

**DLA PIPER GLOBAL TECHNOLOGY LEADERS SUMMIT
OCTOBER 2008**

**DLA PIPER
TECHNOLOGY LEADERS
FORECAST SURVEY**



EVERYTHING MATTERS



Executive Summary

Will the current financial crisis eclipse the Tech Crash of 2000 as having a more adverse impact on the technology industry? It depends on whom you ask (and perhaps when you ask them).

In the midst of a historic presidential election and one of the most turbulent financial periods in US economic history, international law firm DLA Piper commissioned a survey of senior technology industry leaders designed to measure current perspectives and attitudes on the major trends, challenges and opportunities confronting the industry.

The turbulent financial markets weigh on the minds of respondents throughout the survey. Technology company executives say their businesses are beginning to feel the financial uncertainty, but do not think the current financial crisis will be as detrimental for the industry as the Technology Bubble Crash of 2000. In addition to credit concerns, technology executives are worried about a gamut of issues related to the larger impact of current economic conditions. As each day of additional market challenges passes, the level of concern heightens.

Despite a number of worries, executives are optimistic about the future of the industry. Many respondents see opportunities in green and clean technology innovation, as well as products and services that can be more competitive in a strained economy. Furthermore, more than half believe next generation “leap-frog” technologies will originate from the US in the coming decade.

Highlights of the Technology Leaders Forecast Survey include:

- More than 75% of respondents say they have been adversely affected by the economic slowdown, but 21% have seen no impact yet, indicating that it is “business as usual” for some respondents (at least as of the time of the survey).
- 85% of respondents think we are in for another year or more of the current economic conditions, signaling a collective view that the present financial challenges are not a short-term phenomenon.
- While respondents note the considerable toll that the financial crisis is expected to have on the technology industry, only 32% believe its impact will eclipse the 2000 tech crash. However, almost half of VC respondents believe the current crisis will be worse.
- More than half of respondents (55%) believe the stagnant IPO market will not begin to rebound until 2010 or later.
- Clean technology is one of the bright areas amid the financial crisis and economic turmoil, mainly due to the fact that consumer interests such as higher fuel costs and energy supply are at the core of this crisis.
- With almost 90% of respondents saying the Chinese consumer market is an exploitable opportunity, technology industry executives still believe China represents a significant opportunity as both an end market and a supplier.
- Almost half of all respondents (48%) do not have an open source policy.
- While there continues to be considerable discussion about innovation coming out of emerging markets, 55% of respondents think the US will lead in producing the next generation of “leap-frog” technologies in the coming decade.



Verbatims

In an open forum for comment and feedback, respondents were asked to share their thoughts on the single biggest challenge facing technology innovation, development and investment, as well as the biggest opportunities in the technology industry in the next 12 months. The following represent select verbatims received from survey respondents.

Biggest Challenges

- *Financing. Financing. Financing. If the financial crisis and lack of liquidity in the credit markets continues, technology companies will find it increasingly difficult to obtain financing to fund their growth and operations.*
- *I am most concerned about the uncertain economic situation in the USA as a result of the banking crisis, and a presidential election where one outcome will likely increase taxes and reduce money in circulation.*
- *The technology industry will be challenged by the credit and bank collapses and subsequent fall out and time to recover. Access to funds (debt and equity) for capital expenditures and growth will be difficult.*
- *Turmoil in the financial markets will create a difficult fundraising environment, followed by concerns about 3-5 year exit scenarios.*
- *We face disruption of markets by ill-considered government policy and regulations. Lack of capital resulting from the credit crisis and potential government actions to raise taxes will adversely impact capital formation.*
- *Will we see financiers with the courage to invest and the foresight that anti-cyclical investing is a proper way for early stage technology exploration and investments?*
- *We are muddling through a dysfunctional financial meltdown. There is money for investment, but customer demand will be slow ... so patience and a slow burn rate are the biggest challenges.*

