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# Global Technology IPO Review Q3 2017



## Global tech IPO activity slows in spite of record high capital markets



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\*Issue size greater than US\$40 million (includes overallotment) and based on trade date; See Methodology Welcome to the third quarter 2017 issue of PwC's Global Technology IPO Review. With 20 tech IPOs and proceeds of US\$5.2 billion, the third quarter saw a 31% drop in volume and a 15% decrease in proceeds from the prior quarter but an equal number of offerings and only marginally lower proceeds year over year (-3%). Even allowing for typical third quarter seasonality, however, the overall strength of the capital markets would have suggested a stronger showing. It is clear that poor aftermarket performance of several Unicorns that completed their IPOs earlier in the year did not foster an environment of higher risk taking and higher valuations, and this was especially true in the US. As a result, not only was there only one Unicorn IPO this quarter, it hailed from Argentina, not the US or China. However, activity did pick up in the last month of the third quarter with 13 of the 20 technology IPOs listing in September, setting a positive stage for an improved fourth quarter.

Year to date there have been 67 tech IPOs raising US\$17.1 billion – the best nine months since 2014 when 84 tech IPOs raised US\$43.7 billion, a spike in proceeds due to the mega Alibaba IPO.

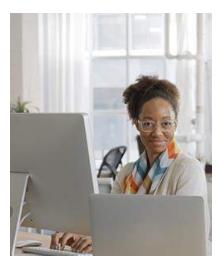
Geographically, Asia accounted for 80% of the tech IPOs (16) in the third quarter, lending additional credence to the widely held notion that "the center of gravity of the tech world is slowly moving towards the East." Greater China (China and Taiwan) continued its domination of tech IPOs with 11. It was followed by South Korea with three and Japan and India with one each. Europe posted the two largest tech IPOs of the quarter, but the UK was again absent as it continues to be challenged by transitional issues associated with the Brexit decision. Perhaps the biggest surprise of the quarter was just one tech IPO in the US. Consistent with past quarters, there was just one cross-border offering, Argentina's Despegar.com, the sole Unicorn of the quarter that listed on the NYSE.

In sharp contrast to preceding quarters, Internet Software & Services was number three this quarter raising US\$616 million from three IPOs. Electronics led the way with nine IPOs, including the largest of the quarter, raising a combined US\$3.6 billion. Software was second with four IPOs raising US\$718 million.

The macro environment remains positive for the IPO market owing to a robust pipeline and upbeat capital markets. With US and European elections behind us, and barring any unforeseen geopolitical turmoil, the tech IPO market is poised for a strong finish to the year.

Sincerely,

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### Q3 2017 Global tech IPO summary

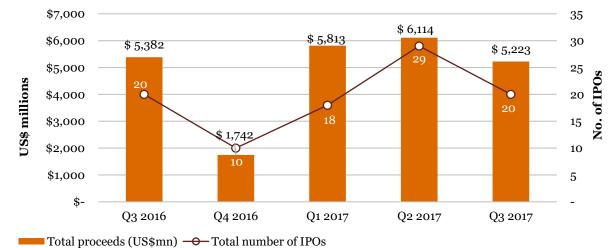
Lack of Unicorns and US tech IPOs dampen Q3 results, but improving activity at the close of the quarter sets the stage for a robust Q4

Following a positive first half of the year, Q3 2017 saw 20 IPOs with proceeds of US\$5.2 billion. Those were declines of 31% and 15% respectively from the prior quarter but only a 3% decline in proceeds from Q3 2016. The two largest tech IPOs of Landis+Gyr Group, AG and Rovio Entertainment helped to raise average proceeds to US\$261 million, higher than Q2 2017 at US\$211 million, but slightly below Q3 2016 at \$269 million.

Tech IPOs picked up steam in the latter part of the quarter which suggests a stronger yearend. There were 13 tech IPOs in September, of which 8 were listed in the second half of the month.

Asia had the largest number of tech IPOs with 16 IPOs, while Europe led the way in proceeds with US\$2.9 billion from just two tech IPOs. Rounding out the globe were the Americas with one tech IPO each in the US and Argentina.

Figure 1: Global tech IPOs Q3 2016-Q3 2017



Source: S&P Capital IQ with analysis by PwC



"Continued strength in global capital markets and a robust pipeline of quality companies suggests a strong finish to the year."

#### Raman Chitkara

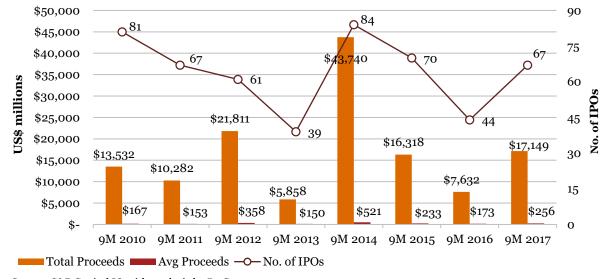
Global Technology Industry Leader

#### Global tech IPOs post best nine-month results in three years

The nine-month total and average proceeds in Q3 2017 were US\$17.1 billion and US\$256 million, respectively. These numbers were higher than the comparable nine-month periods in the past few years, except those that included the IPOs by Facebook (2012) and Alibaba (2014).

Compared to 2016, the proceeds grew by 125% and the number of tech IPOs rose 52%. The nine-month growth was led by three billion-dollar-plus IPOs (Snap Inc, Landis+Gyr Group, and Netmarble)

Figure 2: 9M 2010-9M 2017 total proceeds, average proceeds and no. of IPOs



# The Asian tech IPO market has been the bellwether three quarters in a row, accounting for 80% of the tech IPOs in Q3 2017

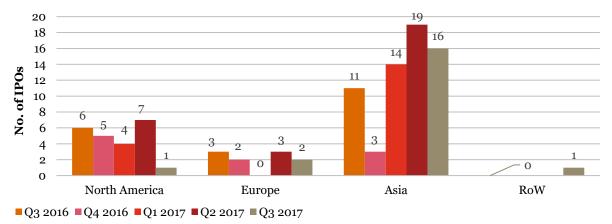
Ongoing demand for tech IPOs in China, continuing innovation in South Korea, and contributions from Japan and India led to stronger Asia numbers. A total of 16 IPOs garnered US\$1.7 billion.

Europe had the two largest tech IPOs of the quarter raising proceeds of US\$2.9 billion. Landis+Gyr Group, listed in Switzerland, raised US\$2.4 billion while Rovio, listed in Finland, raised US\$501 million. Once again, notably absent was the UK that continues to grapple with transitional issues associated with Brexit.

Challenged by the underperformance of several high-profile tech IPOs earlier in the year, the US recorded just one tech IPO raising US\$252 million.

We continue to see tech's center of gravity shift from West to East. Asia's nine-month numbers far exceeded North America. North America had 12 IPOs for a total of US\$5.6 billion, and Asia had 49 IPOs for a total US\$6.6 billion. Asia captured 73% of the tech IPOs during the first nine months.

