

www.pwc.com

Executing a successful IPO

Markets for technology

*Helping
technology
companies
assess their
choices*





Content

Foreword	3
Where to list as a technology company?	4
When is the right time for your IPO?	8
What are the key drivers for choosing your listing venue?	9
What are the first steps on the road to a listing?	10
Technology IPO activity – 2011-2015 in review	11
Technology IPO highlights	12
2011-2015 technology IPO activity by listing venue	13
Technology IPO footprint	14
Top 10 technology IPOs and subsector breakdown	15
Global IPO activity – technology in perspective	16
Exchange factsheet	17
NYSE and Nasdaq	18
London Main Market and AIM	24
For more information	30
Methodology	31
PwC contacts	32

Foreword

Welcome to markets for technology: PwC's publication looking at IPO considerations for technology companies

Technology – a continuing agent of change in the economy and in stock markets

Technology continues to be one of the biggest factors influencing the global economy. Yet as a category, 'technology' feels almost impossibly broad. It ranges from cutting edge developments in hardware and devices which make our daily lives easier and more productive, through to the continually evolving world of e-commerce, empowering consumers and creating new challenges and opportunities for the businesses looking to reach them.

The explosion in the size and complexity of technology-driven businesses has been reflected in its growth as a constituent of global stock markets. Established 'winners' such as Apple, Google (now Alphabet) and Microsoft have grown to global stock market dominance; they have been joined by companies which have seen and capitalised on the disruptive power of the internet, be that social media such as Facebook and Twitter or e-commerce giants such as Amazon and Alibaba. Behind these names lies a myriad of other businesses either developing exciting new technologies or exploiting them to reshape commerce.

Investors have, overall, seen a very considerable benefit to their portfolios from investing in technology, notwithstanding the fluctuations which have occurred over the years. There has been an increase in the degree of sophistication required in order to make money as a technology investor, as new technologies have proliferated and as the gap between winners and losers has

widened. Consistent themes for investors are the sustainability of competitive advantage, the ability to achieve dominance in a specific market, and a clear path to profitability.

A public capital raising can drive a step-change in a company's growth

Technology companies can make considerable progress without recourse to the public markets. Operating without public investor scrutiny can be very beneficial, allowing for the creativity, experimentation – and at times failure – necessary to establish a genuinely sustainable business model. Once this stage is reached, however, public markets can provide the scale of capital necessary to fuel growth and consolidate a leading market position. The most established stock markets for technology businesses, New York and London, provide access to a global pool of sophisticated capital that understands and will ascribe full value to technology businesses.

There are many decisions to be weighed up by management and shareholders

Your equity story and proof points will be key in getting investors to attribute a fair value to the business. How are you going to consolidate your market position, maximise the value of your technology, grow your market share, maintain or grow margins and embed your position with customers? Your business plan, KPIs, R&D programmes, patents, intellectual property and legal issues that will all back future growth are key considerations for your equity story.

Then is the question of how and where

you will get best value. Who will be the best investors for your proposition and how will you get to them? Is the UK or the US the right listing venue? How early should you be speaking to investors and what should you be saying to them? At what stage should you be speaking to banks and their research analysts, and which ones? What do you need to change to be ready for the public markets?

The PwC network of capital markets, equity advisory and technology experts across the globe has extensive practical experience of floating technology companies on the leading exchanges. We can help you examine where you are in your funding cycle, if and when an IPO makes sense, get you properly ready for the market, and help you put together the team best suited to ensure a successful listing for your business.

This publication is designed to help frame your initial thinking on IPO – including timing issues, how to prepare your business, the differences between exchanges and also drawing on the real-life experiences of technology companies which have listed successfully. We hope you find it of interest; even if an IPO seems far off we can help you to start planning ahead.



Jass Sarai
PwC UK Technology Leader

Where to list as a technology company?

New York and London are the most attractive destinations for technology issuers

At 31 Dec 2015	New York		London		China		
	NYSE	Nasdaq	Main Market	AIM	Shanghai	Shenzhen	Hong Kong
Total no. of companies	2,424	2,859	1,321	1,044	1,144	1,762	1,878
Total market cap (\$bn)	18,376	7,281	5,728	107	5,105	3,642	2,783
No. of international companies	514	388	460	321	0	0	1,423
No. of technology companies	117	383	40	101	47	182	158
Technology market cap (\$bn)	801	3,225	143	9	143	465	270
As a % of total market cap	4%	44%	2%	9%	3%	13%	10%
<i>Technology IPO proceeds in 2015 (\$m)</i>	6,510	2,946	7,849	129	607	1,541	1,816

The US, the UK and China/HK are the most active exchange venues for the technology sector – though mainland Chinese exchanges, Shanghai and Shenzhen, are not open to foreign issuers.

New York remains by far the most popular destination for technology IPOs over the past five years, notably fuelled by Alibaba's mega-IPO (\$22bn - NYSE) in 2014. In addition, in 2012 the US enacted the 'Jumpstart Our Business Startups' (JOBS) Act, enabling emerging growth companies (EGCs) to access capital markets and raise capital through an IPO

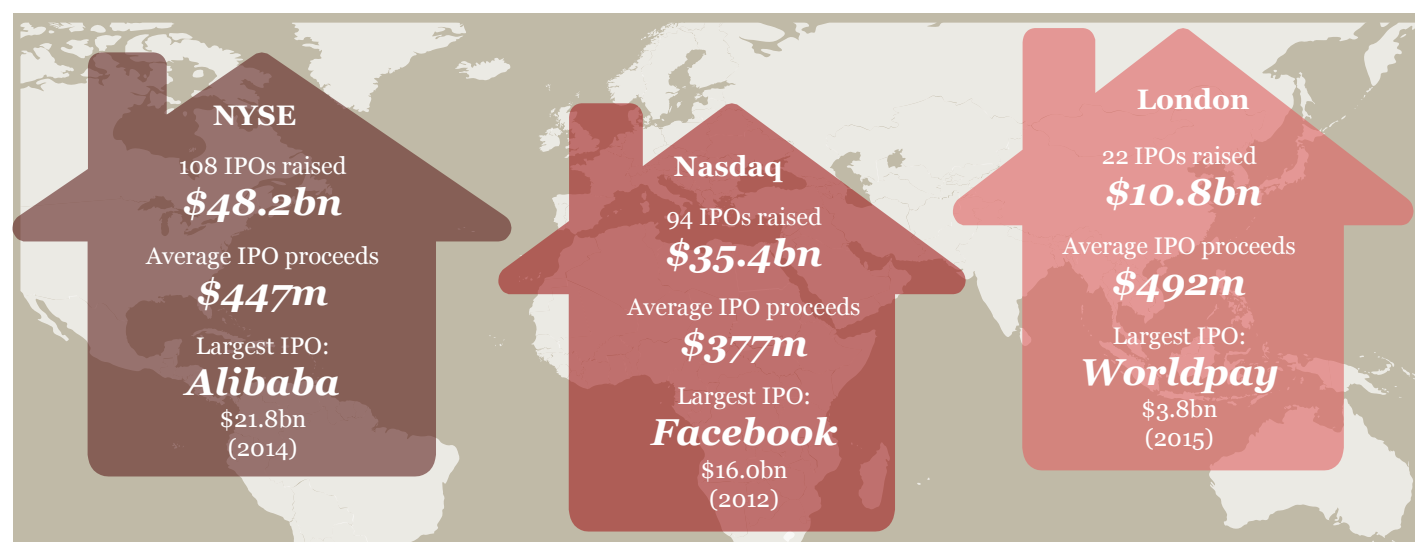
by reducing the reporting requirements.

However, London has started to challenge the US exchanges following some major IPOs in 2015 including Worldpay, AutoTrader and Sophos.

Asian exchanges have been on the rise during the past five years, with Shenzhen recording the most proceeds, followed by Tokyo then Hong Kong – though the three taken together do not reach half of NYSE proceeds. The Chinese market recovered from 2013 when activity hit record lows following the Chinese

government decision to close the domestic stock exchanges. 2014 technology activity reached highs not seen before, but the trend did not carry on through 2015 due to hectic market conditions and another partial closure of the Chinese markets in the second half of 2015.

Top 3 stock exchanges for technology companies (by offering value) – 2011-2015



Where to list as a technology company?

New York and London have been the most popular destinations over the past 5 years for cross-border technology IPOs

Cross-border activity highlights the prominence of the US as the most popular destination for cross-border technology IPOs, attracting 53 foreign companies in the past five years.

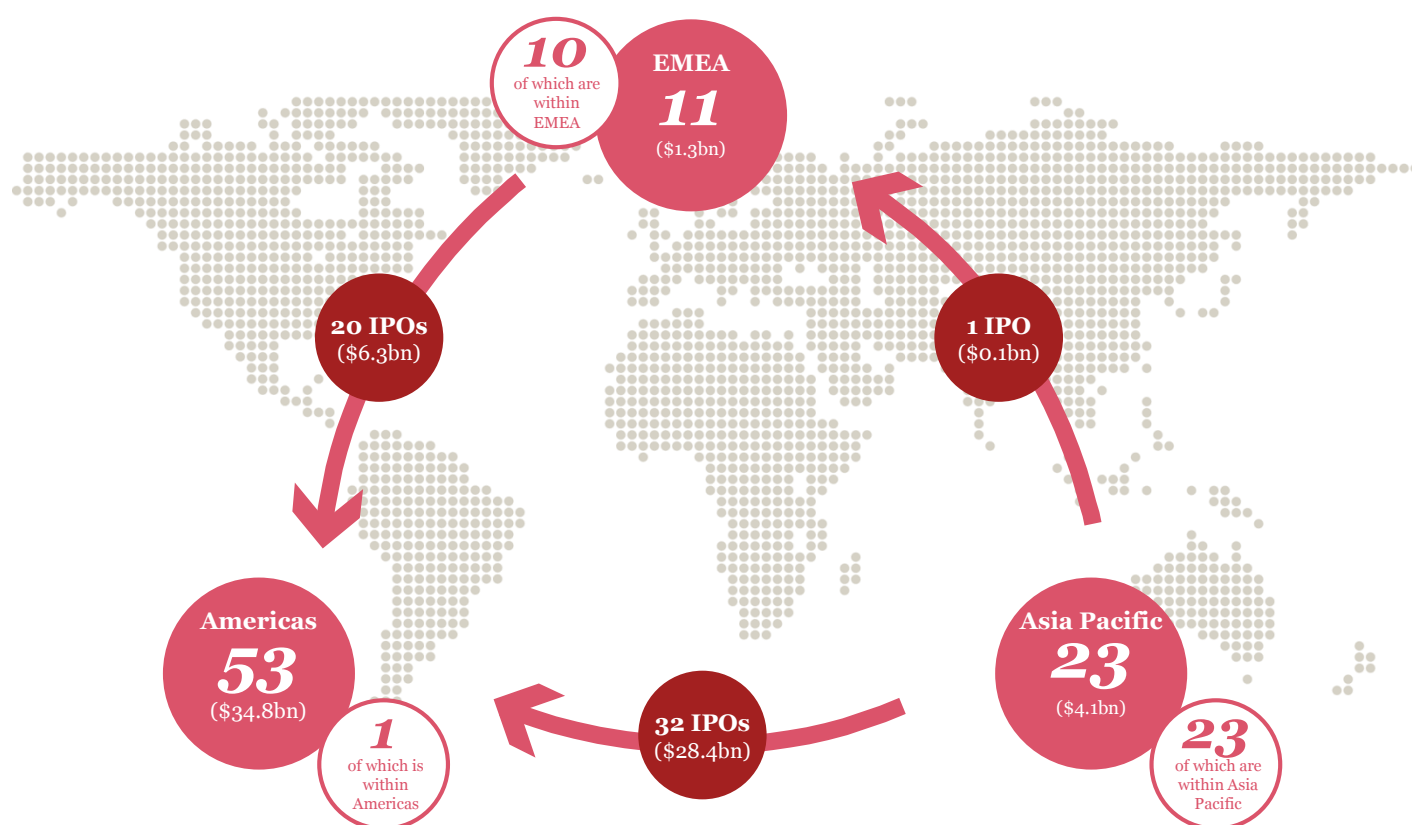
Though 2015 was the second best year for technology IPOs in the past five years (following a buoyant 2014), cross-border

activity was hindered by rising volatility levels and global economic uncertainties. The number of 2015 cross-border IPOs was less than half of those in 2014.

Whilst in some cases a cross-border listing may make sense (for example offering the best comparables and best valuation), it carries an additional layer of

complexity relative to listing on the home market and the implications need to be properly considered.

Cross-border technology IPOs 2011-2015 – the US dominates



“The decision as to where to list a technology business will depend on a variety of factors. Sometimes the location of comparable companies and their valuation will make a US listing an obvious answer – for example, for super high-growth or specialised businesses – or there can be circumstances when having a US-listed share currency is strategically valuable. For others the decision will be more finely-balanced, and there are good examples of large UK technology companies listing successfully on the home market and achieving an attractive valuation relative to global peers.”

