

July 2013

# Citi 2Q13 CIO Survey

## IT Budget Growth Downticks Again; Macro Shows Signs of Life

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## 2Q13 CIO Survey – Budgets Reset Modestly lower, but Macro Shows Signs of Life

- **Lowered Growth Expectations for 2013 IT Budgets...** – Our survey of 260 CIOs across the U.S., Europe and Asia continues to point to a modest increase in 2013 IT budgets. However, growth expectations were reset modestly lower versus the prior survey (+0.2% Y/Y vs. +0.5% Y/Y 1Q13 and +0.6% Y/Y 4Q12). Regionally, all three segments spending expectations declined, but CIOs are becoming more optimistic on the global economy.
- **...but, Macro Concerns Fading** – CIO responses suggest an increase in confidence in the global economy. Overall, the number of CIOs that expect a worsening macro environment declined across all regions, representing to lowest level in four quarters. Additionally, the number of CIOs who expect a slight improvement or substantial improvement increased sequentially, snapping a four consecutive quarterly decline. According to the survey, 30% of respondents believe the economy will improve in the next 12 months, while 24% believe it will deteriorate further; 46% of respondents believe the economy will remain about the same.
- **IT Budgets Holding as View on Macro Shows Improvement** – While our survey results do show some signs of pressure on macro concerns, roughly 65% of respondents (versus 60% in the previous survey) noted that macro commentary has not impacted budgets; we view this as a positive, especially when complimented with CIOs improving view on the Global economy.
- **New Project Spending Momentum in U.S., but Weakness in Asia and Europe** – U.S. CIOs intend to spend more on new projects relative to the results from the prior quarter and prior year; this quarter increased to 27% from 26% last quarter and increased +5% from 22% the prior year. Europe declined to 23% from an elevated 1Q13 level, but remained flat versus the prior year. Asia new project spending continued to decline coming in at 27% versus 28% in the prior quarter and 31% the prior year; this is the fourth consecutive quarterly decline for new project spending and is the lowest level in the history of our survey.
- **Budget Priorities & Deferrals** – Server consolidation/virtualization and Improving information and network security remain top priorities (both ranking in the top four across all three regions). Call center & HR outsourcing migrations remain a low priority items.
- **Spending by Category** – Security software was the only IT initiative that was ranked in the top three to receive an increase in budget allocation across all three regions. Software as a Service and Application Software are also expected to receive an increase in budget allocation and both ranked in the top five for all three regions. Consistent with past surveys, CIOs highlighted Printers and Tape Storage as two areas that ranked in the bottom three for increased budget allocation.

- **PCs / Hardware** – Our 2Q'13 survey indicates that PC replacement cycles remains lengthened. Only 55% of respondents cited that PC replacements have or are expected to normalize within 1H'13. 23% of respondents went as far as to say that PC refresh will not normalize until 2014 (up from 20% in the prior survey). More than 35% of respondents expect storage budgets to remain flattish, while 45% are expecting for moderate growth in petabytes manage. Our survey also suggests that an increasing number of CIOs have adopted or are planning to launch within the next two years BYOD for corporate PCs, again highlighting BYOD (Bring-Your-Own-Device) as a potential new disruption to traditional PC procurement.
- **Networking** – On balance, the weighted average response indicates a modest +0.7% increase in data network spending intentions; this is slightly below both the prior year and prior quarter's survey. Asia's planned weighted average networking spend continued to decline for the third straight quarter, declining -10bps sequentially and 130bps annually. Spending intentions in both the U.S. and Europe experienced a modest sequential decline of -30bps; annually, U.S. spending intentions increased by +40bps while Europe spending intentions declined -60bps. Network Security, and Wireless & Mobility remain the top two priority spending areas for CIOs while Application Delivery Networking, Video Content & Delivery, and Unified Communications/VoIP remain top candidates for potential deferrals.
- **Services** – Analytics remains an important growth driver for services vendors. Moving work to lower cost locations and vendor consolidation remain important Services priorities. Business Process Outsourcing interest remains strong in Europe and Asia. Pressuring vendors for pricing remains an important but ultimately less-than-successful objective as Pricing remains steady – Consolidating hardware and application footprint is a better way. EPAM and CTSH were the key wallet share gainers.
- **Software** – Software initiatives are top of mind representing the top 5 priorities of CIOs, however momentum suggest deceleration in Q1 continued into Q2. Network security, a more defensive priority is now highest while cost-based server virtualization is high, but continues multi-quarter trend of deceleration. Budget sensitive areas such as packaged apps and customer-developed software remain stagnant.

# 2013 IT Spending Growth Continues to Downtick

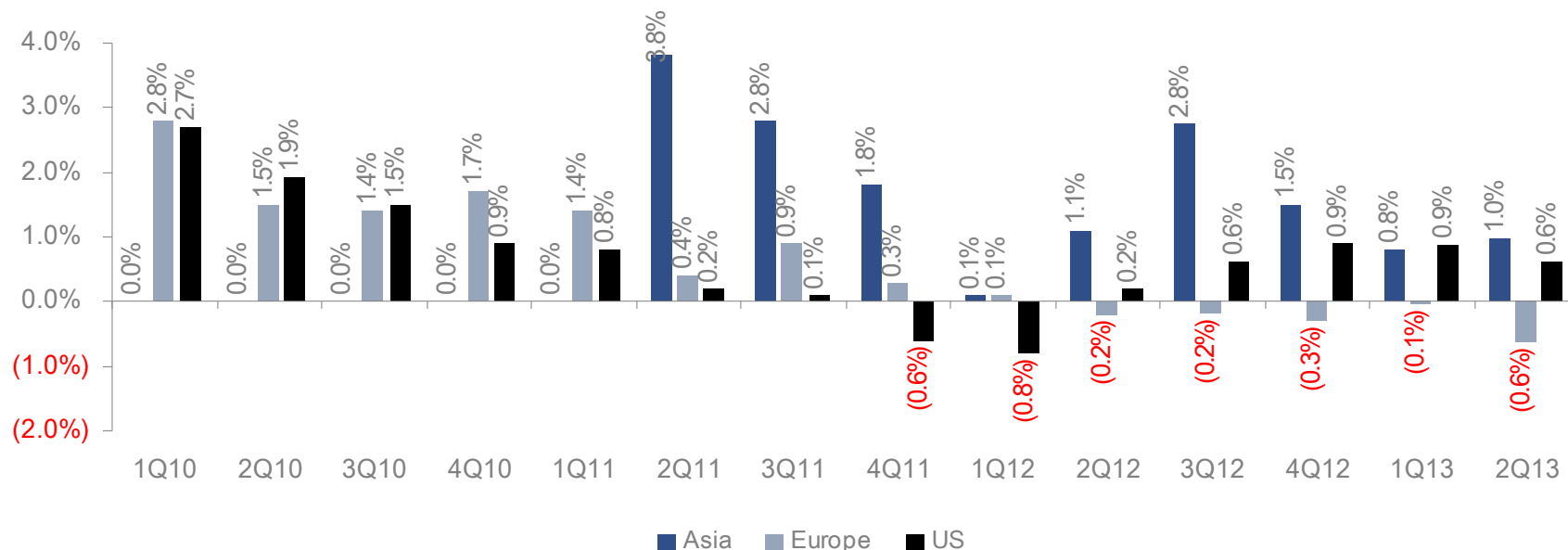
Anticipated IT Budget Growth at Beginning of Year								
	2007	2008	2009	2010	2011	2012*	2013 4Q12* 2Q13	
Asia	N/A	N/A	N/A	N/A	N/A	1.8%	1.5%	1.0%
Europe	0.6%	0.4%	(2.2%)	1.2%	1.6%	0.3%	(0.3%)	(0.6%)
US	2.7%	1.3%	(3.2%)	1.7%	0.8%	(0.6%)	0.9%	0.6%
<b>Total</b>	<b>1.6%</b>	<b>0.8%</b>	<b>(2.7%)</b>	<b>1.5%</b>	<b>1.2%</b>	<b>0.3%</b>	<b>0.6%</b>	<b>0.2%</b>

\* adjusted for 2Q13 survey results

Anticipated IT Budget Growth figures taken from 4Q survey of year before labeled year (e.g. 2010 growth from 4Q09 survey)

- 2Q13 results highlight annual IT budget growth that is below preliminary 2013 projections (current 0.2% vs. preliminary 0.6%), but growth nonetheless.
- IT budget expectations, relative to preliminary 2013 projections, declined the US (+0.9% to +0.6%), Europe (-0.3% to -0.6%), and Asia (+1.5% to +1.0%).

