Issue 23

Global technology M&A update

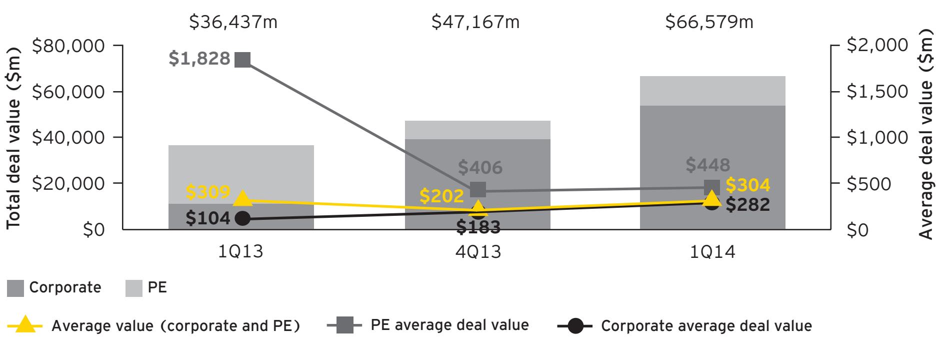
January–March 2014

Highlights

- Aggregate value of all disclosed-value deals is highest in 14 years for a first quarter: $66.6 billion, up 83% year-over-year (YOY) and 41% sequentially.
- Volume rises 15% YOY and 6% sequentially to 758 deals, the highest level we've seen in six years.
- Corporate aggregate value skyrockets 394% YOY to $53.6 billion; corporate volume (688 deals) increases for the third consecutive quarter.
- Private equity (PE) deal value is $13 billion, near the top of its typical range; PE volume (70 deals) increases for the fifth consecutive quarter.
- Cross-border (CB) deal value was $15.6 billion, nearly five times higher YOY. But it was a low proportion (23%) of overall aggregate value. At 231 deals, CB volume was up 7% YOY but down 3% sequentially.

Total number of all announced deals, 1Q13-1Q14

Total and average deal values for deals with disclosed value, 1Q13-1Q14 ($m)



Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Note: all dollars are US$ unless otherwise indicated.

Building a better working world

First-quarter picture unfolds

Deal drivers

- Mobile apps dominated in 1Q14, especially in value terms, and not only because of the Facebook-WhatsApp megadeal — the trend went deeper.
- Internet companies purchased nearly half of 1Q14 aggregate value, placing transformative, long-term strategic bets on future technologies.
- Big data analytics was a mainstay in deals with marketing technology or social network targets.
- Cloud/SaaS, security, financial services and mobile video game technologies were targeted in dozens of 1Q14 deals.
- Divestiture deals increased only slightly in volume, but a handful came with potentially transformative scope.

Deal activity

- 1Q14 deal volume rose 6% sequentially and 15% YOY to 758 deals. It was the third consecutive quarterly volume increase after three consecutive declines, and the highest level we've seen in six years producing these reports.
- At 688 deals, corporate volume also had its third consecutive increase (+5%) following three consecutive quarterly declines, and was up 12% YOY.
- PE volume (70 deals) increased for the fifth consecutive quarter; it was up 15% sequentially and 52% YOY.
- Our observed long-term directional correlation between quarterly deal volume and the NASDAQ Composite Index was present again in 1Q14: the index rose 1%, while M&A volume increased 6%.

Deal value

- 1Q14 aggregate deal value was extraordinary: $66.6 billion, up 41% sequentially and 83% YOY. First quarters usually have the lowest aggregate value in any year, but this 1Q may be the highest since 2000.*
- Average value per deal increased 50% sequentially to $304 million, but was down 2% YOY from $309 million in 1Q13. It is also down 24% from the post-dotcom-bubble record of $398 million set in 3Q13.
- Aggregate value of corporate deals set a post-dotcom-bubble record for a first quarter: it was $53.6 billion, up 37% sequentially and 394% YOY. Historically, it was topped only by 1Q 2000. Average value increased 54% sequentially and 171% YOY to $282 million.
- At $13 billion, PE aggregate value was up 60% sequentially. But it was down 49% YOY from 1Q13 (which had the $24.4 billion megadeal to take Dell private). Likewise, average value of PE deals rose 10% sequentially but fell 75% YOY to $448 million.

Deals getting done

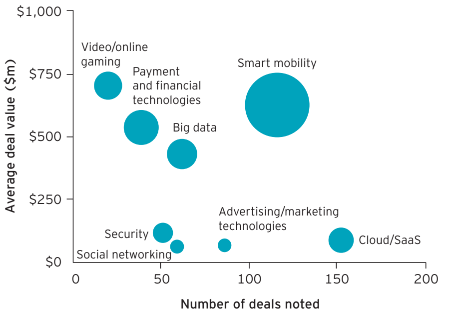
- 1Q14 sector volume increased YOY in every sector except IT services, and sequentially in every sector except communications equipment (CE) and computers peripherals and electronics (CPE).
- In terms of average value, every sector except CPE increased YOY (CPE average value was pushed high in the year-earlier quarter due to the Dell deal). Sequentially, all increased except CE and semiconductors (see Figure 12, page 22).

Cross-border deals

- At $15.6 billion, aggregate CB deal value started the year strong — with its highest first-quarter total in the six years we've produced these reports. But it was not nearly as strong as in-border (IB). CB value fell 22% sequentially from $20 billion in 4Q13, and to 23% of total aggregate value (CB plus IB) from 42% in 4Q13 (see Figure 15, page 25).
- CB deal volume increased 7% YOY but declined 3% sequentially in 1Q14 to 231 deals (see Figure 13, page 23). Consequently, it fell behind all-deal growth rates, which both increased (15% and 6%, respectively).

*This statement is qualified because our historical data does not include PE deals prior to 2007.

A directional view of select 1Q14 deal-driving trends

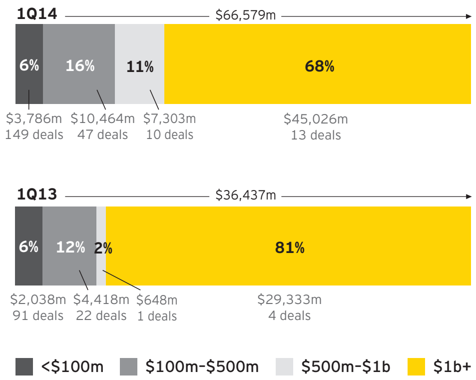


Our bubble chart offers visual evidence showing how the smart mobility megatrend dominated all other deal-driving trends in 1Q14. But perhaps not for long: in reviewing the last several years of data, we noted that smart mobility and cloud/SaaS have switched positions in terms of highest average value in each of the last five quarters, including 1Q14. Also noteworthy: while deal volumes resulting from these deal-driving trends are only slightly up YOY, their total values have doubled, tripled or more over 1Q13. At roughly $2 billion, for example, security total value is 14 times that of 1Q13; at $3.4 billion, cloud/SaaS is slightly more than three times higher.

Note: average deal value is based on the value of disclosed-value deals, while number of deals includes both disclosed-value and undisclosed-value deals; bubble size is based on each hot topic's share of total value for the quarter.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Aggregate value of announced deals by deal size, 1Q14 vs. 1Q13



Despite the headline-grabbing value of 13 deals above $1 billion in 1Q14, this chart shows us something even more encouraging. YOY growth was actually greater in every other deal-size category in 1Q14, suggesting widespread dealmaking strength. That's why, despite increasing 53% YOY in total value, $1b+ deals decreased to 68% of 1Q14 total value (of $66.6 billion) from 81% of 1Q13 total value (of $36.4 billion). Deals under $100 million increased 64% YOY in volume and 86% in value; deals between $100 million and $500 million grew 114% in volume and 137% in value; and deals between $500 million and $1 billion increased 900% in volume and 1,027% in value.

Note: data and totals may appear inconsistent due to rounding.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

"I am encouraged by the near record deal volumes in the first quarter of 2014, and that transformational big-ticket deals continued. Both are being driven by the still-increasing acceleration of change based on the five transformative technology megatrends of mobile, social, cloud, big data analytics and accelerated technology adaptation — and the new possibilities they foster, such as the internet of things. But EY's latest Capital Confidence Barometer survey shows a moderation in the outlook for the global economy, dealmaking and confidence among technology executives. Consequently, I expect technology M&A activity to remain strong in 2014, reflecting ongoing disruption from the five megatrends."

Joe Steger

Global Technology Industry
Transaction Advisory Services Leader
EY

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EY has identified five long-term "megatrends" that are generating transformative innovation in technology and leading to technology-enabled innovation in other industries. The five megatrends are smart mobility, cloud computing, social networking, big data analytics and accelerated technology adaptation (technology companies rapidly adapting to the needs of specific industries and other industries rapidly adapting to the evolving possibilities that technology enables).

Accelerated technology adaptation challenges whether certain companies are pure technology companies or have entered the industry they are transforming. In addition, all five megatrends are driving increased information security requirements. This report focuses on how these megatrends influenced the microcosm of global technology M&A in 1Q14, as companies competed for market share and key technologies.

A quarter of strategic bets on the future

The already breathtaking and still accelerating pace of change in technology may be a cliché, but as soon as you wrap your mind around it, it astounds you all over again. That's the best way to describe global technology M&A in the "blowout" first quarter of 2014, during which multiple big-ticket deals and one megadeal placed strategic bets on the rapidly evolving future of markets and technologies. It was a quarter of dealmaking dominated by the smart mobility megatrend, and it was a quarter that illuminated just how quickly internet companies expect their sector's extremely fast-changing future to rush toward us.

Big-ticket deals continue

Thirteen deals topped $1 billion in 1Q14, driving aggregate disclosed value to $66.6 billion (up 41% sequentially and 83% YOY). Since we began these reports six years ago, only the post-dotcom-bubble record of $71.2 billion set in 3Q13 has topped that quarterly total. It's the highest level for any 1Q since 2000, when the $160 billion AOL-Time Warner merger was announced. Likewise, deal volume hit 758 deals (up 6% sequentially and 15% YOY), a high unmatched in the last six years. 1Q14 global technology M&A outperformed deal making in all industries: aggregate value for all industries increased only 20% YOY and declined sequentially; volume fell 13% YOY.[1]

What's more is that technology dealmaking strength did not come from big-ticket deals alone. Deals above $1 billion increased to 13 deals totaling $45 billion in 1Q14 from four deals totaling $29.3 billion in 1Q13. But deals that size actually declined on a percentage basis to 68% of 1Q14 aggregate value from 81% a year ago, due to the greater growth in smaller deals (see chart on page 2, "Aggregate value of announced deals by deal size, 1Q14 vs. 1Q13"). Of course, this all occurred before uncertainty returned to equities markets in early 2Q14.