James Anderson
Director, Equity Advisory at PwC

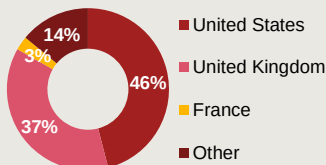
Where to list as a technology company?

Perspectives from technology issuers

ARM



- Leading semiconductor designer
- £14.6bn (\$21.6bn) market cap at 31 Dec 2015
- UK incorporated
- London listed (IPO in 1998)
- US ADR on Nasdaq (33% of share trading)
- ARM institutional investors:



Source: Thomson Reuters

Interview with Ian Thornton, Head of Investor Relations

ARM is often cited as the ‘poster child’ for a UK-based technology business which has had great success listed on its home market – would you go along with that description?

Well, whilst we’re UK primary listed, that doesn’t reflect the reality of our market position. We have a Nasdaq listed ADR (‘American Depositary Receipt’) which accounts for around a third of our share trading, though a number of US investors can and do trade the London-listed stock. We are now around 40% owned in the UK with around 40% owned by US investors, although at one point about 65% of our shares were owned by US investors.

Given the extent to which you are US owned, have you considered moving to a US primary listing?

The level of US ownership – and the strong share price performance – is indicative of the fact that being UK listed hasn’t disadvantaged us. In part this reflects a considerable investment of time on my part (as IR head) on the road in the US, as well as regular management roadshows at least twice a year. Of course there are some US funds who could own more ARM shares if our primary listing was in the US, but most big funds have global teams, and so location of primary listing is less of an issue.

Are there differences in investor and analyst sophistication between the UK and US?

In our case we have a group of very well-informed UK-based sell-side analysts who cover us, and who are very much alive to the issues and the global competitor landscape. As far as the investors go, I wouldn’t make a huge distinction between the level of knowledge and sophistication that we encounter – on both sides of the Atlantic you have a combination of generalists and specialists, and the level of understanding in the UK has improved.

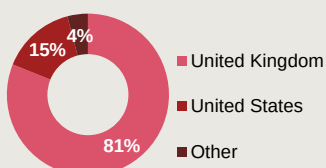
In what circumstances would you advise a business to list in the US?

I think the key to success in the US is to be able to differentiate your company and your product from other European companies and US domestic companies. You are then more likely to get the attention of sector specialists in the US with the understanding to value you appropriately; also if you are differentiated you will stand out in a very busy market.

Sophos



- Leading IT security business
- £1.2bn (\$1.7bn) market cap at 31 Dec 2015
- UK incorporated
- London listed (IPO in 2015)
- No US ADR at present
- Sophos institutional investors:



Source: Thomson Reuters

Interview with Nick Bray, Chief Financial Officer

Sophos recently priced a very successful IPO on the London Stock Exchange – to some extent bucking the trend of technology businesses listing in the US. What drove that decision?

Yes, it’s amazing to have undertaken what turned out to be the biggest tech IPO ever to have been priced on the London market and the whole transaction thankfully went very smoothly. We evaluated the pros and cons of both a US and a UK listing, and the decision to list in London came as the culmination of a long process of market testing and discussions with investors and banks. Above all we got ourselves comfortable – in part through early-stage marketing – that there would be a strong basis of investor support globally if we were to list in the UK. In the end from being a very finely balanced debate the question became ‘why not list in the UK?’

Did the choice of the UK in part reflect the growth profile of your business?

To some extent, yes – I think the US growth investors are looking for businesses that are at an earlier stage and in a supernormal growth phase. That was not where we were, though I can see that market being attractive in assigning value to high-growth niche businesses – if you are in that position, the US may be the right answer.

How did you interact with investors in the run-up to IPO?

We had a number of meetings and discussions with investors through a variety of forums from banking conferences through to one-on-one meetings, which got more formal as we got nearer to the IPO. It became clear that we had a good core basis of support, driven by a mixture of UK and US investors, and that a UK IPO would deliver us the demand we wanted. Having that tangible feedback was important – for the listing location discussion as well as a number of other features of the deal structure.

Did US tech specialists provide the leadership when you came to marketing the IPO?

Actually, no they didn’t. The core demand for the deal was very much UK-led, albeit some of those funds were global in nature. The major UK investors took the time to get to know us, understood the proposition, and now make up the bulk of the share register. That said, US demand was certainly important and very useful in building momentum in the book.

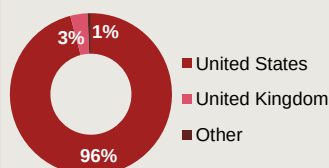
Where to list as a technology company?

Perspectives from technology issuers

Travelport



- Travel commerce platform
- £1.1bn (\$1.6bn) market cap at 31 Dec 2015
- UK incorporated
- NYSE-listed (IPO in 2014)
- No US ADR at present
- Travelport institutional investors:



Source: Thomson Reuters

Interview with Philip Emery, Chief Financial Officer (2006–2015)

Travelport is an interesting case study, having initially considered a UK IPO and then ultimately listing in the US. What drove these listing decisions?

Travelport is a large international business with offices in 180 countries and headquarters in the UK. At the time we considered the UK IPO (early 2010), London seemed the more natural fit. This was also supported by the valuation differential between the UK and the US. Throughout that year the market was significantly impacted by periods of macroeconomic volatility and despite having undertaken the marketing process we withdrew our UK IPO. In the following years, the shareholder base and the financial characteristics of the business evolved, as did the valuation landscape, such that the US became an increasingly attractive market, and we subsequently completed our IPO on the NYSE in September 2014.

What differences did you observe between the process of selling an IPO in the US and UK?

There is certainly a very different approach to educating the market between the two listing venues. In the UK early-look meetings with investors were common practice whereas in the US this was much more restricted. Another difference is the interaction with the banks' research analysts: in the UK pre-deal research was published and marketed, which we didn't have in the US – the prospectus and IPO roadshow were the key means of conveying our story to investors. That meant we had to invest significant time prior to the roadshow educating the research analysts to understand the complexities of the international travel market as their knowledge was essentially limited to the domestic US travel market! A further difference is that in the US we shared our forecast model with the research analysts, which we were not permitted to do in the UK – we could only provide historic numbers and limited guidance to allow the analysts to draw sensible conclusions on the projections.

How easy is it to service a US listing with your headquarters in the UK?

So far it's proved to be easily manageable! Firstly we work around the time difference with the US (we schedule most investor calls in the afternoon or early evening). Additionally, we travel regularly to the likes of New York, Boston, Toronto and San Francisco to meet with investors. Research coverage of Travelport is expanding and a few of the investment banks in the UK who cover one of our major European peers are now looking at us too. Sarbanes-Oxley (SOX) compliance is another factor with the US listing and does involve further additional costs and a dedicated individual within the team. That said, we have used the SOX regime to our advantage in further strengthening our financial controls framework across the business.



When is the right time for your IPO?

An IPO is a defining event in the lifecycle of a business, bringing very profound change.

Not only is the process itself very demanding for the management team, but the new world of 'being public' and operating with a live share price makes a considerable difference to how your business is managed and how it communicates.

There are, of course, a number of potential advantages to being listed, not least the access to a very substantial capital pool to accelerate growth. However, careful thought needs to be given as to when is the right time to make the transition.

Does an IPO deliver the optimal cost of capital?

Founders and CEOs are rightly focused on **reducing the cost of capital** and minimising **dilution**. An IPO therefore needs to be weighed up against the range of alternatives available across the capital structure, from more traditional sources of debt funding through to angel investors, venture capital, and crowdfunding. Pre-IPO investors are likely to seek a return in excess of public investors due to higher risk and the **degree of uncertainty** of their investment, but against this should be weighed the benefit of not having to undergo the cost and difficulty of regular public reporting; and also the potential non-financial contribution and input from experienced early-stage investors.

Is the equity story sufficiently robust for public market investors?

Investors have participated in IPOs for technology businesses even at relatively early stages of growth, so there are no hard and fast rules here. However, in order to succeed there needs to be a degree of **stability around the core equity story**. Is there a clear **proof of concept**? Is the growth clearly sustainable? Is there a well-founded and credible **path to profitability**? Will the company have the flexibility it needs to grow and develop under the **constraints of reporting** to the market on a regular basis?

Is the business fully ready for the market?

Going public and being a listed company will impose a range of demands and constraints on the business. Even in less regulated markets such as London's AIM market, it will be important to ensure that the **systems and controls** are in place to report regularly (quarterly in the US, 6-monthly in the UK) and to be able to ensure the market is fully informed at all times. This needs to be reviewed before proceeding with the IPO and can require a degree of **investment** in order to effect the corporate 'evolution'. In the case of a US listing there is the additional requirement to comply with the Sarbanes-Oxley (SOX) regime with regard to internal controls and governance.

"Whilst some of today's entrepreneurial companies have aspirations to IPO, others are staying private for longer, or have even discounted listing altogether. This is particularly apparent in the UK fast growth space where Venture Capital has been available for the right businesses and valuations have been increasing.

In addition, UK fast-growing tech companies can now take advantage of different sources of private capital such as peer-to-peer lending and crowdfunding and even the banks are lending more to such businesses than they used to because they see their growth potential and the banks' attitudes to risk appear to have softened.

However, some of these alternative finance options will not serve the need of businesses as they scale up and when a number of companies reach a certain scale and stage in their development: joining a public market may be the natural next step."

Brian Henderson

Partner, Fast Growing Companies Leader at PwC

What are the key drivers for choosing your listing venue?

The decision as to where to list any business brings in a broad range of considerations.

Typically the primary motivation is to maximise the value which can be achieved at IPO, which will be a function of a number of elements including listed peers, research coverage and support, investor participation and liquidity. For many technology companies, particularly those in a very fast-growth phase, this may require considering a range of

international exchanges, often including the US (NYSE or Nasdaq) and the UK (London Main Market or AIM).

In addition to valuation-specific considerations there is a range of broader factors which will have a significant bearing on the decision: where does the company do its business? Where are its customers, employees and executive management located? How easy will it be to service a listing in another jurisdiction and in a different time zone?

Critically, the listing venue needs to offer a sustainable environment to the business and should benefit all the stakeholders in the long term.

Core drivers of value

Comparable companies

- What are the best peers?
- Where are they listed?
- How easily can they become the 'reference' comparables for valuation?

Investor base

- What is the core target investor base for a company like yours?
- If you are very niche, will you be able to access sufficiently specialist investors who will ascribe value to your business?
- If you are growing very fast, will you be able to access investors with a long-term horizon who will give you best value?

Research analysts

- Who would be the analysts covering your company?
- Who else do they cover?
- Do they have real depth of expertise on your business model, markets and peers?

Market depth and liquidity

- Can you access a deep pool of investor demand?
- Are you comfortable that your stock will trade well once listed?

Other key issues

Location of business

- Where are your operations and employees?
- Where are your customers?
- Where are your headquarters?

Ease of servicing your listing

- Do you have the infrastructure to support an overseas listing?
- How much time is management prepared to spend on the road?
- Do you need to hire an overseas head of investor relations?
- What will be the impact of the stock trading in a different time zone?

Incorporation of the listed company

- What is the optimal tax jurisdiction for the incorporation of the listed company?
- What will this mean in terms of index inclusion on your market of choice?
- What are the implications for board composition and meeting locations?

Employee issues

- Is broad employee share ownership a key part of your culture?
- What will be required if the shares are denominated in another currency or trading on a foreign exchange?

What are the first steps on the road to a listing?

Establishing clear financial objectives for a listing

It is important to ensure that a decision to go public is clearly aligned to the objectives of the business. To what extent will an IPO be 'primary' – i.e. raising new money in order to finance and accelerate growth; or 'secondary', with existing shareholders monetising a part of their investment? Developing a crisp story around both of those elements will be important, as well as ensuring that investors see an alignment of interests between themselves, the management team, and the core shareholders (on the basis they retain a stake).

Refreshing your equity story and KPIs

As a management team you will very likely be familiar with giving the 'elevator pitch' to your business – whether through describing it in industry forums or through various pre-IPO funding rounds. It will be important to revisit the equity story for public market investors, and in particular to work out the proof points (internal or third-party) which will give them the confidence that your competitive position and forecast growth is on track and sustainable. This will have a direct bearing on the valuation multiple they will ascribe to you.