Please describe your current annual IT budget growth relative to the previous year



# Expected 2013 IT Spending by Size and Vertical

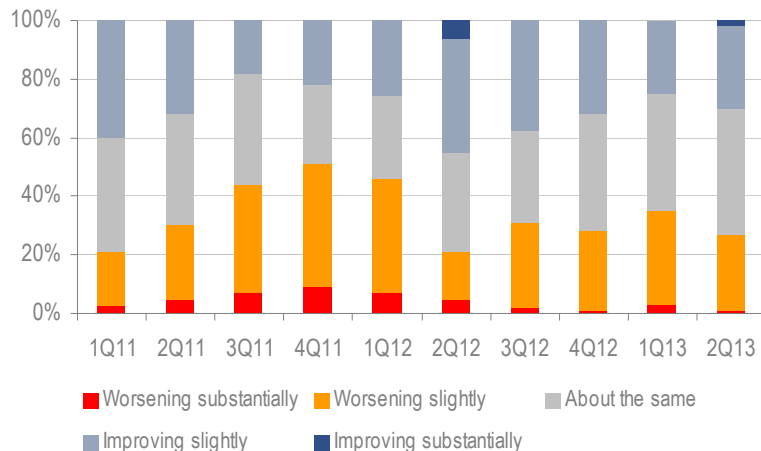
Vertical	Aggregate 2013 Spending Growth (Anticipated)		Top IT Priority
	2Q13	1Q13	
Health Care	2.3%	1.4%	PC Upgrade / BI development
Materials	1.9%	1.5%	Improving Network Security
Consumer Staples	1.1%	0.9%	Server Consolidation/Virtualization
Energy	1.0%	0.0%	Application / BI development
Financials	0.6%	2.0%	Server Consolidation/Virtualization & Network Security
Consumer Discretionary	0.4%	(0.4%)	BPO
Information Technology	0.1%	(0.3%)	Windows Migration / Cloud Computing
Other	(0.2%)	0.4%	BPO / Network Security
Telecommunication Services	(0.2%)	1.7%	Spread across multiple projects
Manufacturing	(0.4%)	(0.6%)	Improving Network Security
Industrials	(0.8%)	0.5%	Spread across multiple projects
Utilities	(1.5%)	(1.5%)	Spread across multiple projects

Company Revenue	Aggregate 2013 Spending Growth (Anticipated)	
	2Q13	1Q13
<\$1 billion	0.4%	1.0%
\$1-5 billion	(0.4%)	(0.2%)
\$5-10 billion	0.9%	1.0%
>\$10 billion	0.1%	0.4%

- Health Care showed highest growth and greatest increase from last quarter (+0.9% to +2.3%).
- Industrials and Utilities showing the biggest declines.
- More verticals experienced sequential increases versus declines; increases in vertical's budgets were also more pronounced relative to verticals that experienced declines.
- Server consolidation/virtualization, Windows migrations, and increasing network security stood out as top priorities.
- Small companies with <\$1B in revenue saw the biggest sequential declines in spending expectations (-0.6% Q/Q).

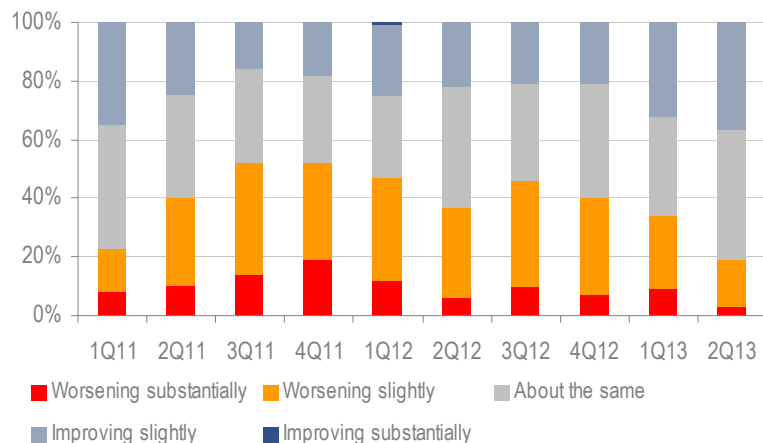
# Global Macro View Gradually Improving

**U.S.:** Fewer CIOs anticipate the global environment worsening; CIOs who believe the global economy will remain about the same or slightly improve increased sequentially. Overall, 2Q13 shows an improvement vs. 2Q12.

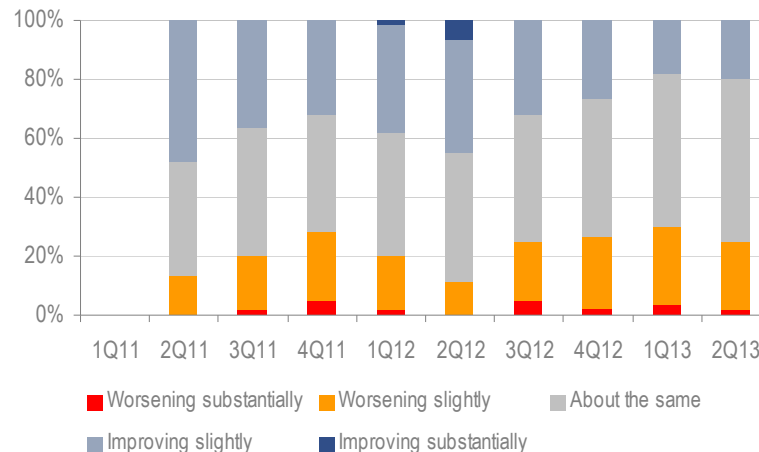


**CIOs were asked: What is your general outlook for the next 12 months regarding the global economy?**

**Europe:** Macro outlook again has improved from previous quarter with fewer CIOs believing the global economy will worsen. CIOs who view the economy will remain about the same or slightly improve increased meaningfully.

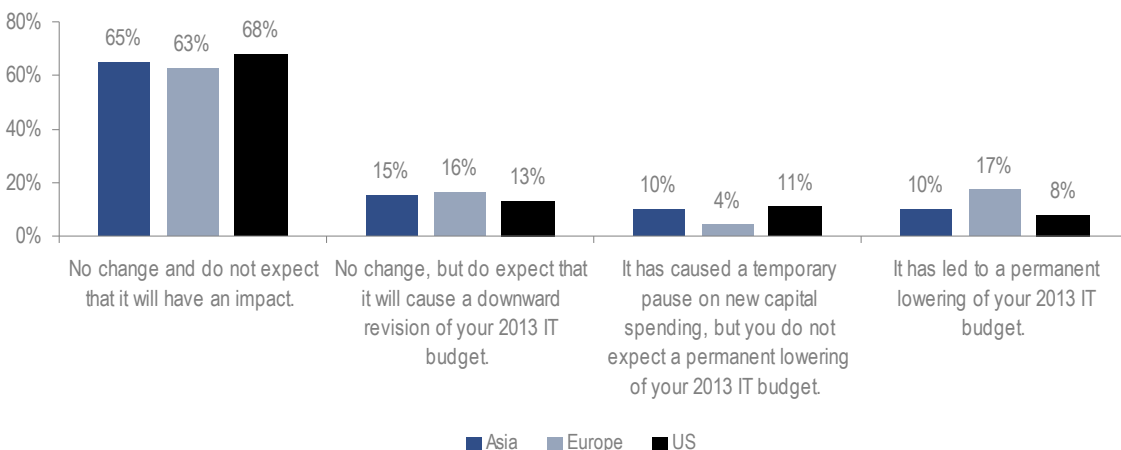


**Asia:** Fewer CIOs view the economy to worsen relative to the prior quarter, bucking the trend of 4 consecutive quarters in erosion of confidence; CIOs who believe the economy will remain the same or slightly improve modestly increased.