Figure 3: Regional analysis of number of tech IPOs



Source: S&P Capital IQ with analysis by PwC

Figure 4: Regional analysis of tech IPO proceeds



#### Tech IPOs in Q3 2017 were geographically diverse; nine countries, including Argentina, participated

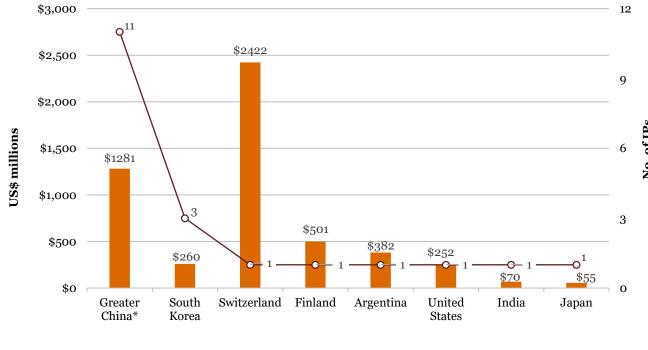
Q3 2017 had broad geographic participation, with nine countries listing at least one tech IPO. Switzerland produced the biggest IPO, Landis+Gyr Group, with proceeds of US\$2.4 billion, followed by Finland with Rovio raising US\$501 million.

Greater China (China and Taiwan) recorded 11, the highest this quarter, raising US\$1.3 billion. A strong equity market and positive post-IPO performance boosted investor sentiment while actions taken by the Chinese government to reduce the backlog of companies waiting to list helped to accelerate activity. Hong Kong also confirmed that steps are being taken to open another trading platform.

Continuing innovation in South Korea helped to further tech IPO activity with three listings raising US\$260 million.

The US, India, Japan, and Argentina also recorded one tech IPO each in the quarter.

Figure 5: Q3 2017 geographic distribution



Totak proceeds (US\$mn) —O—Number of IPOs

\* Includes China and Taiwan

#### Electronics subsector dominates with nine IPOs and US\$3.6 billion in proceeds

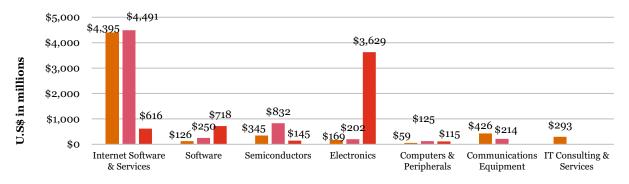
Contrary to the recent norm in global tech IPOs, Electronics led the way with nine IPOs raising US\$3.6 billion, sequentially up 200% and 1700%, respectively. Software came in second, with four IPOs raising US\$718 million.

Internet Software & Services ranked third with three IPOs and proceeds of US\$616 million. Proceeds declined 86% and the number of IPOs fell 67% compared to the previous quarter.

Semiconductors reported three IPOs with proceeds of US\$145 million. Proceeds were down 83% and the number of IPOs declined 63%.

Computers & Peripherals posted one IPO with proceeds of US\$115 million.

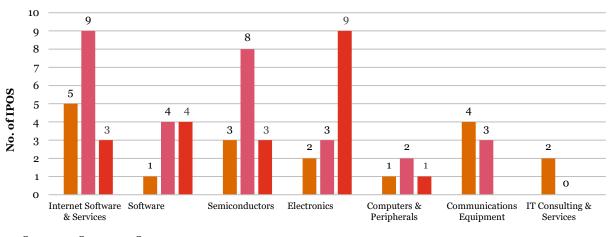
Figure 6: Subsector distribution showing total proceeds



■Q1 2017 ■Q2 2017 ■Q3 2017

Source: S&P Capital IQ with analysis by PwC

Figure 7: Subsector distribution showing number of IPOs



■Q1 2017 ■Q2 2017 ■Q3 2017

## Country and stock exchange detail

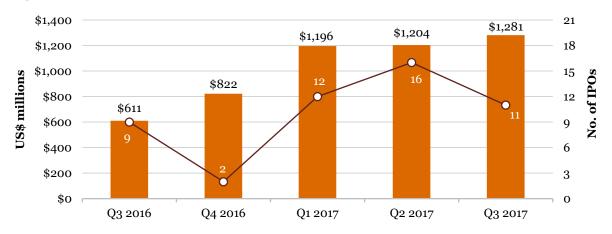
#### **Greater China**

The Greater China tech IPO market continues its rally with 11 IPOs in Q3 2017, capturing 55% of the total number of tech IPOs

With eleven IPOs and proceeds of US\$1.3 billion, Greater China (China and Taiwan) led the way. Proceeds increased 98% and the number of IPOs were up 22% year on year. Sequentially, proceeds increased a more modest 6% and the number of IPOs decreased 31%.

The steady flow of IPOs from Greater China was supported by the backlog of companies wishing to list, the government's support to ease clearances, an improving economy, and overall positive investor sentiment.

Figure 8: Greater China tech IPOs



Total proceeds (US\$mn) —O—Number of IPOs

Source: S&P Capital IQ with analysis by PwC



"Consistent with our expectation, China tech IPOs slowed slightly in Q3 2017 after several quarters' escalation. We anticipate that the number of Chinese domestic TMT IPOs will remain stable at a relatively high level over the fourth quarter of this year. Further, Hong Kong IPOs are becoming attractive again for Chinese tech companies in view of recent strong market performance."

#### Jianbin Gao

Technology Industry Leader, PwC China

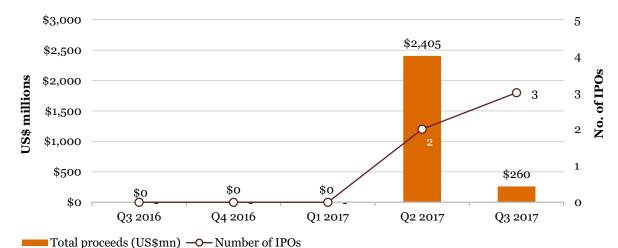
#### South Korea

#### South Korea's tech IPO activity continued in Q3 with three IPOs though proceeds declined in the absence of billion plus listings

South Korea participated in the tech IPO market with three IPOs raising US\$260 million. Compared to the previous quarter, the number of IPOs grew 50% but proceeds declined by 89%.

Looking ahead, the number of IPO applications in the pipeline indicates that we will see more IPOs in the last quarter resulting in better year-on-year numbers and proceeds.

Figure 9: Q3 2017 South Korean tech IPOs



Source: S&P Capital IQ with analysis by PwC



"Although we saw a poor start to tech IPO activity in Korea in Q1, it picked up in Q2 with companies in the Internet Software & Services and Semiconductor sectors. While we expect to see this continued momentum for the remainder of the year, a healthy pipeline, especially with artificial intelligence, robotics and electric vehicles, is expected to fuel tech IPOs through next year."

#### **Steven Kang**

Technology Industry Leader, PwC South Korea

#### **Europe**

#### Europe had its strongest quarter since Q4 2015 for proceeds, led by the two largest offerings of the quarter

The European tech IPO market has gathered momentum in 2017. The region was a no-show in Q1 but picked up steam in Q2. The third quarter saw the quarter's biggest IPO with Landis+Gyr Group AG raising US\$2.4 billion. This was also the largest IPO in Switzerland in 11 years.

Q3 2017 tech IPO figures for the region were almost on par with the year-ago period, with the number of IPOs declining by a single listing and proceeds increasing by just 3%.

