United Technologies Corp	15,883
Rolls-Royce Holdings Plc	7,463
Safran Sa	6,301
Lockheed Martin Corp	3,797
Bombardier Inc	3,701

Airlines	
Delta Air Lines Inc	4,847
United Continental Holdings	3,539
Intl Consolidated Airline	3,211
American Airlines Group Inc	2,203
Latam Airlines Group Sa	1,617

Apparel	
Christian Dior Se	19,329
LVMH Moet Hennessy Louis Vuitton	16,487
Vf Corp	2,090
Adidas AG	1,759
Far Eastern New Century Corp	1,633

Automobiles	
Volkswagen AG	48,060
Daimler AG	15,172
Fiat Chrysler Automobiles NV	13,876
Bayerische Motoren Werke AG	10,921
Peugeot SA	9,517

Banking	
Visa Inc	27,848
Exor NV	22,470
CME Group Inc	19,522
Blackrock Inc	17,389
Brookfield Asset Management	14,242

Chemicals	
DowDuPont Inc	33,274
The Sherwin-Williams Co	6,002
BASF SE	5,099
Ecolab Inc	4,018
Solvay SA	3,534

Commercial Services	
Atlantia SpA	27,501
Abertis Infraestructuras SA	18,376
Transurban Group	14,484
DP World Ltd	6,450
OHL México SAB de CV	5,324

Cosmetics & Personal Care	
The Procter & Gamble Co	24,187
Unilever	13,849
Coty Inc	8,425
L'Oréal	3,101
Essity Aktiebolag	2,619

Drinks	
Anheuser-Busch InBev	45,874
Molson Coors Brewing Co	14,297
PepsiCo Inc	13,838
Pernod Ricard SA	13,288
Diageo Plc	12,804

Engineering & Construction	
Vinci Sa	32,407
China Communications Const	23,934
General Electric Co	20,273
Power Construction Corp of China	14,916
Eiffage	13,661

Food	
British American Tobacco Plc	99,588
The Kraft Heinz Co	59,449
Nestle Sa-Reg	21,174
Mondelez International Inc	18,639
Altria Group Inc	12,400

Healthcare	
Medtronic Plc	23,407
Abbott Laboratories	21,473
Thermo Fisher Scientific Inc	16,684
Danaher Corp	11,667
UnitedHealth Group Inc	8,489

Household Products	
Reckitt Benckiser Group Plc	24,324
Newell Brands Inc	14,236
Sony Corp	5,248
Henkel AG & Co Kgaa Vorzug	4,499
Whirlpool Corp	2,591

Insurance	
Berkshire Hathaway Inc	38,168
Ping An Insurance Group Co-H	9,372
Chubb Ltd	6,839
AXA Sa	6,084
Zurich Insurance Group AG	5,787

Internet & Software	
Liberty Expedia Hold	11,266
Netflix Inc	10,371
Microsoft Corp	10,106
Oracle Corp	7,679
Fidelity National Info Service	6,040

Leisure & Tourism	
Marriott International	8,805
Hilton Worldwide Holdings Inc	6,232
MGM Resorts International	3,878
Accor Sa	2,767
International Game Technolog	2,273

Logistics	
Taiwan High Speed Rail Corp	13,928
Ap Moller-Maersk	3,642
Westrock Co	3,329
Ball Corp	2,462
Cosan Logistica Sa	2,271

Media	
Charter Communications Inc	79,270
Comcast Corp	78,143
Altice Europe Nv	29,457
Dish Network Corp	23,753
Altice Usa Inc	18,087

Mining, Iron & Steel	
Vale Sa	4,378
Posco	4,312
China Molybdenum Co Ltd	3,243
Rio Tinto Ltd	3,119
Rio Tinto Plc	2,726

Oil & Gas	
BP Plc	18,355
Reliance Industries Ltd	15,049
Total Sa	13,160
Royal Dutch Shell Plc	10,518
Schlumberger Ltd	9,354

Pharma	
Allergan Plc	54,648
Johnson & Johnson	53,228
Pfizer Inc	48,740
Shire Plc	33,046
Novartis AG-REG	29,997

Real Estate	
American Tower Corp	11,783
Crown Castle Intl Corp	5,962
Equinix Inc	2,385
Realogy Holdings Corp	2,327
Shanghai Industrial Hldg Ltd	2,255

