

The world of digital M&A

A Freshfields study



Freshfields Bruckhaus Deringer

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Executive summary

Technology is transforming the way businesses work and the products and services they offer. Many companies see M&A as the best – or at least the fastest – way to build their digital capabilities, and the heat is being turned up by the need to keep pace with competitors and to buy out emerging threats.

To assess the impact of these forces on the M&A activity of the world's biggest companies, we analysed all 26,744 deals announced by the current constituents of the S&P Global 1200 between 1 January 2009 and 31 December 2017.

Of those transactions we classed 3,955 as 'digital/tech' – that is, deals whose principal rationale was to further the acquirer's digital transformation, bolster its technology offering or consolidate the market in a particular class of tech. We defined a deal as any transaction in which the acquirer:

1. took an interest of 50 per cent or more in the target;
2. increased its interest from below 50 per cent to above 50 per cent; or
3. acquired the remaining interest in an asset it didn't already own.

Our digital/tech deal set includes all acquisitions of technology, technology businesses and technology assets by some of the world's most sophisticated investors. The results reveal the scale of their digital investment, highlight the sectors and countries that are receiving the highest levels of backing, pinpoint the countries where digital business is thriving – and show how technology is reshaping the global M&A landscape.

Key takeaways

1

Spending on digital/tech assets reached a new high last year of more than \$258bn.

2

Proportionally, spending on digital/tech assets rose more than 600 per cent between 2009 and 2017.

3

The average digital/tech deal is now bigger than the average non-digital transaction.

4

On average, companies headquartered in China are among the most active in the digital/tech space, and also spend the most on each acquisition.

5

After the US, the S&P constituents spend more on digital/tech assets based in the UK than in any other country.

6

After tech companies, businesses in the telecoms and media industries do more digital/tech deals, on average, than those in any other sector.

Our study explained

Why the S&P Global 1200?

The constituents of the S&P Global 1200 are the world's biggest public companies. Together they comprise around 70 per cent of global market capitalisation. The index includes representatives from every industry and every major economy, and is, therefore, the ideal proxy for 'big' and 'global' business.

While our study does not consider private companies, state-owned enterprises or corporate investment vehicles such as the Vision Fund or Google Ventures, it nevertheless provides a broad representative base from which to analyse digital/tech deal activity.

The S&P Global 1200 – top 10 countries

Country	Companies in S&P Global 1200
United States	478
Japan	150
UK	95
Canada	60
France	48
Australia	48
Germany	43
Switzerland	35
Sweden	26
Netherlands	21

The S&P Global 1200 – top 10 industries

Industry	Companies in S&P Global 1200
Industrials	208
Financials	194
Energy and power	135
High technology	116
Materials	108
Healthcare	103
Consumer products and services	78
Consumer staples	69
Retail	62
Real estate	59

What constitutes a 'digital/tech' deal?

We classed a deal as 'digital/tech' if the buyer targeted the asset to:

1

aid its digital transformation (based on analysis of the deal rationale, the acquirer's business and the target's technology). Intel's acquisition of Mobileye is an example of a transaction that falls into this category;

2

bolster its existing digital offering (eg Microsoft's purchase of LinkedIn); or

3

consolidate the market in a specific class of tech (eg Broadcom's proposed acquisition of Qualcomm).

The background is a dark blue field filled with abstract digital elements. There are several glowing lines in shades of blue and purple, some solid and some dotted. Interspersed among these lines are numerous small, glowing orange and yellow circular nodes. The overall effect is that of a complex network or data visualization.

01

The five-year bull run

Our data reveals that big business is on a five-year bull run for digital/tech M&A. The number of digital/tech acquisitions jumped by 32 per cent between 2013 and 2014, and since then has remained largely constant (despite a slight drop in 2017).

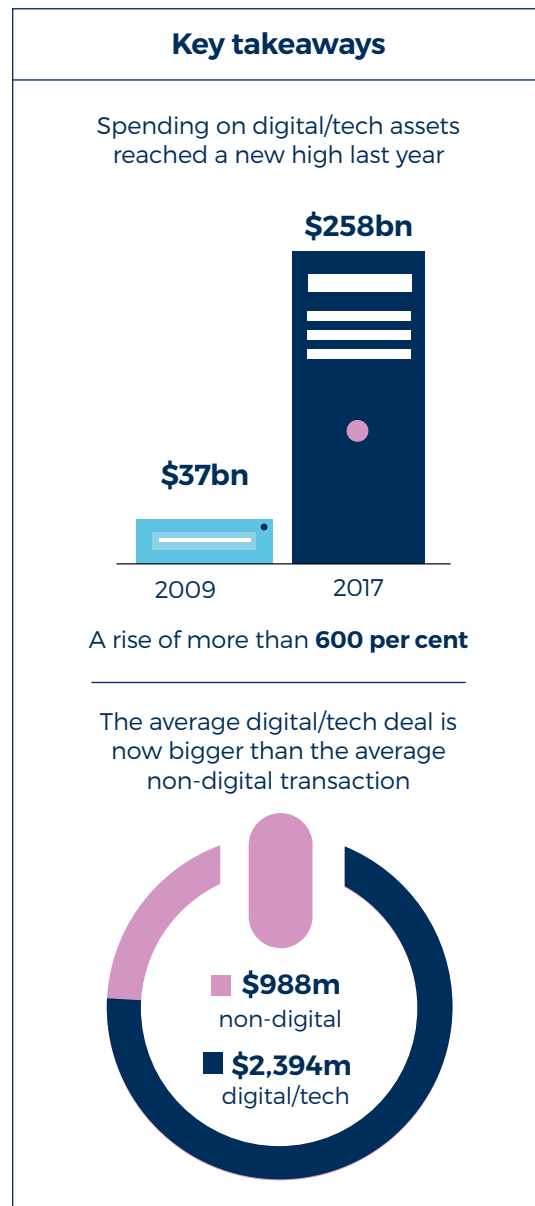
But while deal volumes remained steady, deal values rose dramatically over the same five-year period. The S&P Global 1200's spending on digital/tech assets nearly doubled between 2013 and 2014 and doubled again over the following two years, rising to a new high in 2017 of \$258bn.

In absolute terms, the S&P Global 1200's digital/tech spend increased by almost 600 per cent between 2009 and 2017 and more than tripled as a proportion of their total M&A investment – from 6 per cent in the first year of our study to 20 per cent in the last.

Our data shows that big business is more willing than ever to pay large sums for digital/tech assets, reflecting the often existential importance of digital transformation in an increasingly connected world. Indeed, our analysis reveals that the S&P Global 1200 are now spending more on the average digital/tech deal than they are on non-digital assets – and the gap is growing.

Digital/tech bets are getting bigger

The willingness of the S&P Global 1200 to bet big on digital/tech deals – whether or not those targets are making money at the time – is also a sign of the long-term potential returns that buyers expect to realise from assets such as semiconductors, data or online platforms. Likewise, the public markets generally reward businesses that are active in the digital space – a recent study by EY, for example, revealed that between 2012 and Q2 2018 the total stock return of digitally acquisitive non-tech businesses was on average 40 per cent higher than that of industry peers who did fewer tech deals¹.