Biggest Opportunities

- *Where do I see opportunity? Everywhere I look!*
- *Base the technology business on a model of global cooperation among the private sector participants and government, where viable, regarding grants/loans, etc., to create the best technology for the broadest market uses at the lowest price. Develop it where best to do so from a tech/cost viewpoint, manufacture it where best to make it from a labor/quality/price standpoint, and sell it where best to sell it, globally, and design the product and the company on that basis from the very start of the company or product design cycle.*
- *This is a great time to invest. The amount of money available, however, will be diminished.*








- *Clean tech is the greatest opportunity in the industry for the next 12 months and likely for the next 12 years. The US tech industry knows how to innovate; the greatest incentives to innovate will be in clean tech (broadly defined).*
- *I believe companies positioned to offer affordable technology services in emerging markets offer the most compelling opportunities for growth in the next 12 months.*
- *Thin sizing technologies to be greener, and consume less energy.*
- *Cloud computing; it will help to lower overall IT cost in a recession climate and promote SaaS license models.*



Technology Leaders Forecast Survey Results

Respondents were asked to complete a short questionnaire designed to measure their thoughts and attitudes regarding the current and future technology industry landscape. The following charts represent the collective input of all respondents to the survey. A full overview of the survey methodology can be found at the end of this report.

1. What impact, if any, has the economic slowdown had on your business?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
We have seen a decrease in customer spending and are reducing our revenue forecasts	66%	
We have reduced our planned research and development expenditures	15%	
We have reduced our planned sales and marketing expenditures	27%	
None of the above	21%	
Other (please specify)	8%	
		20% 40% 60% 80% 100%

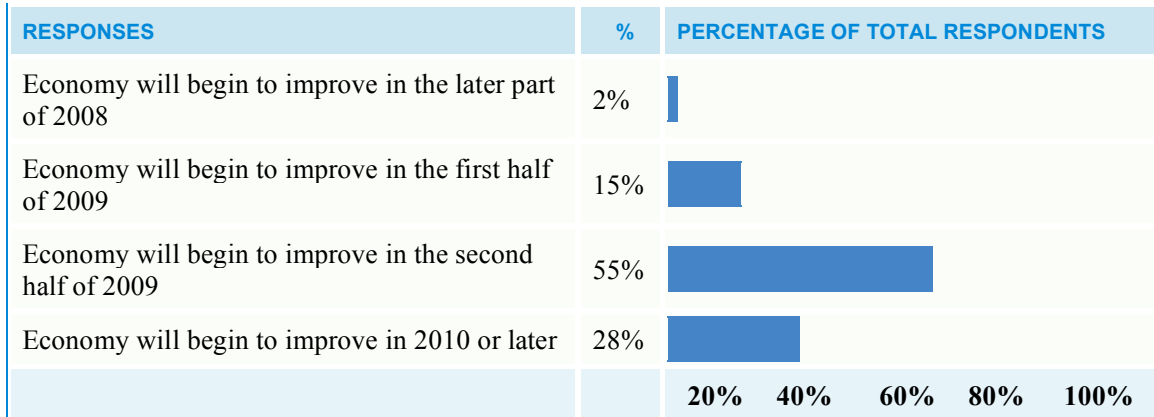
- More than 75% of respondents say they have been adversely affected by the economic slowdown, but 21% have seen no impact yet, indicating that it is “business as usual” for some respondents.
 - Businesses selling products that provide greater investment in the short term may be in a good position right now.
 - These responses likely reflect more confidence that the impact of the financial crisis is expected to be more temporary and that, notwithstanding lower expected revenues, most companies are still planning to invest for the future.
- Of respondents from companies with fewer than 1,000 employees:
 - 53% have seen a decrease in customer spending and are reducing revenue forecasts
 - 22% have reduced planned research and development expenditures
 - 23% have reduced planned sales and marketing expenditures
- Of respondents from companies with more than 5,000 employees:
 - 76% have seen a decrease in customer spending and are reducing revenue forecasts