Increasing stability in the European markets, low levels of market volatility, stable indices, strength in equity markets, and an improving economic outlook led to the improvement in tech IPO activity.

Figure 10: Europe tech IPOs



Total proceeds (US\$mn) ——Number of IPOs

Source: S&P Capital IQ with analysis by PwC



"The tech IPO market in Europe is slowly brightening compared to its initial weakness earlier in the year. In Q2, we already saw the IPO of Delivery Hero in Germany with almost \$1 billion raised in addition to X-FAB Silicon Foundries in Belgium and Alfa Financial Software in the UK which both reached around \$300 million. In Q3, Switzerland claimed the largest single IPO, globally, to the tune of \$2.4 billion with Landis+Gyr, while Rovio Entertainment in Finland raised \$500 million. Looking ahead, with European elections behind us and a healthy pipeline of new entrants, I expect the renewed momentum to continue through this year and into 2018."

#### **Werner Ballhaus**

European Technology, Media and Telecommunications Industry Leader, PwC Germany

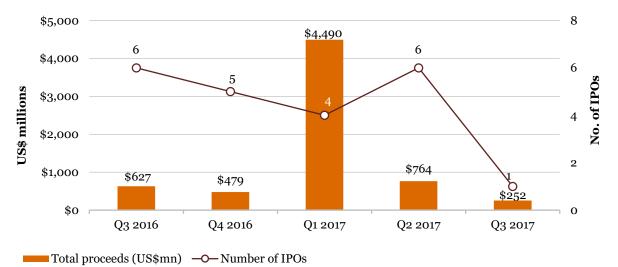
#### US

#### Despite strong capital markets, tech companies were largely absent from the US IPO market

The third quarter marked the second-largest setback for the US tech IPO market since Q1 2016, when US tech companies avoided the IPO market altogether. In Q3 2017 there was just one tech IPO, a decline in the number of listings by 83% and a decline in proceeds by 67% quarter on quarter. However, the ninemonth year-on-year comparison shows IPO volumes on par with the previous year, whereas IPO proceeds increased by 317% in Q3 2017.

Multiple factors impacted the IPO market in the US in Q3 but likely the greatest issue facing tech IPOs was the aftermarket underperformance of two recent Unicorn IPOs. However, with a promising performance by Roku, many tech Unicorns with stalled IPO plans may opt for listings in Q4 2017.

Figure 11: US tech IPOs



Source: S&P Capital IQ with analysis by PwC



"Although activity in the Q3 2017 US Technology IPO market was relatively modest with only a single company raising \$252 million, the pipeline for the remainder of the year remains robust with several offerings close to pricing and a strong pipeline of potential IPOs."

#### **Alan Jones**

Technology Deals Partner, PwC US

## Stock exchange distribution

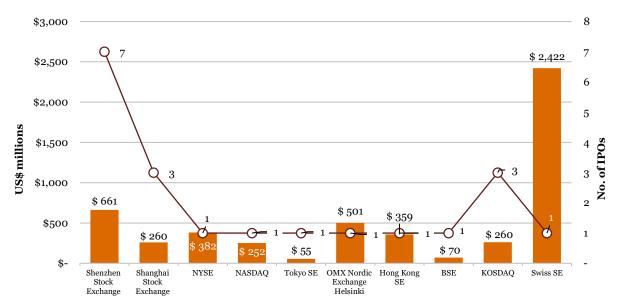
The Asian stock exchanges led the global IPO market in Q3 2017 in number of offerings with Chinese stock exchanges contributing 55% or 11 of 20 deals for the quarter. Of the 11 deals, Shenzhen Stock Exchange (SZSE) listed seven IPOs with an increase of one listing compared to the last quarter. Sequentially tech offerings on the Chinese stock exchanges declined by 27%.

Among other Asian exchanges, KOSDAQ listed three IPOs with total proceeds of US\$260 million; Mumbai and Tokyo Stock Exchanges each had a single listing during the quarter.

The SIX Swiss Exchange raised the highest proceeds of US\$2.4 billion with just a single listing, Landis+Gyr Group AG.

The US stock exchanges had only two listings in Q3 2017 compared to seven listings in Q2 2017, a decline of 71% quarter on quarter. One of these listings was the cross border offering of Despegar.com, from Argentina. It was the sole Unicorn of the quarter and listed on the NYSE.

Figure 12: Q3 2017 stock exchange distribution



Total proceeds (US\$mn) — Number of IPOs

#### Q3 2017 tech IPOs – Offering details

Table 1: Q3 2017 tech IPOs – By highest proceeds

Issue date	Company	Subsector	Proceeds (US\$ million)	Primary exchange	Domicile nation
Q3					
07/20/2017	Landis+Gyr Group AG	Electronics	2,421.82	SIX Swiss Exchange	Switzerland
09/28/2017	Rovio Entertainment Oyj	Software	500.67	OMX Nordic Exchange Helsinki	Finland
09/20/2017	Despegar.com Corp	Internet Software & Services	381.82	New York Stock Exchange	Argentina
07/12/2017	Foxconn Interconnect Technology Limited	Electronics	359.31	The Stock Exchange of Hong Kong	Taiwan
07/28/2017	Electric Connector Technology Co Ltd	Electronics	301.58	Shenzhen Stock Exchange	China
09/27/2017	Roku Inc	Electronics	252.25	NasdaqGS	United Sates
09/13/2017	Pearl Abyss Corp	Internet Software & Services	163.91	KOSDAQ	South Korea
09/12/2017	Cashway Technology Co Ltd	Computers & Peripherals	115.15	Shanghai Stock Exchange	China
08/09/2017	Changzhou Youon Public Bicycle System Co Ltd	Software	96.56	Shanghai Stock Exchange	China
09/06/2017	Wenzhou Yihua Connector Co Ltd	Electronics	84.54	Shenzhen Stock Exchange	China
09/28/2017	Dongguan Mentech Optical & Magnetic Co Ltd	Electronics	74.26	Shenzhen Stock Exchange	China
09/19/2017	Matrimony.com Limited	Internet Software&Services	70.23	Mumbai Stock Exchange	India
08/02/2017	Guangzhou Sie Consulting Co Ltd	Software	65.88	Shenzhen Stock Exchange	China
09/21/2017	Pksha Technology Inc	Software	54.91	The Tokyo Stock Exchange	Japan
08/10/2017	Union Optech Co Ltd	Electronics	51.39	Shenzhen Stock Exchange	China
09/15/2017	Sunic System Ltd	Semiconductor	49.03	KOSDAQ	South Korea
09/04/2017	Guangdong Champion Asia Electronics Co Ltd	Semiconductors	48.20	Shanghai Stock Exchange	China
09/26/2017	YAS Co Ltd	Semiconductors	47.49	KOSDAQ	South Korea

	Issue date	Company	Subsector	Proceeds (US\$ million)	Primary exchange	Domicile nation
Ī	08/03/2017	Shenzhen CDL Precision Technology Co Ltd	Electronics	43.75	Shenzhen Stock Exchange	China
	09/14/2017	Nanyang Senba Optical and Electronic Co Ltd	Electronics	40.09	Shenzhen Stock Exchange	China

Source: S&P Capital IQ

## Key financials – Q3 2017

The total number of IPOs for Q3 2017 was 20 compared to 29 in Q2 2017, down 31%. The average proceeds for Q3 2017 increased by 24% quarter on quarter to US\$261 million.