Looking toward a fast-approaching future

Big-ticket strategic deals were struck in 1Q14 around the future of:

- Smartphones
- Servers
- Multimedia mobile messaging
- Home automation and the internet of things (IoT)
- Enterprise mobility management
- Virtual reality

Two big-ticket 1Q14 divestitures, one around smartphones and the other PC servers, had the same buyer: Lenovo (see Figure 1, page 5). The company plans to acquire Google's Motorola Mobility business and IBM's x86 low-end server business, making a strategic bet that it can grow those offerings in the same way it grew the PC business it acquired from IBM in 2005 (see details in Asia-Pacific and Japan snapshot, page 18). Success by Lenovo would intensify the competitive dynamics of two markets that are already extremely competitive.

Mobile text, voice and video messaging

But overshadowing those deals were a trio that focused on the future of mobile communications, led by Facebook's $19 billion announced acquisition of multiplatform mobile app messaging service WhatsApp. Facebook CEO Mark Zuckerberg called WhatsApp "the only widely used app we've ever seen that has more engagement, and a higher percent of people using it daily, than Facebook itself."[2]

Figure 1: Global top 13 deals, January–March 2014 (corporate and PE)
We expanded the top 10 deals to 13 in this report in order to accommodate all 13 deals above $1 billion.

Buyer	Disclosed value ($m)	Announced	Status	Deal type	Multiple of EV/TTM revenue	Multiple of EV/TTM EBITDA	Premium offered
Facebook, Inc. to acquire WhatsApp Inc.	$19,000	19 Feb	Pending	Corporate	N/A	N/A	N/A
Google Inc. acquired Nest Labs, Inc.	$3,200	13 Jan	Completed	Corporate	N/A	N/A	N/A
Yahoo! Japan to acquire eAccess Ltd.	$3,168	27 Mar	Pending	Corporate	N/A	N/A	N/A
Advent International/ATP/Bain Capital to acquire Nets Holding A/S	$3,143	24 Mar	Pending	PE	2.0x	13.0x	N/A
Lenovo Group Ltd. to acquire Motorola Mobility Holdings, Inc. (smartphone business) from Google Inc.	$2,910	29 Jan	Pending	Corporate	0.6x	N/A	N/A
KKR/Sedgwick Claims Management Services management acquired majority ownership via management buyout of Sedgwick Claims Management Services, Inc.	$2,400	27 Jan	Completed	PE	N/A	N/A	N/A
Lenovo Group Ltd. to acquire the x86 server business from IBM Corporation	$2,300	23 Jan	Pending	Corporate	0.5x	N/A	N/A
Facebook, Inc. to acquire Oculus VR, Inc.	$2,000	25 Mar	Pending	Corporate	N/A	N/A	N/A
RF Micro Devices, Inc. to merge with TriQuint Semiconductor, Inc.	$1,593	24 Feb	Pending	Corporate	1.7x	23.0x	13%
VMware, Inc. acquired AirWatch, LLC	$1,540	22 Jan	Completed	Corporate	N/A	N/A	N/A
Giant Investment Ltd. to acquire Giant Interactive Group Inc.	$1,521	17 Mar	Pending	PE	2.5x	8.9x	6%
Entegris, Inc. to acquire ATMI, Inc.	$1,150	4 Feb	Pending	Corporate	2.4x	11.0x	12%
Hellman & Friedman LLC acquired Renaissance Learning Inc.	$1,100	13 Mar	Completed	PE	N/A	N/A	N/A

Large bets on future technologies, including some that look toward a long-term future, dominated the top 13 deals in 1Q14. The largest involve the future of mobile communications, touched on by Facebook-WhatsApp, Yahoo! Japan–eAccess, Lenovo–Motorola Mobility, VMware–AirWatch and RF Micro–TriQuint. The Google–Nest deal is a bet on the evolving internet of things (IoT). And Facebook–Oculus VR envisions immersive virtual reality experiences in many more contexts than video games, where the technology is focused today. Lenovo's two hardware deals (for Motorola's smartphone business and IBM's x86 server business) envision that the company can return them to growth, much like the PC business it acquired from IBM in 2005.

Other prevalent 1Q14 top 13 trends include ongoing semiconductor sector consolidation (Entegris–ATMI and RF Micro–TriQuint) and financial technology dealmaking (Advent/ATP/Bain–Nets Holdings and the KKR-led deal to take Sedgwick Claims Management private). Rounding out the top 13: a deal to take massively multiplayer internet/mobile game company Giant Interactive private, and Hellman & Friedman's acquisition of educational analytics software company Renaissance Learning.

Of note: 1Q14 posted more than twice the number of deals above $1 billion as any first quarter since we began producing these reports in 2008. The previous high was six deals, in 1Q12.

Note: announced deal values are often subject to change at the time of close, due to subsequent revisions to the terms of the deal.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

13 deals

above $1 billion total $45 billion, or 68% of aggregate quarterly value.

WhatsApp had approximately 450 million global users at the time the deal was announced, and was adding about a million per day.[3] At 19 billion messages per day, WhatsApp's multimedia messaging volume was said to be nearly equivalent to carrier-based SMS messaging volume, which represents a roughly $100 billion revenue stream for global mobile operators.[4] Part of the deal strategy is that by Facebook acquiring the company but operating it independently, WhatsApp can focus on global user growth without worrying about monetization.[5]

More big-ticket mobile communications deals

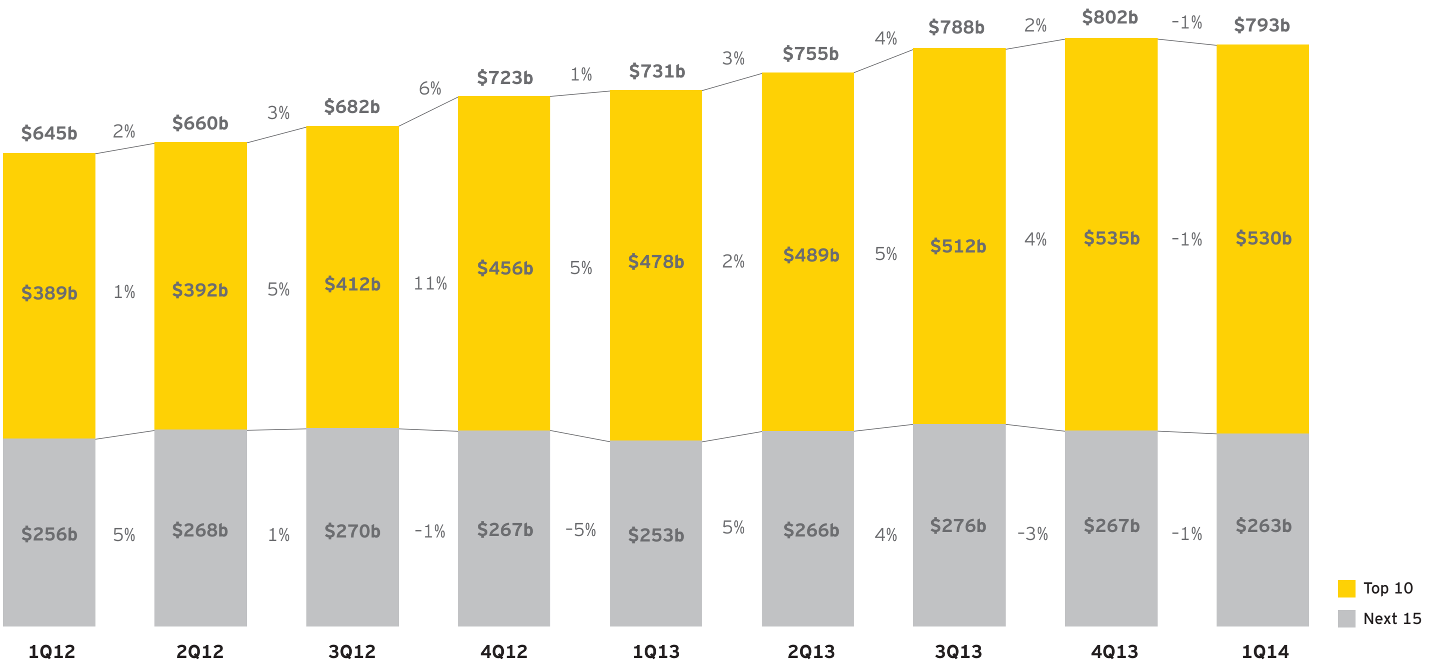
Meanwhile, Yahoo! Japan, a joint venture of Yahoo! Inc. and Japan's Softbank Corporation, announced a $3.2 billion plan to acquire mobile network operator eAccess from Softbank in order to more rapidly expand its own mobile user growth.[6] It will re-launch eAccess as Y!Mobile.[7] Also focusing on the future of multimedia mobile messaging was Rakuten, Inc.'s $900 million deal for Viber Media Ltd., which offers a fast-growing mobile app similar to WhatsApp but with support for voice calls on data networks via Voice over Internet Protocol (VoIP).[8] WhatsApp has announced plans to add voice calling later this year.[9]

In all, we saw more than 110 smart mobility deals in 1Q14; most involved mobile apps and were for small or non-disclosed values.

A $3.2 billion bet on integrating technology into "everything else"

After years of hearing about the coming internet of things, we began to feel like IoT would always be coming but never arrive. But Google's $3.2 billion acquisition of Nest Labs is the second multibillion-dollar deal in six months that envisions IoT's rapid approach and significant impact. (The first was Koch Industries, Inc.'s $7.2 billion deal for Molex Inc., which makes a wide variety of sensors and other electronic components used in mobile devices.)[10]

Figure 2: Aggregate cash and short- and long-term investments for the top 25 technology companies, 1Q12–1Q14 ($b)



Big-ticket M&A deals plus increasing dividends and share buybacks appeared to catch up with the top 25 global technology companies during 1Q14: they had a rare sequential decline in cash reserves. For the first time in the last two years, the aggregate stockpile of cash and short- and long-term investments for this group of 25 companies fell 1% sequentially to $793 billion, though it rose 8% YOY.