Retail & Food Retail	
CVS Health Corp	13,630
Kering	13,415
Restaurant Brands International	11,062
Qurate Retail Inc	5,144
Dufry AG-REG	4,036

Technology & IT	
Intel Corp	12,745
Broadcom Inc	10,832
Sk Holdings Co Ltd	10,729
Samsung Electronics Co Ltd	8,486
ADT Inc	7,857

Telecoms	
AT&T Inc	114,276
Verizon Communications Inc	98,664
Softbank Group Corp	62,408
Deutsche Telekom AG	60,849
Sprint Corp	43,905

Toys	
Mattel Inc	639
Funko Inc	251
Hasbro Inc	217
Spin Master	145
Tomy Company Ltd	121

Utilities	
Enel SpA	20,106
Iberdrola Sa	15,888
EDF	10,695
Brookfield Infrastructure Partners	9,894
Engie	7,819

M&A Activity.

Global M&A Activity 2009-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Deal Value (USD bn)	1,355	1,674	1,957	1,778	1,843	2,061	1,691	2,104	2,474
Growth		*24%*	*17%*	*-9%*	*4%*	*12%*	*-18%*	*24%*	*18%*
Deal Volume	4,603	5,945	6,513	6,096	6,183	5,631	7,944	8,536	10,171
Growth		*29%*	*10%*	*-6%*	*1%*	*-9%*	*41%*	*7%*	*19%*

Number of Completed Transactions in 2017

Target Region	*Acquiring Region*	Africa	Asia Pacific	Europe	Middle East	N. America	S. America
	Total	**82**	**3849**	**1835**	**24**	**2873**	**148**
Africa	**81**	35	11	14	0	8	1
Asia Pacific	**2984**	4	2509	61	1	71	31
Europe	**1202**	12	157	719	1	198	6
Middle East	**15**	0	3	1	8	1	1
N. America	**1443**	1	126	161	0	1060	7
S. America	**211**	1	63	18	0	33	57

Value of Completed Transactions in 2017 (USD bn)

Target Region	*Acquiring Region*	Africa	Asia Pacific	Europe	Middle East	N. America	S. America
	Total	**11**	**552**	**442**	**16**	**1,136**	**33**
Africa	**7**	2	0	1	-	3	0
Asia Pacific	**390**	0	295	13	0	17	3
Europe	**378**	4	35	172	0	117	2
Middle East	**19**	-	0	4	15	0	0
N. America	**1,008**	2	48	156	-	755	3
S. America	**61**	0	18	3	-	7	19

Global Mergers & Acquisitions (M&A) in 2017 grew by 18% in terms of deal value and 19% by number of deals, taking the total value to around US$ 2.4 trillion, the highest level since the financial crisis of 2008.

Intangibles are an integral part of Mergers & Acquisitions and a big slice of the purchase price is attributable to goodwill and intangibles.

The United States, in terms of acquiring transactions, saw an increase of 119%, with the total value amounting to US$ 1,882 billion from 2,212 transactions. The US ended the year optimistic for further activity in 2018 due to the Corporate Tax Bill reform taking place.

China had the second highest total, an increase of 60% to US$ 383 billion from 1,575 deals. Market watchers noted that China's outbound volume dropped by 10%, partly due to a new capital controls regime in China and greater scrutiny of Chinese activity in the US by the current administration. This may have also contributed to the high number of Asia-Asia transactions (2,509. China was also a significant target in M&A, with US$ 175 billion of deals.