- 8% have reduced planned research and development expenditures
- 29% have reduced planned sales and marketing expenditures
- Of respondents from software companies:
 - 62% have seen a decrease in customer spending and are reducing revenue forecasts
 - 27% have reduced planned research and development expenditures
 - 27% have reduced planned sales and marketing expenditures
- Consistent with the notion that technology industry executives still see lots of opportunities – but have concerns about financing – verbatim comments on the issue include:
 - *We are growing from a bookings, revenue, investment, margin, and cash flow perspective. But it is certainly fair to say that our growth rate is slowing due to decreased client spending.*
 - *I believe that history has shown that investments made during times of economic distress have proven to be some of the best investments overall. With the current constraints of the capital markets, young technology companies are faced with increased challenges in securing capital. I believe this challenge will remain until the markets stabilize.*
 - *I believe companies positioned to offer affordable technology services in emerging markets offer the most compelling opportunities for growth in the next 12 months.*
 - *Economic recession will force companies to reduce investment in technology and R&D spending.*
 - *Strategic partners have reduced their willingness to invest.*
 - *We're seeing a pullback in the capital markets which makes fundraising challenging.*



2. When do you believe the US economy will begin to rebound?



- 85% of respondents think we are in for another year or more of the current economic conditions.
 - There is only a small segment of technology industry that still holds the hope that the present financial situation will be a short-term phenomenon.
- Both Democrats (55%) and Republicans (60%) think the economy will begin to rebound in the second half of 2009. However, one third of Democrats (33%) think the economy will not rebound until 2010 or later, while only 14% of Republicans agree.
- 18% of finance and venture capital respondents think the economy will begin to improve in the first half of next year, and 53% believe it will not start rebounding until the second half of 2009.
 - Only 9% of respondents from technology companies think the first half of 2009 will bring improvement.



3. Given the latest challenges facing Wall Street and the financial sector, do you believe the current financial crisis will have a more adverse impact on the technology industry than the technology crash of 2000?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
Yes	32%	
No	68%	
Total Responses		20% 40% 60% 80% 100%

- While respondents note the considerable toll that the financial crisis is having on the technology industry, only 32% believe its impact will eclipse the Technology Bubble Burst of 2000.
 - The likely rationale among tech leaders is that although the economic slowdown resulting from the current crises will have a negative impact on the technology sector, it’s more of a “collateral impact” than the kind of direct impact on the sector that resulted from the 2000 tech crash.
 - The technology industry has not yet dramatically felt the impact of the current financial turmoil on their businesses. However, published results for public technology companies are beginning to show weakness and customers may not have the same money to spend next year, which will hurt technology’s bottom line.
- Respondents deploying capital (VCs) have a much different view of the financial crisis than those needing capital (companies themselves), which is understandable given their focus on exits strategies for companies in their portfolios.
 - Nearly half (47%) of **finance and venture capital respondents** say the current financial crisis will have a more adverse impact on the technology industry than the 2000 tech crash.
 - 67% of **technology company respondents** disagree, saying the current financial crisis will not be as adverse as the 2000 tech crash.
 - VCs focus more on the market and economic returns, and companies focus more on their specific business; the impact of the financial crisis may be more severe on exit opportunities than on operating results for many companies.

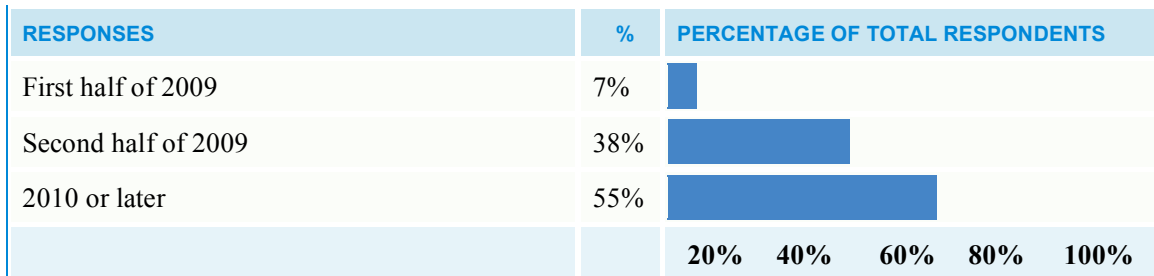


4. If elected, which presidential candidate would have a more-positive impact on technology development, investment and regulation?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
John McCain	42%	
Barack Obama	58%	
		20% 40% 60% 80% 100%