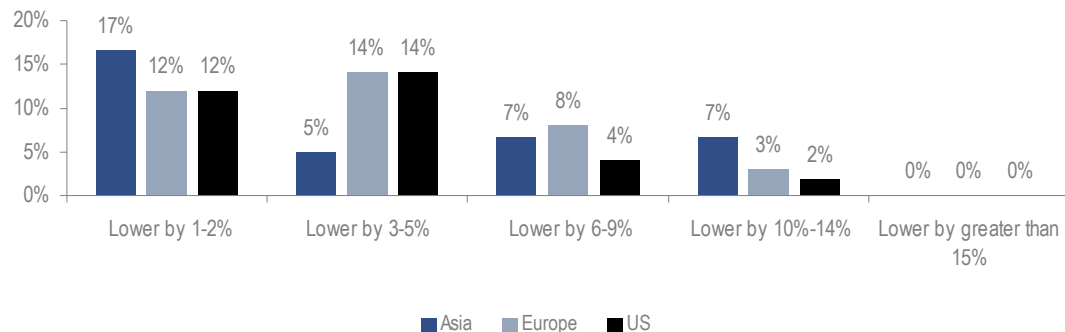


# Economic Outlook: U.S. Stable, Macro Taking a Toll Internationally

Has the recent commentary around the economy increased scrutiny on your 2013 IT budget?



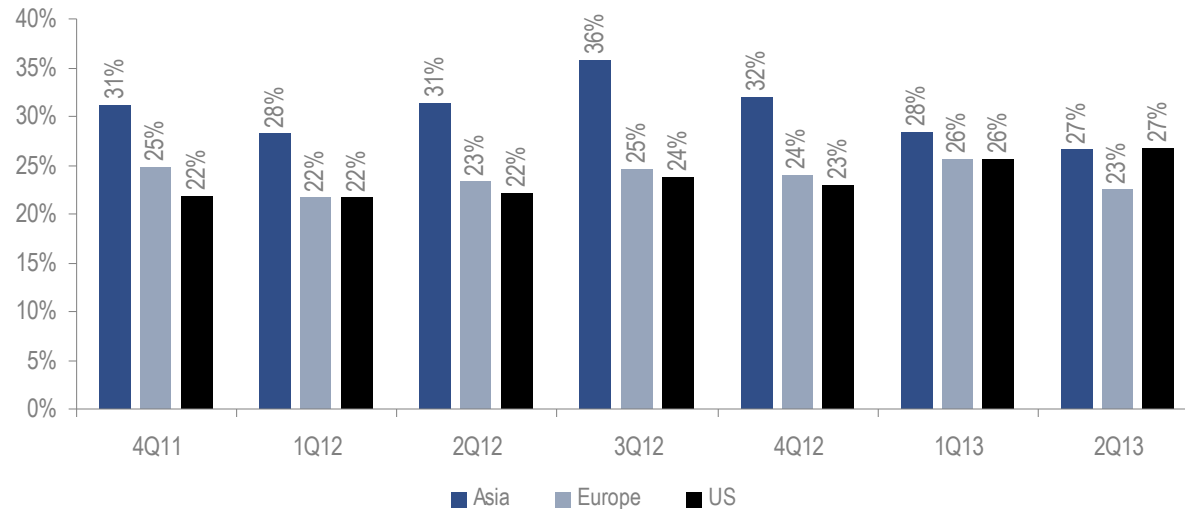
If the economy has, will, or you believe it will, lower your 2013 IT budget, by how much will it decrease?



- Overall, 2013 IT budgets continue to see some pressure due to macro concerns; however, roughly 65% of respondents, up from 60% in the previous survey, noted that macro commentary has not impacted budgets.
- European CIOs remain the most pessimistic with ~17% indicating that the macro environment has led to a permanent reduction in IT budgets. Asia saw the largest increase in CIOs indicating a permanent reduction in 2013 IT budget (+5% to 10%).
- In Asia, 65% of CIOs do not expect macro factors to have a negative impact to 2012 budgets, which is down from 75% in the previous survey.
- On average, CIOs believe that a worsening economy could result in a ~4.5% decrease in IT budgets.

# New Project Spending Momentum in U.S. is Offset by Tepid Asia and Europe

What percentage of your IT spending over the next 12 months will be on new projects (vs. existing) projects?



- U.S. CIOs intend to spend 27% of their IT budget on new projects. A modest increase versus our 1Q survey.
- Europe CIOs intend to spend 23% of their IT budget on new products, a 3% decline relative to our prior survey.
- Asia CIO respondents indicated that 27% of their budget will be spend on new projects, a modest decline versus our prior quarter survey and a 4% decline from our survey one year prior.
- Asia's new project spending has declined for the 4<sup>th</sup> consecutive quarter.
- Asia's new project spending is at the lowest level in the history of our survey.

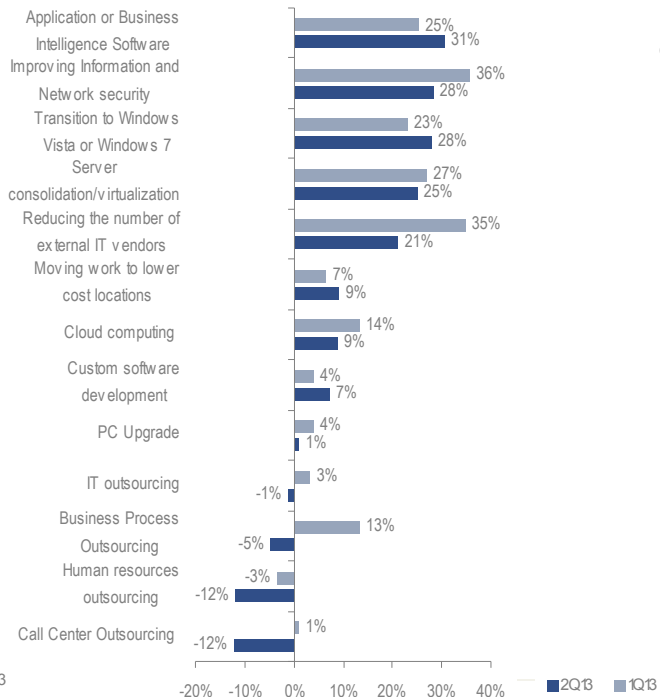


# Network Security and Server Consolidation Remain Priorities

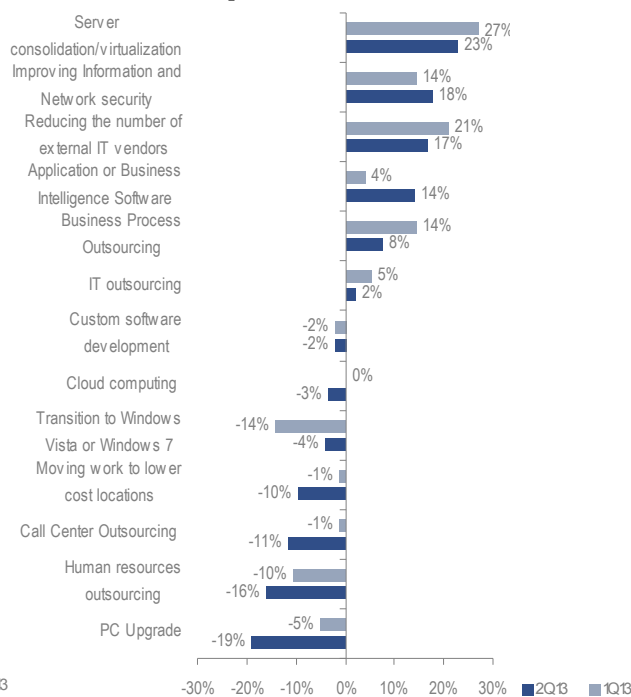
- Server consolidation/virtualization and Improving information and network security remain high priority items, both ranking in the top four for all three regions.
- Call center & HR outsourcing migrations remain a low priority items.
- Transition to Windows 7 (or Vista), while not a top priority, did increase meaningfully for all three regions as end of life deadline looms.
- PC Upgrades declined sequentially in priority for all three regions.