¹ [www.ey.com/Publication/vwLUAssets/EY-Software-M-and-A-Overview-Aug-2018/\\$FILE/EY-Software-M-and-A-Overview-Aug-2018.pdf](http://www.ey.com/Publication/vwLUAssets/EY-Software-M-and-A-Overview-Aug-2018/$FILE/EY-Software-M-and-A-Overview-Aug-2018.pdf)

02

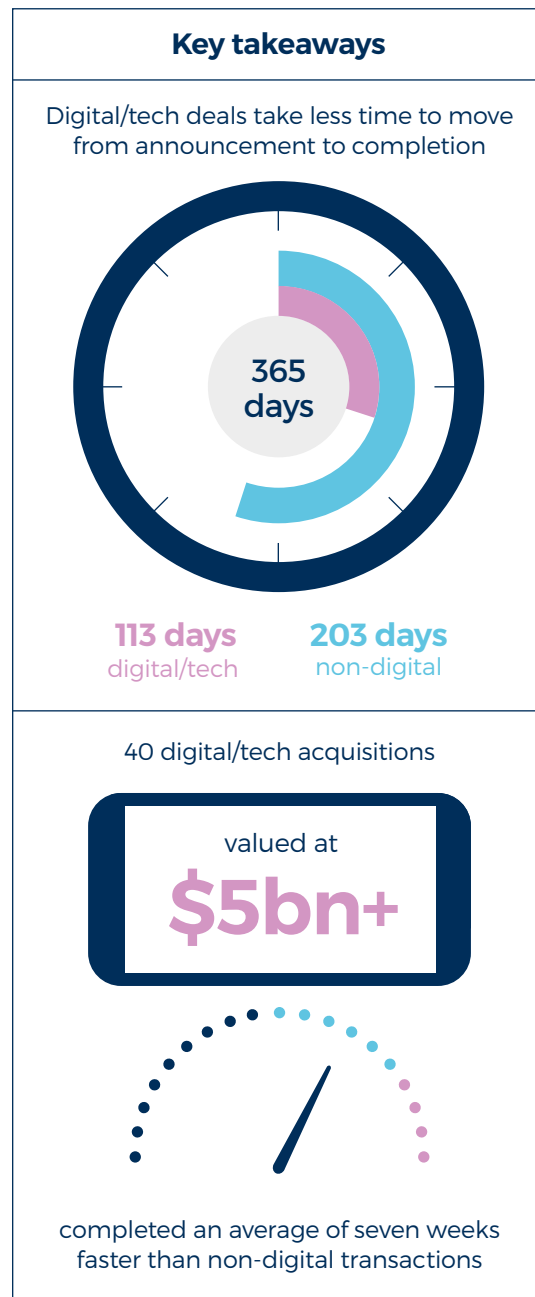
The speed of digital deals

When we looked at how long it took digital/tech and non-digital deals to progress from announcement to completion, we found that, on average, digital/tech acquisitions closed quicker (24 days vs 46 days).

Even at the top end of the market this pattern persists – the average \$5bn+ digital/tech deal, for example, took just 147 days to complete, more than seven weeks faster than the comparable non-digital transaction. There were 40 such digital/tech deals over the nine-year period in our study.

Year	\$5bn+ digital/tech deals	\$5bn+ non-digital deals
2009	0	16
2010	1	26
2011	3	21
2012	4	6
2013	2	8
2014	6	26
2015	9	38
2016	11	23
2017	4	30
Total	40	194

This discrepancy might be explained by the fact that digital/tech businesses are often younger and ‘leaner’ in terms of their asset portfolios, people and contracts, and as a result there may be less for buyers to work through between announcement and signing. However, as deals are often announced and signed simultaneously, our data reveals more about how quickly deals move from signing to closing – and through regulatory clearances – than how long it has taken to prepare for signing.



The hidden challenges of digital M&A

In fact preparing for signing can be challenging. Digital/tech businesses often carry hidden complexities that require a tailored approach to due diligence and deal structuring. They may have complex risk profiles due to their fast growth, new business models and tendency for lower legal spend, while much of their value may be tied to intangibles such as know-how, software or data that will need to be secured. Simply applying the standard M&A process (reviewing contracts for familiar pitfalls and assuming a generally static regulatory environment) risks missing many of the most important exposures and value drivers associated with a digital/tech asset.

In addition the targets themselves are less likely to be 'carve-outs' (ie divisions that have to be separated from a larger entity to create a stand-alone business). The carving-out process can extend deal timelines due to the challenges of splitting assets, systems and intangibles.

The relative speed of closing digital/tech deals may also be down to the fact that many involve companies buying businesses outside their own industry, and they therefore don't raise the sort of vertical competition concerns that can take time to resolve between signing and completion.

Having said this, we might expect the time it takes to close a digital/tech deal to rise in the future due to the emerging antitrust and foreign investment risks outlined in Part 7. Authorities are increasingly shifting their thresholds to catch deals by reference to value rather than just revenue, and are introducing new rules to limit the perceived threats to national security posed by foreign investments in particular technologies.

M&A through a digital lens – are you prepared?

Go to freshfields.com/digital to view our questionnaire, which will help you consider how well your organisation is set up to acquire, integrate and optimise digital targets.



Deal-making in this space could become more challenging over the next few years, as foreign investment into certain technologies is facing increased levels of scrutiny from regulators. On Freshfields' own major M&A mandates, we have seen an increase of more than 30 per cent in deals affected by public interest or foreign investment considerations. However, our experience shows that with careful planning, businesses can still navigate this changing environment.

Natasha Good
Partner, M&A, London

03

Who's buying digital assets?

To build a picture of the most digitally focused countries, we analysed our data along geographic lines. To partially adjust for the discrepancy in national constituents (US companies outnumber UK businesses in the S&P Global 1200 by a factor of five for example), we looked at average deal volumes and values on a per-company basis.

Our analysis reveals that S&P Global 1200 constituents headquartered in China and the Netherlands were the most active acquirers of digital/tech assets between 2009 and 2017 (each completing an average of 4.6 deals or more), followed by those from Japan, Ireland, the US and Germany. The Netherlands and Ireland appear high on the list, but their figures are bolstered by the fact that many of their 'national' businesses are in reality multinational holding companies attracted by their international outlook, supply of skilled workers and favourable regulatory regimes to this type of corporate entity.

The unexpected locations making their mark

Further down the list, some interesting stories emerge. Taiwanese companies score well (at an average of 3.4 acquisitions per company) with most of their digital/tech acquisitions in the semiconductor space. Four of Taiwan's five biggest businesses are manufacturers of advanced electronics, with Foxconn the largest of them all.

Top 3 digital/tech deals - Taiwan

Acquirer	Target	Value (\$bn)
MediaTek	MStar Semiconductor	3.85
Taiwan Semiconductor Mfg Co	ASML Holding	1.03
Hsu Ta Investment	Richtek Technology	0.87



Top 3 digital/tech deals – Sweden

Acquirer	Target	Value (\$bn)
Hexagon	Intergraph	2.13
Telefonaktiebolaget	Telcordia Technologies	1.15
Telefonaktiebolaget	Nortel Networks	1.12

Sweden also stands out at an average of three digital/tech deals per S&P constituent. It has a thriving tech industry inspired by the success of local entrepreneurs such as Daniel Ek (co-founder and CEO of Spotify) and Niklas Zennström (founder of Skype). According to TechCrunch, Stockholm has produced more ‘unicorns’ per capita than any other city in the world,² while a Google-funded study from 2014 revealed that 18 per cent of working-age people in the city were employed in tech-related roles. Sweden devotes more than 3 per cent of its GDP to research and development – the third most in Europe – and is among the leading countries for researchers per head of population (6,877 per million inhabitants).³

UK businesses

UK businesses on the other hand rank surprisingly low, completing an average of just 2.2 digital/tech deals over the nine-year period in our study. But as we will see in Part 4, plenty of UK digital/tech businesses are being acquired – just not by domestic buyers.

How much digital M&A is cross-border?

As recently as 2013 less than half (47 per cent) of digital/tech investment by the S&P Global 1200 was cross-border, but by 2017 that figure had risen to more than 58 per cent. Within these numbers there are again some fascinating regional nuances. US businesses were the most domestically focused (82 per cent of their digital/tech acquisitions were on home soil), reflecting Silicon Valley’s ability to produce a steady stream of attractive targets. When US buyers ventured further afield they predominately looked to Europe, in particular the UK (which accounted for 36.1 per cent of their cross-border deal activity).