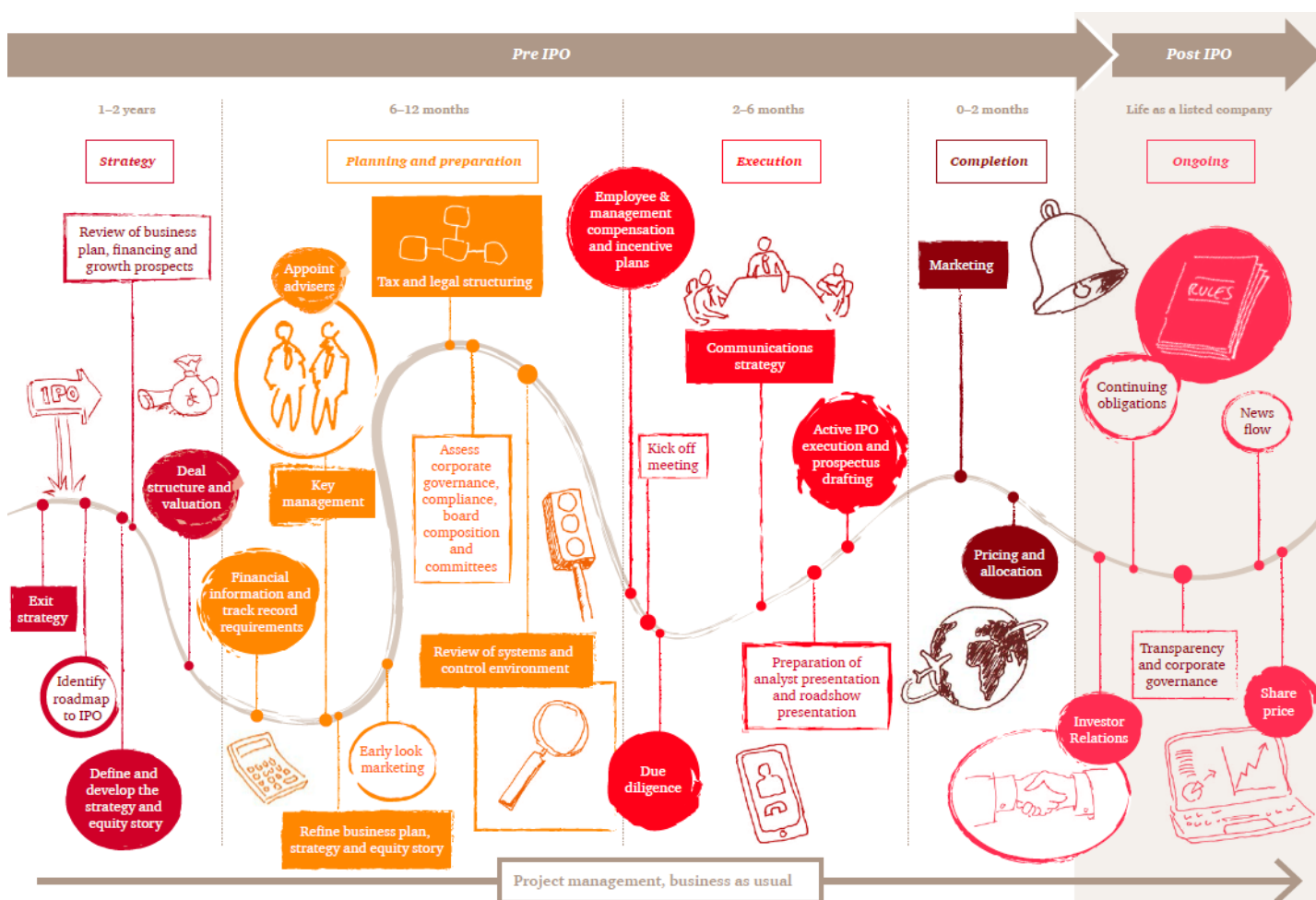
Getting the business ready

There are a number of items to consider in order to be ready for listing, many of which have a long lead-time. These range from governance (including internal controls and board composition) through to ensuring the tax and legal structure of the group will be suitable.

We can help you conduct an IPO readiness exercise which will enable a review of all of the key areas to consider to be fit for listing, and to identify key 'red flags' to address before listing.

The IPO Journey tool

By defining the different preparation stages, this tool will help you anticipate the IPO process. It is available at www.pwc.co.uk/ipojourney

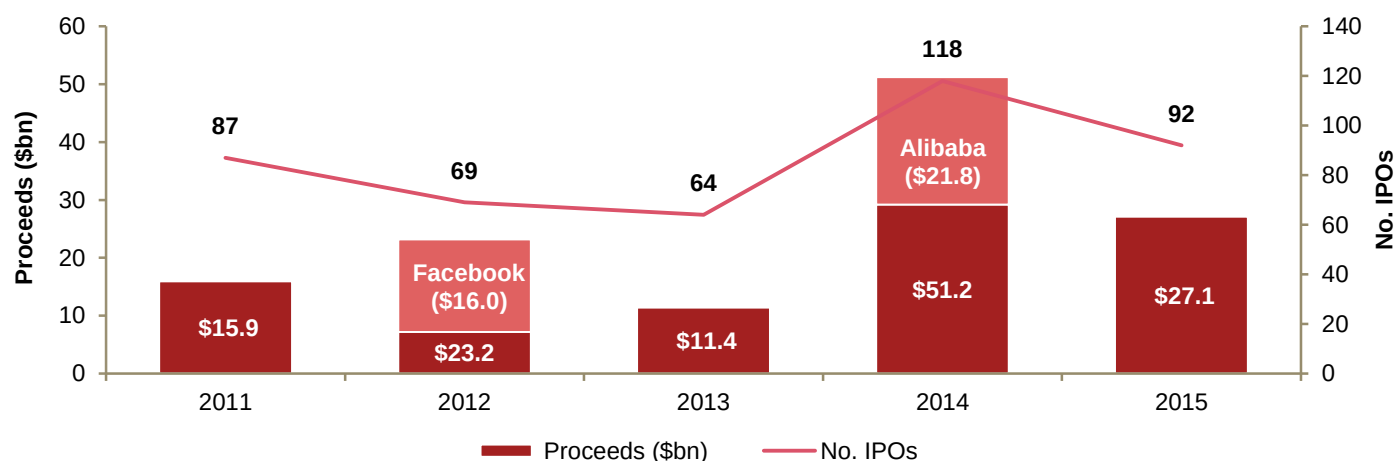


Technology IPO activity – 2011-2015 in review

Technology IPO highlights

The peak in activity in 2014 was driven by Alibaba which represented almost half of the proceeds in that year

Global technology IPO activity over the past five years



- **Rebound of Europe as a source of technology IPOs**
- **Broader geographical distribution of IPOs with 15 countries participating**
- **Internet Software and Services continuing as top subsector**
- **Abundant pre-IPO funding supporting a healthy pipeline**

Like the overall IPO markets, technology IPO activity encountered challenges in 2015. Uncertainties over the Federal Reserve's and European Central Bank's monetary policies and concern over the Chinese economy led to weak and volatile markets in the US and China. Further, a large unresolved disparity between public and private market valuations tempered technology IPO activity in the second half of the year.

Overall, 2015 represented 21% of both the number of technology IPOs (92) and total proceeds (\$27.1 billion) during the 2011-2015 period, just behind 2014 (40% and

27%, respectively). Though average proceeds were higher in both 2012 (\$336 million) and 2014 (\$434 million), owing to the mega Facebook and Alibaba IPOs, 2015 included a number of big-ticket (\$1-billion-plus) offerings which resulted in average proceeds of \$295 million.

In 2015 Europe had its biggest year in a decade, delivering big-ticket IPOs and widespread geographic activity. Three of the five big-ticket technology IPOs in 2015 were from Europe, compared to two out of seven in 2014 and none in 2011, 2012 or 2013. Seven European countries participated in 2015: Denmark, Germany, Ireland, Italy, Poland, Sweden and the UK. The UK had a particularly strong year with two of the five 2015 \$1-billion-plus technology IPOs (AutoTrader in the first quarter and Worldpay in the fourth quarter), and 45% of the European technology offerings.

The Internet Software and Services subsector continued to cash in on strong investor sentiment with \$15.9 billion in proceeds and 40 listings in 2015. Tremendous upside from social media, e-

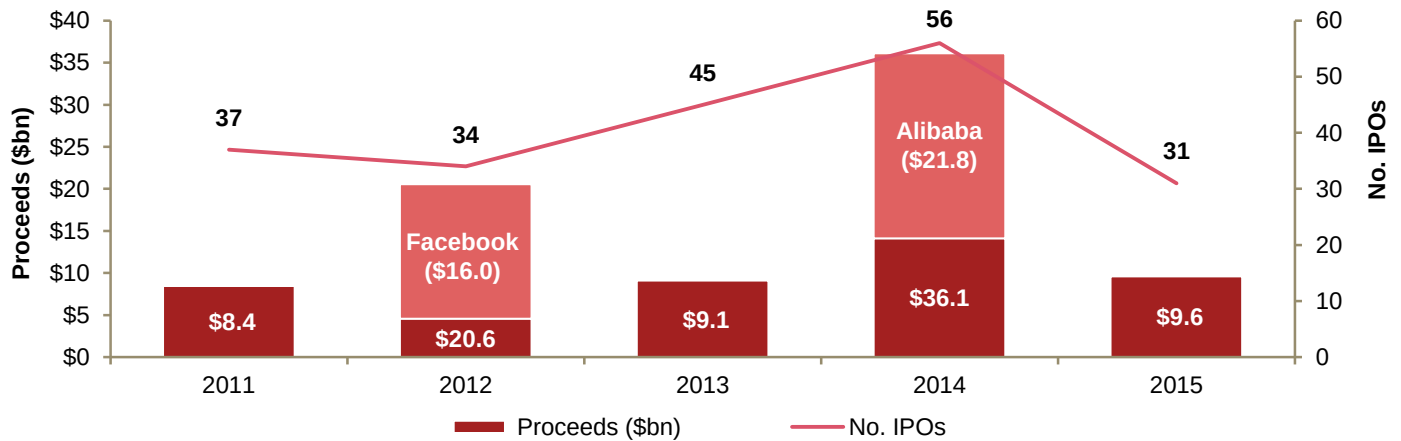
commerce, and online applications across industries boosted investors' confidence. The subsector contributed 59% of total proceeds and 43% of total offerings.

In terms of geographic distribution, the US continued to lead with \$8.4 billion in proceeds in 2015, followed by the UK at \$7.8 billion. China posted relatively low proceeds, reflecting a more cautious approach by investors and keener focus on valuations. In 2015, Shenzhen raised \$1.5 billion from 17 IPOs and Shanghai \$437 million from five IPOs.

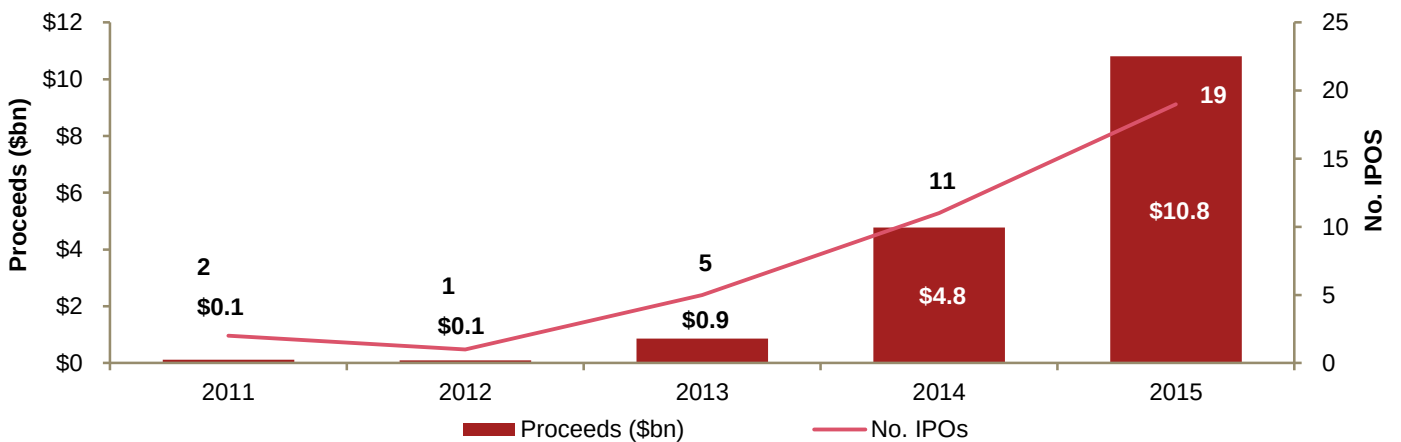
2011-2015 technology IPO activity by listing venue