Ninety percent of the 20 IPO listings in the quarter reported net income; last quarter's share was 72%. The average LTM net income of US\$22 million for the quarter skyrocketed by 263%, quarter on quarter. All subsectors except Electronics had companies that reported net income. Only 2 of 20 companies reported LTM net loss for the quarter, both in the Electronics subsector.

The average LTM revenue for Q3 2017 was US\$385 million, an increase of 72% quarter on quarter, led by the Electronics subsector, followed by Internet Software & Services (US\$198 million) and Computers & Peripherals (US\$168 million).

The Electronics subsector led in average LTM EBIDTA at US\$74 million, in average EV at US\$1,655 mllion, and in average total debt at US\$78 million. Internet Software & Services topped average net income with US\$30 million. All the three listings for the subsector reported net income in Q3 2017, compared to

just two of nine companies that had reported net income in Q2 2017.

Electronics led in average LTM revenue, average LTM EBIDTA, average EV, and average total debt. This was due primarily to the contribution of Foxconn Interconnect Technology Ltd.

The Software subsector captured second place among the top three subsectors with four listings, equivalent to Q2 2017. The Semiconductors subsector reported the lowest average LTM revenue of US\$102 million and average EV of US\$439 million in Q3 2017, dropping from its second rank on both fronts in Q2 2017.

Figure 13: Q3 2017 and Q2 2017 tech IPOs - Net income

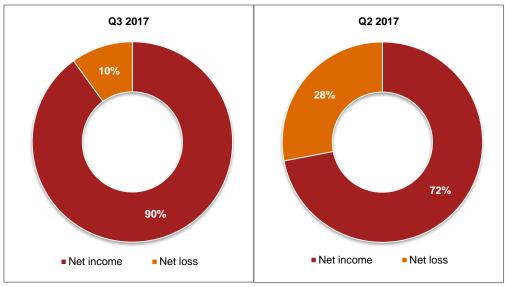
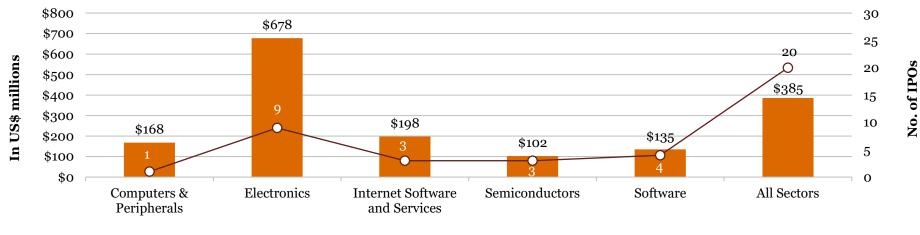
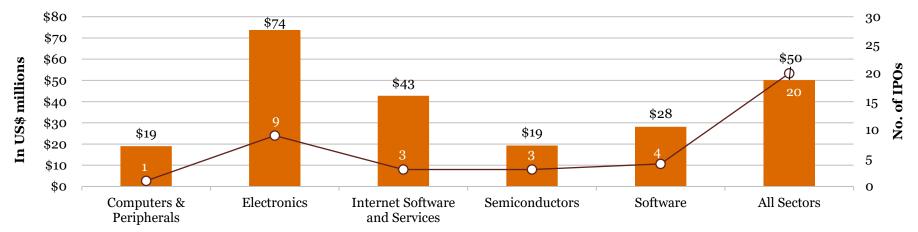


Figure 14: Q3 2017—Average LTM revenue by subsector



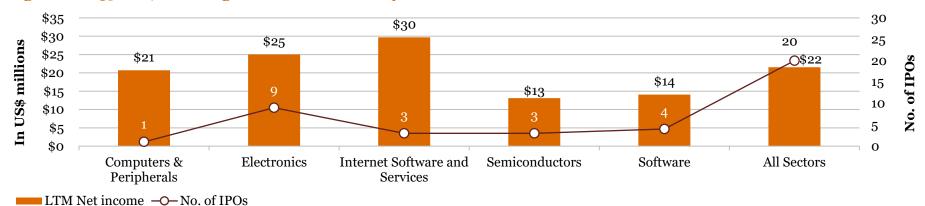
LTM revenue —O—No. of IPOs

Figure 15: Q3 2017 —Average LTM EBITDA by subsector



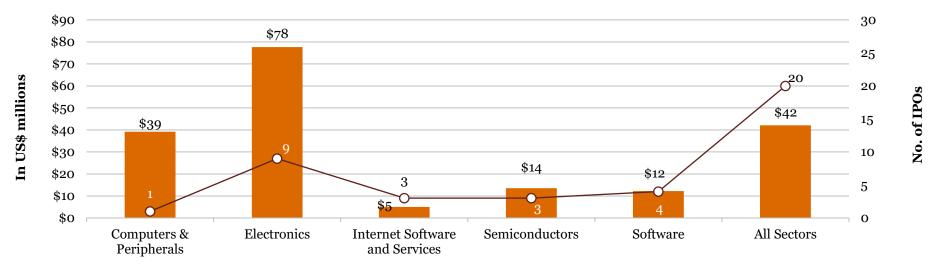
LTM EBITDA —O—No. of IPOs

Figure 16: Q3 2017—Average LTM net income by subsector



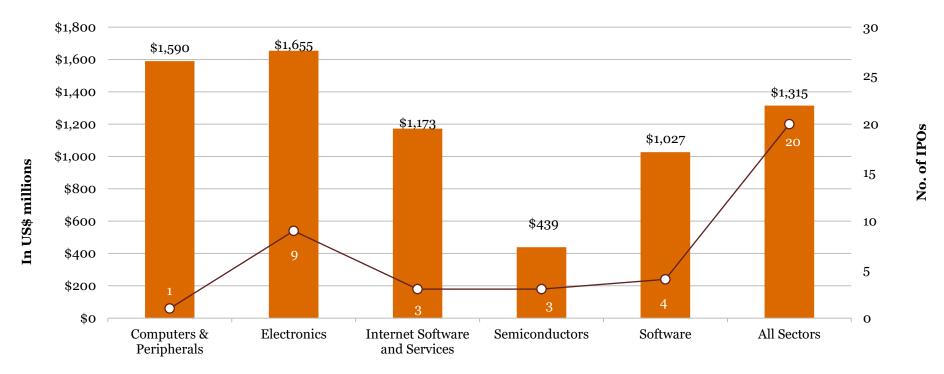
Source: S&P Capital IQ with analysis by PwC

Figure 17: Q3 2017—Average total debt by subsector



LTM debt —O—No. of IPOs

Figure 18: Q3 2017 —Average enterprise value by subsector



Enterprise value —O—No. of IPOs

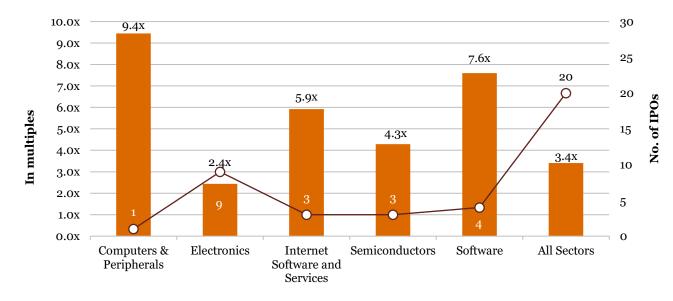
## Q3 2017 Technology IPO listings – Valuation metrics

Both the EV/LTM revenue (3.4x) and the EV/LTM EBIDTA (26.2x) multiple declined compared to the previous quarter.