China’s S&P Global 1200 constituents by contrast bought mainly outside their own country, completing more than half (56 per cent) of their digital/tech deals abroad. Of these acquisitions, most were in the Asia-Pacific region (40 per cent) although the US was also a significant nexus (35 per cent).

When looking at the average size of digital/tech deals on a country-by-country basis, our analysis shows that big Chinese companies spent the most (\$1.47bn per acquisition) followed by those from the US (\$1.26bn). This might be read as a sign of both the desire in China to develop a more technologically advanced economy and the fact that Chinese buyers are often expected to pay a premium in cross-border deals due to the uncertainty of securing regulatory approvals from Beijing. However, as we explain below, the figures for the US in particular mask the level of M&A activity driven by tech titans such as Google, Apple and Facebook.

² <https://techcrunch.com/2016/01/26/sweden-is-a-tech-superstar-from-the-north/>

³ <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>

Behind the numbers

The 10 biggest businesses in the S&P Global 1200 index are all US in origin, so does their presence skew our US numbers? And what conclusions can we draw about digital/tech investment in China when it only has eight companies on the list?

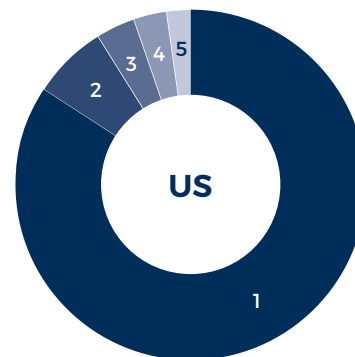
Businesses such as Google, Apple and Facebook are so large and so digitally focused that they almost need a category of their own. The fact that there are 478 US constituents in the index reduces the US average in our analysis to a level close to that of the rest of the world. But taken together, the 10 biggest US corporations account for 9 per cent of digital/tech deal volumes in our study – and 7 per cent of digital/tech spending.

As far as China is concerned, the level of activity driven by its handful of S&P constituents is startling. These eight companies were responsible for 37 digital/tech acquisitions, almost as many as Spain (which has 19 companies in the index) and more than Australia (which has 48).

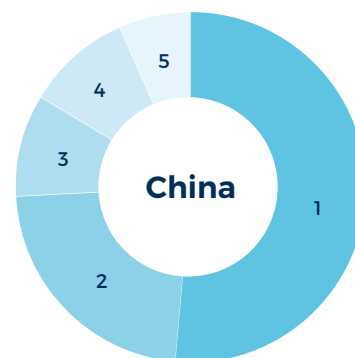
It is worth reiterating that our analysis does not include wholly state-owned enterprises or privately held companies, which makes it harder to use our data set to draw conclusions about China as a whole. Chinese state-owned enterprises have colossal buying power, and many of the country's most active buyers of digital assets (such as Ant Financial) are private corporations, which fall outside our study. In addition companies such as Alibaba Group only listed in 2014, yet were very active on the international M&A scene before this point. Having said this, our study at the very least shows that China's biggest public companies are among the most acquisitive in the digital/tech space.

Where are businesses buying digital/tech assets?

Cross-border deal flows (number of deals)



1	US	1,291
2	UK	106
3	Germany	55
4	Israel	49
5	Netherlands	30



1	China	16
2	US	7
3	South Korea	3
4	Singapore	3
5	UK	2



04

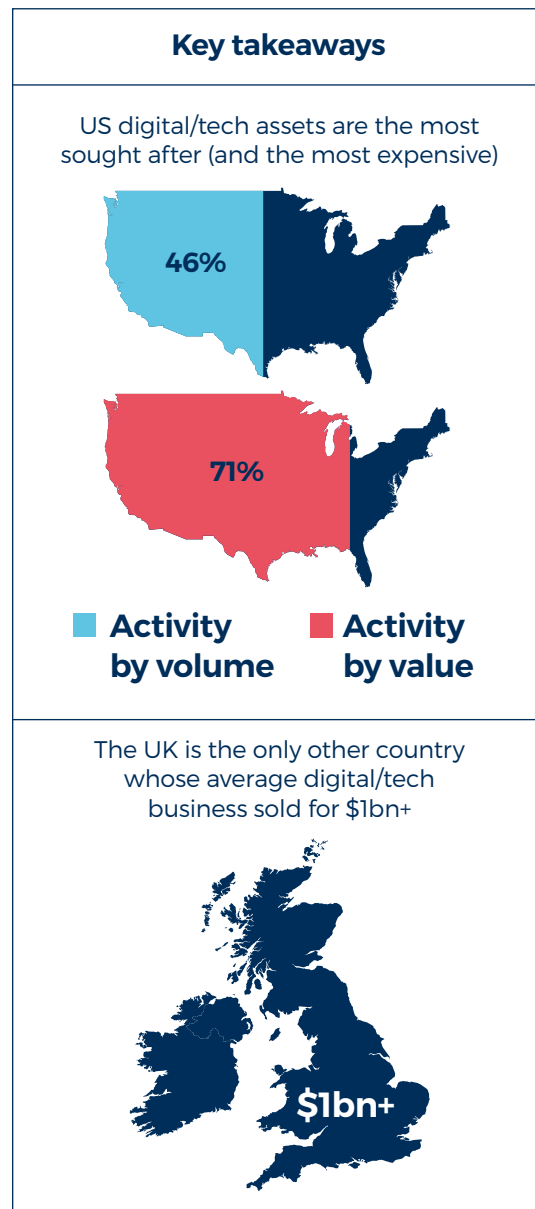
The most valuable digital economies

We then looked at where in the world the most attractive digital/tech assets are found.

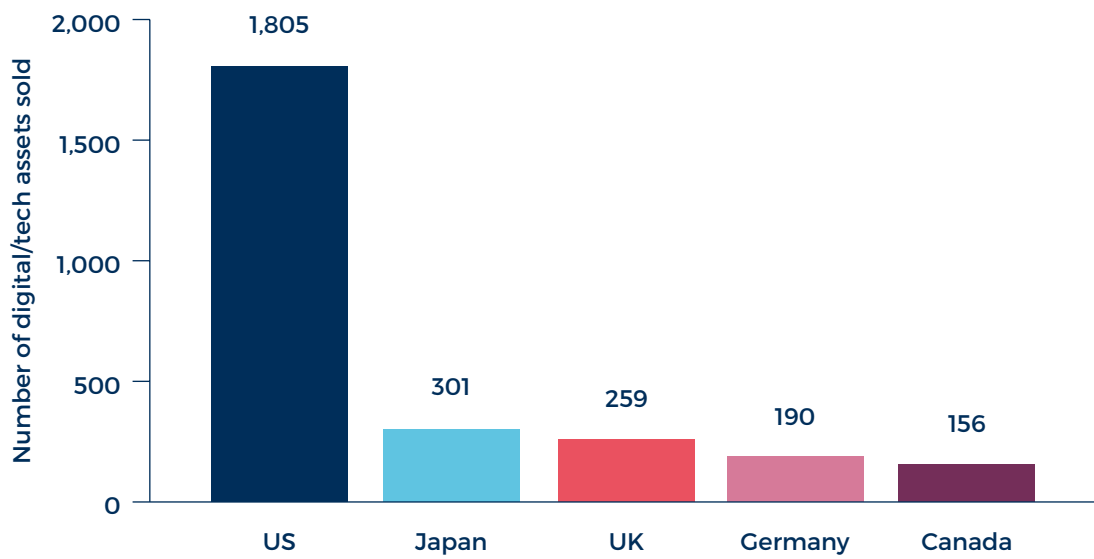
It is little surprise that US businesses – given the concentration effect of Silicon Valley outlined in Part 3 – were the most sought after by the S&P Global 1200 (accounting for 46 per cent of their digital/tech M&A activity by volume and 71 per cent by value).

What was more unexpected, however, was that the UK ranked third in the volume list behind Japan, and was way out in front of any other country except the US in the value stakes (UK digital/tech businesses totalling \$83.6bn were bought by the S&P Global 1200 between 2009 and 2017).