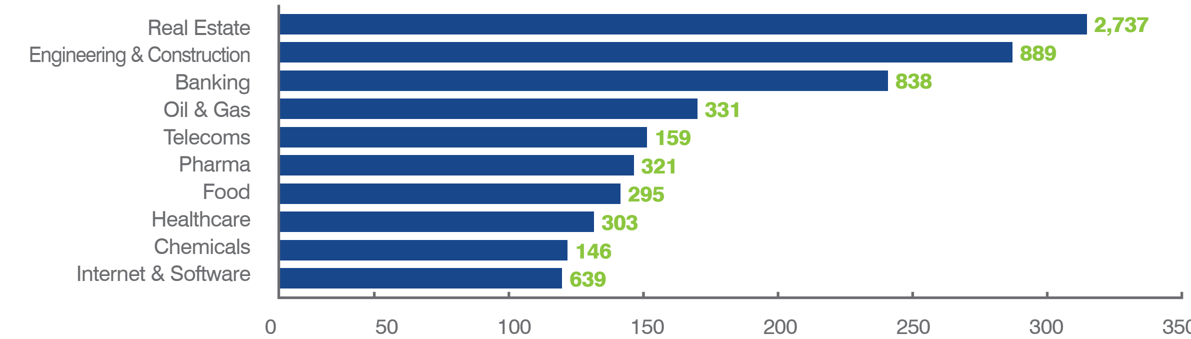
The most active sector was Real Estate, over 2,700 deals totalling US$ 305 billion. Engineering & Construction (US$ 277 billion/889 deals), Banking (US$ 230 billion/838 deals) were next in line. Across the continents, intra-regional deals were prominent, notably in Asia (84%), North America (73%) and Europe (60%), but cross-border deals were still in evidence.

The threat of disruption from the likes of Amazon, Facebook and Netflix, all of whom are broadening their business profile and pushing into new sectors, also spurred on some institutions to acquire greater strength in depth. For example, with Amazon eyeing the Pharma sector, CVS Health, the biggest drugstore name in the US, agreed to buy healthcare insurance company Aetna for US$ 69 billion.

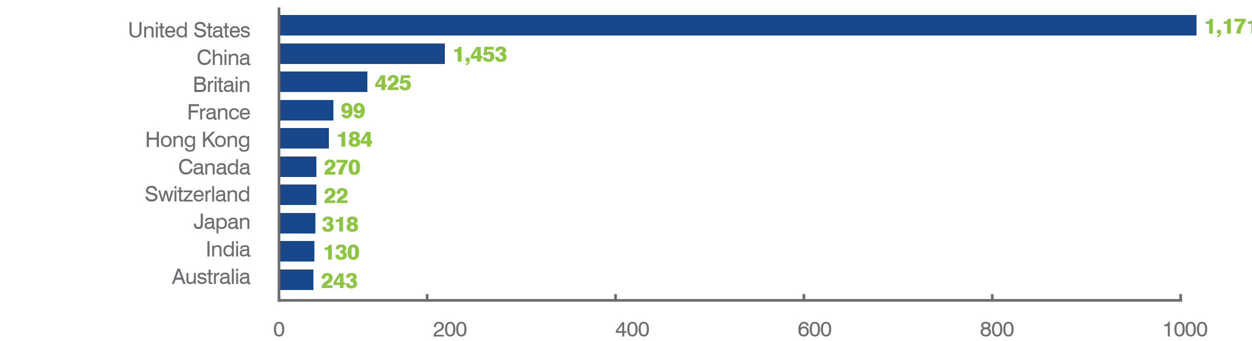
Similarly, in response to Amazon's growing influence on retail (the company bought Whole Foods for US$ 13.7 billion), Australia's Westfield was sold to France's Unibail-Rodamco for US$ 24.7 billion. And with Facebook and Netflix moving into sports rights, a stake in 21st Century Fox was sold to Disney for US$ 66 billion.

Although the market was slow for "mega deals", largely due to regulatory uncertainty, the biggest agreed deal in 2017, a US$ 130 billion hostile bid for Qualcomm by Broadcom, underlined that companies were still making acquisitions to boost growth and access new markets, also taking advantage of the low cost of capital.