*Top 25 companies identified are based on average ranking of market value and sales as of 31 December 2013.

Note: numbers in above chart differ from past published reports due to changes in the composition of the top 25 companies for 2014 and the date Capital IQ database was accessed for this chart.

Source: EY analysis of Capital IQ data, accessed 29 April 2014.

Nest's home automation products – to date, thermostats and smoke detectors – include embedded sensors that learn the comings and goings of household occupants and can adjust their actions accordingly. They can also be remotely controlled via internet-connected computers or smartphones. Further, Nest's devices are networked together, so that over time "the entire network of Nests in homes across the country becomes smarter."[11] The same source suggests that the most exciting future for computer hardware may not be in computers or smartphones. Instead, "It's what you can create when you take all the smarts of the smartphone and build them into everything else."[12] That's the essence of the IoT vision.

Google's other 1Q14 acquisition with a disclosed value, a $400 million deal for UK-based artificial intelligence (AI) startup DeepMind, may be looking even further into the future. Although DeepMind's technology and expertise will reportedly be put to immediate use in making Google Search "smarter," it was also reported that DeepMind's AI experts will join a group at Google working on the development of neural systems capable of learning the way humans do.[13]

Smaller IoT deals; IoT consortium formed

Most IoT-related deals we see are very small or for non-disclosed values, usually involving sensors and telematics. 1Q14 included one other sizable IoT deal, a $547 million announced plan by Russian PE firm Renova Group to acquire Italy's Octo Telematics SpA, maker of vehicle telematics hardware with web-based analytics and reporting for auto insurance companies and enterprise fleet managers. Another 1Q14 IoT deal was Intel Corporation's $150 million announced deal for BASIS Science, Inc., which provides a wearable sensor-based health-tracking device for consumers with progress reporting apps for web and mobile devices.

1Q14 aggregate value totals

$66.6 billion,

the highest first-quarter level since the dotcom era.

Figure 3: Global technology transactions scorecard, 1Q14

Deals announced	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change		YOY % change	
Corporate							
Number of deals announced	615		688	5%	▲	12%	▲
Number of deals with disclosed values	104		190	-11%	▼	83%	▲
Total value of deals with disclosed values ($m)	$10,842		$53,574	37%	▲	394%	▲
Average value of deals with disclosed values ($m)	$104		$282	54%	▲	171%	▲
PE							
Number of deals announced	46		70	15%	▲	52%	▲
Number of deals with disclosed values	14		29	45%	▲	107%	▲
Total value of deals with disclosed values ($m)	$25,595		$13,005	60%	▲	-49%	▼
Average value of deals with disclosed values ($m)	$1,828		$448	10%	▲	-75%	▼
Corporate and PE							
Number of deals announced	661		758	6%	▲	15%	▲
Number of deals with disclosed values	118		219	-6%	▼	86%	▲
Total value of deals with disclosed values ($m)	$36,437		$66,579	41%	▲	83%	▲
Average value of deals with disclosed values ($m)	$309		$304	50%	▲	-2%	▼

Our 1Q14 transaction scorecard shows nothing less than a volume and value "blowout," despite the handful of red downward-pointing arrows (which we'll explain below). Volume of 758 deals was unmatched in the 25 quarters since we began producing these reports. Thus, 2014 volume starts out with a third consecutive quarterly volume increase after three consecutive declines, and at a level well above the 678-deal-per-quarter average of 2013. Aggregate value of $66.6 billion was bested only once in the last six years, by the post-dotcom-bubble record of $71.2 billion set six months ago, in 3Q13.

The decline in PE aggregate value occurred not because 1Q14 was weak for PE ($13 billion is near the top of the range we normally see) but, rather, because the quarter it is compared with was unusually strong. 1Q13 included the $24.4 billion deal to take Dell Inc. private. Likewise, PE average value declined YOY because of the size of the Dell deal combined with the fact that there were far fewer deals with disclosed value in 1Q13. Combined corporate and PE average value declined for the same reason.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

The internet sector was the only net-buyer sector, with a

47%

share of disclosed value.

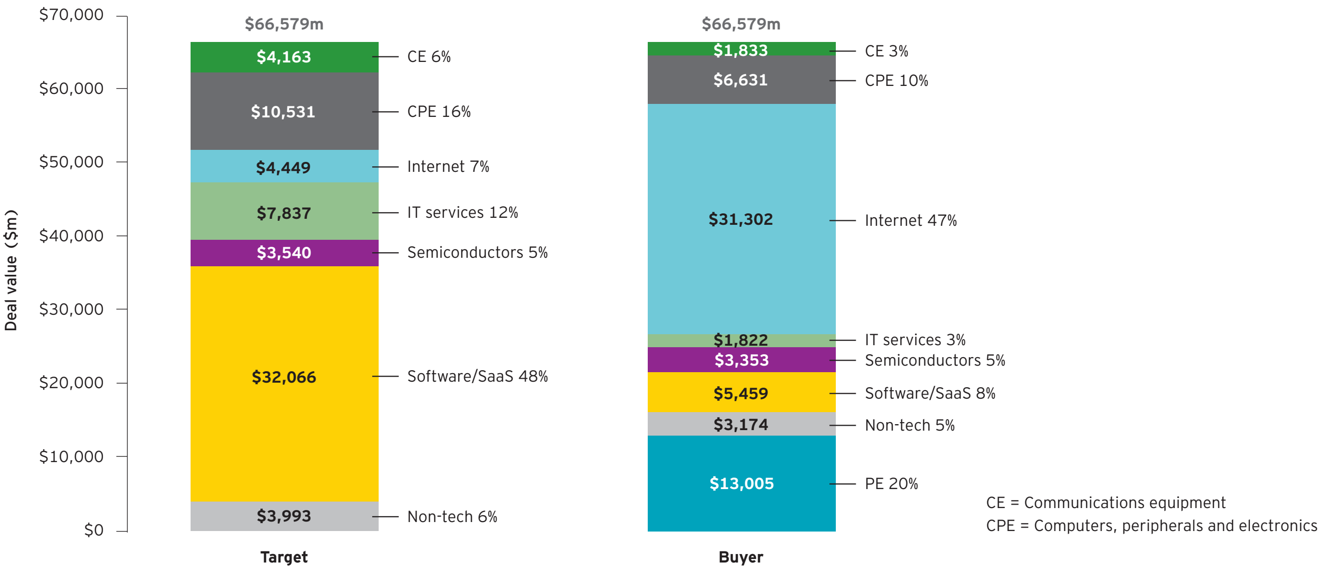
A notable related 1Q14 event was the announcement by five companies (AT&T, Cisco Systems, Inc., General Electric Company, IBM and Intel Corporation) of the Industrial Internet Consortium (IIC). The IIC is an open membership organization that aims to "Identify requirements for open interoperability standards and define common architectures to connect smart devices, machines, people, processes and data."[14]

"Virtualizing" the smart mobile workforce via application programming interfaces (APIs)

VMware announced a $1.5 billion deal in 1Q14 to acquire AirWatch, following two smaller 4Q13 deals for mobile device management software/SaaS in which IBM and Oracle Corporation were the buyers. The deal, VMware's biggest,[15] envisions virtualizing employee workspaces, as well as providing enterprise tools for seamlessly managing company- and employee-owned mobile devices.[16] For example, post-close the companies would work toward enabling employees to seamlessly move work from desktop or laptop PCs to mobile devices, picking up files right where they left off.[17] This is similar to the way e-reader devices synchronize with apps on smartphones and tablets.[18]

Another aspect of the VMware-AirWatch deal involves APIs. M&A activity around API management heated up last year, as technology companies compete for developer attention to build ecosystems around their technology platforms.[19] In the case of AirWatch, the company focused on building its device management systems around APIs, including Apple, Inc.'s APIs, which were designed to enable IT control without interfering with the end user experience.[20] That approach ultimately won over others, including VMware's own approach, company CEO Patrick Gelsinger has said.[21]

Figure 4: Global technology transactions value flow by sector, 1Q14



Internet companies' prodigious appetite for big-ticket deals, including the top three deals of the quarter, created large visual skews in both bars of this figure. In the right-hand bar, the internet sector was the only net buyer and dominates the bar with a 47% share of disclosed value. In the left-hand bar, internet buyers targeting software/SaaS companies drove that sector to 48% of targeted disclosed value (it normally represents about a third).

Two other aspects of this figure are notable. First, PE and non-technology buyers combined to acquire 25% of the quarter's disclosed value, down from 45% for all of 2013. But non-technology buyers typically start slow and increase throughout the year; in 1Q13, for example, non-tech buyers purchased only 1% of aggregate value. Second is the non-tech amount in the target bar — which rarely occurs. In this case, it is the $3.2 billion acquisition by Yahoo! Japan of mobile operator eAccess, and the $805 million majority investment in ChinaVision Media Group Ltd. by Alibaba Group Holding Ltd.

Note: data and totals may appear inconsistent due to rounding.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

"Virtualizing" the rest of reality

Oculus VR is one of those astonishingly fast-rising technology stories – as well as the 1Q14 big-ticket M&A deal that looks furthest into the future. Ironically, Oculus' fast rise occurred around immersive virtual reality, a technology that has been a long-time vision of technology and video game aficionados but has yet to "arrive." Oculus' Rift headset is said to achieve the elusive goal of making users feel actually present in the virtual spaces it creates.[22] The company launched on crowdfunding site Kickstarter, raising more than $2 million in the summer of 2012; it went on to raise more than $91 million in venture funding in 2013 and has sold more than 75,000 developer kits.[23]

In announcing Facebook's plan to acquire Oculus for $2 billion, Zuckerberg said that Oculus' use in video games "is just the start."[24] He envisions its use in many other experiences. "Imagine enjoying a court side seat at a game, studying in a classroom of students and teachers all over the world or consulting with a doctor face-to-face – just by putting on goggles in your home. This is really a new communication platform," he said.[25]

Separately, Facebook acquired a team of drone designers from UK-based Ascenta. The team joined Facebook's Connectivity Lab, which is exploring ways to extend internet access to remote parts of the world via solar-powered drones that may fly for years at a time.[26]

Another deal that aims to continue making games more lifelike was Zynga, Inc.'s $487 million deal for UK-based NaturalMotion. The target's Euphoria technology has been licensed to game and movie makers to help create realistic body movements (e.g., falling off a bike; jumping on a trampoline).[27] Zynga will reportedly continue licensing the technology but retain exclusive use of Euphoria for mobile games.[28]

1Q14 online and mobile video game deal value was

$4.2 billion.