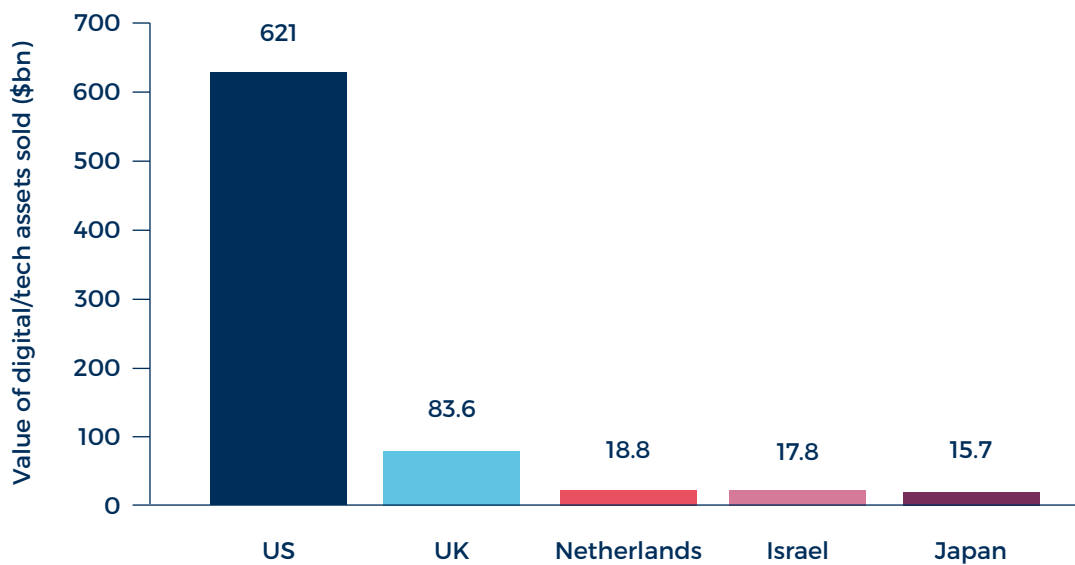
The average UK digital/tech asset was acquired for more than \$1bn, making it the only country other than the US to exceed this milestone.



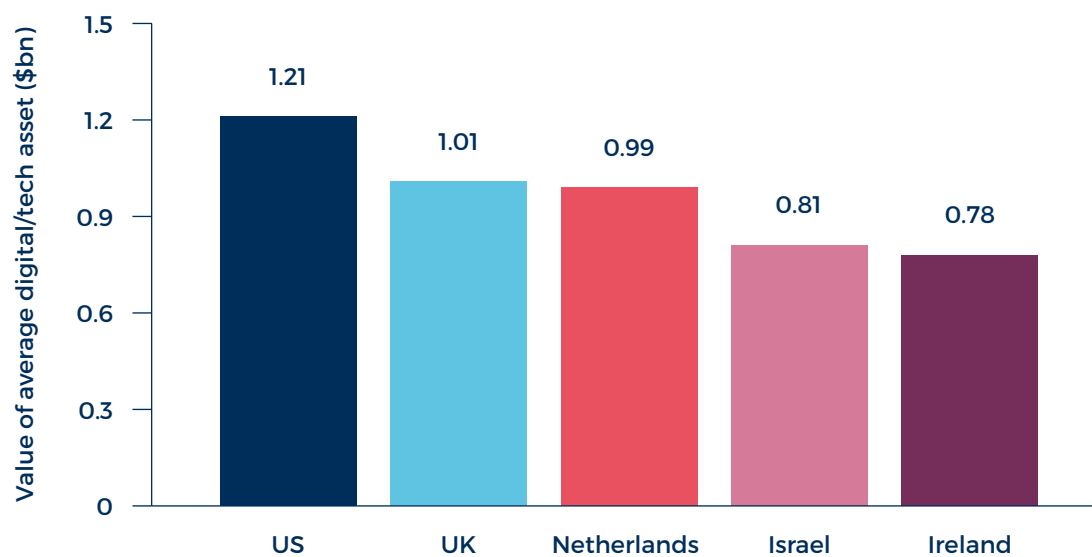
Which countries sell the most digital/tech businesses?



Which countries attract the most digital/tech investment?



Which countries have the most valuable digital/tech assets?

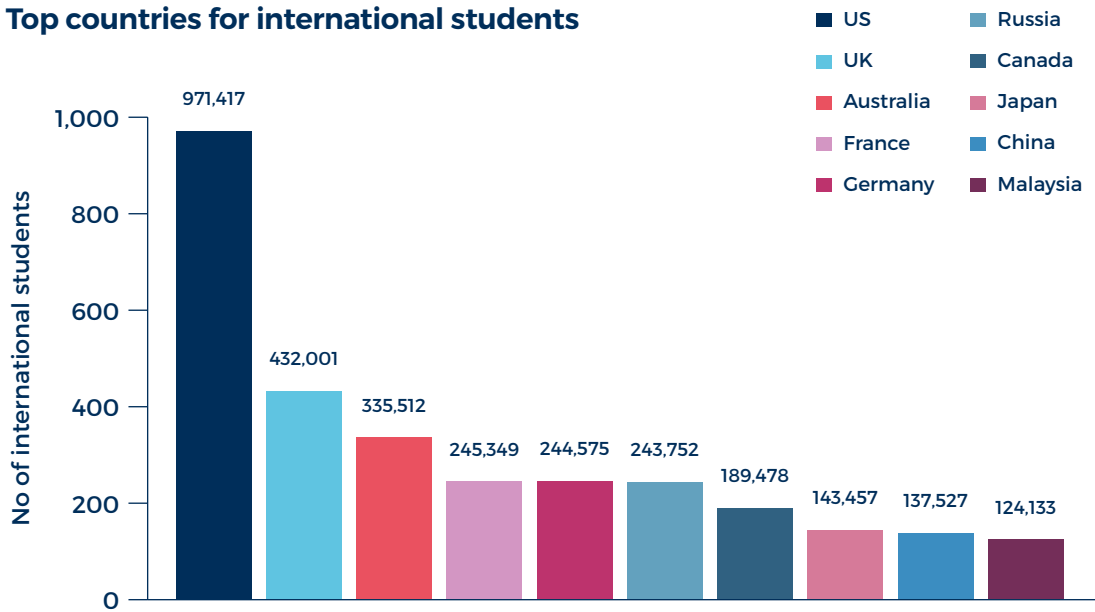


There are a multitude of possible explanations for this finding. Both the US and UK have outstanding universities that attract large numbers of international students, enabling ideas to be exchanged and global networks to be built.

Figures from the UN reveal that the US and UK have the broadest university demographics in the world, welcoming more than 1.4 million international students between them in 2016 (the most recent year for which full data is available).⁴

⁴ <http://data.uis.unesco.org/#>

Top countries for international students



Source: UNESCO Institute for Statistics, 2016

The leading US and UK universities also generate and support a large number of innovative start-ups. According to a study by the investment site PitchBook, between 2006 and 2018 Stanford, University of California, Berkeley and the Massachusetts Institute of Technology together spawned 2,846 companies that have attracted more than \$70bn in funding.⁵ In the UK, tech start-ups that emerged from the University of Cambridge between 2011 and 2016 were backed to the tune of \$1.3bn, while Oxford last year invited Apple CEO Tim Cook to open the Foundry, a space for its entrepreneurs to work on their ideas and meet financial backers⁶.

Then there is investment in research. Israel (whose digital/tech assets are the fourth-most valuable in our study) spends 4.2 per cent of its GDP on R&D every year (second only to Korea) and has the highest number of researchers per capita of any country in the world (8,250 per million inhabitants).⁷ And as we have already touched upon, the Netherlands (third in our digital/tech value table at \$0.99bn) and Ireland (fifth, \$0.78bn) have an international outlook and favourable regulatory regimes that have proved attractive to multinationals.