Regional trends – The rise of the UK and Europe

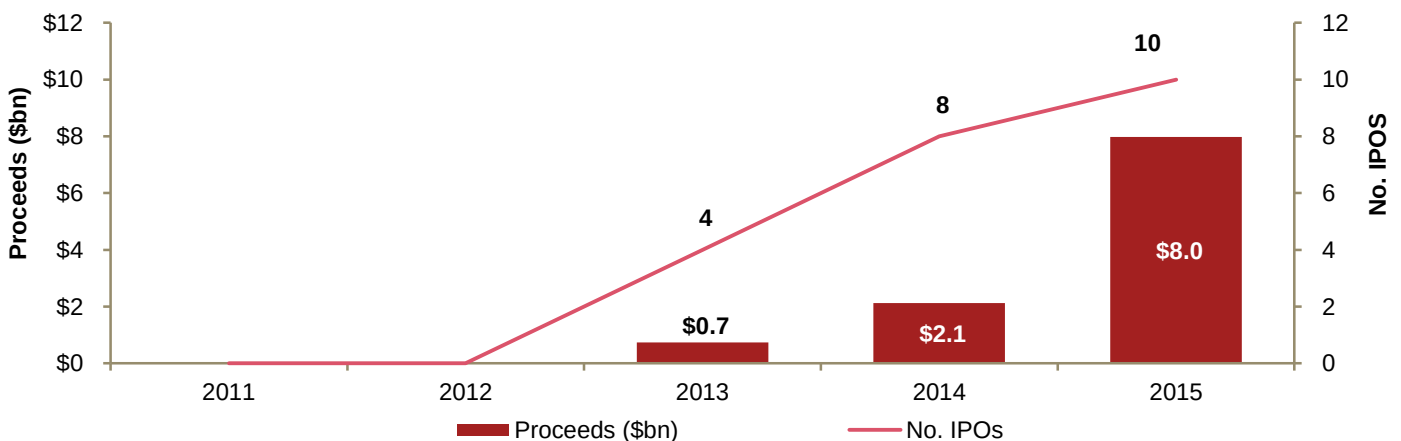
US technology IPO trends – 2011-2015



Europe (incl. UK) technology IPO trends – 2011-2015



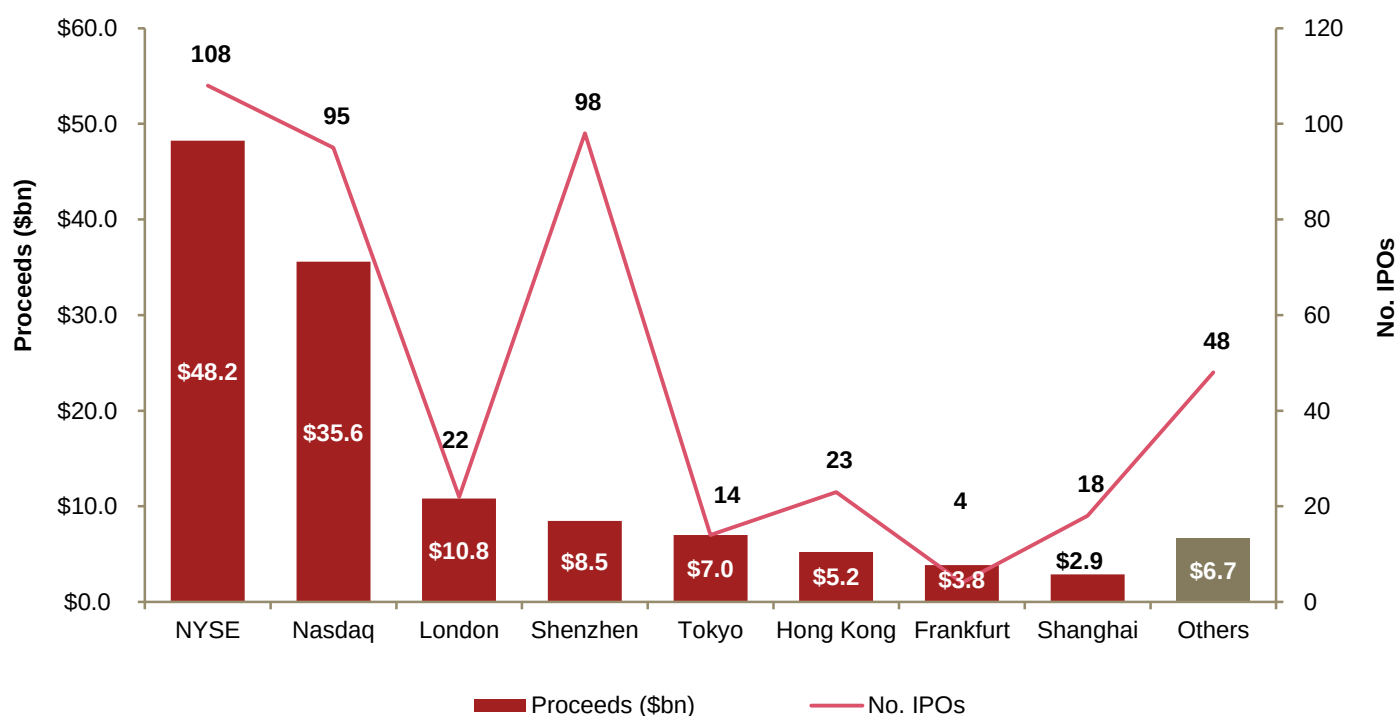
UK technology IPO trends – 2011-2015



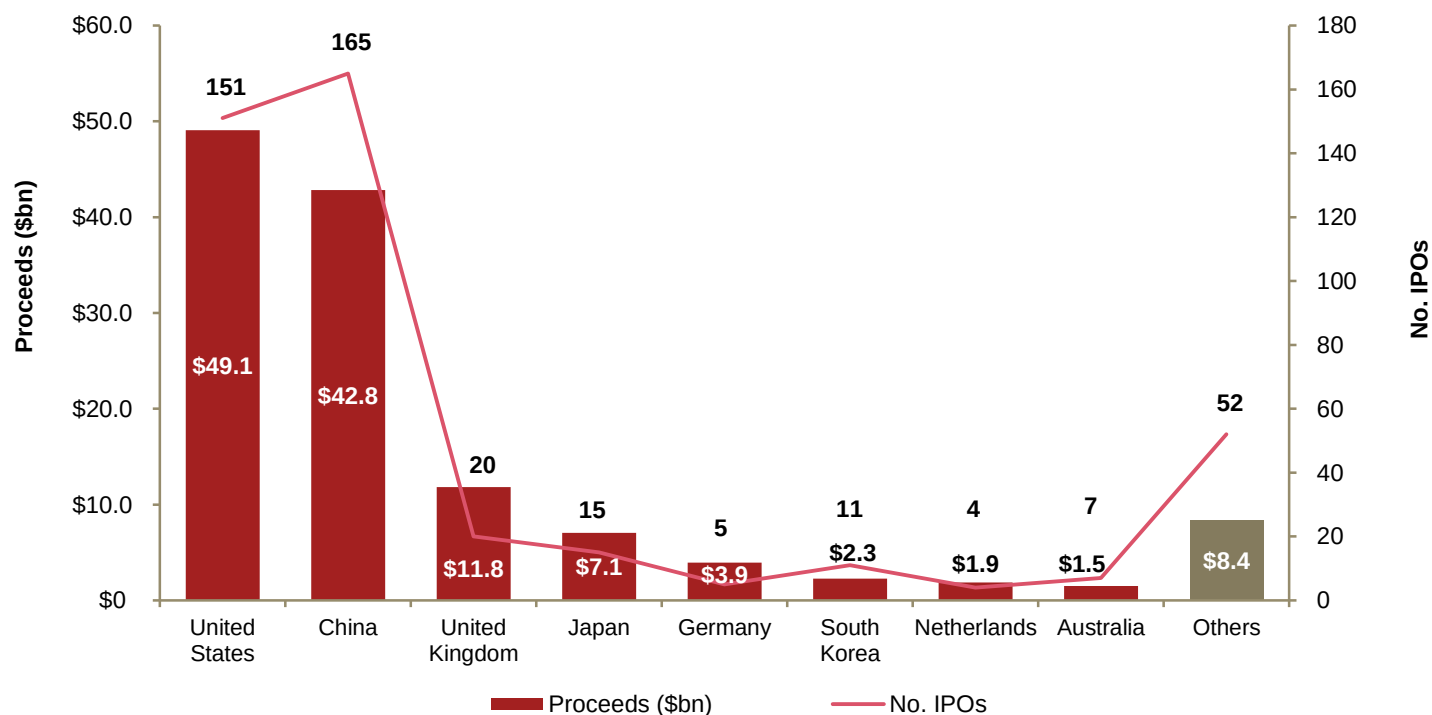
Technology IPO footprint

Whether by stock exchange or issuer nationality, the US has dominated over the past 5 years

Technology IPOs by stock exchange – 2011-2015



Technology IPOs by issuer nationality– 2011-2015



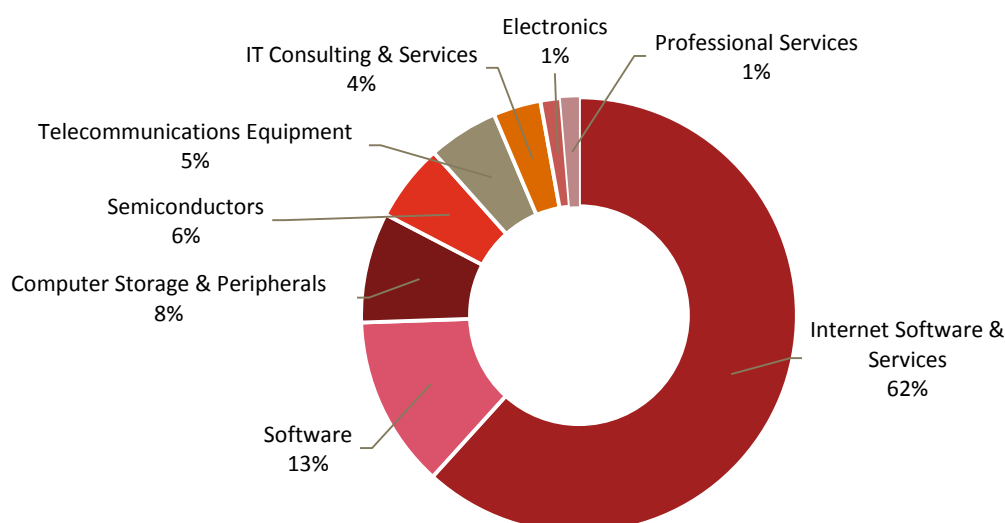
Top 10 technology IPOs and subsector breakdown

9 of the Top 10 technology IPOs are from the Internet Software and Services subsector

Top 10 technology IPOs – 2011-2015

Issuer	Proceeds (\$m)	Subsector	Exchange	Country of origin
Alibaba	21,767	Internet Software and Services	NYSE	China
Facebook	16,007	Internet Software and Services	Nasdaq	United States
Worldpay	3,842	Internet Software and Services	London	United Kingdom
Japan Display	3,084	Computer Storage and Peripherals	Tokyo	Japan
First Data Corporation	2,560	Internet Software and Services	NYSE	United States
AutoTrader	2,358	Internet Software and Services	London	United Kingdom
Twitter	1,820	Internet Software and Services	NYSE	United States
JD.com	1,780	Internet Software and Services	Nasdaq	China
Rocket Internet	1,764	Internet Software and Services	Frankfurt	Germany
Scout24	1,497	Internet Software and Services	Frankfurt	Germany

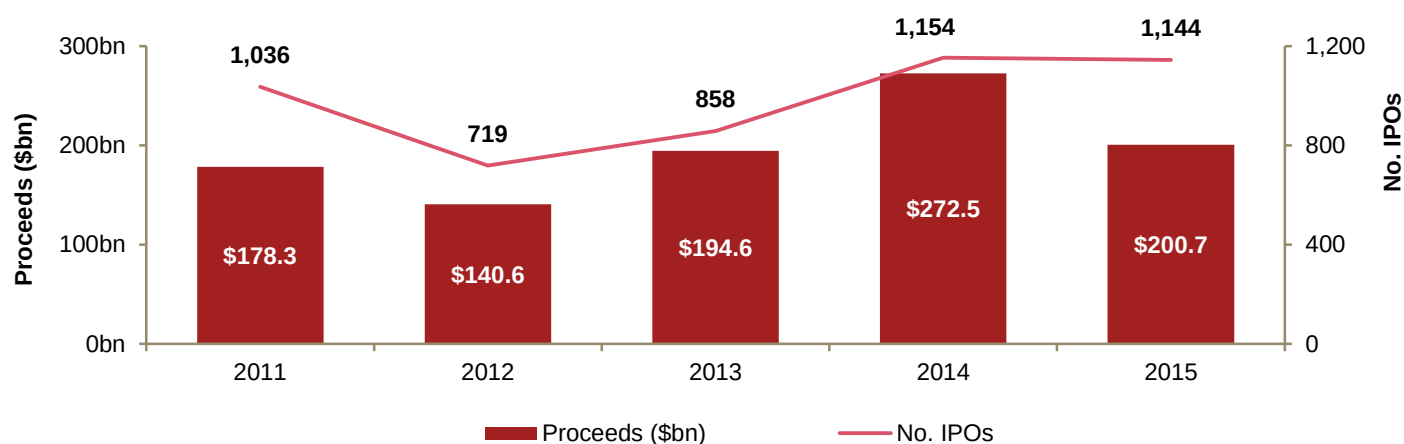
Technology IPOs subsector breakdown (by proceeds) – 2011-2015