Aggregate value of CB deals is

$15.6 billion,

up nearly five times YOY.

Security deals target technology to thwart cyber attacks

Security-related targets continued to gain momentum in 1Q14. They accrued roughly $2 billion in disclosed value, slightly ahead of the pace for all of 2013 (in which we saw $7.3 billion). Several deals focused on technology to thwart advanced hackers, including the largest by dollar value, FireEye, Inc.'s $989 million deal for Mandiant Corporation. FireEye's software aims to prevent intrusions; Mandiant has become known for investigating attacks to uncover their methods and identify the attackers.[29] Palo Alto Networks, Inc. announced a $200 million plan to acquire Cyvera Ltd., a startup whose software provides endpoint security protection. In a deal with no disclosed value, Google acquired Israeli startup SlickLogin, which reportedly has been developing authentication technology that verifies user identities through sound from smartphones. In all, we saw more than 50 security-related deals, well above the 2013 average of slightly more than 30 deals per quarter.

Marketing technology with a big data angle

Though we saw nearly 90 deals for marketing and advertising technology, none were above $1 billion in 1Q14. The largest was Oracle's $400 million plan to acquire BlueKai, Inc., which provides marketing automation and analytics SaaS and, perhaps most importantly, behavior data tied to addressable, but anonymous, web users.[30] Reports suggest that tying BlueKai together with Eloqua, the lead nurturing marketing automation company Oracle acquired in 4Q12 for $956 million, potentially "bridges that big gap" between lead acquisition and lead nurturing.[31] It would do so by nurturing anonymous leads through BlueKai's data-enabled retargeting capability.[32]

Two other notable marketing technology deals were the $320 million deal for Comcast Corporation to acquire Freewheel Media Inc., whose technology leverages data to personalize advertisements in online video websites, and AOL, Inc.'s $91 million deal for Gravity, whose technology enables web content publishers to personalize content and ads for web and mobile users. In addition, Alibaba Group Holding Ltd. made an $805 million investment for a 60% stake in ChinaVision Media Group Ltd., a Chinese producer of TV, film, newspapers and mobile and web-based games (see Asia-Pacific and Japan regional snapshot, page 18). Intel, for no disclosed value, divested its media division, which has been developing technology to deliver internet-based video to screens of different sizes (from smartphones to big-screen TVs), to Verizon Communications Inc.[33]

Big databases targeted

Many 1Q14 deals included important big data angles, from Google-Nest to Oracle-BlueKai. We counted roughly five dozen in all, but only a few targeted core big data analytics technology. In a $150 million deal, IBM acquired Cloudant, Inc., which offers a version of the open-source database NoSQL, but provided as a service. And Intel invested an undisclosed amount for a minority stake in Cloudera, Inc., a provider of the open-source Hadoop database. As part of the deal, Intel will discontinue its own Hadoop distribution and support Cloudera's, while Cloudera will tune its distribution for efficiency on Intel chips.[34]

PE and cross-border activity

At 70 deals and $13 billion in aggregate disclosed value, PE dealmaking activity continued at the high end of the range we've seen in the last six years (see Figure 3, page 7). In 1Q14, that PE value was driven by 4 of the top 13 deals above $1 billion, which combined for a total of $8.2 billion. The top two PE deals in 1Q14 both targeted financial services technology (see Americas snapshot, page 16), which also continues a trend that heated up last year. In all, we saw roughly $6 billion in disclosed-value deals targeting financial services technology in 1Q14.

CB dealmaking appeared to get off to a slow start in 1Q14 – but only as a percentage of the surprisingly strong overall first-quarter dealmaking performance. CB deal volume was down sequentially and grew more slowly YOY than did all deals (see Figure 13, page 23). And although CB aggregate value was the highest we've seen in any first quarter for the six years we've produced these reports, it was only 23% of all-deal aggregate value – lower than the historical average (see Figure 15, page 25).

Notable divestitures ... and an IPO

Divestitures continued to grow in 1Q14: we saw nearly 70 deals in the quarter, compared with just shy of 60 deals in 4Q13. There was Google's $2.9 billion sale of Motorola Mobility to Lenovo. And aside from the $2.3 billion divestment of its low-end server business to Lenovo, IBM had two more 1Q14 divestitures for undisclosed amounts. It sold column grid array (CGA) semiconductor design assets and patents to Silicon Turnkey Solutions Inc. and a portfolio of 900 patents to Twitter Inc. (Patent deals may be picking up again — we saw about a dozen in 1Q14.) Alcatel-Lucent, SA sold an 85% stake in its Enterprise unit, which makes business phones and other communications equipment, for $272 million to China Huaxin Post & Telecommunication Economy Development Center. Meanwhile, Broadcom Corporation sold certain Ethernet controller assets to QLogic Corporation ($147 million), and Brocade Corporation sold its network adapter business to QLogic ($10 million).

In addition, for undisclosed values:

- CA Technologies sold its ERwin data modeling business to Embarcadero Technologies.
- Epic Games sold its Gears of War video game assets to Microsoft.
- Hewlett-Packard Company sold its Palm mobile OS patent portfolio (approximately 1,400 pending and granted in the US and 1,000 in other countries) to Qualcomm Inc.
- Hulu LLC sold Hulu Japan to Nippon Television Network Corporation.

Also during 1Q14, Sony Corporation confirmed that it plans to divest its PC business, though no deal was announced.[35]

Finally, there was good news following up on a 3Q11 deal in which a Japanese government-supported investment fund, Innovation Network Corporation of Japan, put up $2.6 billion to pool three Japanese companies' struggling small-panel LCD businesses (Hitachi Displays Ltd., Sony Mobile Display Corporation and Toshiba Mobile Display Company Ltd.). The company that was formed, Japan Display Inc., is now a leading supplier of smartphone screens and had a $3.1 billion IPO during 1Q14.[36]

Global technology M&A value increases

83% YOY,

compared with 20% for all industries.[37]

Look ahead

To paraphrase the American singer-songwriter Jimmy Buffett, global technology M&A can't run at this pace very long.[1]

To be sure, we expect global technology M&A volume and value to remain at historically high levels for the remainder of 2014, especially given the strong first quarter. But aggregate quarterly deal values will likely cool down, at least a bit, from the level achieved in the last nine months.

> *"Even as deal volume for all industries continued to decline in the first quarter, global technology M&A volume rose to its highest level in six years. The volume story is almost more interesting than the near-record deal values, because it indicates broad-based interest in M&A. That's the work of the five transformative technology megatrends in action, led by the high impact of smart mobility and cloud computing. What's most exciting is that the long-term impact of these megatrends is really only just beginning."*
>
> **Joe Steger**
> Global Technology Industry
> Transaction Advisory Services Leader
> EY

During those three quarters, aggregate disclosed value averaged $61.7 billion per quarter, nearly twice the $31.9 billion-per-quarter average of the previous 12 months. That average is also 13% higher than the $54.5 billion-per-quarter of calendar 2011, the strongest year of the last six. Volume averaged 727 deals per quarter over the same nine-month period, up only 6% over the 685 deals per quarter of the previous 12 months. But at 758 deals, 1Q14 had the highest volume we've seen in the last six years, demonstrating the broad-based impact of the megatrends. We expect a plateau in quarterly volume for the rest of the year, right around that level — or only modest growth.

The results of our April 2014 *Capital Confidence Barometer* (CCB) survey support this analysis. The twice-yearly survey showed that 61% of the 175 technology executives surveyed remain confident in global economic growth, but that's down from 68% in the October 2013 CCB. Further, 59% of technology executives expect M&A volumes to increase in the next 12 months — but that is down from 77% of October 2013 respondents. Just as a run-up in these figures presaged the dealmaking spike of the last three quarters, the moderation suggests imminent leveling.

The April 2014 CCB also showed increasing confidence in credit availability and corporate earnings growth, along with a shift toward financing deals with debt instead of cash. Finally, the impact of activist shareholders was clearly seen driving increased focus on cost reduction, share buybacks, dividends, strategic divestitures and portfolio analysis.

Potential stumbling blocks could still interfere with our expectations for a short-term plateau in global technology dealmaking. As this report went to press, geopolitical uncertainty and concurrent equities market instability appeared to be emerging. In the CCB survey, 32% of technology executives considered "increased global instability" the greatest economic risk to their business over the next 6-to-12 months, more than any other factor. These circumstances could highlight the valuation gaps that still remain in some pockets of the industry, leading to a chill for M&A.

What's certain is that the five technology megatrends — smart mobility, social networking, cloud computing, big data analytics and accelerated technology adaptation — will continue to drive the digital transformations increasingly sweeping through all industries today.

Consider the following questions and how the answers may shape dealmaking over the next few quarters:

- Will volume growth momentum continue or abate?
- Will robust dealmaking at midsize values ($100 million to $1 billion) continue?
- How fast will M2M and IoT technology dealmaking ramp up?
- How much longer will continued favorable PE conditions (low interest rates, appealing lending terms, attractive technology opportunities and increasing numbers of "companies at a crossroads") keep PE volume and value at the high end of their historical ranges?
- Is semiconductor sector consolidation going to accelerate, or continue at a slow pace?
- Will public concern about information security continue to fuel increasing volume and value of security deals?
- When will increased shareholder activism drive more carve-out or whole enterprise M&A?
- What impact will equities market instability have on the hot market for technology IPOs — and will there be related impact on global technology M&A volumes or valuations?
- CB deal growth was slow compared with all-deal growth in 1Q14, despite macroeconomic confidence. Will it catch up later this year?
- The share of technology deals acquired by non-technology companies grew in 1Q14 YOY but diminished sequentially. Will it head back up?
- How much longer will advertising and marketing technology be major acquisition targets?
- The technology industry appears to be splitting along two lines: mature hardware and software infrastructure providers increasingly challenged by megatrend-induced evolution, and younger, high-growth companies that created those megatrends or launched to take advantage of them. How will industry dealmaking evolve as a result?
- The "consumerization of technology" is entering a new phase, with new opportunities emerging from the analysis of big data as digital transformation impacts all industries. How will this drive/accelerate global technology dealmaking?