Computers & Peripherals reported the highest EV/LTM revenue 9.4x and EV/LTM EBIDTA 83.7x for the quarter.

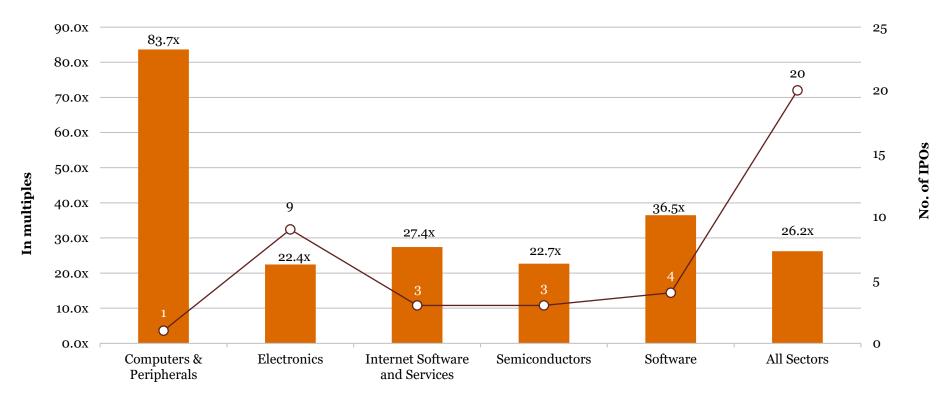
Computers & Peripherals was followed by the Software subsector with an EV/LTM revenue of 7.6x and EV/LTM EBIDTA of 36.5x. Electronics reported the lowest valuation metrics of 2.4x for EV/LTM revenue and 22.4x for EV/LTM EBIDTA.

Figure 19: Q3 2017 EV/LTM revenue by subsector



EV/LTM revenue —O—No. of IPOs

Figure 20: Q3 2017 EV/LTM EBITDA by subsector



EV/ LTM EBITDA —O—No. of IPOs

## Top three subsectors in Q3 2017

#### **Electronics**

With nine IPOs in the quarter, Electronics figured among the top three subsectors for the first time since 2010 when we began tracking global tech IPOs. The average LTM revenue in the third quarter was US\$678 million. This was up 511% quarter on quarter and a massive 1580% year on year. This increase was primarily driven by Foxconn Interconnect Technology Ltd. (US\$3,218 million) and Landis+Gyr Group AG (US\$1,659 million).

This subsector reported the highest average EV of US\$1,655 million in Q3 2017, a 165% increase quarter on quarter. Average LTM EBIDTA rose 697% year on year to US\$74 million, whereas average LTM net income was US\$25 million, up 201% year on year.

Despite having the highest average LTM revenue for the quarter, the subsector reported the lowest EV/LTM revenue of 22.4x. The subsector recorded 6 out of 11 Greater China tech IPO offerings for Q3 2017, with all of them being listed on the SZSE.

Figure 21: Electronics – LTM revenue

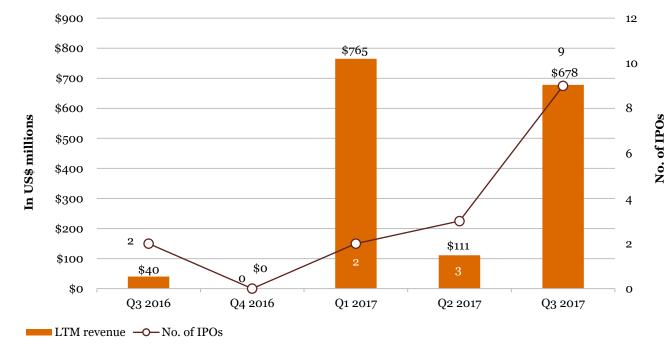
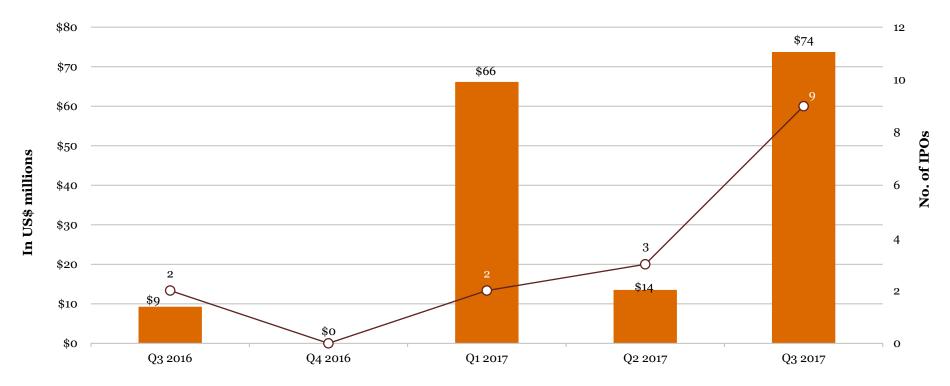
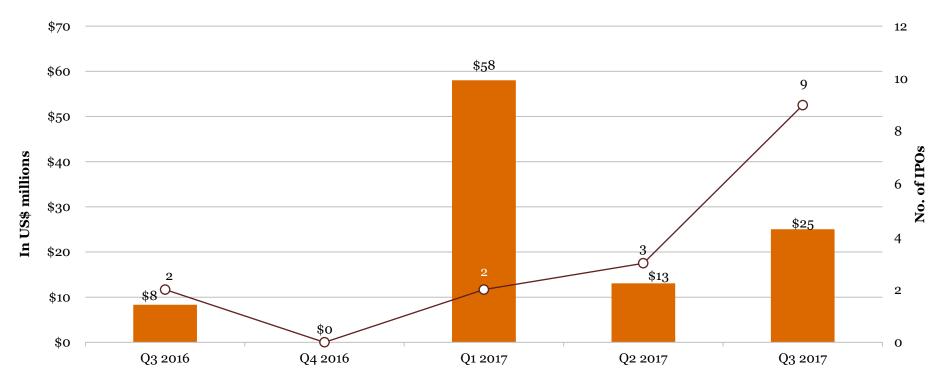