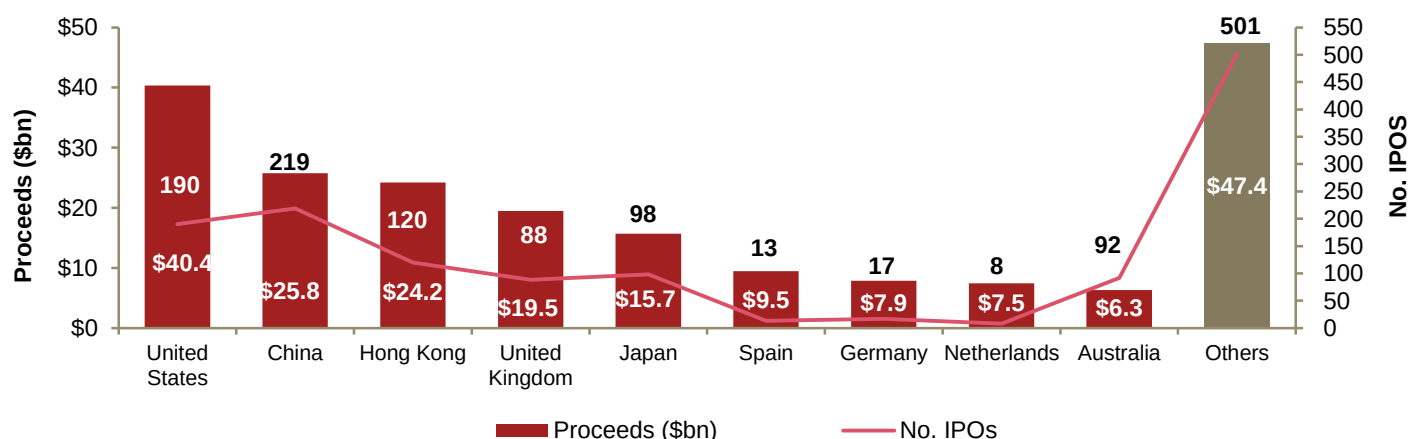
Global IPO activity – Technology in perspective

The relative decrease of technology IPO activity in 2015 is in line with the wider IPO market

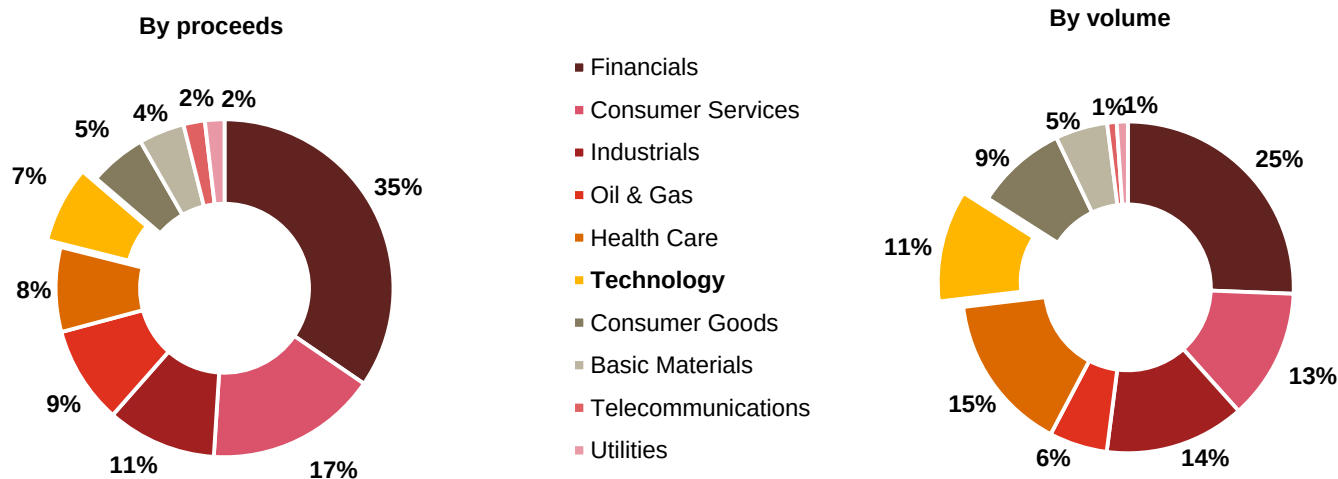
Global IPO activity trends – 2011-2015 (all sectors)



Global IPO activity by exchange nationality – 2011-2015 (all sectors)



Global IPO activity by sector – 2011-2015



Exchange factsheet

US – NYSE and Nasdaq

UK – London Main Market and AIM

NYSE and Nasdaq

Exchange overview

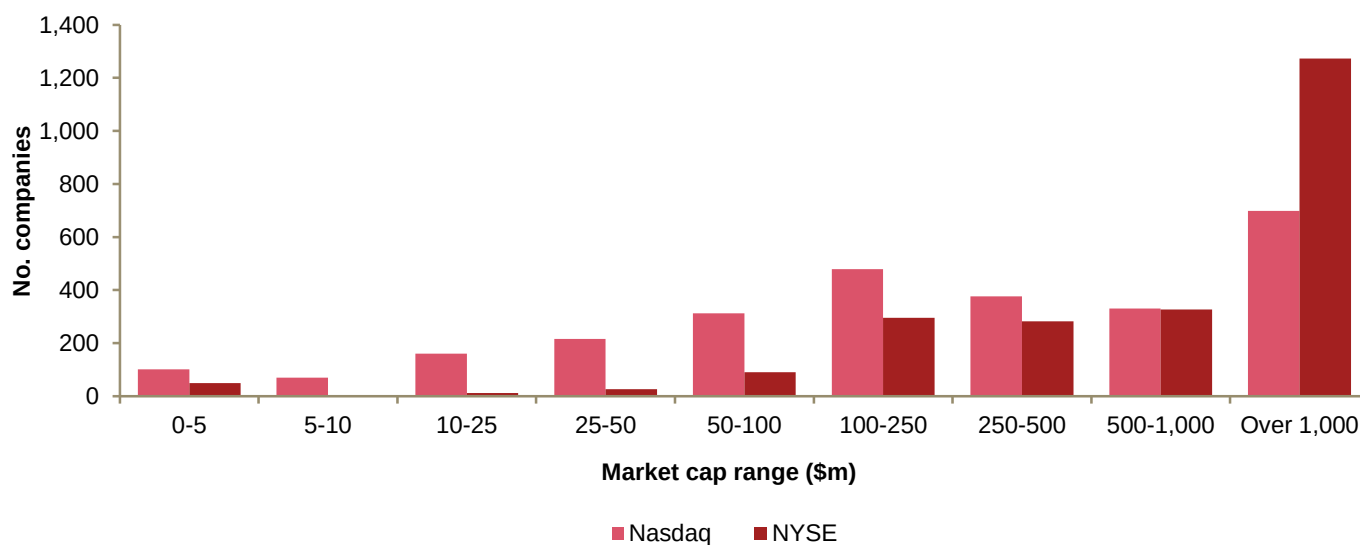


NYSE and Nasdaq are two distinct markets.

NYSE is by far the world's largest stock exchange by market capitalisation of its listed companies. The NYSE is owned by Intercontinental Exchange.

Nasdaq is operated by Nasdaq Inc. and traditionally attracts smaller, high growth companies seeking access to a public market.

Spread of companies by market capitalisation at 31 Dec 2015 – Nasdaq and NYSE

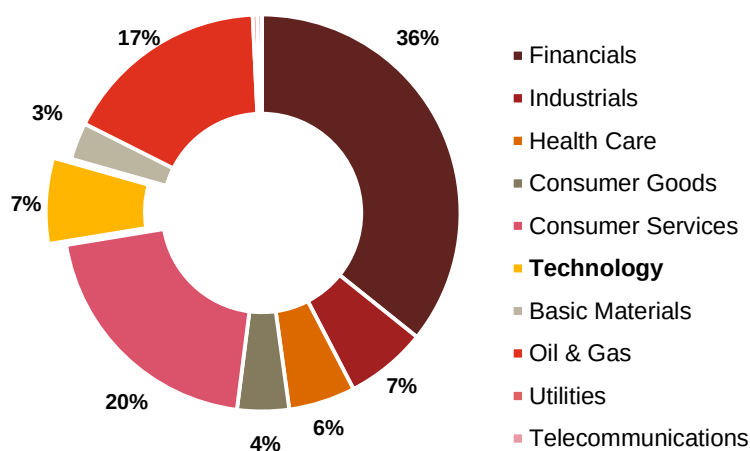


NYSE and Nasdaq

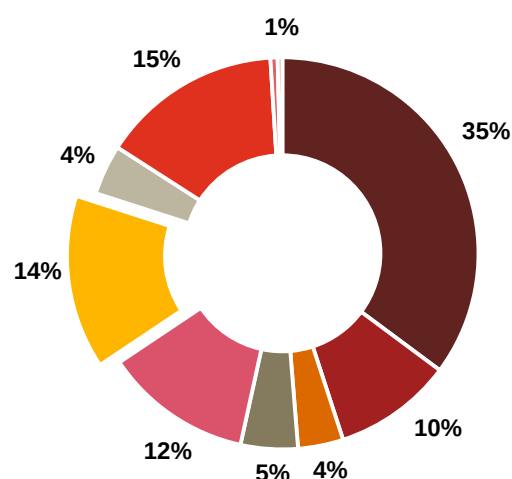
IPO activity 2011-2015 – Sector trends

NYSE

IPO proceeds by sector (%)

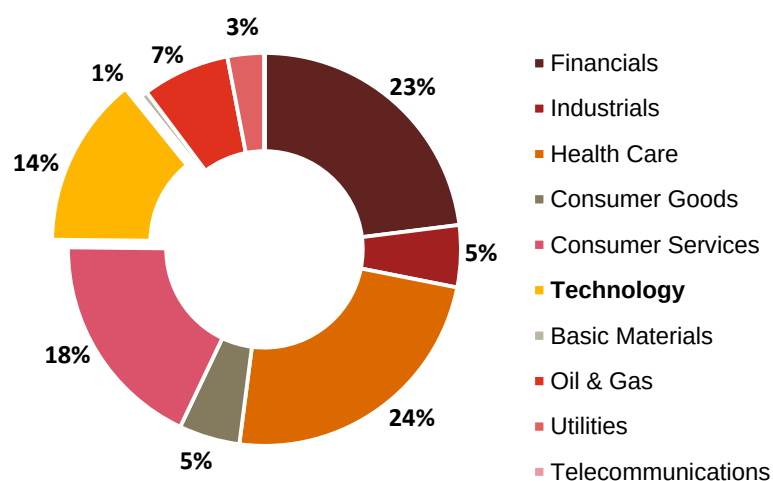


Number of IPOs by sector

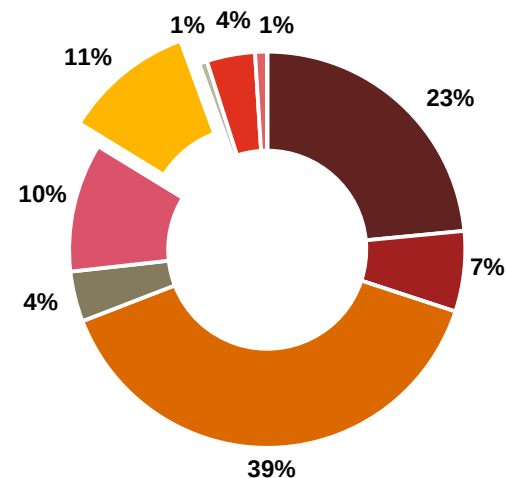


Nasdaq

IPO proceeds by sector (%)