61%

of 175 technology executives surveyed are confident in global economic growth, and 59% expect modest M&A deal volume growth in the next 12 months.

Top of mind

Product line integration disconnect may obstruct technology deals' full potential

There is an irony at the heart of many technology deals — a disconnect that frequently prevents technology companies from fully realizing the potential deal synergies, revenue growth and long-term strategic impact they originally envisioned for their key transactions. Simply stated: too often, the chief development officer (CDO) or corporate development team responsible for the success of the deal are left out of the all-important product line integration (PLI) process.

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Iddo has more than 25 years of executive and advisory experience in corporate strategy, transaction planning and management, product portfolio, marketing and restructuring across many industries, including semiconductors, electronics, internet and software. His many engagements have taken him across the globe from Asia, Europe, South America and to the Middle East. Some integration-specific engagements led by Iddo include: providing lead advisory and support to the integration management office for the acquisition of a global software provider; setting up a JV as a channel for marketing a software product and services portfolio into a new market segment; leading the integration of a service business acquisition, revising market strategy, and consolidating product lines and a global footprint; leading a multibillion-dollar acquisition of an OEM; and conducting due diligence and acquisition integration for a cross-border project for the electronics industry. Iddo has an MBA from Stanford University and also serves on the Stanford faculty teaching valuation and financial modeling. He also holds a BS in Economics and Management from Tel Aviv University.

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The issue is particularly acute and increasingly problematic for technology companies at this stage of the industry's evolution. Today, global technology M&A deal valuations are rising, as is the speed of change as the five transformational megatrends (smart mobility, social networking, cloud computing, big data analytics and accelerated technology adaptation) drive startlingly fast strategy evolution for technology companies. Both factors (valuations and megatrends) are raising the stakes on successful deal outcomes.

"At technology companies, product line integration is primarily the domain of engineers and technologists, so the CDO is not always invited to the table," explains Iddo Hadar, Technology Transaction Integration Advisor, Transaction Advisory Services at EY. "But that can put product line integration synergies and revenue opportunities at risk, slow the realization of synergies in other areas dependent on the product line integration, and prevent institutional learning that can make the next deal integration more effective and efficient."

Why PLI is critical for success of technology deals
Hadar notes that PLI tends to play a more central role in technology deals than in other industries, for two main reasons:

- Revenue synergies typically represent a larger portion of the acquisition opportunity in technology deals — and PLI is the primary driver of revenue synergies.
- Because of technology's extraordinarily fast pace of change, any delay in PLI is more expensive in terms of lost opportunity.

The barrier between CDOs and PLI
At the same time, Hadar notes that, "Because of the technical nature of product strategy and architecture, PLI issues become more compartmentalized in technology companies. Questions about whether to prune certain products, how to align different products, what architectures to choose — tend to be addressed as purely technological discussions, with limited cross functional input on financial, commercial or operational considerations," Hadar says.

The challenging nature of PLI in technology companies leads to the erection of a higher barrier to collaboration between CDOs and business unit heads than exists in other industries. "Involvement of the corporate function in product integration decisions is much higher in other industries because it's more straightforward for CDOs to participate in the conversation," Hadar says.

Consequences of non-collaboration ...
PLI efforts that include only business unit heads or their technical teams are less inclusive, by definition. Consequently, they are less transparent — which leads to delays in realizing deal synergies and opportunities in other areas that likely have PLI-related dependencies, including manufacturing, supply chain and marketing.

Another consequence of non-collaboration is that product integrations end up being treated as one-off special cases, with little or no benefit from previous integration efforts. This is because a given business unit is not necessarily involved in every acquisition. If it also is not collaborating with corporate developers — who have experience from many deals — then it is not benefiting from the lessons learned from previous integrations, nor the corporate

developers' deep knowledge of integration methodology, tools and practices.
These factors usually result in less discipline around decision-making and incomplete documentation, which prolong the PLI process for technology companies. "Slowing the PLI process is dangerous in such a fast-moving industry. Competitors make moves, supply chains change, market dynamics shift. So many things can happen that obviate your original deal rationale," notes Hadar.

... and the benefits of close collaboration
The "honeycomb" of activities shown in Figure 5, below, separates the PLI process into seven discrete elements. Conceptually, the figure conveys the tight-knit relationships and multiple interdependencies among the seven elements, with product strategy and value drivers at the center, galvanizing all others. These relationships and interdependencies can be significantly enhanced through effective methodologies and tools for making PLI decisions rapidly, documenting them properly and communicating them effectively.

For example, to properly integrate the product portfolio and pipeline, companies must often launch several joint product development programs. However, joint product development cannot effectively progress without first aligning practices and methodologies between the buyer company and its target, or agreeing on standard engineering tools and resources. Failure to do the former likely leads to time wasted in semantic disagreements between buyer and target members of the joint development team; failure to do the latter obstructs common product specifications and designs that can be forwarded to manufacturers in your supply chain.

Governance and alignment
Further, the large number of PLI interdependencies, including those with other departments of the company, compels the need for the governance element shown in Figure 5. "A sound PLI process absolutely requires a PMO [project management office] that is looking at all the issues, and identifying all the interdependencies, both within the PLI process and between product integration and the go-to-market team, the operations team, the supply chain and the back-office team," Hadar says.

Benefits of standardized, repeatable processes
Bringing business unit leaders, engineers and technologists together with CDOs to collaborate on PLI using proven methodologies and toolkits improves the odds of realizing deal value — and also creates important long-term benefits. It fosters fact-based decisions, increases information transparency and leads to standardized, repeatable practices that transfer lessons learned in one transaction integration effort to benefit future integrations.

"By having a 'mega' project management aspect to product integration, companies can better coordinate and align all facets of the transaction integration process. They obtain broader participation, which drives increased inclusiveness and transparency, and they create a focal point for learning and sharing best practices," says Hadar. "Done this way, product integration leads to greater value creation and positively impacts other deal drivers, such as cost efficiency, key talent retention and the go-to-market plan."

Finally, it's important to note that whether your business unit involves your own corporate development team, or transaction advisors such as Hadar, these specialists are not making any actual PLI decisions. Instead, they provide the standardized, repeatable processes, tools and methodologies that help your company's technologists and engineers make difficult PLI decisions faster and more productively, while coordinating more effectively with the rest of the organization.

Figure 5: Key product line integration levers

Source: EY analysis, 2014.

Bottom line
The bottom line is that many technology companies can do a better job with product integration by coordinating and aligning it with the rest of their transaction integration processes and priorities. That ties PLI to the deal's value drivers and schedule in a way that's transparent and allows for broader participation, inclusiveness and proactive oversight. It creates a focal point for learning that promotes sharing of leading practices within the company and across multiple integration efforts. Most critically, it enables important value creation and positively impacts other drivers, such as cost efficiencies, key talent retention and go-to-market plans.

These are lessons technology companies have already learned with regard to integration of shared services and back-office functions. In these areas, determined, focused efforts and the application of leading-practice methodologies and tools consistently yield good results. So it should be with product line integration. "You can't assume that integrating the product line of another technology company will simply happen, naturally. That kind of *magical thinking* will end with disappointing results," says Hadar.

By participating in product line integration, the CDO and his or her team can contribute more effectively to the success of deals by proactive versus retrospective tracking of product line synergies and decision-making. This will help companies realize better ROI on current and future deals.

Regional snapshot: Americas

Nine $1 billion+ deals drive value growth

Americas deal value growth in 1Q14 was driven in part by nine transactions valued at more than $1 billion, including Facebook–WhatsApp; multiple PE deals involving financial services, educational and travel software/SaaS; and two semiconductor consolidation deals.

> *"Almost all areas of business and personal life are becoming digitized — and that means they are coming to rely on SaaS in the cloud and, often, mobile apps. This is reflected in the valuations cloud/SaaS and mobility companies now attract."*
>
> **Joe Steger**
> Global Technology Industry Transaction Advisory Services Leader
> EY

Besides Facebook's two acquisitions and Google–Nest (discussed in the main report narrative beginning on page 4), the top five deals included two PE deals focused on financial-services technology. Bain Capital and Advent International, together with Danish pension fund ATP, are buying payment-processing company Nets Holding from a group of Scandinavian banks for $3.1 billion. Nets Holding handled more than six billion transactions last year in the Nordic region; the buyers said they are likely to eventually take the company public.[1] In the other deal, KKR and executives of insurance-claims processor Sedgwick Claims Management Services are buying a majority stake in Sedgwick for $2.4 billion.

These and other big-ticket PE deals illustrate the attractiveness of SaaS companies to PE and strategic buyers, due in part to the strong valuations and growth potential of these companies.[2] Two more deals focused on educational SaaS. Hellman & Friedman acquired Renaissance Learning for $1.1 billion from European private-equity firm Permira, which bought the company for $455 million in 2011.[3] And Charterhouse Capital Partners LLP won an auction to acquire Skillsoft,[4] which provides e-learning and employee training SaaS for businesses, government agencies and educational institutions. Terms were not disclosed (so the deal added no value in our 1Q14 dataset); however, news reports valued the deal at about $2 billion.[5] A group of PE firms took Skillsoft private for $1.1 billion in 2010.[6]

Another PE deal focused on the hospitality industry: Thoma Bravo LLC is paying $930 million for TravelClick Inc., which helps hotels manage inventory and optimize reservations. Overall, Americas PE deal volume rose 20% YOY, although aggregate value fell compared with 1Q13 (which included the Dell buyout).

The Americas region also had the top two semiconductor deals of 1Q14. In the largest, RF Micro Devices and TriQuint Semiconductor are pursuing a merger of equals valued at about $1.6 billion. The new company, which will be named when the deal closes, will have a broader set of products for mobile phones and other wireless applications than either "parent." That product portfolio will include power amplifiers, power management chips and filters for mobile devices, network infrastructure and aerospace/defense sectors. The other deal involved two semiconductor manufacturing equipment suppliers. Entegris, which supplies products for purifying, protecting and transporting silicon wafers, is paying $1.2 billion for ATMI, which provides specialty semiconductor materials along with handling and delivery solutions.