5 https://files.pitchbook.com/website/files/pdf/PitchBook_Universities_2018_2019_Edition.pdf

6 www.ft.com/content/db2684b2-b28a-11e7-a398-73d59db9e399

7 <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>

Top 5 destinations for US digital investors

Country	Ranking for average asset value	Ranking for digital investment by US companies (number of deals)
US	1	1
UK	2	2
Netherlands	3	5
Israel	4	4
Ireland	5	7

Our data also reveals another factor that appears to play a role in the value of a country's digital/tech businesses – the degree to which they are targeted by US buyers. Comparing the countries that have the highest average digital/tech asset

values with the most popular destinations for US digital/tech investment suggests a link between the two. With US companies so big and so active in the digital space, the countries that attract their attention seem to reap the rewards.

05

The most popular digital assets

Our study shows that software also dominates the digital/tech M&A activity of the S&P Global 1200, with 39 per cent of their acquisitions in the space involving application software businesses.

Spending was highest on healthtech assets (\$192bn), with cognitive technologies and AI next in line. On an average deal value basis, the S&P Global 1200 are spending the most on the latter asset class, with each acquisition costing \$2.3bn.

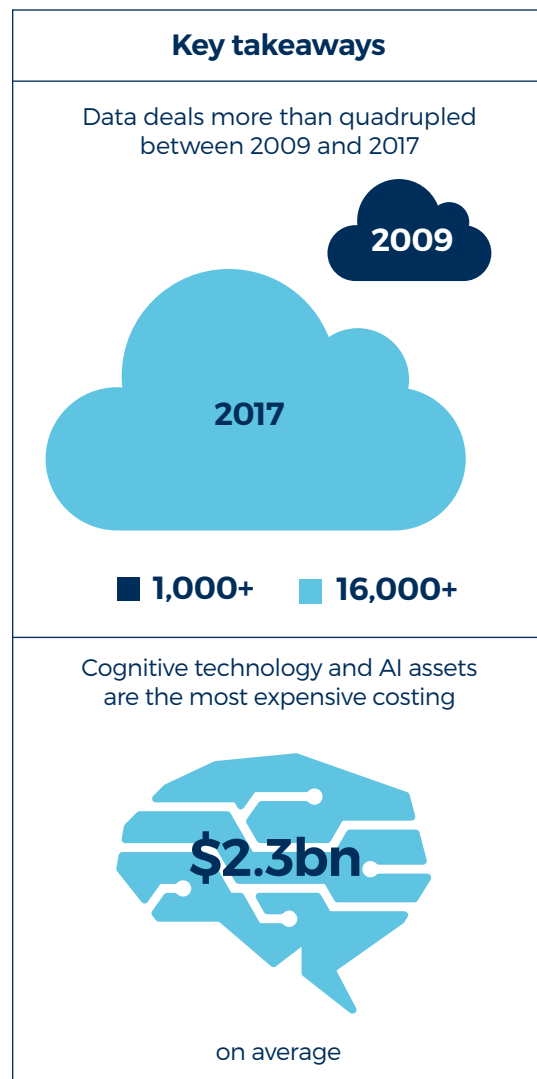
Breaking down deal volumes over time also reveals some fascinating trends, such as that acquisitions of large data sets and cognitive analytics businesses roughly doubled every three years, and that the number of transactions involving digital industrial solutions assets also doubled between 2014 and 2017.

M&A through a digital lens

As we have already mentioned, when acquiring a digital/tech business it is important to ensure that due diligence checks are designed around the asset’s key value drivers and risks, which are subtly different in each of the categories outlined below. Buyers need to scan the horizon for emerging regulations that could threaten future revenue streams, and with authorities starting to consult on potential regulatory models, to shape the development of AI for example, such considerations may play a greater role in targets in this space.

It is also vital to secure control of, and usage rights for, intellectual property, which in software companies can be threatened by the target’s use of open-source code or its relationship with its developers. We have seen buyers walk away from digital deals due to uncertainty over the ownership of code created by contract consultants, while others have run into issues linked to research grants for early-stage development. Reviewing cyber resilience is essential if the target’s value is tied to its data, and carefully considered deal terms can help when the unexpected occurs (Verizon famously shaved \$300m off its valuation of Yahoo! after major data breaches were disclosed after the deal was executed).

The way the target is structured also requires close attention. New digital taxes are being introduced across the world, and in Europe state aid investigations are a particular threat. Savvy buyers do this work as part of a holistic structuring approach that also considers how to maximise IP protection and minimise risk from a range of other regulatory frameworks.



Asset class	Description	Example companies
Application software	Computer software designed to help the end user or organisation perform a specific set of tasks	Nexus Geosciences; Waze
Cognitive technologies and AI	Technologies that perform and/or augment tasks, help better inform decisions, and accomplish objectives that have traditionally required human intelligence	Elektrobit Automotive; AI inside
Consumer platforms	Consumer-facing technologies that provide a service, solution or platform for customers	Carpooling.com; Userus
Cyber security	The protection of internet connected systems including hardware, software and data from cyber attacks	Accertify; Bridge Point Communications
Data analytics and cognitive analytics	Data processing analytics and sensing applications that provide practical insights and applications	Matrikon; Lanclope
Digital industrial solutions	Web of connected devices that can be controlled over a data network	Composite Software; COM DEV International
Fintech	Technology to create new and better financial services for both consumers and businesses	Open Solutions; Clear2Pay
Healthtech	Technology that improves the delivery of, payment for and/or consumption of medical care	Phase Forward; Merge Healthcare
Media and social software	Consumer software that enables users to interact and share data, news and experiences	Snapchat; LinkedIn
Telecoms and broadcasting	Digital communications and telephony solutions	Crispin Corp; CognoVision Solutions



What's different about digital deals?

If you are buying a business that looks like your own, the deal process is equally familiar. But apply traditional methods to a digital acquisition and you will miss many of the most important issues. Listen to our podcast where we discuss how to mitigate risk in tech M&A – and avoid the pitfalls that can put your investment at risk.

Listen at freshfields.com/digital



06

The most digitally focused industries

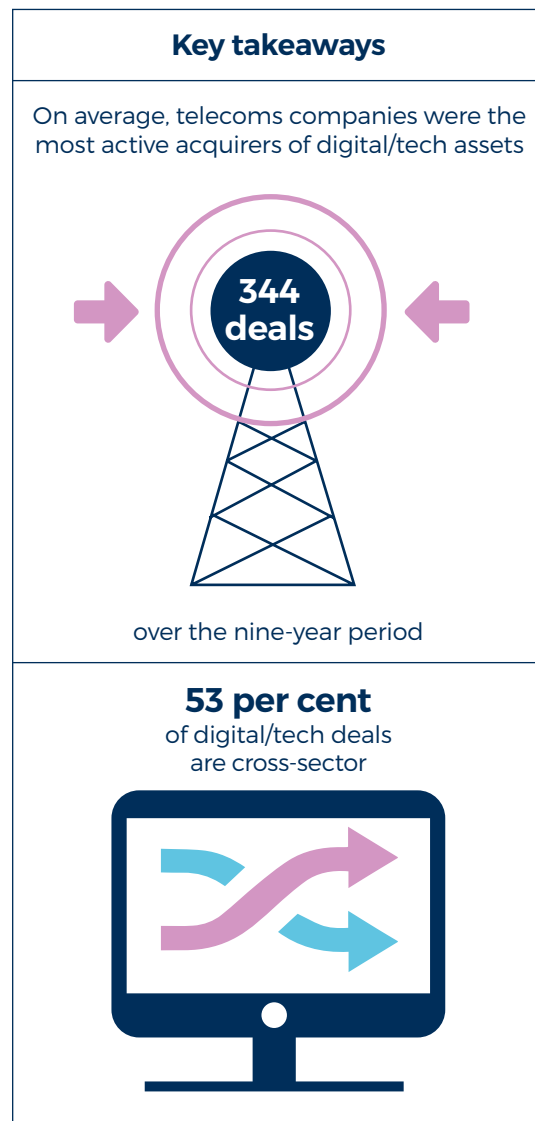
We then analysed the data to see which industries are the most active in the digital/tech space - and what assets they're buying.