Number of IPOs by sector

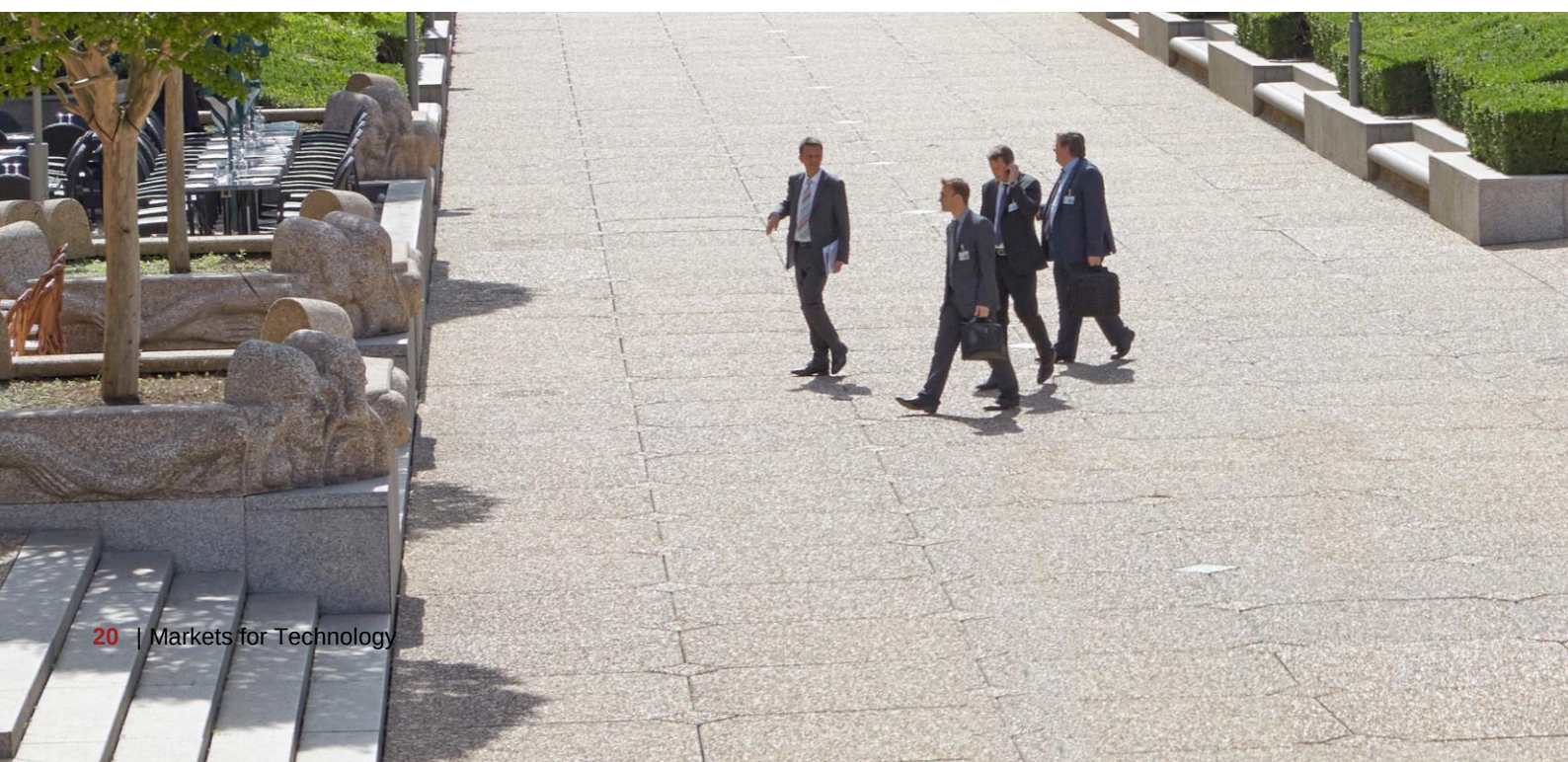


NYSE and Nasdaq

Top 5 technology IPOs 2011-2015

NYSE				
Date	Issuer	Proceeds (\$m)	Subsector	Country of origin
Sep-14	Alibaba	21,767	Internet Software and Services	China
Oct-15	First Data Corporation	2,560	Internet Software and Services	United States
Nov-13	Twitter	1,820	Internet Software and Services	United States
Apr-14	IMS	1,495	IT Consulting and Services	United States
Jul-14	Mobileye	890	Software	Israel

Nasdaq				
Date	Issuer	Proceeds (\$m)	Subsector	Country of origin
May-12	Facebook	16,007	Internet Software and Services	United States
May-14	JD.com	1,780	Internet Software and Services	China
May-11	Yandex	1,304	Internet Software and Services	Netherlands
Jun-14	Markit	1,283	Software	United Kingdom
Dec-11	Zynga	1,000	Internet Software and Services	United States



NYSE and Nasdaq

The JOBS Act

Focus: the JOBS Act is designed to spur IPO activity

- The 'going public' process changed significantly with the April 2012 enactment of the Jumpstart Our Business Startups (JOBS) Act.
- The JOBS Act is designed to spur IPO activity by providing an on-ramp for certain companies, specifically called **emerging growth companies (EGCs)**, to access capital markets and raise capital through an IPO by reducing the reporting requirements. EGCs now feature prominently in the IPO world representing over 80% percent of the IPOs filed.
- Principal goal is to increase American job creation and economic growth.
- The 2 main thrusts of the Act are to:
 - create an 'IPO on-ramp' which reduces the filing and disclosure burdens associated with undertaking an IPO; and
 - provide for easier and broader access to capital markets.
- **EGCs** are broadly defined as:
 - < \$1 billion in gross revenue;
 - < \$1 billion in issues of non-convertible debt in a 3-year period; and
 - generally <\$700 million in public float (not a large accelerated filer).
- The JOBS Act applies to EGCs for a maximum of five years.



NYSE and Nasdaq

Eligibility requirements

	NYSE	Nasdaq
Financial eligibility test	Meet one of the financial criteria: i) Earnings test Income before tax from continuing operations and after minority interest, amortisation and equity in the earnings or losses of investees (subject to certain adjustments) must total at least: \$10m in the aggregate for the last three fiscal years, together with a minimum of \$2m in each of the two most recent fiscal years, and positive amounts in all three years or - if the company had a loss in the third year, then \$12m in the aggregate for the last three fiscal years, together with a minimum of \$5m in the most recent fiscal year and \$2m in the next most recent fiscal year. ii) Earnings test for EGCs Income before tax from continuing operations and after minority interest, amortisation and equity in the earnings or losses of investees (subject to certain adjustments) must total at least \$10m in the aggregate for the last two fiscal years, together with a minimum of \$2m in both years. iii) Global market capitalisation test Issuer must have at least \$200m in global market cap.	Meet one of the financial criteria: i) • Minimum income from continuing operations before income taxes of: \$11m over the prior three fiscal years in aggregate, and \$2.2m in each of the two most recent fiscal years, and - Positive income from continuing operations before income taxes in each of the prior three fiscal years. ii) • Minimum total revenue in the previous fiscal year – \$110m, - Minimum average market cap over the prior 12 months – \$550m, - Minimum cash flows of \$27.5m over the prior three fiscal years in aggregate, and - Positive cash flows in each of the prior three fiscal years. iii) • Minimum total revenue in the previous fiscal year – \$90m, and - Minimum average market cap over the prior 12 months – \$850m. iv) • Minimum average market cap at the time of listing – \$160m, and \$80m of total assets and \$55m of stockholders' equity in the most recent publicly reported financial statements.
Audited history	3 years audited accounts - For emerging growth companies (EGCs) under the JOBS Act, 2 years of audited financial statements are permitted	3 years audited accounts - For emerging growth companies (EGCs) under the JOBS Act, 2 years of audited financial statements are permitted
Applicable GAAP	US GAAP or IFRS.	US GAAP or IFRS
Min free float (or public float)	\$40m for IPOs \$100m for all other listings	1,250,000 shares \$45m market value of publicly held shares or market value of publicly held shares and stockholders' equity

NYSE and Nasdaq

Eligibility requirements

	NYSE	Nasdaq
Special criteria for foreign issuers	A Foreign Private Issuer (FPI) is: - A foreign (non-US), non-governmental issuer 50% of outstanding voting securities or less held by US residents – if more than 50%, must not: - have a majority of its directors or executive officers who are US residents - have more than 50% of its assets located in the US - administer its business principally in the US - Domestic listing standards apply to FPIs that raise at least \$40m in the US. In certain circumstances, FPIs could meet the standards using their home market shareholders. - Different minimum distribution requirements, market value requirement and financial standards are applied (5,000 round lot shareholders, at least 2.5m publicly held shares worldwide). - Must register the class of securities it intends to list with SEC by filing a registration statement.	A Foreign Private Issuer (FPI) is: - A foreign (non-US), non-government issuer. 50% of outstanding voting securities or less held by US residents – if more than 50%, must not: - have a majority of its directors or executive officers who are US residents - have more than 50% of its assets located in the US - administer its business principally in the US - Must register the class of securities it intends to list with SEC by filing a registration statement.
Periodic disclosure requirements	- Annual - Quarterly - FPIs: annual and semi-annual	- Annual - Quarterly - FPIs: annual and semi-annual
Major transaction pre-approval by shareholders	- Issuances resulting in a change of control - Equity compensation plans - Prior to the issuance of securities in any transaction to a director of the company, subsidiary, affiliate or other closely related person of a Related Party; or any company or entity in which the Related Party has substantial interest - Prior to the issuance of securities in any transaction if the voting power equals to or in excess of 20% of the voting power outstanding before the issuance (there are certain conditions when approval is not required for some above-mentioned issuances) - Not applicable to FPIs; subject to home country standards	- Acquisitions where the issuance equals 20% or more of the pre-transaction outstanding shares, or 5% or more of the pre-transaction outstanding shares in which a Related Party has a 5% or greater interest in the acquisition target - Issuances resulting in a change of control - Equity compensation - Private placements where the issuance (together with sales by officers, directors, or substantial shareholders, if any), equals 20% or more of the pre-transaction outstanding shares at a price less than the greater of book or market value.
Min No. shareholders	400 round lot (owning at least 100 shares) shareholders in the US	450 round lot (owning at least 100 shares) shareholders, or 2,200 total shareholders, or 550 total shareholders and average monthly trading volume over the past 12 months of at least 1.1m shares per month.

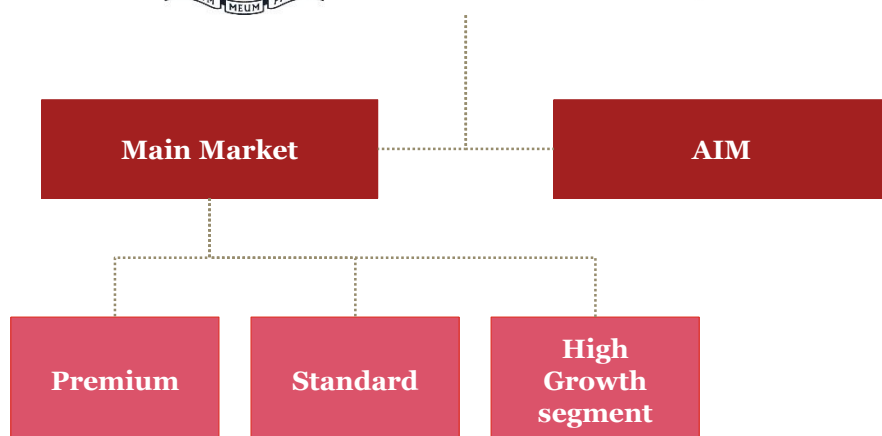
Note: For recent updates on the listing rules please refer to the stock exchange website

London Main Market and AIM

Exchange overview



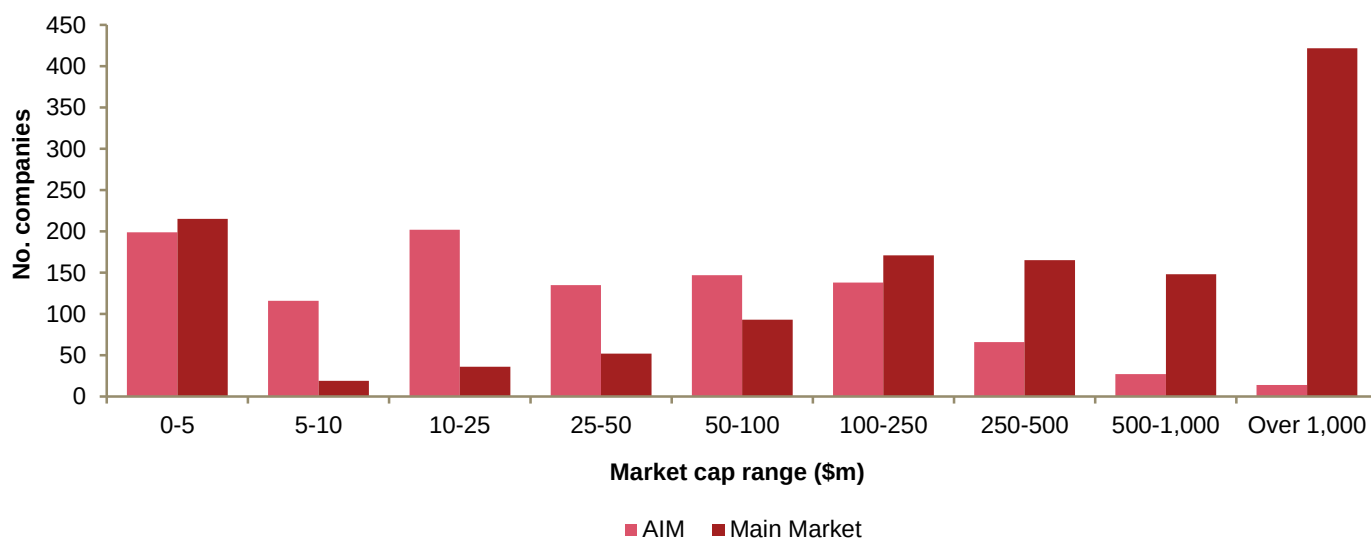
London Stock Exchange



AIM is the London market for small and medium enterprises seeking access to a public market.