Overall, 1Q14 Americas deals included more than 120 with a cloud/SaaS focus and more than 80 targeting smart mobility. Other deal drivers included social networking, big data analytics, marketing technology and health care IT (HIT). Overall, Americas volume increased 17% YOY to 545 deals in 1Q14, while total value increased 40% to $48.4 billion.

Americas aggregate deal value rose **40% YOY.**

Figure 6: Top five Americas deals, 1Q14 (corporate and PE)

Buyer	Disclosed value ($m)	Announced	Deal type	Premium offered
Facebook, Inc. to acquire WhatsApp Inc.	$19,000	19 Feb	Corporate	N/A
Google Inc. acquired Nest Labs, Inc.	$3,200	13 Jan	Corporate	N/A
Advent International/ATP/Bain Capital to acquire Nets Holding A/S	$3,143	24 Mar	PE	N/A
KKR/Sedgwick Claims Management Services management acquired majority ownership via management buyout of Sedgwick Claims Management Services, Inc.	$2,400	27 Jan	PE	N/A
Facebook, Inc. to acquire Oculus VR, Inc.	$2,000	25 Mar	Corporate	N/A

Figure 7: Americas transactions scorecard, 1Q14

Deals announced	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change		YOY % change	
Corporate							
Number of deals announced	427		497	1%	▲	16%	▲
Number of deals with disclosed values	64		115	-22%	▼	80%	▲
Total value of deals with disclosed values ($m)	$9,202		$38,830	52%	▲	322%	▲
Average value of deals with disclosed values ($m)	$144		$338	94%	▲	135%	▲
PE							
Number of deals announced	40		48	-6%	▼	20%	▲
Number of deals with disclosed values	10		19	27%	▲	90%	▲
Total value of deals with disclosed values ($m)	$25,381		$9,585	22%	▲	-62%	▼
Average value of deals with disclosed values ($m)	$2,538		$504	-4%	▼	-80%	▼
Corporate and PE							
Number of deals announced	467		545	0%	▲	17%	▲
Number of deals with disclosed values	74		134	-17%	▼	81%	▲
Total value of deals with disclosed values ($m)	$34,583		$48,415	45%	▲	40%	▲
Average value of deals with disclosed values ($m)	$467		$361	74%	▲	-23%	▼

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Regional snapshot: Asia-Pacific* and Japan (APJ)

Big-ticket bets drive record-setting value

Major acquisitions by Chinese and Japanese companies, including fast-growing internet firms, drove APJ aggregate deal value to its highest quarterly level in the three years we've broken out regional data. In fact, 1Q14's $14.4 billion aggregate disclosed value was slightly higher than in any of the three previous calendar years.

"Asia-Pacific and Japan companies are using M&A to place major bets on growth related to smart mobility and everything over the internet — both in their domestic markets and globally. And they are positioning for more deals to come through capital-raising activities."

Ben Kwan
Transaction Advisory Services Leader
Technology, Media & Telecom (TMT) Market
Greater China
EY

Top five deals included two totaling $5.2 billion by China's Lenovo Group, continuing its expansion beyond the declining PC market. Lenovo, which also became the world's fourth-largest smartphone maker in 4Q13,[1] plans to acquire the Motorola Mobility smartphone business from Google. Because Lenovo is paying $750 million of the price in stock, Google will own about 6% of Lenovo after the deal.[2] Lenovo is also buying IBM's low-end x86-based server business for $2.3 billion.

Besides requiring regulatory approvals, both deals present challenges. Motorola's handset business is unprofitable; Lenovo expects to reverse that in four to six quarters, at least partly by achieving economies of scale through integration with its existing handset business.[3] The addition of IBM's server business would make Lenovo one of the top three suppliers of x86-based servers,[4] but the unit's sales declined in 4Q13.[5] Lenovo has previously built on acquisitions successfully: after buying IBM's PC business in 2005, it became the number one global PC supplier last year.[6] Lenovo said it is still looking for further acquisitions.[7]

Another interesting area of APJ M&A was the growing dealmaking activity of three Chinese internet firms (Alibaba Group Holding, Baidu Inc. and Tencent Holdings Ltd.) as they compete for mobile internet users and expand into new businesses. Alibaba announced an $805 million deal for 60% of television and film production firm ChinaVision Media, which adds digital entertainment to the e-commerce company.[8] Alibaba also bought minority stakes in a messaging app developer, an online-education company, a pharmaceutical data provider and a bricks-and-mortar department store operator.[9] After 1Q14 closed, Alibaba struck a $1.1 billion for mapping service AutoNavi (the deal will be in our 2Q14 dataset). Baidu, best known for its search engine, is paying $124 million for the 41% of group-buying site Nuomi Holdings that it does not already own. Tencent, known for mobile messaging, gaming and social media, is taking minority stakes in a mobile game developer, a search engine, an e-commerce site and online real-estate site.[10] The minority-interest deals are not included in our dataset because our methodology requires at least 50% ownership (see Methodology, page 27). Alibaba (through a pending IPO)[11] and Tencent (through a bond sale)[12] are both raising funds that could fuel further dealmaking.

Other top five APJ deals included two by Japanese buyers, both focused on messaging: the Yahoo! Japan acquisition of mobile carrier eAccess from Softbank (which holds a minority share in Yahoo! Japan) and Rakuten's acquisition of Viber. Finally, online gaming company Giant Interactive Group is being taken private by PE firms working together with the company's chairman.

APJ was the only region in which all KPIs increased YOY and sequentially for both corporate and PE deals (see Figure 9, page 19). Deal volume grew 23% YOY and 39% sequentially to 64 deals; aggregate value rose 2,878% YOY and 117% sequentially to $14.4 billion.

*Asia-Pacific includes India.

At $14.4 billion, 1Q14 aggregate value was up

2,878% YOY.

Figure 8: Top five Asia-Pacific and Japan deals, 1Q14 (corporate and PE)

Buyer	Disclosed value ($m)	Announced	Deal type	Premium offered
Yahoo! Japan to acquire eAccess Ltd.	$3,168	27 Mar	Corporate	N/A
Lenovo Group Ltd. to acquire Motorola Mobility Holdings, Inc. (smartphone business) from Google Inc.	$2,910	29 Jan	Corporate	N/A
Lenovo Group Ltd. to acquire the x86 server business from IBM Corporation	$2,300	23 Jan	Corporate	N/A
Giant Investment Ltd. to acquire Giant Interactive Group Inc.	$1,521	17 Mar	PE	6%
Rakuten, Inc. acquired Viber Media Ltd.	$900	14 Feb	Corporate	N/A

Figure 9: Asia-Pacific and Japan transactions scorecard, 1Q14

Deals announced	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change	YOY % change
Corporate					
Number of deals announced	52		59	31% ▲	13% ▲
Number of deals with disclosed values	16		35	35% ▲	119% ▲
Total value of deals with disclosed values ($m)	$483		$12,010	82% ▲	2,387% ▲
Average value of deals with disclosed values ($m)	$30		$343	35% ▲	1,043% ▲
PE					
Number of deals announced	0		5	400% ▲	N/A ▲
Number of deals with disclosed values	0		5	400% ▲	N/A ▲
Total value of deals with disclosed values ($m)	$0		$2,373	9,788% ▲	N/A ▲
Average value of deals with disclosed values ($m)	$0		$475	1,879% ▲	N/A ▲
Corporate and PE					
Number of deals announced	52		64	39% ▲	23% ▲
Number of deals with disclosed values	16		40	48% ▲	150% ▲
Total value of deals with disclosed values ($m)	$483		$14,383	117% ▲	2,878% ▲
Average value of deals with disclosed values ($m)	$30		$360	47% ▲	1,100% ▲

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Regional snapshot: Europe, the Middle East and Africa (EMEA)

Buyers focus on vertical-market software and technology

EMEA volume and value increased YOY in 1Q14, as the region's buyers focused on software and specialized technologies for specific industries. However, the quarter lacked the big-ticket deals that occurred in other regions, and were seen in EMEA during late 2013.

"EMEA companies began 2014 with strong dealmaking growth over last year, while the depth of EMEA's industry-specific technology companies was highlighted by how buyers from other regions targeted these EMEA companies."

Staffan Ekström
Global Telecoms Leader – Transactions
TMT Leader, Nordics
EY

In the largest 1Q14 deal by dollar value, France's Dassault Systèmes, which provides a broad range of product life cycle management (PLM) and 3D design software, struck a $750 million deal for US-based Accelrys. Dassault Systèmes gains Accelrys' scientific PLM SaaS and on-premises software, which is used by big companies in pharmaceutical, consumer packaged goods and chemical industries. The deal is one of a recent series of acquisitions by Dassault Systèmes, including last year's purchase of Apriso, a provider of software that helps businesses manage global manufacturing networks.[1]

Two deals focused on telematics used to track and manage individual vehicles and corporate fleets, a technology that has begun to merge with IoT. In one deal, Russian PE firm Renova Group acquired Italy's Octo Telematics for $547 million. Octo's applications, along with specialized devices in vehicles, are used by insurance and transportation firms to manage risk, track stolen vehicles and optimize fleet usage. The other telematics deal was the $156 million acquisition by Belgian automotive technology company Wabco Holdings Inc. of Transics International NV, also of Belgium, which provides fleet management systems for commercial vehicle fleet operators.

In the quarter's third-largest EMEA deal, GE Healthcare expanded its hospital operations management products with the $350 million acquisition of API Healthcare, which makes widely used software for tracking and planning nurse schedules.[2]

Another top five transaction was PE firm Sun European Partners' $245 million deal for the appliance division of Invensys, being divested by France's Schneider Electric. The sale followed the completion in 1Q14 of Schneider Electric's $5.6 billion acquisition of UK-based industrial automation firm Invensys, which was announced last year.[3] Rounding out the top five was the $226 million acquisition by Swiss-based Kudelski Group of Conax, a provider of digital rights management (DRM) and other access technologies used by cable providers and other pay-TV companies to secure digital video content.

Overall, EMEA was a net seller in 1Q14 M&A (see Figure 15, page 25). Several of the largest deals taking place within the region involved buyers from the Americas and APJ targeting EMEA firms with attractive technology or customer bases, such as Advent/Bain/ATP–Nets Holding, Rakuten–Viber, Google–DeepMind and Zynga–NaturalMotion.