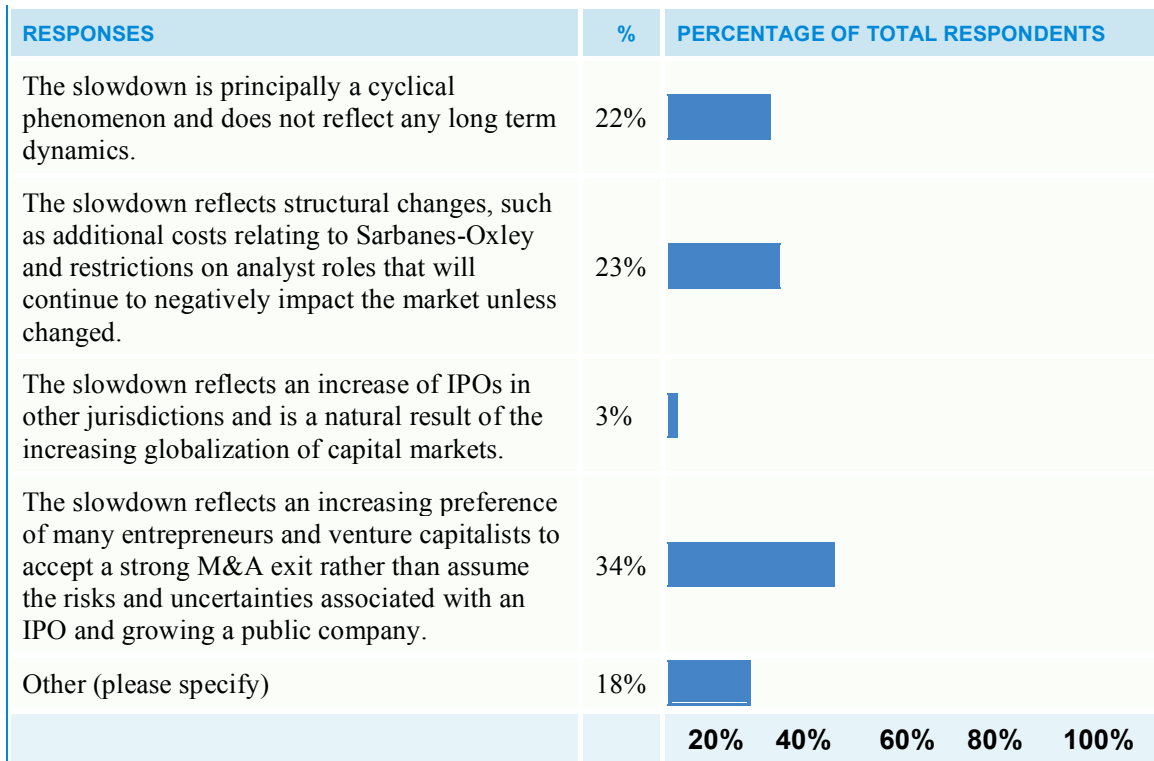


5. The current economic environment and performance of the capital markets has put the IPO market at a standstill. When do you believe the IPO market will begin to rebound?



- Consistent with earlier responses indicating the economic slowdown will last for at least another year, more than half of respondents (55%) believe the IPO market will not begin to rebound until at least 2010, and over 90% do not expect the market to rebound until the second half of 2009 at the earliest.
 - To some extent, this represents the impact of the continuing pessimism about IPOs which has never fully recovered from the 2000 bubble burst. It also reflects a strong sense of concern regarding how long it will take capital markets to recover from the current crisis.
 - **Of respondents who think the economy will begin to improve in the first half of 2009,** 45% think the IPO market won't begin to rebound until 2010 or later.
 - **Of those who think the economy will not begin to improve until 2010 or later,** 82% also think the IPO market won't begin to rebound until 2010 or later.
- 41% of **finance and venture capital respondents** think the IPO market will rebound in 2009.
- 73% of **technology company respondents** believe a turnaround will not start until 2010 or later.
- Most **Republican respondents** (54%) think the IPO market will begin to rebound in the second half of 2009.
- Most **Democrat respondents** (67%) think it won't rebound until 2010 or later.
- One respondent said:
 - *Weakness in exit opportunities should start to negatively impact new capital inflows into technology.*