The High Growth segment of the Main Market is designed to assist mid-sized European and UK companies that require access to capital and a public platform to continue their growth.

Spread of companies by market capitalisation at 31 Dec 2015 – London Main Market and AIM

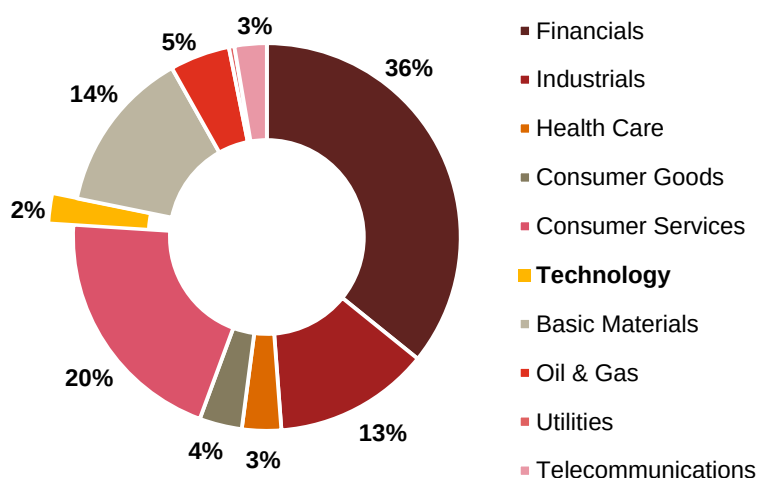


London Main Market and AIM

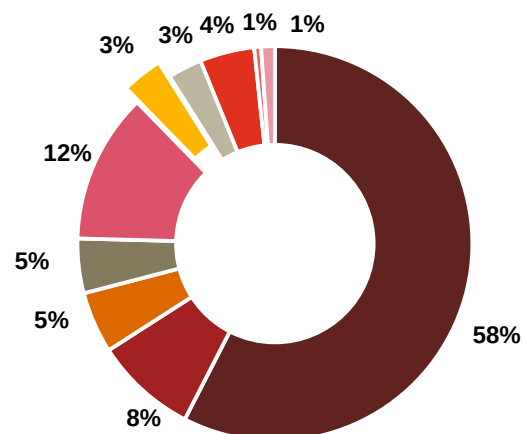
IPO activity 2011-2015 – Sector trends

London Main Market

IPO proceeds by sector (%)

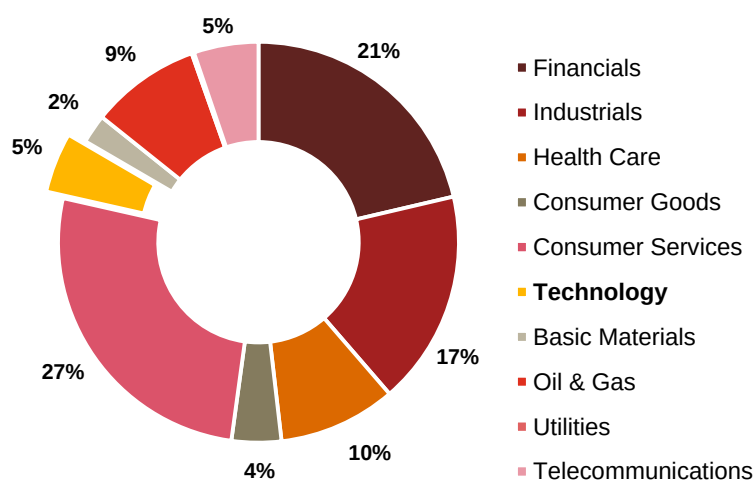


Number of IPOs by sector

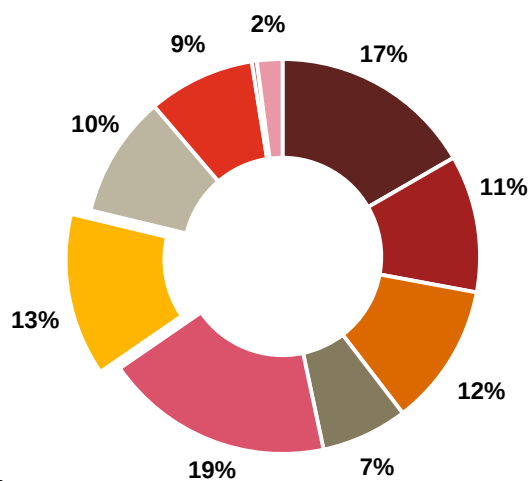


London AIM

IPO proceeds by sector (%)



Number of IPOs by sector

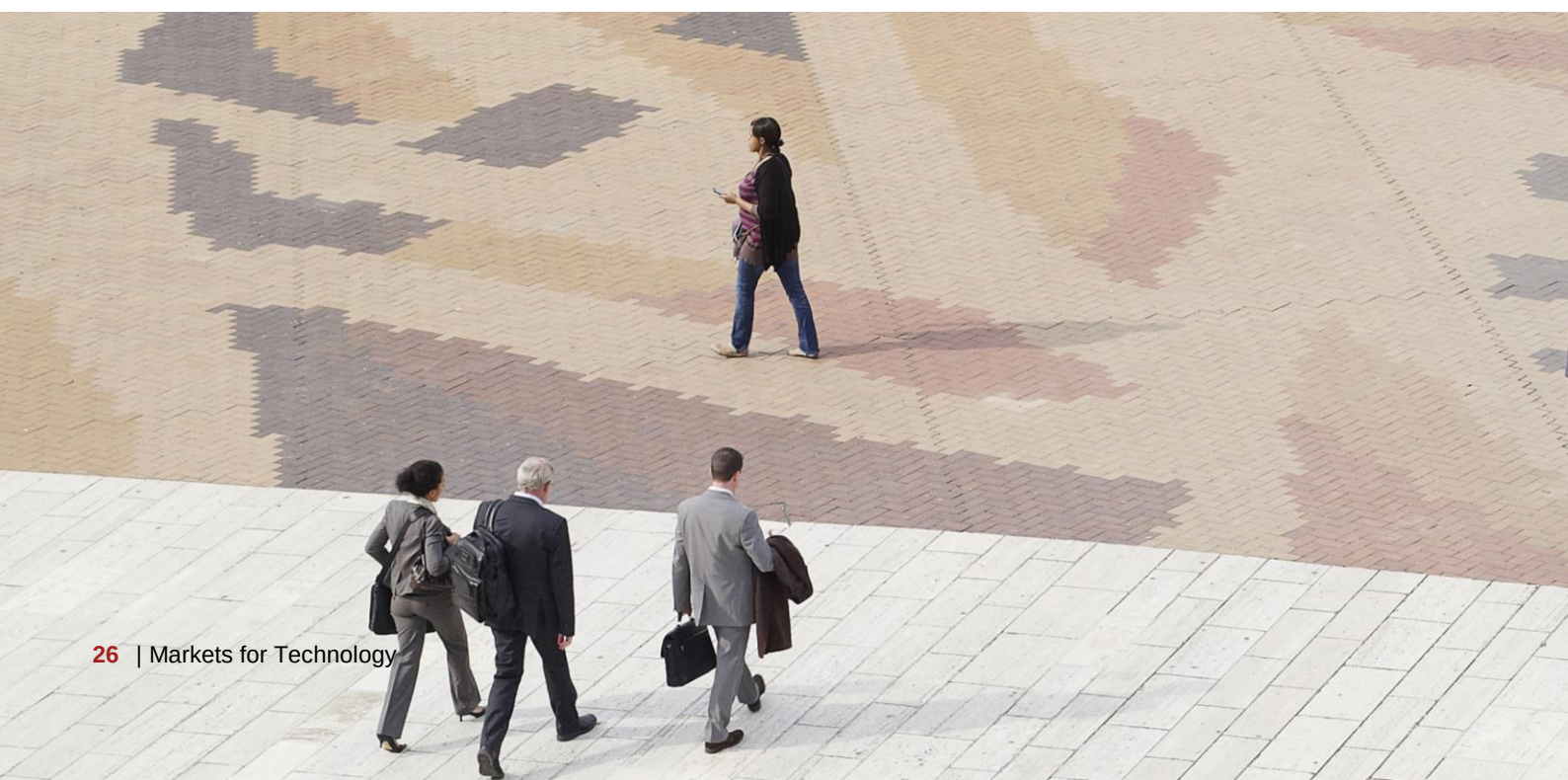


London Main Market and AIM

Top 5 technology IPOs 2011-2015

London Main Market				
Date	Issuer	Proceeds (\$m)	Subsector	Country of origin
Oct-15	Worldpay	3,842	Internet Software and Services	United Kingdom
Mar-15	AutoTrader	2,358	Internet Software and Services	United Kingdom
Jun-14	Zoopla Property	598	Internet Software and Services	United Kingdom
Apr-14	Just Eat	597	Internet Software and Services	United Kingdom
Jun-15	Sophos	554	Internet Software and Services	United Kingdom

London AIM				
Date	Issuer	Proceeds (\$m)	Subsector	Country of origin
Oct-14	Gamma Communications	133	Telecommunications Equipment	United Kingdom
Dec-15	Purplebricks.com	88	Internet Software and Services	United Kingdom
Sep-14	Crossrider	75	Internet Software and Services	Isle of Man
Jun-14	IMImobile	51	Internet Software and Services	United Kingdom
May-14	Marimedia	50	Software	Israel