Nevertheless, the volume of deals by EMEA buyers in 1Q14 rose 5% YOY to 149 deals, as growth in PE transactions outweighed a decrease in corporate transactions (see Figure 11, page 21). Aggregate value rose 176% to $3.8 billion, but it was the smallest aggregate value of any region during the quarter. Sequentially, volume rose 16% but value fell 46% because 4Q13 included one large big-ticket deal. Without that deal, sequential value would have increased 3%.[4]

EMEA aggregate value increased 176% YOY to **$3.8 billion.**

Figure 10: Top five EMEA deals, 1Q14 (corporate and PE)

Buyer	Disclosed value ($m)	Announced	Deal type	Premium offered
Dassault Systèmes SA to acquire Accelrys, Inc.	$750	30 Jan	Corporate	28%
Renova Group acquired Octo Telematics SpA	$547	5 Feb	PE	N/A
GE Healthcare* acquired API Healthcare Corporation	$350	21 Jan	Corporate	N/A
Sun European Partners, LLP to acquire Appliance Division of Invensys plc	$245	5 Feb	PE	N/A
Kudelski Group SA acquired Conax AS	$226	26 Mar	Corporate	N/A

*HQ of buyer/target subsidiary or unit may differ from parent company.

Figure 11: EMEA transactions scorecard, 1Q14

Deals announced	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change		YOY % change	
Corporate							
Number of deals announced	136		132	11%	▲	-3%	▼
Number of deals with disclosed values	24		40	-2%	▼	67%	▲
Total value of deals with disclosed values ($m)	$1,157		$2,734	-60%	▼	136%	▲
Average value of deals with disclosed values ($m)	$48		$68	-59%	▼	42%	▲
PE							
Number of deals announced	6		17	89%	▲	183%	▲
Number of deals with disclosed values	4		5	25%	▲	25%	▲
Total value of deals with disclosed values ($m)	$214		$1,047	394%	▲	389%	▲
Average value of deals with disclosed values ($m)	$54		$209	294%	▲	287%	▲
Corporate and PE							
Number of deals announced	142		149	16%	▲	5%	▲
Number of deals with disclosed values	28		45	0%	–	61%	▲
Total value of deals with disclosed values ($m)	$1,371		$3,781	-46%	▼	176%	▲
Average value of deals with disclosed values ($m)	$49		$84	-46%	▼	71%	▲

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Appendix: additional charts, source notes and methodology

Figure 12: Global technology corporate and PE transactions scorecard by sector, 1Q14

	Number of deals					Average value ($m)				
	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change	YOY % change	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change	YOY % change
Corporate deals by sector (based on target sector)										
CE	24		27	0% –	13% ▲	$235		$262	17% ▲	11% ▲
CPE	42		68	5% ▲	62% ▲	$214		$301	43% ▲	41% ▲
Internet	90		92	-1% ▼	2% ▲	$31		$183	186% ▲	490% ▲
IT services	172		161	6% ▲	-6% ▼	$181		$62	-52% ▼	-66% ▼
Semiconductors	14		22	57% ▲	57% ▲	$228		$271	-80% ▼	19% ▲
Software/SaaS	273		318	4% ▲	16% ▲	$54		$394	154% ▲	630% ▲
Total	615		688	5% ▲	12% ▲	$104		$282	54% ▲	171% ▲
PE deals by sector (based on target sector)										
CE	0		4	-33% ▼	N/A ▲	$0		$252	-42% ▼	N/A ▲
CPE	5		6	-33% ▼	20% ▲	$8,180		$298	473% ▲	-96% ▼
Internet	4		11	83% ▲	175% ▲	$7		$798	11% ▲	11,300% ▲
IT services	17		16	33% ▲	-6% ▼	$234		$792	260% ▲	238% ▲
Semiconductors	1		1	0% –	0% –	$50		$21	N/A ▲	-58% ▼
Software/SaaS	19		32	19% ▲	68% ▲	$49		$241	-45% ▼	392% ▲
Total	46		70	15% ▲	52% ▲	$1,828		$448	10% ▲	-75% ▼
Total deals by sector										
CE	24		31	-6% ▼	29% ▲	$235		$260	-2% ▼	11% ▲
CPE	47		74	0% –	57% ▲	$2,206		$301	46% ▲	-86% ▼
Internet	94		103	4% ▲	10% ▲	$29		$234	81% ▲	707% ▲
IT services	189		177	8% ▲	-6% ▼	$190		$245	76% ▲	29% ▲
Semiconductors	15		23	53% ▲	53% ▲	$168		$253	-81% ▼	51% ▲
Software/SaaS	292		350	5% ▲	20% ▲	$54		$373	111% ▲	591% ▲
Total	661		758	6% ▲	15% ▲	$309		$304	50% ▲	-2% ▼

CE = Communications equipment
CPE = Computers, peripherals and electronics

All sectors except IT services increased deal volume YOY in 1Q14. In percentage terms, CPE experienced the largest YOY volume growth (57%), with buyers targeting CPE companies in diverse business areas, including home automation, sensors, wearables and servers. Of note, while other sectors have moved up or down in volume with no apparent pattern, CPE has grown steadily for the last three years. It averaged 73 deals per quarter for the last three quarters (including 1Q14), but only 45 deals per quarter for six quarters before that (including all of 2012) and 37 deals per quarter in 2011. Software/SaaS accounted for the most deals of any sector (350, up 20% YOY).

Average deal value leapt 50% sequentially, but declined 2% YOY. That small YOY decline masked a big difference between the changes in corporate and PE deal value. PE average value fell 75% compared with its exceptionally high level in 1Q13, which was due to the $24.4 billion Dell buyout. The PE decline outweighed the 171% YOY increase in 1Q14 corporate average value, which was propelled by big-ticket deals, such as Facebook–WhatsApp. Overall (corporate and PE) average value increased YOY in all sectors except CPE (again, because of the Dell deal). The largest increases were in the internet sector (707%) and software/SaaS (591%). Contributing to the 1Q14 internet sector average value increase were large deals, including the $3.2 billion acquisition of eAccess by Yahoo! Japan. PE internet average value leapt by an even greater 11,300%, due in part to the buyout of Chinese internet/mobile game company Giant Interactive Group. The rise in 1Q14 software/SaaS deal value was due largely to Facebook–WhatsApp, but the quarter also included other big-ticket deals, such as VMware–AirWatch and the deal to take Renaissance Learning private (see Figure 1, page 5).

The sequential decline in semiconductor average value came despite ongoing sector consolidation. In fact, the decline partly stems from an increase in deals with disclosed values, which increases the denominator of the average-value calculation. For example, 4Q13 had the Avago Technologies Ltd.–LSI Corporation deal ($6.6 billion) and five other smaller deals. 1Q14 had two big-ticket semiconductor deals, RF Micro Devices–TriQuint ($1.6 billion) and Entegris–ATMI ($1.2 billion), plus 12 more deals with disclosed values.

Note: average value based on deals with disclosed values.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Figure 13: CB corporate and PE transactions scorecard by sector, 1Q14

	Number of CB deals					Average CB value ($m)				
	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change	YOY % change	1Q13	1Q 2Q 3Q 4Q 1Q	1Q14	Sequential % change	YOY % change
Corporate CB deals by sector (based on target sector)										
CE	12		10	0% –	-17% ▼	$39		$809	110% ▲	1,974% ▲
CPE	18		27	29% ▲	50% ▲	$18		$223	-59% ▼	1,139% ▲
Internet	31		22	-31% ▼	-29% ▼	$19		$20	-77% ▼	5% –
IT services	39		48	-14% ▼	23% ▲	$126		$53	-60% ▼	-58% ▼
Semiconductors	8		8	33% ▲	0% –	$75		$12	-79% ▼	-84% ▼
Software/SaaS	92		98	0% –	7% ▲	$44		$157	-19% ▼	257% ▲
Total	200		213	-4% ▼	7% ▲	$53		$172	-16% ▼	225% ▲
PE CB deals by sector (based on target sector)										
CE	0		2	0% –	N/A ▲	$0		$303	N/A ▲	N/A ▲
CPE	0		1	-50% ▼	N/A ▲	$0		$0	N/A –	N/A –
Internet	1		3	0% –	200% ▲	$7		$200	-90% ▼	2,757% ▲
IT services	8		4	100% ▲	-50% ▼	$234		$875	40% ▲	274% ▲
Semiconductors	1		0	-100% ▼	-100% ▼	$50		$0	N/A –	-100% ▼
Software/SaaS	6		8	33% ▲	33% ▲	$70		$30	-98% ▼	-57% ▼
Total	16		18	13% ▲	13% ▲	$115		$440	-69% ▼	283% ▲
Total CB deals by sector										
CE	12		12	0% –	0% –	$39		$640	66% ▲	1,541% ▲
CPE	18		28	22% ▲	56% ▲	$18		$223	-59% ▼	1,139% ▲
Internet	32		25	-29% ▼	-22% ▼	$17		$38	-82% ▼	124% ▲
IT services	47		52	-10% ▼	11% ▲	$158		$352	115% ▲	123% ▲
Semiconductors	9		8	14% ▲	-11% ▼	$63		$12	-79% ▼	-81% ▼
Software/SaaS	98		106	2% ▲	8% ▲	$49		$145	-38% ▼	196% ▲
Total	216		231	-3% ▼	7% ▲	$65		$208	-17% ▼	220% ▲

CE = Communications equipment
CPE = Computers, peripherals and electronics

CB volume growth lagged all-deal growth in 1Q14. The volume of CB deals grew 7% YOY, but that was slower than the all-deal volume growth of 15%; sequentially, CB volume declined 3%, compared with a 6% increase for all deals (see Figure 3, page 7). As a result, CB deals accounted for a smaller percentage of global transaction volume (30%) than in any quarter last year (CB volume averaged 32% of all deals in 2013).

CB average value surged 220% YOY, compared with a 2% decline in all-deal average value. But sequentially, CB average value fell 17% compared with a 50% increase in the all-deal average. Due to this sequential decline, CB average deal value of $208 million was lower than the all-deal average of $304 million, following two successive quarters in which average CB value was greater than the all-deal value. By sector, the highest average CB deal value ($640 million) was in CE, due in part to the pending $2.9 billion Lenovo-Motorola Mobility deal. The $2.3 billion Lenovo-IBM x86 server deal lifted the CPE sector. Consequently, both CE and CPE rose by extremely high percentages YOY.