6. To what do you attribute the slowdown in the US IPO market?







- Respondents were very mixed as to the causes of the US IPO slowdown.
 - Approximately 22% of responses believe the slowdown is merely a cyclical phenomenon.
 - 24% believe the slowdown reflects structural changes, such as the impact of Sarbanes-Oxley and the restrictions on investment bank analysts.
 - The greatest number of respondents (34%) said they believe the slowdown reflects a more general trend towards companies accepting strong private company M&A exits rather than undertaking the risks of an IPO and growing a public company.
- Of respondents from software companies, 46% think the slow down in the IPO market reflects structural changes, compared to 24% of all respondents.
- Respondents said:
 - *Until recently, I would have said that it was part of a natural cycle but lately, there seems to be an awful lot of unnatural stuff going on at Wall Street that may have longer-term, unforeseeable consequences.*



- *Equity pricing has been negatively impacted by poorly situated financial institutions, lack of liquidity and fear among investors.*
- *Due to the credit crisis, investors are just too skittish unless "all the stars align" for the investment.*
- *If the bankers can't make money in an IPO, then they will lead mergers. No markets means no money in IPOs.*
- *The weak economy, coupled with the weak IPO market, are technology's biggest challenges. While I am optimistic that it will improve, those two phenomenons are a tremendous damper on the incentive to invest capital in technology.*
- *The lack of exits will impact how many additional investments will be made and will adversely affect fund raising for VCs.*



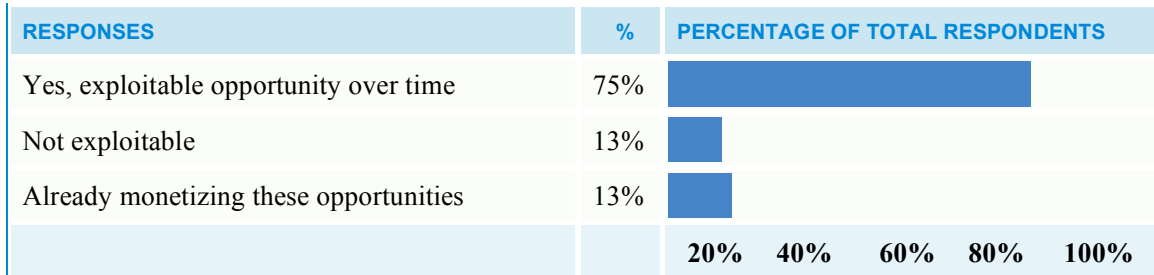
7. Has the increase in operating costs in China and India caused you to consider shifting manufacturing or development operations to other emerging economies?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
We are not exploring any changes in our global operations	59%	
We have or are exploring increasing operations in Southeast Asia	28%	
We have or are exploring increasing operations in Central or Eastern Europe	15%	
Other (please specify)	11%	
		20% 40% 60% 80% 100%

- While 59% of the respondents surveyed do not plan any changes in their global operations – despite the fact that operating costs are significantly rising in China and India – 28% of respondents said they are exploring Southeast Asia.
- More than 40% of companies are seeking to expand their global operations in low cost and emerging economies; a majority of those are considering Southeast Asia as an area to increase their operations or manufacturing.
 - Given rising costs and issues such as market stability, there are a few choice destinations in Southeast Asia for significant foreign direct investment. One country receiving a lot of attention of late is Vietnam.
 - Vietnam has been pegged by many as the "rising tiger" of Asia. Compared to its Southeast Asian neighbors, Vietnam has the fastest growing economy. In terms of GDP growth, it's on the heels of India. Vietnam has attracted a record \$15.3 billion of foreign direct investment so far this year. Much of this phenomenon is fueled by the country's fast growing \$70 billion economy blessed with a population of 86 million, a low median age of 27, and rock-bottom unit labor costs.
- The numbers skew even more towards global expansion and specific investment in Southeast Asia for larger companies. **Of respondents from companies with more than 5,000 employees:**
 - 47% are not exploring any changes in global operations
 - 43% are exploring increasing operations in Southeast Asia
 - 27% are exploring increasing operations in Central or Eastern Europe
- **Of respondents from companies with fewer than 1,000 employees:**
 - 67% are not exploring any changes in global operations
 - 18% are exploring increasing operations in Southeast Asia
 - 8% are exploring increasing operations in Central or Eastern Europe