Are the following items a “priority” or “candidate for deferral” during the next 12 months?

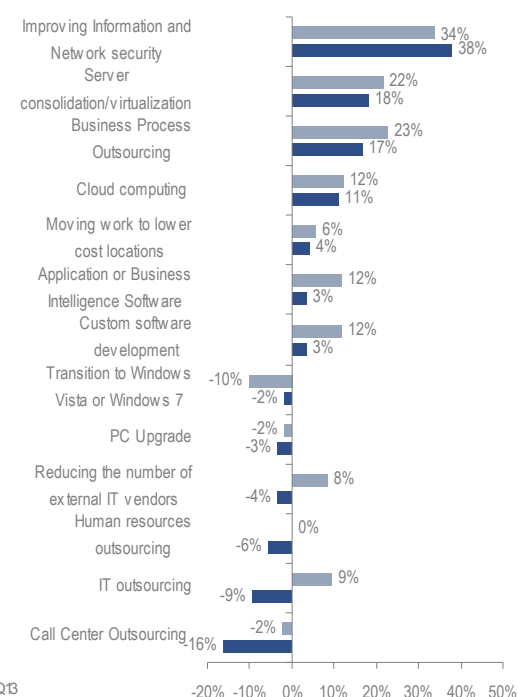
## U.S.



## Europe



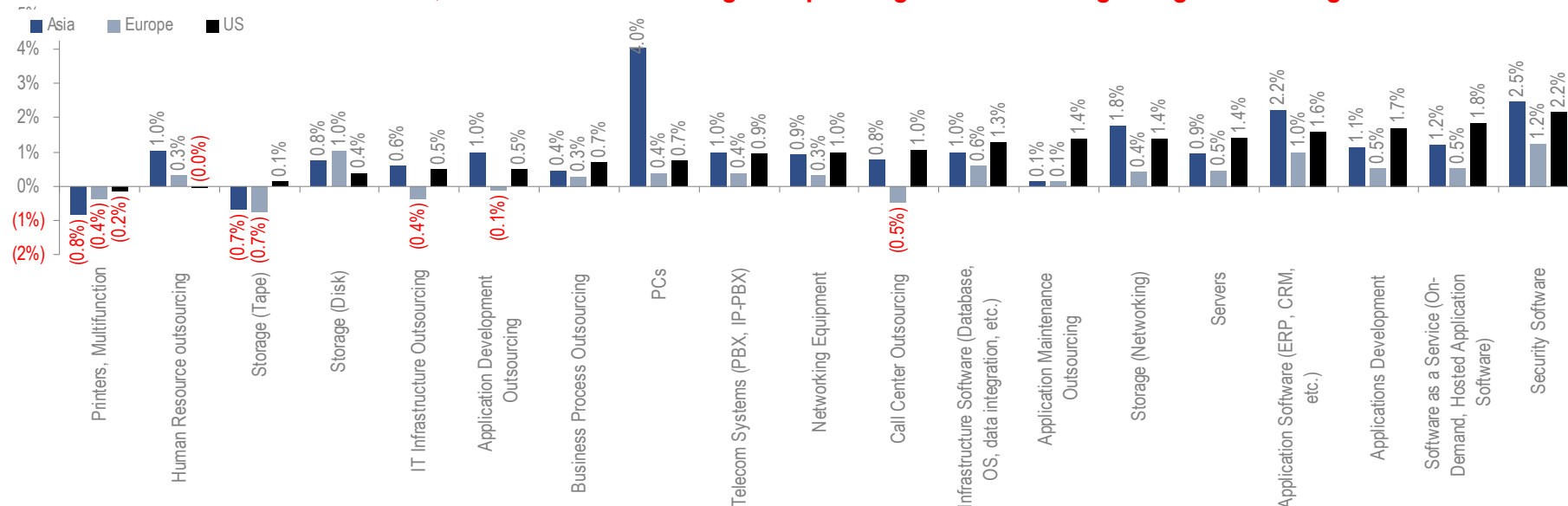
## Asia



# Areas of IT Budget Growth in 2013

- Security software ranked in the top two across all regions to receive an increase in budget allocation across all three regions.
  - Software as a Service, and Application Software are also expected to receive an increase in budget allocation and ranked in the top five across all regions.
- Consistent with past surveys, CIOs highlighted Printers and Tape Storage as the two areas where spending is decreasing the most
- While PCs remain the area of highest IT spend increase for Asia CIOs (+4% Y/Y), US and European CIOs expect only modest growth (less than +1% Y/Y)

Relative to 2012, characterize the change in spending in the following categories during 2013