Note: average value based on deals with disclosed values.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Figure 14: Global corporate and PE deals by acquiring country: CB and in-border, 1Q14

Corporate deals							
					1Q14		
Top countries	1Q13 deals	1Q 2Q 3Q 4Q 1Q	1Q14 deals	% total deals	No. IB deals	0% 50% 100%	No. CB deals
US	394		460	67%	374		86
UK	48		52	8%	25		27
Canada	28		35	5%	20		15
France	24		20	3%	8		12
China/Hong Kong	11		16	2%	8		8
Japan	8		14	2%	7		7
Germany	17		12	2%	4		8
Australia	7		11	2%	8		3
India	17		8	1%	4		4
Sweden	8		7	1%	3		4
Other	53		53	8%	14		39
Total	**615**		**688**	**100%**	**475**		**213**

PE deals							
					1Q14		
Top countries	1Q13 deals	1Q 2Q 3Q 4Q 1Q	1Q14 deals	% total deals	No. IB deals	0% 50% 100%	No. CB deals
US	35		45	64%	38		7
UK	1		8	11%	3		5
Sweden	1		3	4%	2		1
China/Hong Kong	0		3	4%	2		1
Canada	4		2	3%	1		1
Denmark	0		2	3%	1		1
Other	5		7*	10%	5		2
Total	**46**		**70**	**100%**	**52**		**18**

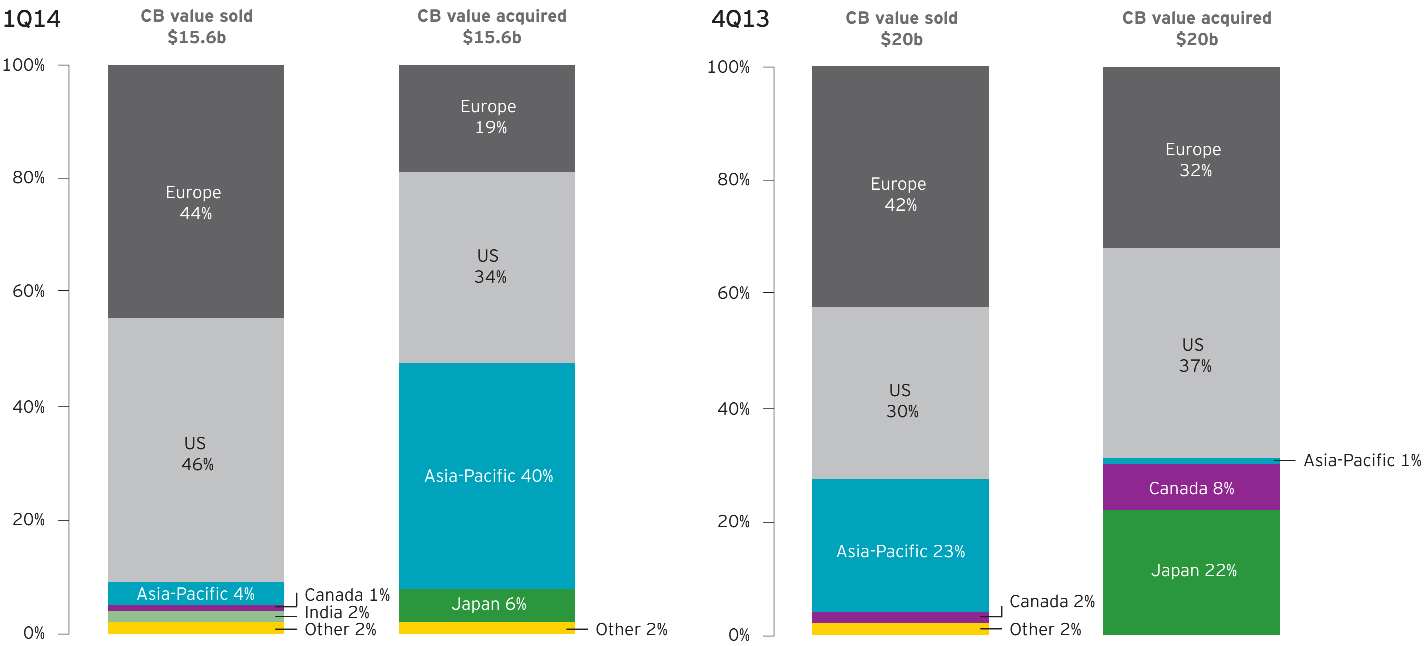
The US accounted for a combined corporate and PE volume of 93 CB deals in 1Q14, 19 fewer deals than in 4Q13. Due to that decrease, global CB deal volume decreased sequentially by eight deals (see Figure 13, page 23). US buyers acquired 40% of combined PE and corporate deal volume in 1Q14, compared with 47% in 4Q13.

The UK saw the largest sequential increase in combined corporate and PE CB volume in 1Q14 (+15 deals), and accounted for 14% of the quarter's total CB deals. Other countries experiencing sequential increases were China (+5 deals), Germany (+4) and India (+4). Countries with fewer CB deals in 1Q14 compared with 4Q13 included Japan (-5), France (-4), Canada (-3), Australia (-3) and Sweden (-1). Notably, Ireland just missed the top 10 countries with six corporate deals, five of which were CB; in 4Q13, Ireland had eight deals (all of which were CB).

*Additional countries with one PE deal in 1Q14: Cayman Islands, France, Germany, Israel, Japan, Russia and Thailand.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Figure 15: CB deal value flow for technology deals (disclosed value), 1Q14 vs. 4Q13



There are two ways to view CB deal value for 1Q14. At $15.6 billion, aggregate CB disclosed value was the highest for any first quarter in the six years we've produced these reports. It's nearly five times higher than 1Q13's $3.2 billion total. However, at only 23% of global aggregate value, it is far below the historical average of about 40%, and even lower than the 2013 average of 29%. We've noted before that CB dealmaking typically starts slowly and builds over the course of each year.

The main story emerging from this chart is Asia-Pacific's unusual position as the major net buyer for the quarter. Asia-Pacific accounted for 40% of global CB value purchased, primarily due to acquisitions by Chinese companies of large businesses divested by US and European firms. The US and Europe were the quarter's largest net sellers, accounting for 46% and 44% of CB value sold, respectively. It is also unusual that neither Europe nor the US was a net buyer; usually, Europe and the US alternate as net buyers and sellers.

- China's Lenovo accounted for three large deals that together totaled $5.3 billion (85% of the value acquired by Asia-Pacific companies). These were Google's Motorola Mobility smartphone business, IBM's low-end server business and mobility-related patents from Unwired Planet (for $100 million).
- An Asia-Pacific deal involved a European divesture. Chinese technology investment firm China Huaxin plans to acquire 85% of Alcatel-Lucent Enterprise, a unit of the French company that makes business phones and other communications equipment, for $272 million.
- In the largest deal by a Japanese buyer, e-commerce company Rakuten acquired Cyprus-based messaging app company Viber Media for $900 million. The deal accounted for all of Japan's CB value acquired.
- The largest US CB acquisition was a PE deal: the $3.1 billion plan by a consortium including Bain Capital and Advent International to acquire Danish transaction-processing firm Nets Holding.
- The three largest corporate CB deals by US buyers targeted UK-based companies. Game company Zynga paid $487 million for NaturalMotion, which develops 3D animation technology widely used in games; Google acquired artificial intelligence company DeepMind Technologies for $400 million; and Equifax acquired debt-management firm TDX Group for $327 million.
- French company Dassault Systèmes accounted for the largest CB deal by a European buyer, the $750 million acquisition of US-based software company Accelrys Inc.
- Buyers from other regions acquired the majority of European value sold; European companies acquired only 13%.

Note: data and totals may appear inconsistent due to rounding.

Source: EY analysis of The 451 Group Research M&A KnowledgeBase, accessed 4 April 2014.

Source notes

A quarter of strategic bets on the future

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Look ahead

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Methodology

- *Global technology M&A update: January-March 2014* is based on EY's analysis of The 451 Group M&A KnowledgeBase data for 2013 and 2014. Deal activity and valuations may fluctuate slightly based on the date the database is accessed.
- Technology company M&A data was pulled from The 451 Group M&A KnowledgeBase based on the database's own classification taxonomy, and deals were then aligned to the following sectors: CE, CPE, semiconductors, software/SaaS, IT services and internet companies. Alignment was based on the sector of the target company.
- The data includes M&A transactions between two technology companies, technology companies acquiring non-technology companies, and non-technology companies acquiring technology companies.
- Joint ventures were not included.
- Corporate M&A activity data was analyzed based on the sector classification of the target company. Prior to 2012, we reported based on the classification of the acquiring company; the change enables a clearer picture of the technologies being focused on for acquisition.
- Equity investments that involved less than a 50% stake were not included in the data.
- PE M&A activity includes both full and partial stake transactions in excess of 50% and was analyzed based on acquisitions by firms classified as private equity, sovereign wealth funds, investment holding companies, alternative investment management groups, certain commercial banks, investment banks, venture capital and other similar entities.
- Unsolicited technology deal values were not included in the dataset, unless the proposed bid was accepted and the deal closed based on data available at the time of analysis.
- The value and status of all deals highlighted in this report are as of 31 March 2014, unless otherwise noted.
- All dollar amounts are in US dollars, unless otherwise indicated.
- In this report, disclosed deal values may vary from other published values because The 451 Group database methodology automatically subtracts cash acquired, net of debt, to arrive at enterprise value. Additionally, announced deal values are often subject to change at the time of close, due to subsequent revisions to the terms of the deal and/or changing stock valuations to the extent stock was used as a deal consideration.
- As used in this report, "total value" refers to the aggregate value of deals with disclosed values for the period under discussion.
- Other definitions:
  - "TTM" equals trailing 12 months.
  - "Multiple of EV/TTM revenue" is the transaction value multiple representing total enterprise value over trailing 12 months of target revenue.
  - "Multiple of EV/TTM EBITDA" is the transaction value multiple representing total enterprise value over trailing 12 months of target EBITDA (earnings before interest, taxes, depreciation and amortization).
  - "Premium offered" represents the percentage difference between the purchase price and the share price value 30 days prior to the announcement of deal; where data is unavailable from The 451 Group, premium data was accessed via Capital IQ.

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