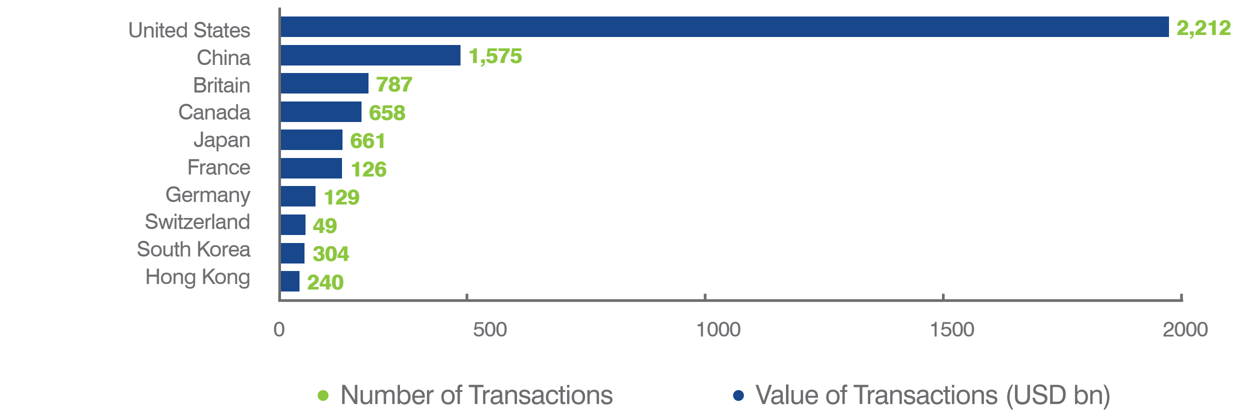
Top 10 Target Sectors by M&A Value in 2017



Top 10 Target Countries by M&A Value in 2017



Top 10 Acquiring Countries by M&A Value in 2017



Consulting Services.

1. Valuation: What are my intangible assets worth?

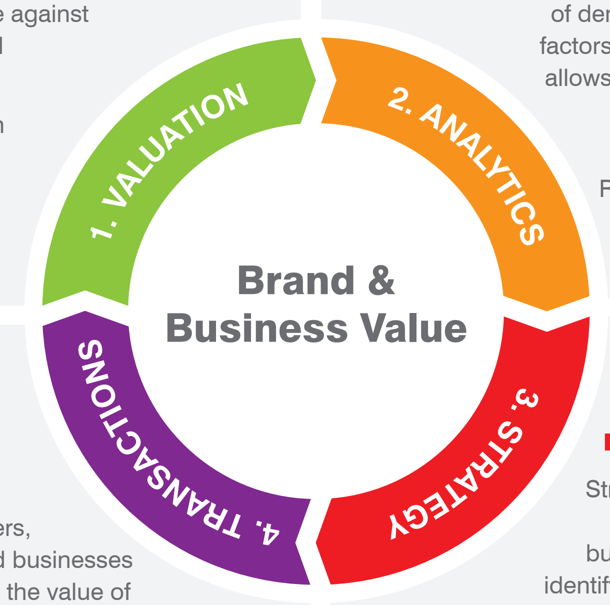
Valuations may be conducted for technical purposes and to set a baseline against which potential strategic brand scenarios can be evaluated.

+ Branded Business Valuation
+ Trademark Valuation
+ Intangible Asset Valuation
+ Brand Contribution

2. Analytics: How can I improve marketing effectiveness?

Analytical services help to uncover drivers of demand and insights. Identifying the factors which drive consumer behaviour allows an understanding of how brands create bottom-line impact.

+ Market Research Analytics
+ Return on Marketing Investment
+ Brand Audits
+ Brand Scorecard Tracking



3. Strategy: How can I increase the value of my branded business?

Strategic marketing services enable brands to be leveraged to grow businesses. Scenario modelling will identify the best opportunities, ensuring resources are allocated to those activities which have the most impact on brand and business value.

+ Brand Governance
+ Brand Architecture & Portfolio Management
+ Brand Transition
+ Brand Positioning & Extension

4. Transactions: Is it a good deal? Can I leverage my intangible assets?

Transaction services help buyers, sellers, and owners of branded businesses get a better deal by leveraging the value of their intangibles.

+ M&A Due Diligence
+ Franchising & Licensing
+ Tax & Transfer Pricing
+ Expert Witness

MARKETING

We help marketers to connect their brands to business performance by evaluating the return on investment (ROI) of brand-based decisions and strategies.

FINANCE

We provide financiers and auditors with an independent assessment on all forms of brand and intangible asset valuations.

TAX

We help brand owners and fiscal authorities to understand the implications of different tax, transfer pricing, and brand ownership arrangements.

LEGAL

We help clients to enforce and exploit their intellectual property rights by providing independent expert advice in- and outside of the courtroom.

BRAND FINANCE INSTITUTE

+ Technical Research
+ Standard Setting
+ Training and Development
+ Forums and Events
+ Professional Membership

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