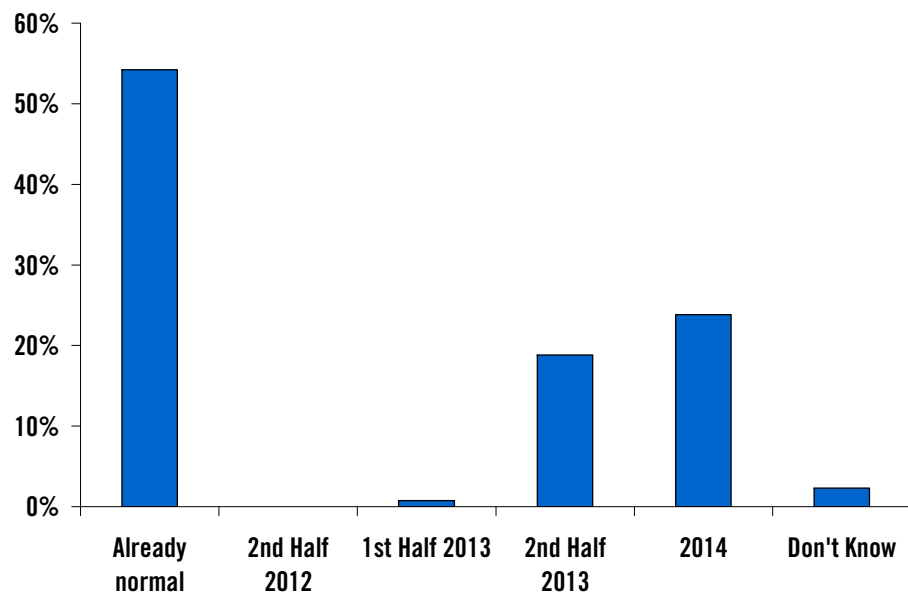


# Sector Commentary

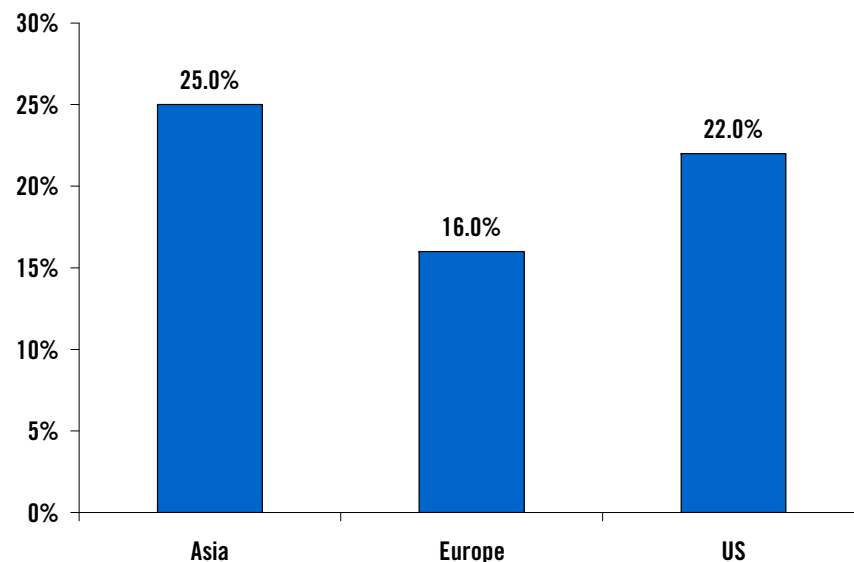
# PC Replacement Cycle Lengthens Again

- Roughly 55% of CIOs indicated that PC replacement cycles have or will normalize by 1H13, generally inline with the 57% indicated in our 1Q'13 survey. Approximately 23% of respondents indicated 2014 for PC refresh cycle to return to normal, continuing to trend up from 20% in our prior survey in Q1 2013 and 17% in 4Q12 survey.
- On average, 20% of the PC installed base is expected to be replaced in 2013 (same as in our prior report), a slight decrease from the 21% estimated for 2012.
- This is moving to a 5 year PC replacement cycle versus the historical normal 3.8 years replacement cycle.

When do you expect your PC refresh cycle to return to normal?



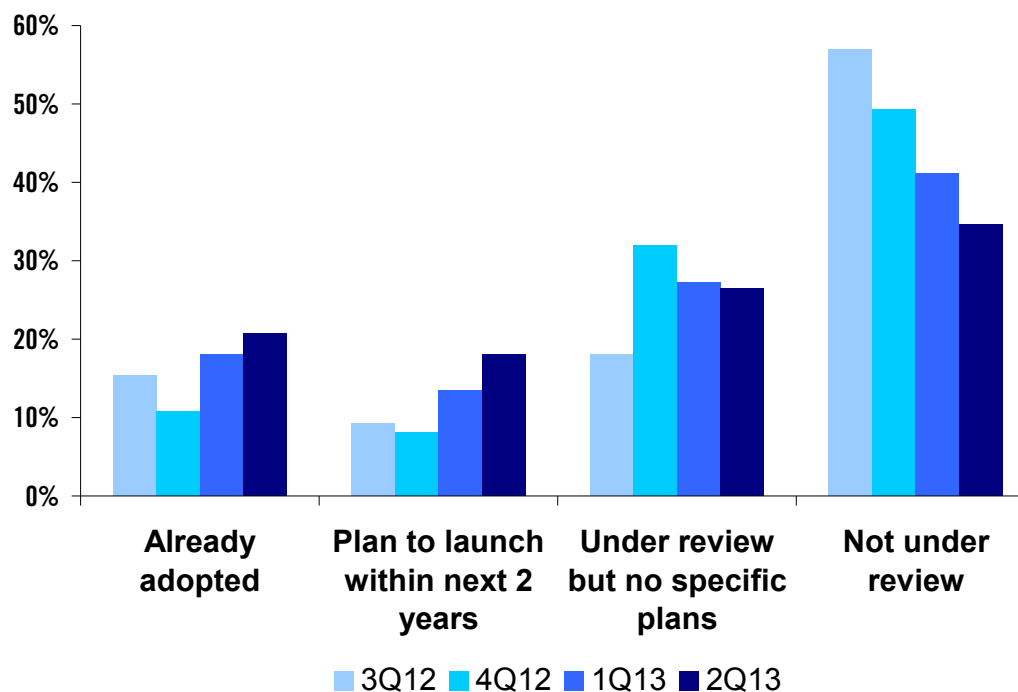
What percent of your current PC installed base will you replace in 2013?



# BYOD Trend Expanding into PCs

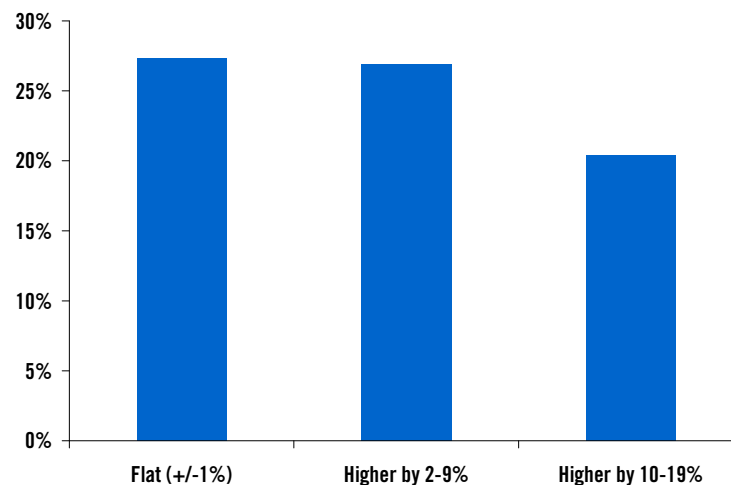
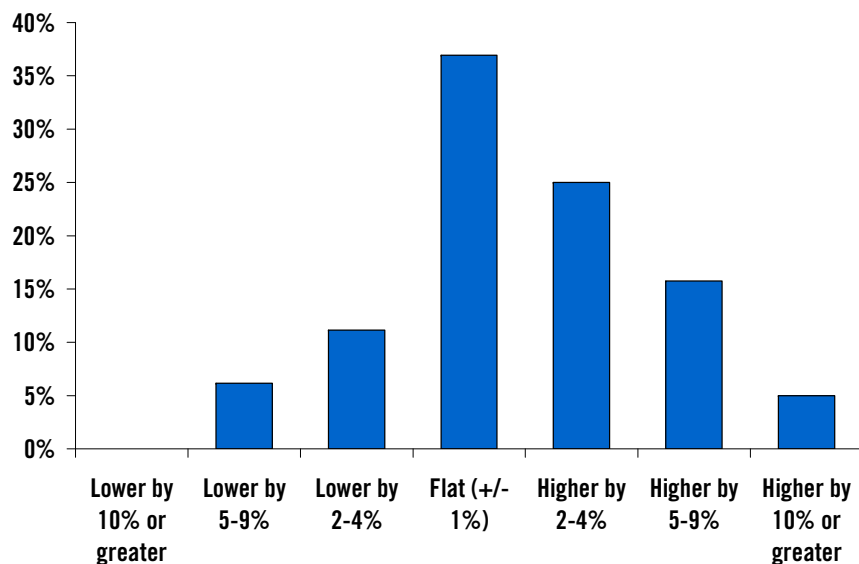
- Roughly 21% of respondents cited that their employees are already using their personal PCs/tablets at work, up from 18% in the prior quarter and 15% about a year ago.
- An additional 45% of respondents noted that they are either planning to or at least reviewing the possibility of BYOD for PCs, up from 40% prior in Q1 2012 and 27% about a year ago. Only 35% of respondents said not under review down from 41% from last quarter and 57% about a year ago.
- The top two reasons for BYOD adoption remain 1) increases employee satisfaction and 2) reduces IT expenses. Security is cited as the biggest drawback/concern.

## Do you plan to adopt a BYOD policy for employee PCs?



# Storage Budgets Remain Flat

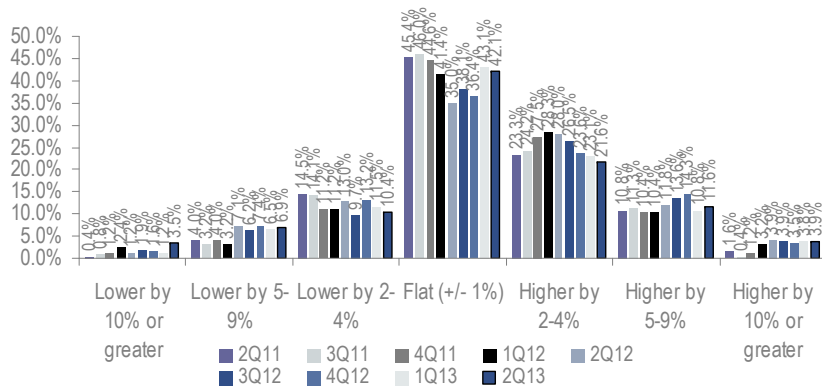
- Roughly 37% of CIOs indicated flattish IT spending on storage in 2013 relative to 2012.
- This compares with 45%+ expecting 2-20% petabyte growth.
- We believe this is a result of continued adoption of storage efficiency technologies.