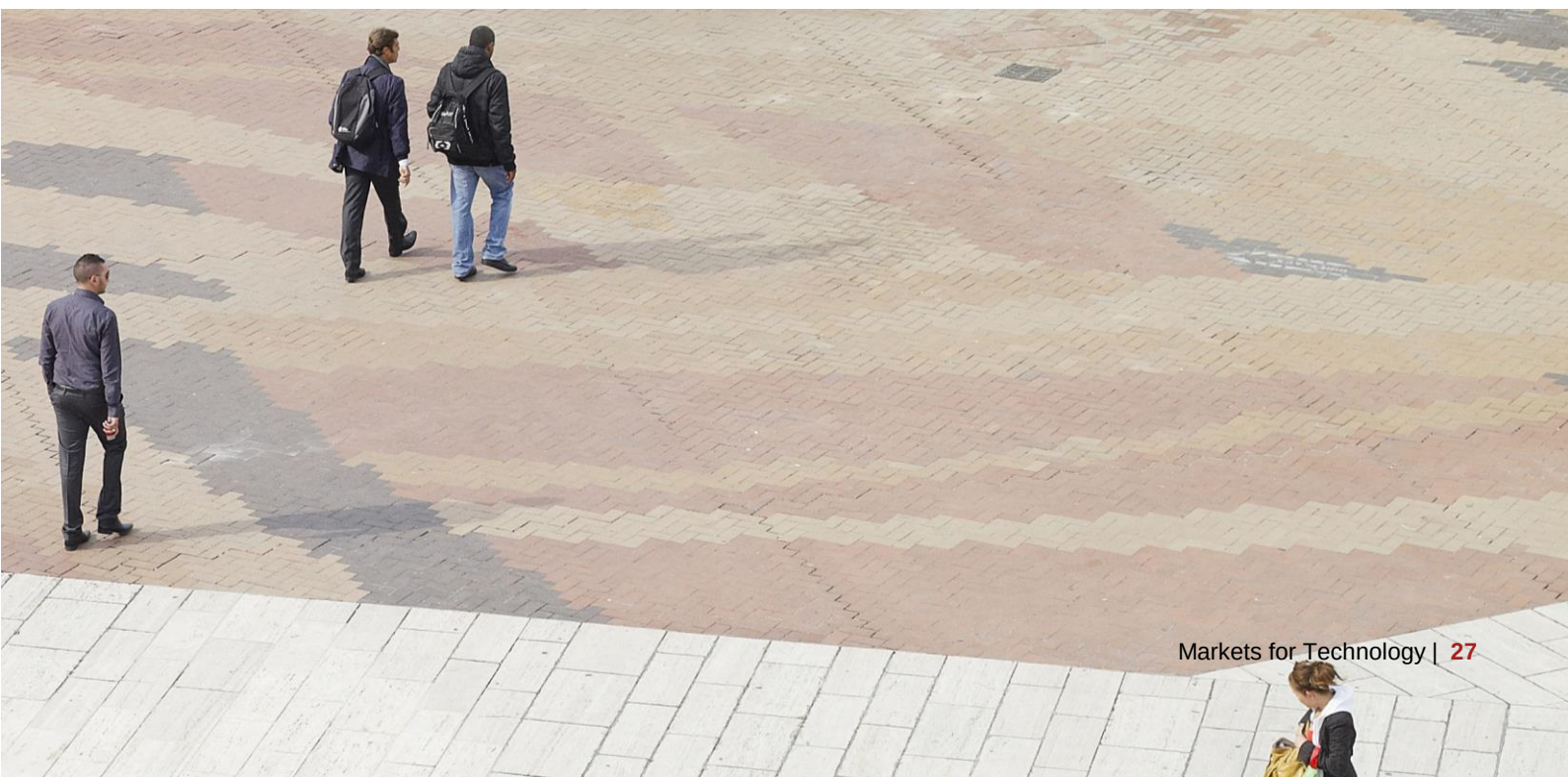


London Main Market and AIM

The High Growth segment of the Main Market

Focus: The High Growth segment of London Main Market

- It is a **launch pad** for European and UK companies that may not meet the eligibility criteria to join the Premium segment of the Main Market at the time of admission, in particular the **free float requirement**. They are larger than a typical AIM company, and have longer term aspirations to join the Premium segment of the Main Market.
- Companies enjoy the significant benefits of being listed on a London market – in particular gaining access to capital on an ongoing basis through a diverse and deep investor pool; ability to use shares as acquisition currency; access to an expert advisory community to help gain profile; and a regulatory framework that provides investor confidence without proving burdensome.
- To qualify for the **High Growth segment**, a company needs to be a revenue generating business with a historic revenue growth (CAGR) of at least 20% over a three-year period.
- **Relaxed free float requirement** at admission enables founder shareholders, including venture and private equity investors, to float a smaller percentage of the company at an earlier stage of development, as the company transitions from being private to becoming a public company.



London Main Market and AIM

Eligibility requirements

	Main Market <i>Premium segment</i>	Main Market <i>Standard segment</i>
Appointment of a sponsor	Required	Not required
Financial eligibility test	- At least 75% of the entity's business must be supported by a revenue earning track record for the three year period (some dispensation for specific industries e.g. mining) - Minimum market cap at admission – £700,000	Minimum market cap at admission – £700,000
Audited history	- Three years, subject to exemptions - Interim audited if document dated > 6 months after the end of the last audited year	- Three years audited, if available - Interim if document dated > 9 months after the end of the last audited year
Applicable GAAP	EU IFRS or IFRS equivalent for non-EU issuers	EU IFRS or IFRS equivalent for non-EU issuers
Min free float (or public float)	25% of class of shares listed	25% of class of shares listed
Working capital statement	Sufficient Working capital for at least 12 months from the date of prospectus	Sufficient Working capital for at least 12 months from the date of prospectus
Special criteria for foreign issuers	Non-UK incorporated companies must have more than 50% free float for FTSE UK series index inclusion	No requirement
Accountant diligence	- Comfort Letters - Long form report - FPPP¹ report - Review of pro forma and profit forecasts, if included - Working capital report	- Comfort Letters - Long form report - FPPP¹ report - Review of pro forma and profit forecasts, if included - Working capital report
Periodic disclosure requirements	- Annual - Half-year	- Annual - Half-year
Major transaction pre-approval by shareholders	Approval is required for significant (>25%) acquisitions and disposals and material (>5%) related party transactions	Only for reverse takeovers
Min No. shareholders	No requirement	No requirement

1. Financial Position and Prospects Procedures.

Note: For recent updates on the listing rules please refer to the stock exchange website

London Main Market and AIM

Eligibility requirements

	Main Market <i>High Growth segment</i>	AIM
Appointment of a sponsor	Required – Key Adviser	Required – Nominated Adviser (NOMAD)
Financial eligibility test	- Revenue generating business with historic revenue growth of 20% (CAGR) over a 3 year period - Value of securities in public hands > £30m	No requirement
Audited history	- Three years audited, if available - Interim if document dated > 9 months after the end of the last audited year	- Three years audited, if available - Interim if document dated > 9 months after the end of the last audited year
Applicable GAAP	EU IFRS or IFRS equivalent for non-EU issuers	EU IFRS or IFRS equivalent for non-EU issuers
Min free float (or public float)	10% of class of shares listed with a value of at least £30m	No requirement
Working capital statement	Sufficient Working capital for at least 12 months from the date of prospectus	Sufficient Working capital for at least 12 months from the date of the admission document
Special criteria for foreign issuers	EEA incorporated only	Fast Track may be available depending on the home exchange
Accountant diligence	- Comfort Letters - Long form report - FPPP¹ report - Review of pro forma and profit forecasts, if included - Working capital report	- Comfort Letters - Long form report - Review of pro forma and profit forecasts, if included - FPPP¹ report - Working capital report
Periodic disclosure requirements	- Annual - Half-year	- Annual - Half-year
Major transaction pre-approval by shareholders	Only for reverse takeovers	Only for reverse takeovers
Min No. shareholders	No requirement	No requirement

1. Financial Position and Prospects Procedures.

Note: For recent updates on the listing rules please refer to the stock exchange website

For more information

Capital markets and IPO publications



Which Market guide – London, New York, Hong Kong and Singapore

Choosing on which market to go public is not an easy choice. The brochure gives an overview of regulatory listing requirements in London, New York, Hong Kong and Singapore stock exchanges, with detailed information on markets features, listing eligibility conditions, advantages and challenges.



Listing in the US – NYSE and NASDAQ

Meant for companies which are considering raising capital in the US, this guide includes a description of the IPO process, stock exchanges' requirements, hints on how to choose the right market whether domestic or foreign issuer.



Executing a successful listing – London

This brochure summarises the different London markets, the listing standards for each of them, the process and timeline for going public in London as well as an overview of the wider regulatory environment.

Technology publications



Global Technology quarterly and annual IPO reviews

Global Technology IPO reviews are published on a quarterly basis. They survey technology stock market listings all over the world and provide a comparison by stock exchange, by subsector, as well as an analysis of cross-border IPOs and global trends perspective.



PwC Global 100 Software Leaders – Converging forces are building that could re-shape the entire industry

Released on a yearly basis, it continues PwC's tradition of monitoring and analysing the leading companies and trends in the software industry. It contains unique statistics on the number of large companies participating in the SaaS market as well as the proportion of revenue they derive from this form of cloud computing.



Mobile Innovations Forecast

PwC's Mobile Innovations Forecast is a three-part framework for analysing and understanding mobile innovation: 1- Enabling technologies; 2- New technological capabilities; 3- New use cases and business models. They are explored in periodic articles and raise business issues related with innovation.



China's impact on the semiconductor industry

An annual update of key growth figures for various sectors of the semiconductor industry in China. Driven by mobile computing and the Internet of Things, the next ten years are likely to witness a new breed of semiconductor companies competing for leadership in the global industry.

These publications are available at
www.pwc.co.uk/capitalmarkets
Find out more at www.pwc.com

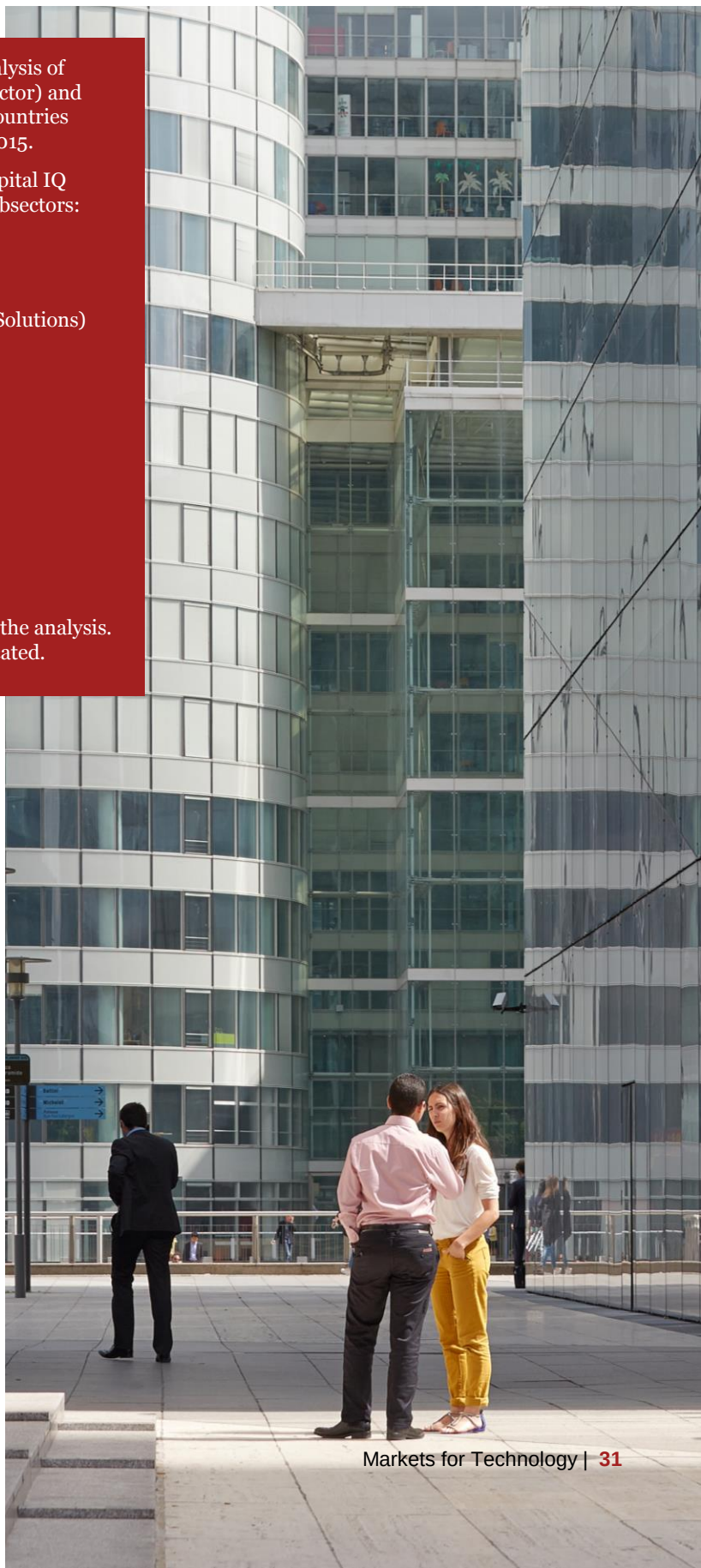
Methodology

The Markets for Technology publication is based on PwC's analysis of transaction data extracted from S&P Capital IQ (technology sector) and Dealogic (all sectors). The analysis considers IPOs across all countries worldwide during the period 1 January 2011 to 31 December 2015.

The definition of the technology sector is based on the S&P Capital IQ database industry classifications and includes the following subsectors:

- Internet Software and Services
- IT Consulting and Services
- Professional Services (e.g. Application Software, Software Solutions)
- Semiconductors
- Software
- Computer Storage and Peripherals
 - Computer, Computer Peripheral Equipment
 - Computer Storage Device Manufacturing
- Electronics (Electronic Computer Manufacturing)
- Telecommunications Equipment

Only IPOs with issue size greater than \$40m were included in the analysis. All monetary amounts are in US dollars unless otherwise indicated.





PwC contacts

Capital markets

China/Hong Kong
Kennedy Liu
 +852 2289 1881
kennedy.liu@hk.pwc.com

United Kingdom
Mark Hughes
 +44 20 7804 3824
mark.c.hughes@pwc.com

United States
Neil Dhar
 +1 646 471 3700
neil.dhar@pwc.com

Equity Advisory

United Kingdom
Peter Whelan
 +44 20 7804 0252
peter.whelan@pwc.com

James Anderson
 +44 20 7804 0392
james.s.anderson@pwc.com

United States
Daniel Klausner
 +1 646 471 5388
daniel.h.klausner@pwc.com

Technology leaders

Global
Raman Chitkara
 +1 408 817 3746
raman.chitkara@pwc.com

China/Hong Kong
JianBin Gao
 +86 21 2323 3362
gao.jianbin@cn.pwc.com

United Kingdom
Jass Sarai
 +44 18 9552 2206
jass.sarai@pwc.com

United States
Pierre-Alain Sur
 +1 646 471 6973
pierre-alain.sur@pwc.com

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PwC does not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

© 2017 PwC. All rights reserved. "PwC" refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

170816-175901-LD-OS