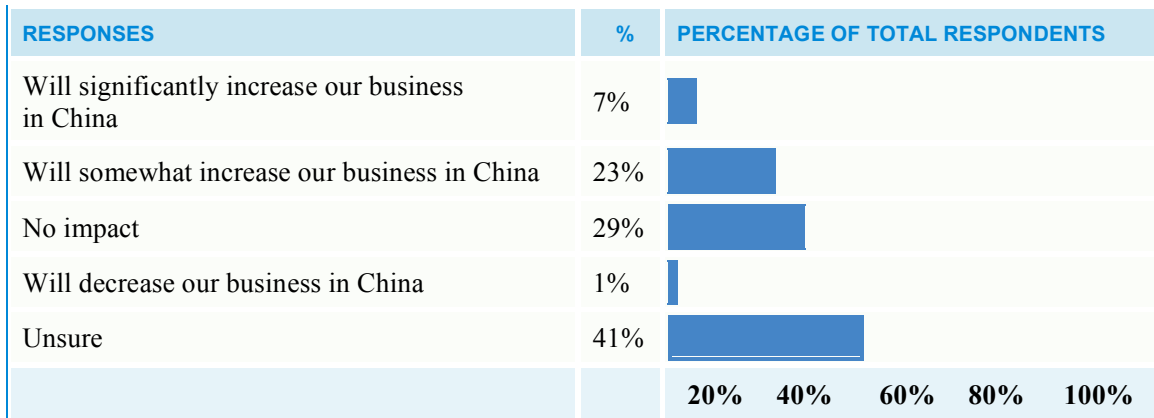
8. The purchasing powers of China's consumer base has been rapidly growing and it is clear that technology consumption makes up a significant percentage of the average Chinese consumer's discretionary spending. Do you see this as an opportunity for foreign companies?



- With almost 90% of respondents saying the Chinese consumer market is an exploitable opportunity – or an opportunity they are already monetizing – technology industry executives still believe China represents a significant opportunity as an end market in addition to its opportunity as a supplier.
- Of respondents from software companies, 61% said they think China’s increased purchasing power is exploitable over time.



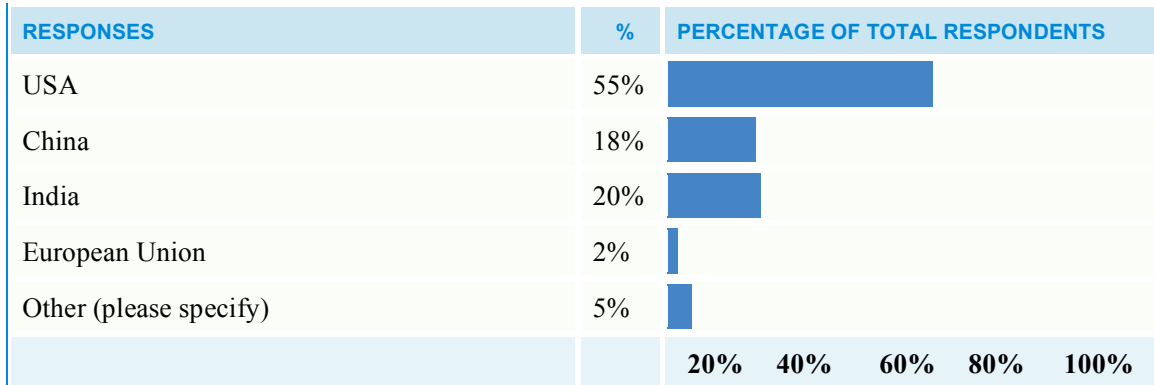
9. If enacted, what impact will the current proposed amendments to China's patent laws have on your business in China?