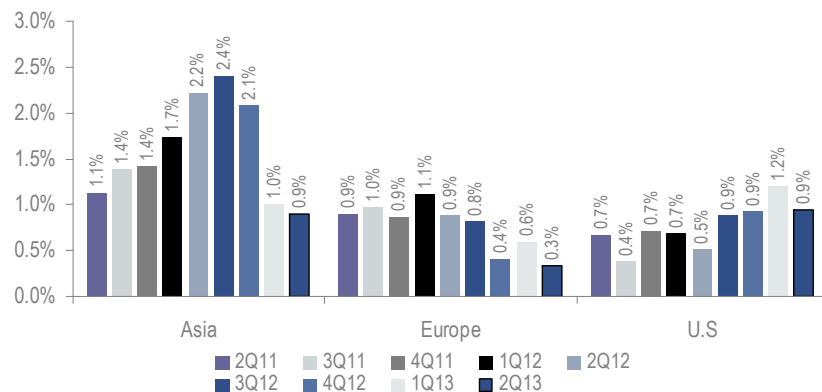
# Data Networking

Survey Participants point to modestly lower Network Equipment Spending expectations.

Networking - Spending Intentions Relative to Prior Year



Networking Spending - Weighted Response Trends

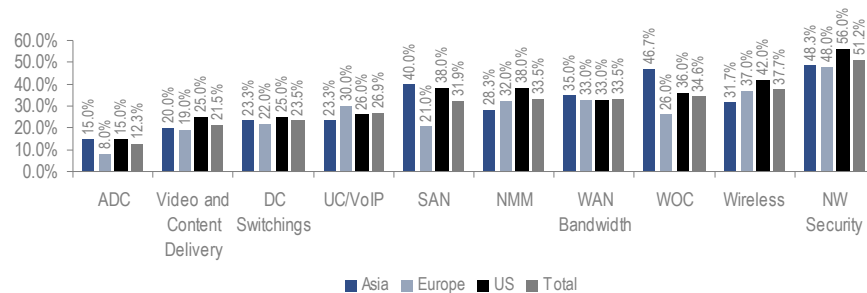


- On balance, the weighted average response indicates a modest 0.7% increase in data networking spending plans; this is slightly lower than prior year and prior quarter results.
- CIOs spending intentions for Networking Equipment remain relatively in line with the prior quarter results: 21% of CIOs anticipate a worsening in spending; 42% anticipate flattish spending; and 37% anticipate an improvement in spending.
- Asia's spending intentions continued to decline for the third straight quarter, declining -10bps sequentially (-130bps annually).
  - Spending intentions in the U.S. experienced a modest sequential decline of -30bps (+40bps annually)
  - Spending intentions in Europe experienced a modest sequential decline of -30bps (-60bps annually)

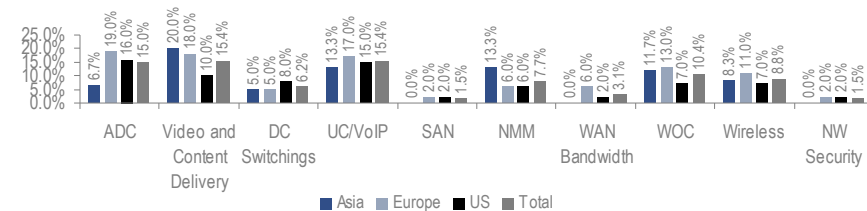
# Data Networking

Network Security and Wireless & Mobility remain top two priorities. Consistent with prior responses CIOs indicated the most ability to defer spending in Application Delivery Networking, Video & Content Delivery, and Unified Communications/VoIP.

% Reporting High Priority IT Budget



% Reporting Ability to Defer in IT Budget



- Network Security is consistently a top focus for CIOs and is currently viewed by 51.2% of survey respondents as a high priority spending item.
  - Wireless (37.7%) and WOC (34.6%) are also viewed as high spending priorities for this 2Q13 survey.
- Conversely, Unified Communications/VoIP and Video Content & Delivery rank as the categories with highest propensity to experience spending deferrals; 15.4% of survey respondents for both categories indicated an ability to push out spending.
  - CIOs also view Application Delivery Networking as a deferral target.

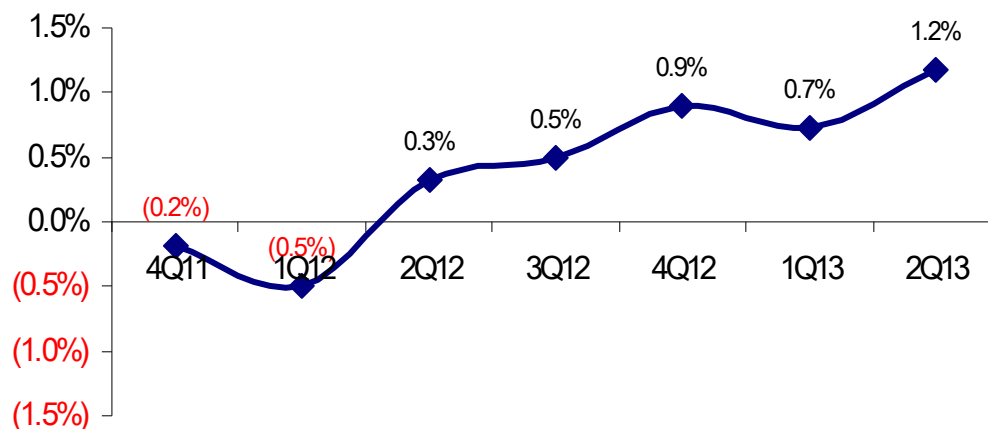


# Services Pricing Trend Remains Stable

- **Pricing Reality:** Our data indicates per unit pricing for IT Services has stabilized at a modest positive level – it was positive for the fifth quarter in a row. The average unit price change across the 260 CIOs is expected to be +1.2% based on the 2Q13 survey data. This compares favorably to our 1Q13 survey result of +0.7% (+0.9% in 4Q12, +0.5% in 3Q12, +0.3% in 2Q12, and -0.49% in 1Q12 [see chart below]).
- **Pricing Intent:** The percentage of CIOs looking for price reductions rose in 2Q13 to ~80%. Prior data is as follows: 69% in 1Q13; 79% in 4Q12; 74% in 3Q12, 67% in 2Q12, and 72% in 1Q12.
- **Our View:** While most CIOs look at unit price reductions as a lever to control costs, the tight labor supply situation leads them to alternate solutions to the problem: using more lower-cost resources and consolidating hardware and applications to reduce operating cost are key “pricing” components. This correlates well with our recent channel checks where most vendors have an outlook of “flattish”