Figure 22: Electronics – LTM EBITDA



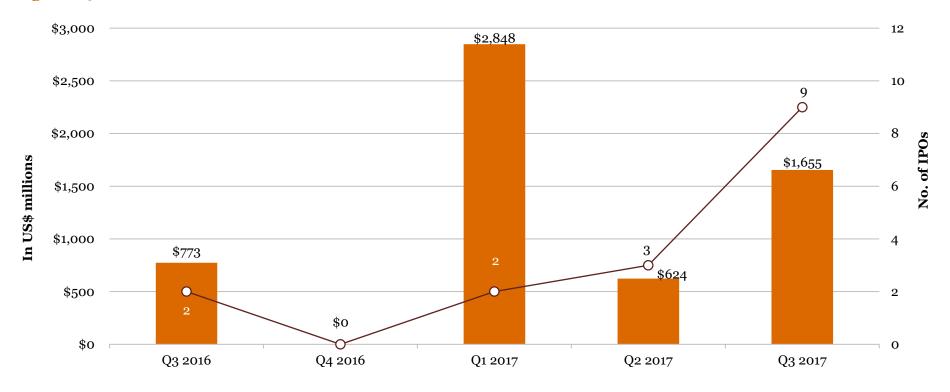
LTM EBITDA —O—No. of IPOs

Figure 23: Electronics – LTM net income



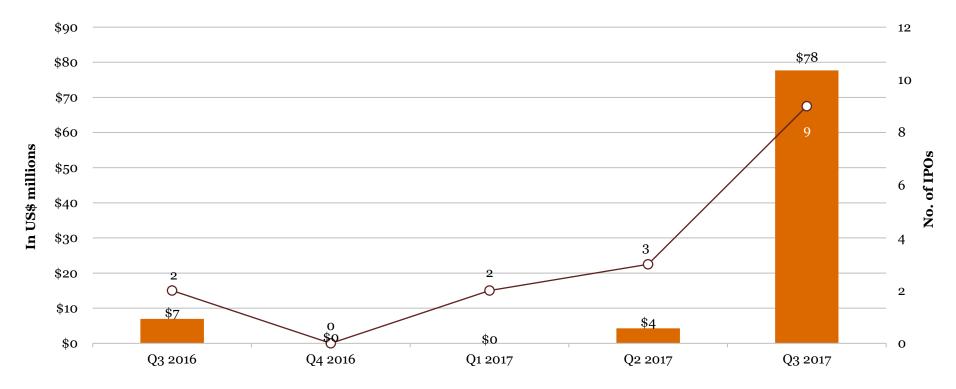
LTM Net income — No. of IPOs

Figure 24: Electronics – EV



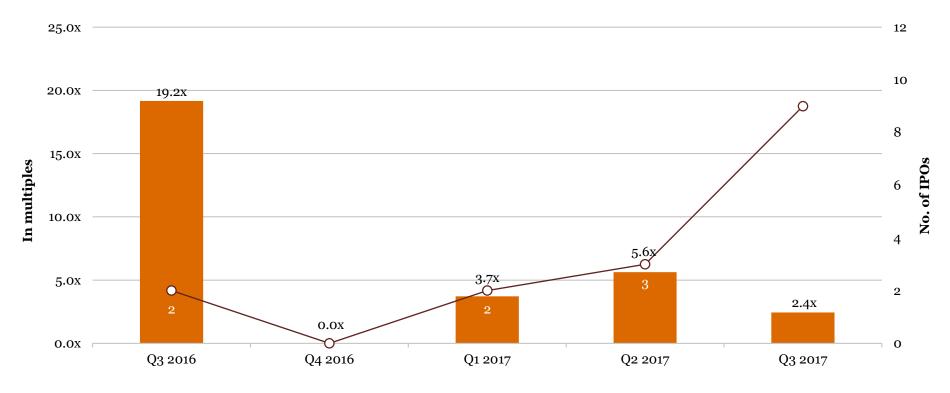
Enterprise value —O—No. of IPOs

Figure 25: Electronics – Total debt



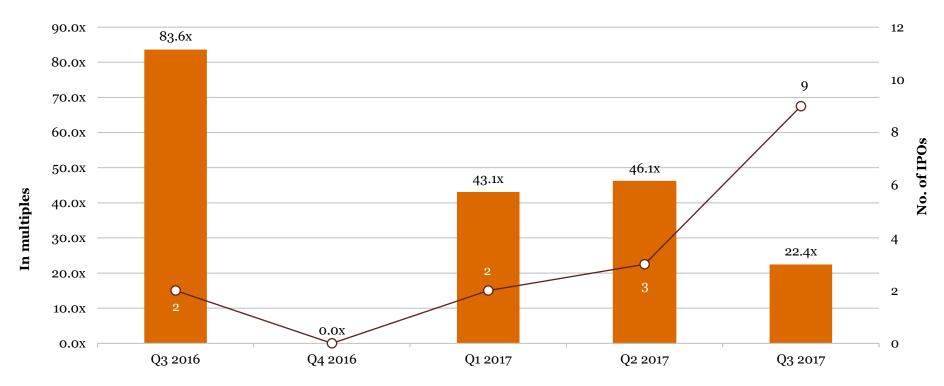
Total debt —O—No. of IPOs

Figure 26: Electronics – EV/LTM revenue



EV/LTM revenue —O—No. of IPOs

Figure 27: Electronics – EV/LTM EBITDA



EV/LTM EBITDA —O—No. of IPOs

#### Software

Software reported average revenue of US\$135 million with four IPOs in Q3 2017, an increase of 20% quarter on quarter. On the number of deals, the subsector was on par with the last quarter; however, the year-on-year decline was 60%. The sector's average LTM EBIDTA improved remarkably, up 571% year on year and 307% quarter on quarter. This increase was mainly due to positive LTM EBIDTA reported by the companies in the subsector.

The subsector's average LTM net income also improved with 175% increase year on year and 171% increase quarter on quarter. The average EV for the quarter is US\$1,027 million, an increase of 51% quarter on quarter.

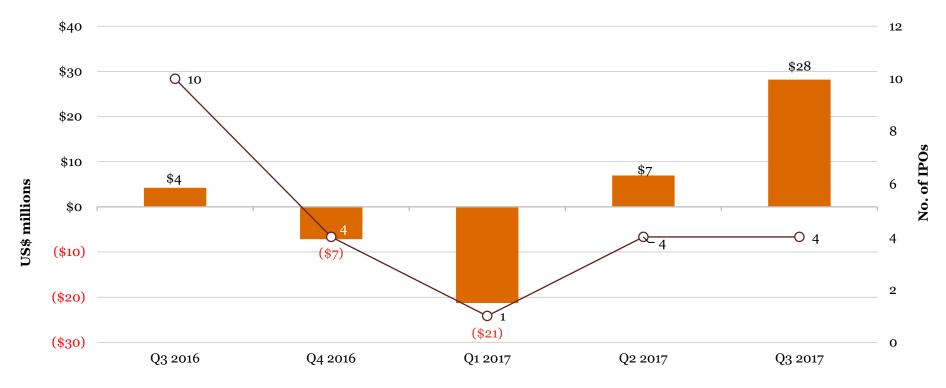
EV/LTM EBIDTA is 36.5x compared to that of 97.9x for Q2 2017.