- Changes to China’s patent laws do not appear to be a significant concern to respondents.



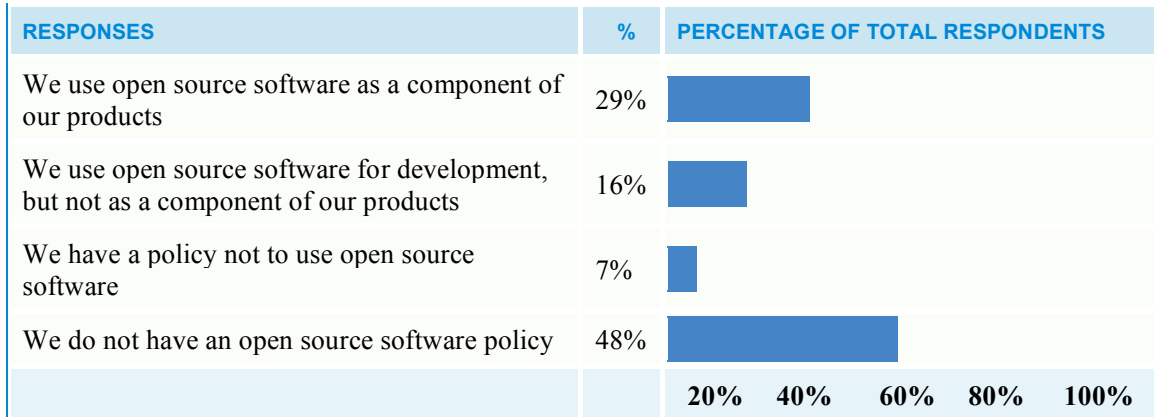
10. With the continued globalization of technology markets, emerging economies are increasingly becoming the source of new technology, not just providers of outsourced services. Which country or region will lead in producing the next generation of “leap-frog” technologies in the coming decade?



- Respondents have a great confidence in continued future innovation from US-based technology businesses. The majority of technology executives surveyed (55%) believe that those next generation "leap-frog" technologies will originate from the US in the coming decade.
- **Of survey respondents from venture capital firms**, 53% believe the US will be the leader in "leap frog" technologies. India is viewed as the second best market, with 29% naming India as a future leader.
- **Of respondents from technology companies**, 64% believe the US will be the leader in producing the next generation of "leap frog" technologies and 18% think China will be the leader.
- Worries about the impact of the financial crisis may cause many to be less bullish about the future of the US technology industry. One respondent said:
 - *In the short term, risk aversion may result in missing out on some real innovation.*



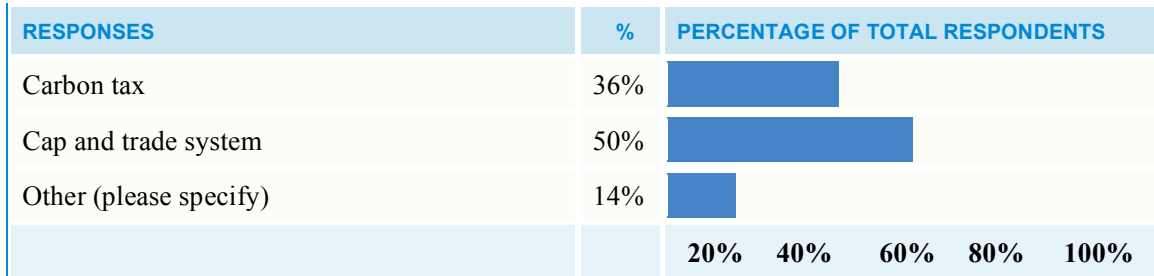
11. What is your company's policy in terms of open source software?



- Almost half of all respondents (48%) do not have an open source policy. 55% of technology company respondents report they use open source software as a component of their products, and 21% of technology company respondents do not have a policy for open source.
 - Of respondents from software companies, 65% use open source software as a component of their products compared to 29% of all respondents.
- **Of respondents from companies with fewer than 1,000 employees**, 44% use open source software as a component of their products and 35% do not have an open source software policies.
- **Of respondents from companies with more than 5,000 employees**, 63% do not have an open source software policy and only 9% use open source software as a component of their products.
 - Smaller companies are more likely to use open source because it is a cost-saving initiative.