It is little surprise that technology companies bought the most digital/tech assets, accounting for 46.9 per cent of acquisitions by volume. Next up were financials (11.1 per cent by volume) and industrials (8.2 per cent) followed by telecoms (8.1 per cent) and healthcare (6.9 per cent).

Looking at the data at this level however masks some interesting insights. Weighting the figures to reflect the number of S&P constituents in each industry reveals just how ‘digital’ certain sectors have become. On average, telecoms companies did more digital/tech deals than even their tech counterparts, completing more than 14 acquisitions over the nine-year period in our study. This is in part due to the low number (34) of telecoms constituents in the S&P Global 1200 and also their size. The average market cap of the telcos in the index is \$55bn, almost 1.5x that of other industries (\$37bn).

Included in this group is also SoftBank Corp, owner of one of Japan’s biggest mobile networks, as well as US operator Sprint. SoftBank made 24 digital/tech acquisitions between 2009 and 2017, including its \$31.8bn buyout of chipmaker ARM Holdings and \$2bn deal for eAccess. Other notable deals in this space included Verizon’s \$4.5bn deal for Yahoo! and \$4.4bn acquisition of AOL, both of which were driven in part by Verizon’s desire to boost its online video advertising capabilities in the face of competition from Google and Facebook.

The level of activity in media and entertainment is equally startling, with the biggest businesses in the sector buying an average of nearly nine digital/tech assets between 2009 and 2017. Here, the most significant completed deals included Charter Communications’ \$67.1bn merger with Time Warner Cable and Bright House Networks, which created the second-largest broadband provider in the US and the third-largest pay-TV company.



Which sectors do the biggest deals?

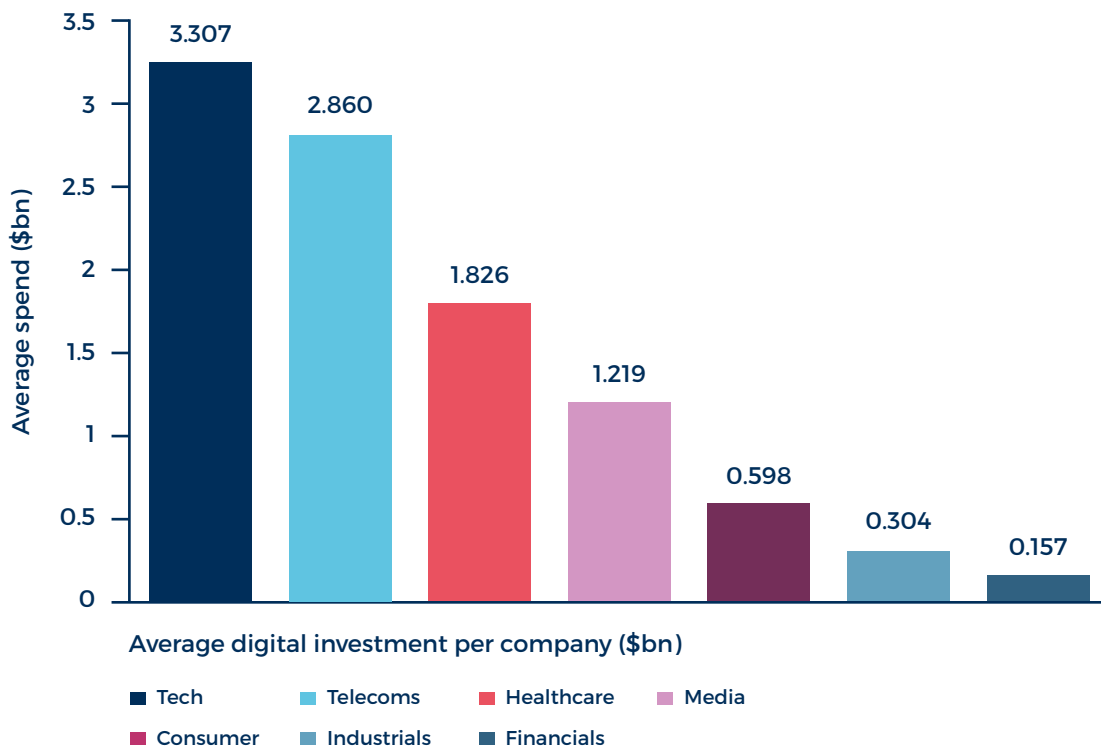
When looking at digital/tech spend per company, tech businesses were way out in front, investing \$3.3bn on average per constituent. Next up were telcos (\$2.9bn), followed by healthcare (\$1.8bn) and media companies (\$1.2bn). SoftBank’s presence again boosts the numbers for the telecoms industry as a whole – without it, telcos’ average investment drops to \$1.8bn per deal.

Analysing investments by each industry into the asset classes outlined in Part 5 reveals that tech companies spent more on cognitive

technologies and AI (\$110bn) than any other type of tech. Here, the biggest deal in our study was Intel’s \$16.7bn acquisition of Altera, the maker of chipsets integral to technologies such as autonomous vehicles and machine learning neural networks. The level of investment by energy and power companies into digital industrial solutions assets (\$6.4bn, 73 per cent of their total digital/tech spend) also stands out. The prime example of this in our analysis was France’s Schneider Electric buying UK engineering group Invensys for \$5bn, a deal driven by Schneider’s desire to improve its position in the industrial automation market.

The biggest spenders

Which sectors place the biggest bets?



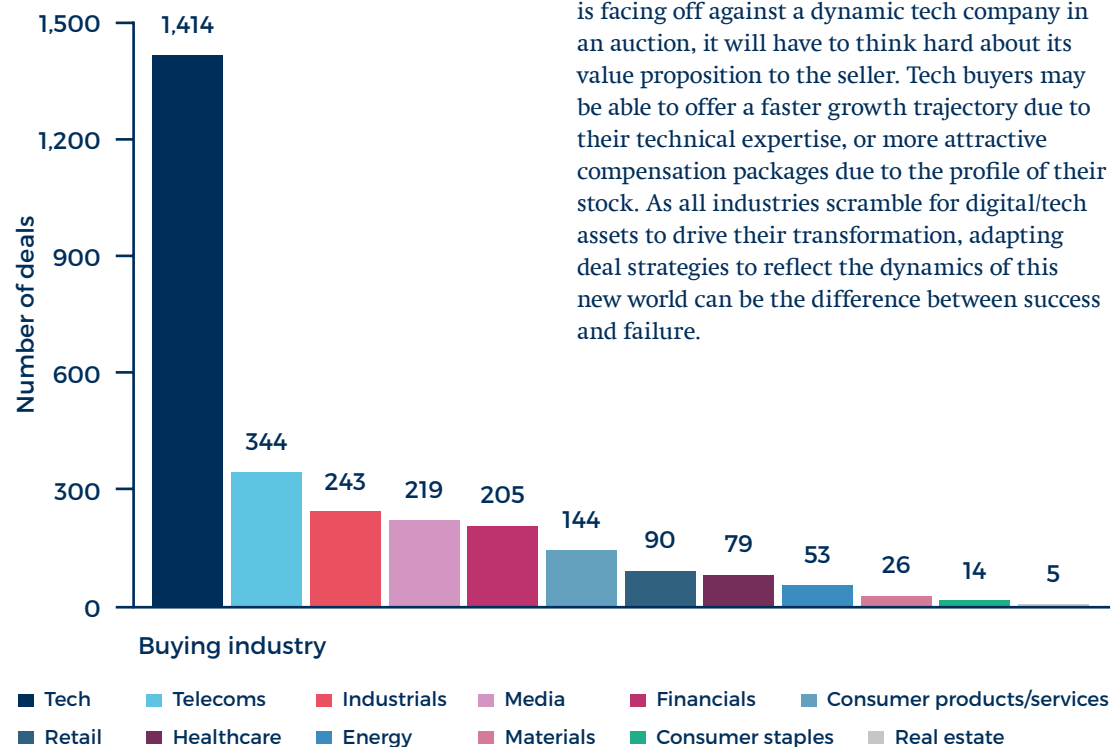
Numbers reveal digital convergence

What really jumps out in the numbers however is the degree of competition for digital/tech assets *between* industries. A lot has been written about non-tech companies investing into tech, but our study shows the degree to which tech companies are themselves targeting other sectors for their digital crown jewels in order to build new service offerings and disrupt traditional industries.