Figure 28: Software – LTM revenue



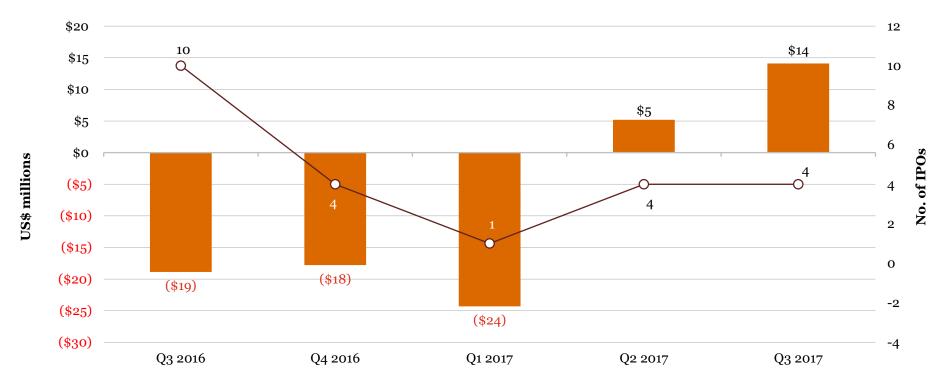
LTW revenue —— No. of fros





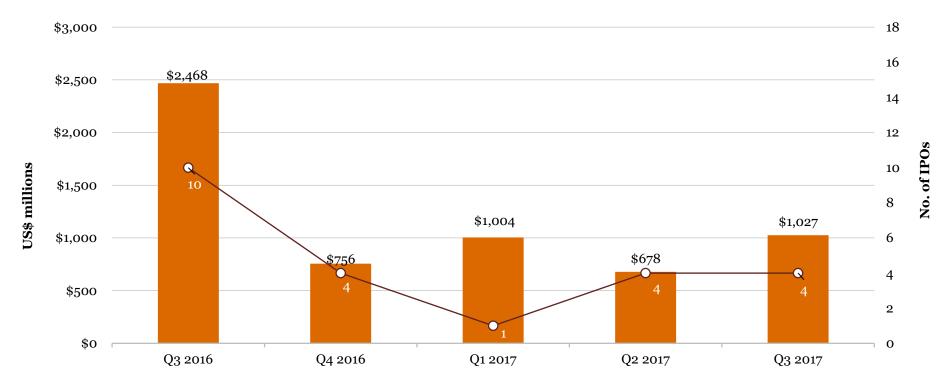
LTM EBITDA —O—No. of IPOs





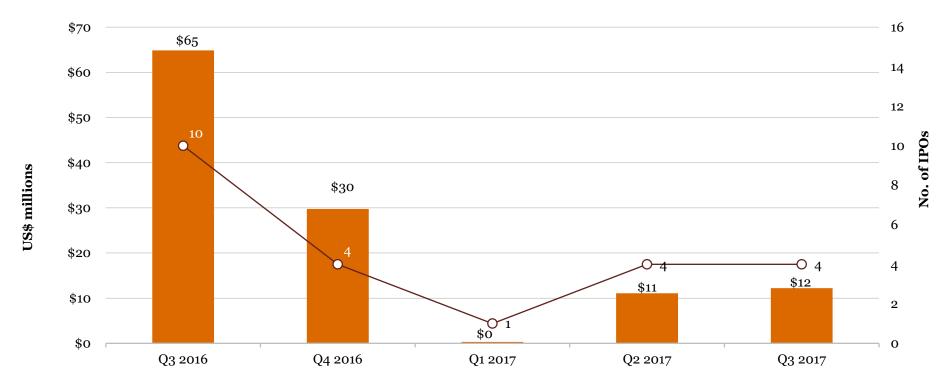
LTM net income —O—No. of IPOs

Figure 31: Software – EV



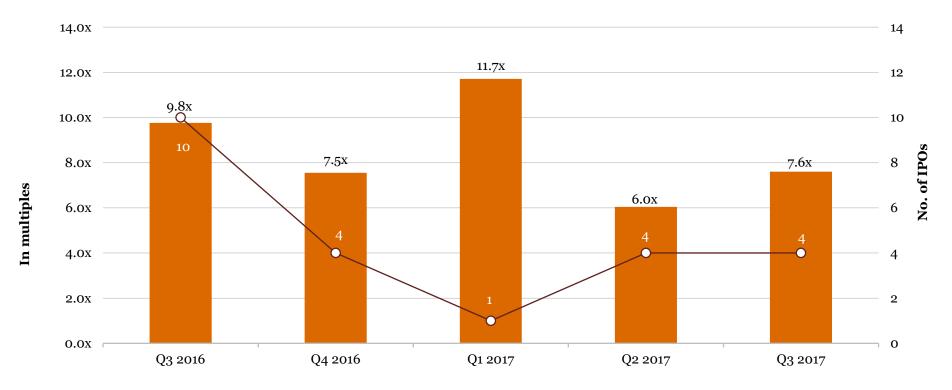
Enterprise value —O—No. of IPOs

Figure 32: Software – Total debt



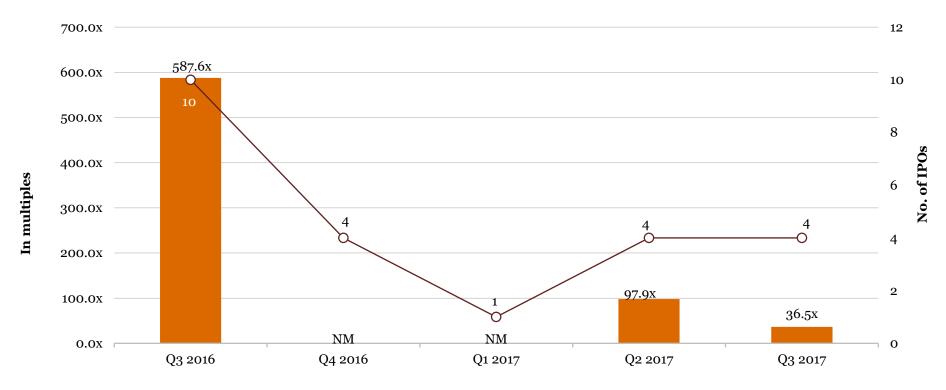
Total debt —O— No. of IPOs

Figure 33: Software – EV/LTM revenue



EV/LTM revenue —O—No. of IPOs

Figure 34: Software – EV/LTM EBITDA



EV/LTM EBITDA —O—No. of IPOs

## Internet Software & Services

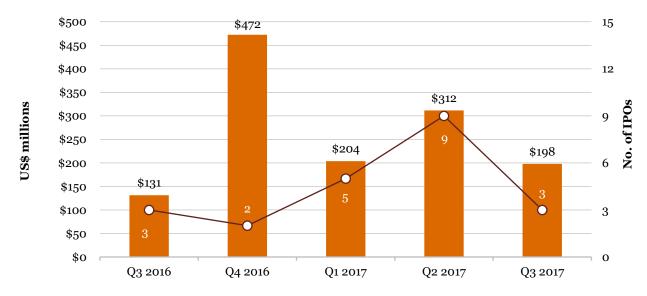
With three IPO listings in Q3 2017, Internet Software & Services failed to maintain the top position it held for many quarters.

The subsector reported a 67% decline in number of deals and a 59% decline in average proceeds, quarter on quarter.

Average LTM revenue for the quarter declined by 36% quarter on quarter whereas average LTM EBIDTA and average LTM net income increased by 201% and 138%, respectively.