## Asia, Europe, U.S. – Average

**CIOs were asked: What level of unit price increase or decrease do you expect from your IT services vendor in 2013?**



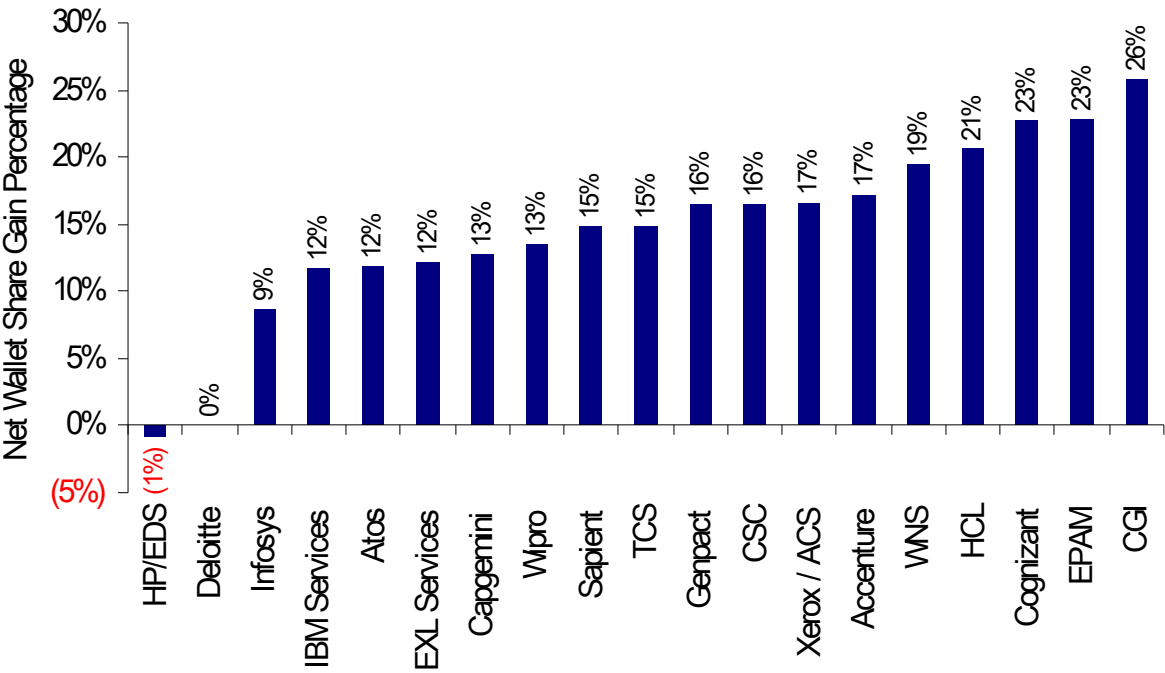
# Services “Wallet-Share” Trends

- IT vendors had solid performance in 2Q13 with respect to maintaining or increasing wallet share. Just 1 vendor – HP – that we track lost share, vs. 2 in 1Q13, 1 in 4Q12, 4 in 3Q12 and 6 in 2Q12. Even HP had a good recovery from a deep negative multi-quarter performance to a very slight negative. It is losing market share but the wallet share picture is better.
- Cognizant and EPAM had a solid performance and the BPO companies are doing well also. CGI was solid, although some of this is possibly due to its merger with Logica.

## Asia, Europe, U.S.

CIOs were asked: Which IT services vendors are gaining or losing share of the IT spending dollars at your organization?

**Note:** When reading this chart, vendor share is calculated using the cumulative number of wallet share “gain” responses minus “losing” responses for a specific vendor, divided by the number of respondents who use the vendor. It is meant to be a directional indication of wallet share performance, not an indicator of forward revenue growth rates.

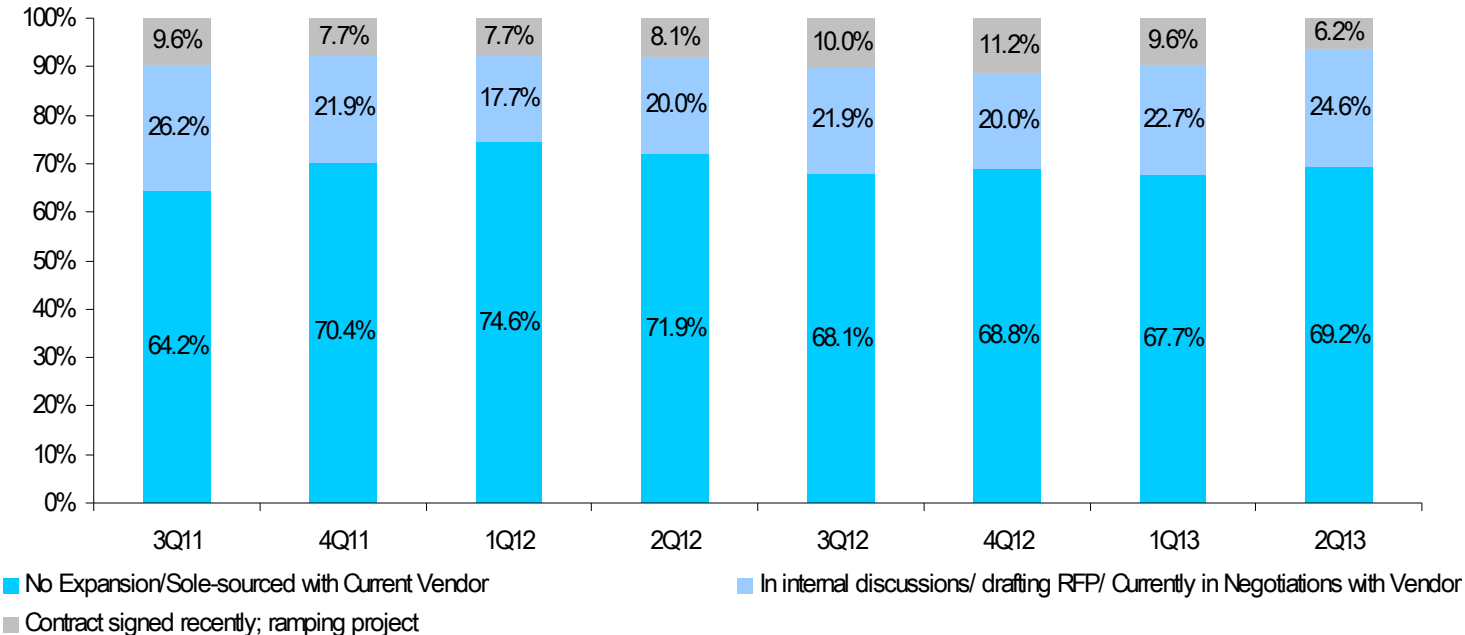


# Outsourcing Trends Remain Steady

- CIOs either exploring outsourcing additional functions or currently ramping incremental projects is relatively steady at 30.8% in 2Q13 vs. 32.3% in 1Q13 from 31.2% in 4Q12. The long term trend is relatively steady.
- Note that this chart typically applies primarily to large traditional IT outsourcing, and not to smaller incremental offshore outsourcing deals.

## Asia, Europe, U.S.

CIOs were asked the following: If you are currently in the process of outsourcing incremental functions in your organization, what stage of the process are you in?



# Immigration Reform – IT Buyers in “Wait-and-See” Mode

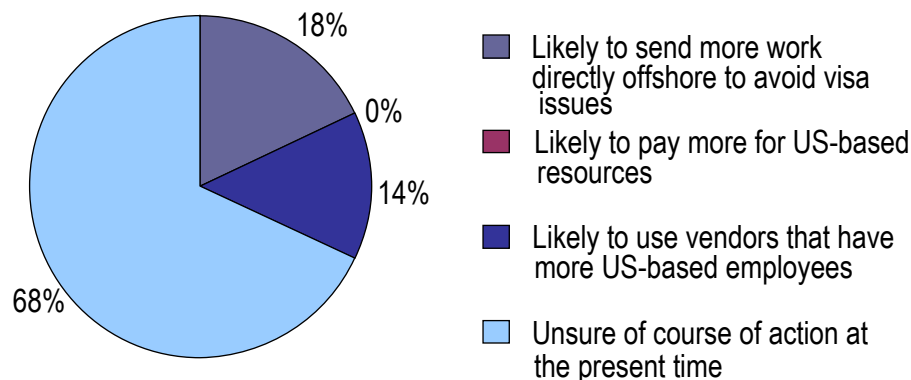
- CIO's were asked how US immigration reform would affect their use of offshore outsourcing vendors. It is relevant since the rules governing H-1B and L-1 visa awards / usage would change.
- Of 72 CIO's who said they would be affected by U.S Visa Immigration reform
  - 68% were unsure of their course of action and will take a wait-and-see approach
  - 32% were roughly evenly split between “sending more work offshore to avoid visa issues” and “looking to use vendors that have more US-based employees.” .....
- But given ZERO CIO's responded that they would be willing to pay more for US-based resources, we believe incremental outsourcing is likely to be the natural outcome over time if this legislation prevails.