12. Which approach would you favor for controlling greenhouse gases?



- 51% of **Republican respondents** favor a cap and trade system to control greenhouse gases and 26% favor a carbon tax.
- 48% of **Democrat respondents** favor a cap and trade system to control greenhouse gases and 48% favor a carbon tax.
- Additional approaches recommended by respondents for controlling greenhouse gases include:
 - *Tax credits and incentives*
 - *Taxes on production*
 - *Regulations coupled with green incentives*
 - *Incentives for nuclear, solar, wind power*
 - *Wider adoption of alternative energy technology*

13. Which of the following measures would you favor for reducing energy use and promoting clean energy sources?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
Increased taxes on gasoline	40%	
Reduction of speed limits	6%	
Increased mileage standards for vehicles	77%	
Increased energy efficiency standards for appliances	67%	
Variable pricing for residential energy use	50%	
Changes to building codes	53%	
Other (please specify)	21%	
		20% 40% 60% 80% 100%

- The recently approved bailout bill included several green technology initiatives, including a one-year extension for wind and refined coal energy tax credits, tax credits for new qualified plug-in electric-drive motor vehicles and regulations aimed at residential top-loading clothes washers.
- Clean tech is one of the bright areas amid the financial crisis and economic turmoil, in that consumer interests such as higher fuel costs and energy supply are at the core of this crisis. There exists significant consensus among government leaders and everyday citizens about the need for greater investment in clean technology and green technology. This could represent a real shift in how the US creates and consumes energy, and this drive will lead to investments in new green technologies. Not surprisingly, many respondents indicated significant excitement in these areas.
- **Of respondents identifying themselves as Democrats:**
 - 84% favor increased mileage standards
 - 75% favor increased energy efficiency standards for appliances
 - 59% favor increased gas taxes
 - 53% favor changes to building codes to reduce energy use and promote clean energy sources
- **Of respondents identifying themselves as Republicans:**
 - 65% favor increased energy efficiency standards for appliances 58% favor changes to building codes
 - 47% favor variable pricing for residential energy use to reduce energy use and promote clean energy sources
- One respondent said:
 - Green and Clean Technologies represent the wave of the future. Early adopters who bring compelling and well-executed innovation to the market place will reap substantial rewards.



14. What will be the level of impact of US government restrictions on cross-border M&A and investment?

RESPONSES	%	PERCENTAGE OF TOTAL RESPONDENTS
Government restrictions will increase in the next few years	39%	
Government restrictions will decrease in the next few years	14%	
There will be no material change in government restrictions	47%	
		20% 40% 60% 80% 100%

- Approximately half of the respondents think there will be no changes in government restrictions on cross-border transactions.
- **Of respondents from technology companies:**
 - 42% think there will be no material change in government restrictions on cross-border M&A
 - 27% believe restrictions will increase
- **Of respondents from finance and venture capital companies:**
 - 41% think there will be no material change in government restrictions on cross-border M&A
 - 47% believe restrictions will increase
- **Of respondents who think the economy will begin to improve in the first half of 2009:**
 - 72% think there will be no material change in government restrictions on cross-border M&A in the next few years
- **Of respondents who think the economy will begin to improve in the second half of 2009:**
 - 44% think government restrictions on cross-border M&A will increase in the next few years
- **Of respondents who think the economy will begin to improve in 2010 or later:**
 - 47% think government restrictions on cross-border M&A will increase in the next few years



Methodology

In late September and early October of 2008, global law firm DLA Piper distributed a survey via e-mail to senior executives at a broad cross-section of technology and venture capital companies.

37% of respondents identified themselves as a CEO, President or Managing Director. 44% work for companies with fewer than 1,000 employees and 28% work for companies with 5,000 to 10,000 employees.

Due to rounding, all percentages used in all questions may not add to 100 percent. A few small edits were made to select verbatim responses to correct spelling and verb tense.

Percentages added may exceed 100 on questions 1, 7 and 13 since a participant could select more than one answer.