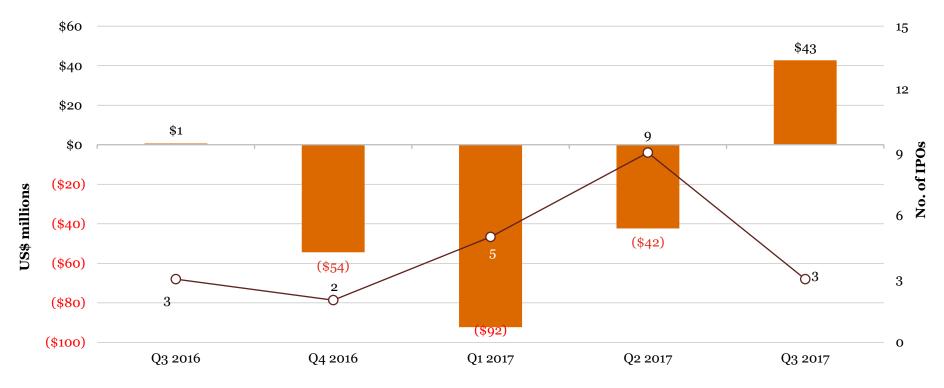
EV/LTM EBIDTA multiple for the quarter was 27.4x compared to a nonmaterial figure for the last quarter. The EV/LTM revenue multiple was 5.9x for Q3 2017.

Figure 35: Internet Software & Services – LTM revenue



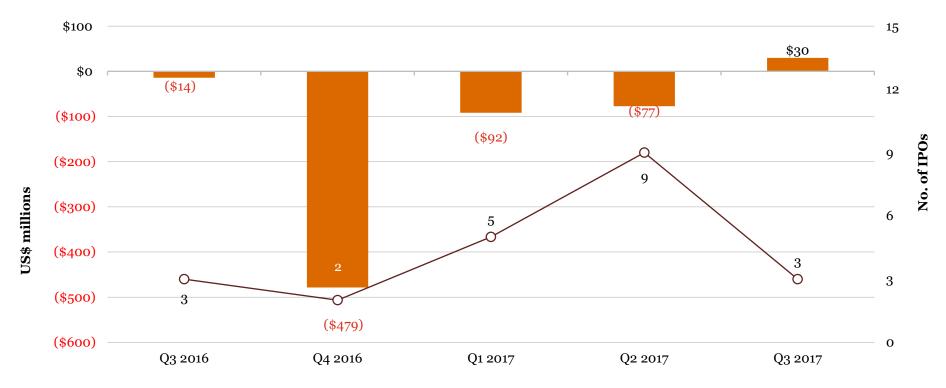
LTM revenue —O—No. of IPOs





LTM EBITDA —O—No. of IPOs





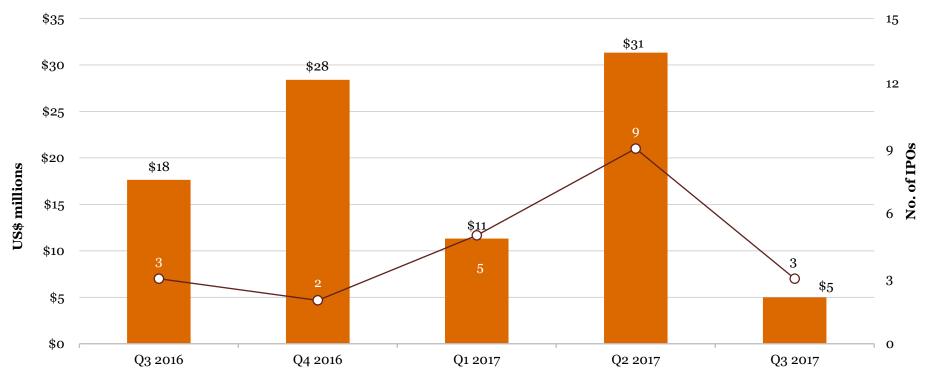
LTM net income —O—No. of IPOs





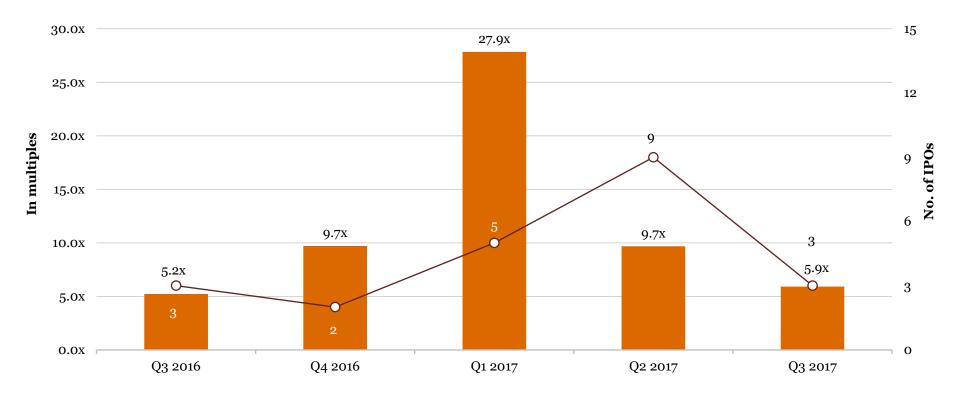
Enterprise value —O—No. of IPOs

Figure 39: Internet Software & Services - Total debt



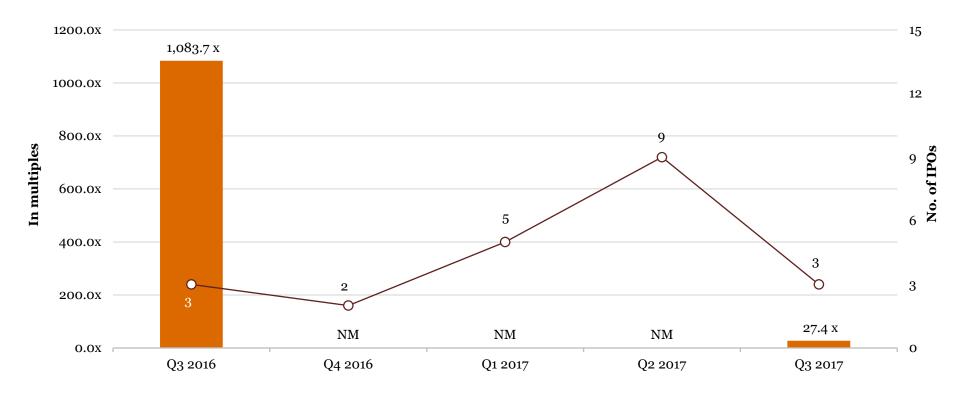
Total debt —O—No. of IPOs





EV/LTM revenue —O—No. of IPOs





EV/LTM EBITDA —O—No. of IPOs

## Methodology

The Global Technology IPO Review for Q2 2017 is based on PwC's analysis of transaction data extracted from S&P Capital IQ. The analysis considers IPOs across all countries worldwide during the period 1 April 2017 to 30 June 2017 (Q2), financial data was also obtained from S&P Capital IQ.

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

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

Only IPOs with issue size greater than US\$40 million were included in the analysis.

All monetary amounts are in US dollars unless otherwise indicated.

LTM – Last 12 months

Most figures are rounded to one decimal, except were comparisons require more.

## For more information

If you would like to discuss how these findings might impact your business or your future strategy, please reach out to any of our technology industry leaders listed below.

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