Tech businesses bought more digital assets in the consumer space than consumer companies themselves, for example Salesforce.com’s \$2.8bn acquisition of Demandware, whose cloud-based e-commerce platform and related services support retailers and brand manufacturers around the world.

Who’s buying tech?

Deal activity by volume



Financial institutions face similar competition for digital assets in their own industry – only in their case from industrials and telecoms companies as well as the leading players in the tech sector. Interesting deals here include Volkswagen Financial Services acquiring the mobile payments business of PayPal, and Telefonica snapping up Boku, which provides online payment and transaction processing services for digital and virtual goods bought via mobile phones.

This level of competition has consequences. It has long been the case that strategic investors are at an advantage in their own sector as the synergy benefits they can drive from deals enable them to pay more. But in the digital world, non-tech companies may find they need to be more creative if they want to land the best assets.

If a financial institution or an industrial business is facing off against a dynamic tech company in an auction, it will have to think hard about its value proposition to the seller. Tech buyers may be able to offer a faster growth trajectory due to their technical expertise, or more attractive compensation packages due to the profile of their stock. As all industries scramble for digital/tech assets to drive their transformation, adapting deal strategies to reflect the dynamics of this new world can be the difference between success and failure.

07

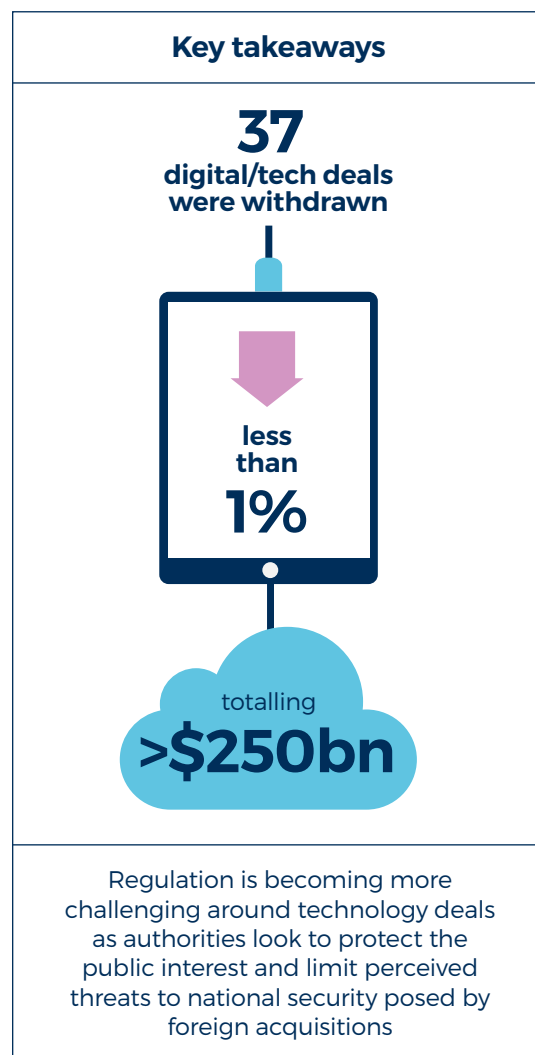
The regulatory threat

In an attempt to quantify the level of regulatory risk in digital/tech M&A, we analysed the number of transactions that were withdrawn between announcement/signing and completion.

This phase of the deal process is when antitrust considerations – and increasingly foreign investment rules – come into play, with proposed acquisitions being assessed for their impact on markets, consumers, jobs, innovation and national security.

Our study shows that over the nine-year period, digital/tech acquisitions were not disproportionately affected – less than 1 per cent of deals were withdrawn across both our digital/tech and non-digital groups. However, these transactions are significant when considering their size. The 37 digital/tech transactions that were withdrawn, for example, were worth more than \$250bn in total – more than 22 per cent of announced deal value. And had more state-owned companies (particularly from China) been included in our study (see Part 3), the number of withdrawn deals would almost certainly have been higher.

Looking at the digital/tech deals in our analysis that were withdrawn, some were hostile takeovers that ultimately failed (for example, Emerson's proposed \$29bn acquisition of Rockwell Automation, which was rejected by investors). But others were stymied for different reasons, such as Broadcom's attempt to buy US chipmaker Qualcomm for \$117bn. President Trump prohibited the bid – which accounts for almost half the value in our list – at the recommendation of the Committee on Foreign Investment in the United States (CFIUS). CFIUS was concerned that Broadcom might cut Qualcomm's R&D budget, threatening US leadership in 5G (and by extension US national security) by boosting Chinese rivals such as Huawei.



Why the regulatory landscape is getting harder for digital acquisitions

While relatively few digital/tech acquisitions in our study were withdrawn, the M&A regulatory landscape for this type of deal is becoming more challenging. The US has recently passed a law that will, among other things, expand CFIUS's jurisdiction to explicitly cover minority foreign investments in businesses involved in 'critical infrastructure, critical technologies or sensitive personal data'. This was accompanied by changes to US export control rules that will limit outbound transfers of 'emerging and foundational' tech. These reforms are yet to be implemented, and it is likely to take CFIUS many months to develop a workable process. However, CFIUS is required by law to have the new regime up and running by February 2020.

Other countries, including Germany, Austria and the UK, either introduced tech-specific foreign investment regimes around the cut-off point for our study or are currently doing so. As with the US it will take some time for the effect of these reforms to be felt, but they will make acquiring digital/tech assets more complex and require buyers to place more emphasis on regulatory considerations early on in the M&A process.

Looking ahead

We can also expect more digital/tech deals to be challenged by antitrust authorities in Europe given their rising cost outlined in Part 1. The EU – following similar reforms in a number of member states – is considering proposals that would enable the Commission to scrutinise bids based on deal value rather than the target's turnover, the traditional trigger for merger control filings.

The move reflects the concern that digital/tech businesses can have a powerful position in a particular market without necessarily making much money, and therefore that new tools are required to preserve competition and protect consumers.



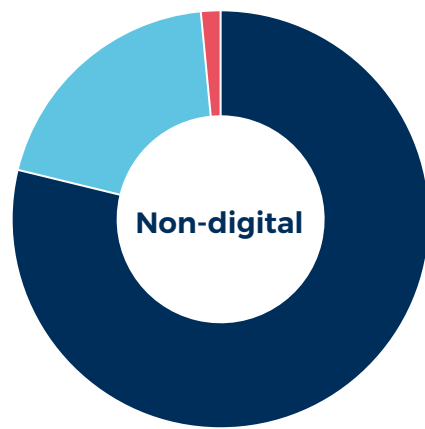
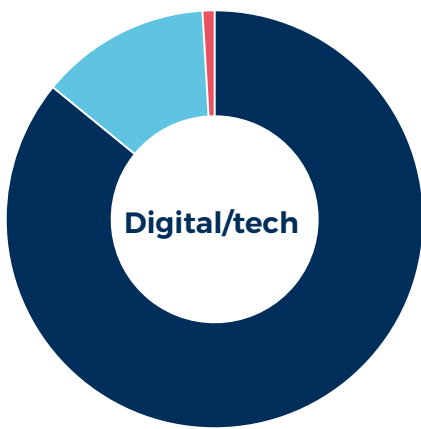
Data and merger control