## CIO Response to Potential U.S. Immigration Reform

**CIOs were asked the following: If you use offshore outsourcing currently, will the potential work visa changes in US immigration reform affect your use of offshore outsourcing vendors?**

**Note:** Of the 260 CIO's that responded, we removed 188 responses that were either “Not currently using offshore outsourcing” and “Not US-based, does not matter to me.”

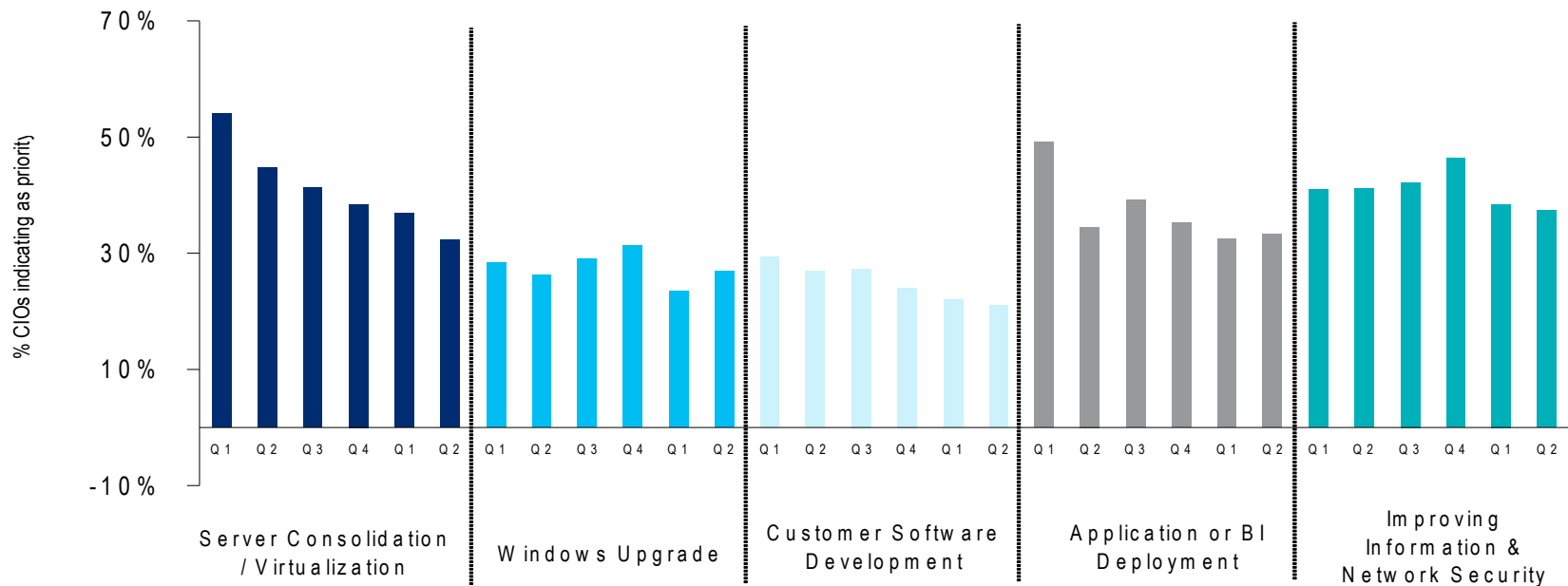
**Read more about the US Immigration Bill in our note: [click here](#)**



# Software Project Momentum Remains Uninspiring

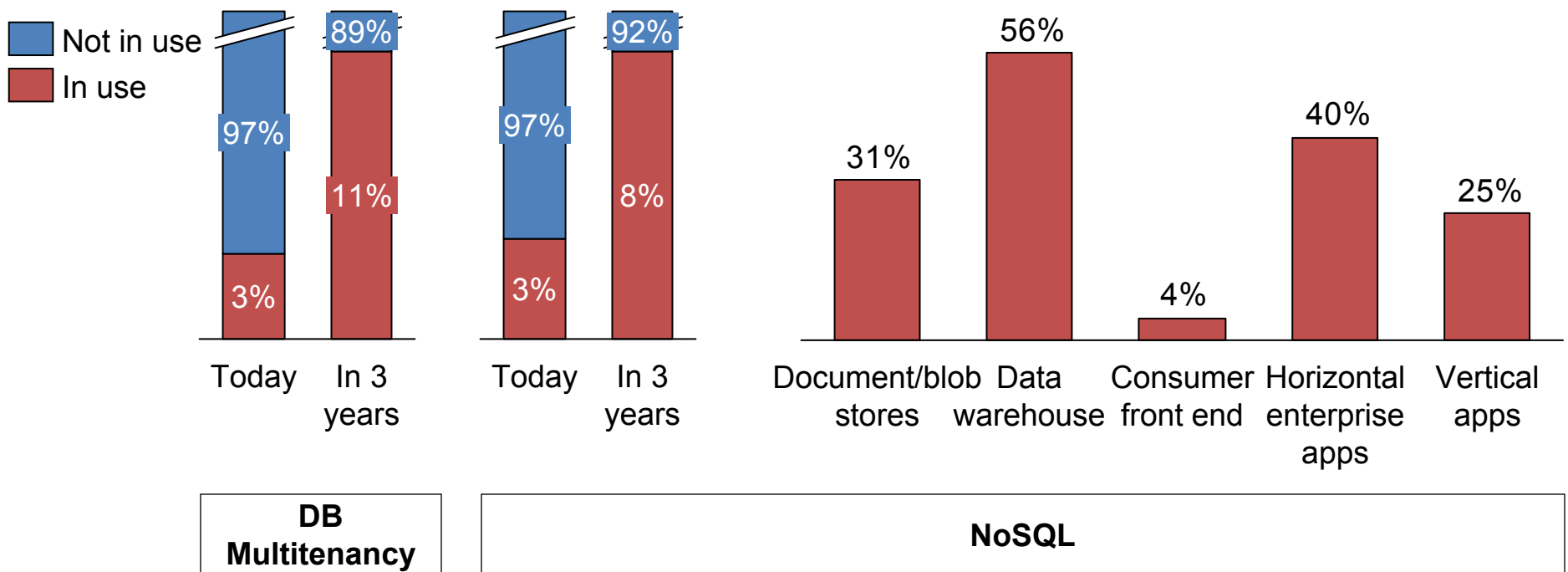
- Overall key project indicators suggest deceleration in software spending continues
- Server Virtualization continues multi-quarter trend downward, no longer the #1 priority
- Windows migrations ticked up in Q2 with Windows XP end of life deadline looming (Apr 2014)
- Applications software development and deployment trends have been choppy and continue to trend lower; Likely hurt by macro
- Demand for Information and Network Security has been steady; Back to #1 priority with other areas fading

## CIO Spending Priorities (1Q12 – 2Q13):



# Good News and Bad for Oracle in Databases

- Oracle's 12c database offers a key feature called multitenancy, which exists today but in crude form
  - Respondents indicate that in 3 years their usage of multitenancy will more than triple, boding well for the 12c release
- About 20% of organizations are using NoSQL databases, but NoSQL represents just 3% of DB workloads today
  - Respondents expect to roughly triple their usage of NoSQL in the next 3 years
  - The most common use case is data warehouse, but horizontal enterprise apps (Oracle's core) is also a popular use case



# Appendix A-1

## Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

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## Citi Research Equity Ratings Distribution

<b>Data current as of 30 Jun 2013</b>	<b>12 Month Rating</b>			<b>Relative Rating</b>		
	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>
Citi Research Global Fundamental Coverage	48%	40%	12%	6%	88%	6%
% of companies in each rating category that are investment banking clients	53%	50%	45%	58%	51%	49%

## Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

**Risk rating** takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

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