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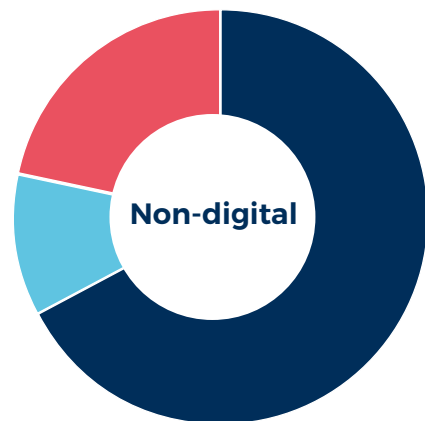
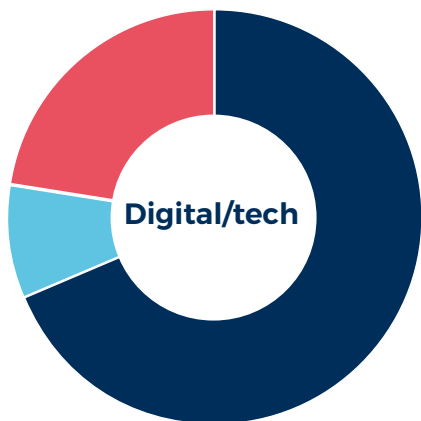
Withdrawn deals
Activity by volume (%)

■ Completed ■ Pending ■ Withdrawn



Withdrawn deals
Activity by volume (\$bn)

■ Completed ■ Pending ■ Withdrawn



08

Spotlight on Asia

As we have already highlighted, our analysis does not capture deals by privately held companies or minority investments by financial and corporate sponsors. Both play a significant role in the tech and digital deal landscape across the US, Asia and Europe.



We have chosen to take a look here at a few of the related stories we are seeing in the Asian market – including some significant deals that came after the cutoff point in our study.

China: investors tap into ‘big four’ success

The success of China’s four tech giants (Baidu, Alibaba, JD.com and Tencent) has created a thriving digital sector that is driving rapid innovation, particularly around payments and mobile-related technologies. The ability of China’s tech businesses to tap into the country’s burgeoning wealth (wages more than doubled between 2008 and 2018⁸) has generated huge interest from domestic and international investment funds. Many of them are sitting on large quantities of dry powder and are using it to make VC-style investments in Chinese platform businesses such as Ant Financial, Alibaba’s payment arm. When its IPO was put on hold this year, Ant launched a \$14bn funding round – reportedly the biggest ever by a private company – that was subscribed to by investors including Warburg Pincus and the Singaporean sovereign wealth funds Temasek and GIC. This level of interest in China’s digital leaders is driving high valuations and the sort of ‘company friendly’ terms on which sponsors are required to invest.

South East Asia: corporates use minority stakes to drive digital transformation

VC-style growth equity investments are also increasingly being used by corporates as part of their digital transformation strategies, particularly in South East Asia. No longer can strategic investors delay their participation in early-stage tech businesses until they have reached relative maturity if they want to secure access to industry-changing innovations. A case in point was the latest fundraising from Indonesia’s Go-Jek, which started life as a ride-hailing app but has since evolved into an on-demand mobile platform offering services from transportation to logistics, payments and food delivery. The round attracted a significant investment from PT Astra International Tbk, one of the country’s largest diversified conglomerates, which was keen to seize the opportunity for the two businesses to innovate together. Toyota followed a similar route when it took the lead on a recent fundraising from the Singapore-based ride-hailing company Grab, investing more than \$1bn to join the long line of traditional auto-makers building relationships and collaborating with early-stage tech businesses that are ahead of the curve in their development of autonomous driving technologies.

8 <https://www.ft.com/content/68eb6bb8-4256-11e8-97ce-ea0c2bf34a0b>

India: US e-commerce giants go head to head

When Walmart spent \$16bn in May this year (2018) acquiring a majority stake in Flipkart, one of the country's biggest consumer platforms, it was pitched into a head-to-head battle with Amazon for the Indian retail market. Amazon has moved aggressively into India in recent years and the face-off with Walmart could lead to further digital/tech M&A as smaller e-commerce companies are swallowed up.

The competition is also likely to drive acquisitions of offline assets in warehousing and transport as the two companies look to tackle India's infrastructure gaps. This 'last mile' in the supply chain – home deliveries, return logistics – has long been a challenge for online retailers looking to capitalise on India's growth story. The country's president recently revealed he expects India to become the world's third-largest consumer market by 2025.⁹

Japan: market mellows to private equity

In 2018 Japan has emerged as the most aggressive player on the M&A markets after the US, spending a record ¥16tn (\$141bn) in cross-border deals between January and October alone. Tech is a major driver of this activity, with a broad range of Japanese industries competing for the best tech and digital assets – in the first 10 months of 2018, deals for domestic digital/tech assets grew by 500 per cent to \$6bn compared to the same period in 2017.

In terms of outbound deals Japanese companies are particularly focused on the US, with Japanese chipmaker Renesas Electronics, for example, spending \$7.2bn to acquire Integrated Device Technology. Foreign investors are active in the Japanese market as domestic companies look to dispose of peripheral assets (eg French auto supplier Faurecia is set to buy Clarion, which makes car navigation systems, from Hitachi for \$1.3bn). Private equity investors have also shown increasing interest in Japanese tech businesses, particularly since the breakthrough \$17.7bn sale of Toshiba's chip business to a Bain-led consortium that completed this year. This is largely thanks to a combination of significant reserves of uncalled capital and a mellowing of the Japanese stigma against PE investors. KKR notably announced this year that investments in Japan – including in the tech sector – are among its top priorities.

⁹ <https://www.thenational.ae/business/economy/india-s-consumer-spending-set-to-boom-1.743170>

Methodology

Our research is based on primary analysis of 26,744 transactions announced by the constituents of the S&P Global 1200 between 1 January 2009 and 31 December 2017.

The S&P Global 1200 captures around 70 per cent of global market capitalisation, and therefore reflects many of the world's biggest companies. It is a composite of seven headline indices: S&P 500 (US), S&P Europe 350, S&P TOPIX 150 (Japan), S&P/TSX 60 (Canada), S&P/ASX All Australian 50, S&P Asia 50 and S&P Latin America 40.

All industries are represented in this study.

A 'deal' is defined as any transaction in which the acquirer took an interest of 50 per cent or more in the target, increased its interest from below 50 per cent to above 50 per cent, or acquired the remaining interest in an asset that it didn't already own.

Deals have been classified as 'digital/tech' if the buyer has targeted an asset to aid its digital transformation (based on analysis of the deal rationale, the acquirer's business and the target's technology), to bolster its existing digital offering, or to consolidate the market in a specific class of tech.

Target categories have been assigned based on the technological assets of the target. Sectors and countries listed are as defined by Thomson. The status of the transactions (completed, pending and withdrawn) are accurate through Q2 2018.

Source: Thomson, Freshfields analysis



The world of digital M&A data

To delve further into the findings to make comparisons, please visit [freshfields.com/digital](https://www.freshfields.com/digital) to interact with the global survey results.



Further conversations

If you would like to discuss your digital transformation challenges or any issues relating to digital M&A, digital disputes or digital risk management, we would be delighted to hear from you. Likewise if you are interested in further insights on the crossover between law and tech, visit www.freshfields.com/digital

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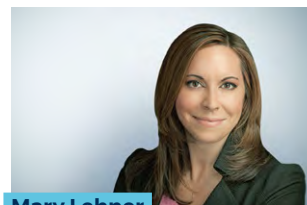


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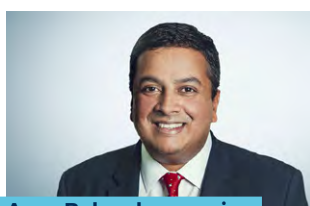
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