Managing Recession

Strategic Responses to the Economic Downturn

A Bay Area Council Economic Institute Report

2009

BAY AREA COUNCIL
ECONOMIC INSTITUTE
A Partnership of Business, Labor, Government and Higher Education

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booz&co.

July 2009

Foreward

Like the rest of the United States, the recession that began in late 2007 has heavily impacted the Bay Area. Though lightly affected at first, the region has followed the rest of the state and the nation into a steep economic downturn, with local governments, ports, transit agencies, foundations and employers and employees all swept into unprecedented economic territory. Few have been unaffected.

Wanting to understand more deeply how regional businesses are managing through this challenging time, the Bay Area Council Economic Institute (BACEI) and Booz & Company have partnered to produce this survey of short and long-term business strategies. Fifty-six interviews were conducted with leading Bay Area executives across a range of industries, including both large established companies and newer entrepreneurial start-ups. The executives were asked about both the defensive strategies they are following to survive in the near-term, and the forward-looking strategies they are following to position their companies for growth when the recession ends. They were also asked what public policy measures could mitigate the recession's impact and support their future growth and competitiveness. Their answers have significant implications for the entire Bay Area community.

Each interview was conducted by a joint BACEI-Booz team, including Dr. Narayan Nallicheri (Booz & Company Vice President), Dr. Sean Randolph (BACEI President & CEO), Kim Bruun Clausen (Booz & Company Senior Associate), Kristen Durham (BACEI Senior Analyst), Tim Blansett and Melanie Nallicheri (Booz & Company Vice Presidents), and Ashok Notaney (Booz & Company Principal). The report was managed by BACEI, principally authored by Booz and Company, and reviewed by members of the Economic Institute's Research Council, including Dr. Cynthia Kroll (UC Berkeley), Dr. Jed Kolko (Public Policy Institute of California), Lisa Neuberger (Accenture), Stephen Goodman (Sun Microsystems), and Dr. Jon Haveman (Beacon Economics). Findings were presented by Narayan Nallicheri at the Bay Area Council's 2009 Outlook Conference in San Francisco.

The survey's findings naturally vary from company to company and industry to industry. They are predictably sobering, considering the declining revenue, loss of jobs, and diminished financial base common to most businesses we interviewed. But behind this reality and the crisis headlines, we found that businesses are both adapting in the short-term, and continuing to strategize for the long-term. Most are using the downturn to increase their efficiency and refocus on core competencies. Some see opportunities for acquisitions, or to attract newly-available talent. Entrepreneurs remain active. Most technology companies are continuing to invest in R&D, believing this will pay off in the long term. And many see themselves emerging from the recession in a more competitive position. On the whole, Bay Area companies express more optimism about their future than counterparts in other regions of the country.

Despite the difficult economy that is expected to persist through 2009, we see these findings as grounds for optimism. The region's business and industrial mix, its focus on innovation, and the flexibility and resiliency of its companies suggest that the Bay Area will remain a competitive force. Public policy choices can affect the speed with which the region recovers, and its strength and momentum in the new post-recession economy that emerges. Like its businesses, the Bay Area must focus on priorities, on strategic investments, and on its long-term goals. Our future once again remains in our hands.

R. Sean Randolph
President & CEO
Bay Area Council Economic Institute

Narayan Nallicheri
Vice President & San Francisco Managing Partner
Booz & Company

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Executive Summary

During the last year, the global economy has descended into a deep recession and the Bay Area has been critically affected. At the close of March 2009, Bay Area public companies had lost over 40% of their market cap compared to the year prior. Unemployment that same month reached 8.5% for the US and 9.9% for the Bay Area. Despite such headlines, many Bay Area businesses are optimistic about the long term and are using the disruption to place strategic bets that will create advantaged positions once recovery begins.

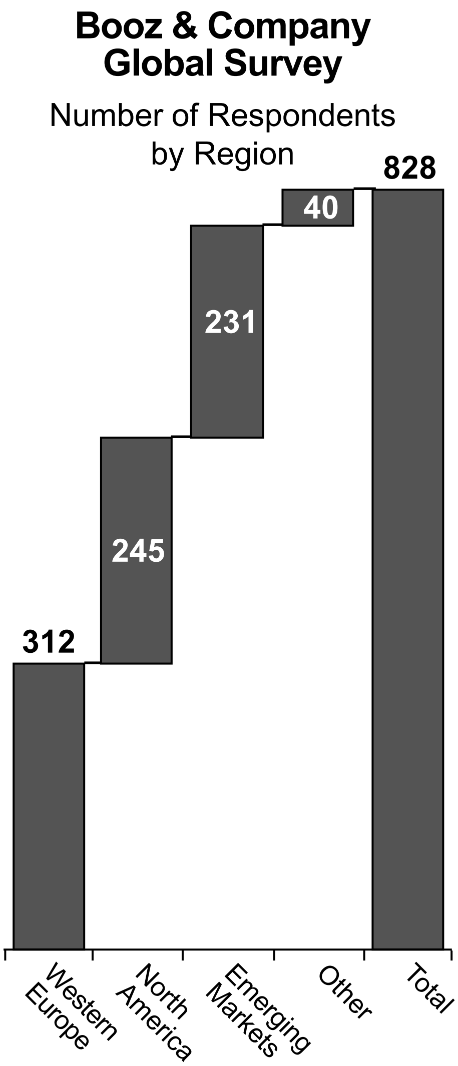
While struggling, Bay Area companies appear better prepared to navigate this recession than the 2000 downturn and have acted more aggressively than companies in other regions. Drawing from data collected through both Bay Area interviews and the Booz & Company Global Survey, Bay Area businesses generally planned for the recession early and acted quickly to reduce costs and conserve cash. Seventy-five percent (75%) of Bay Area companies interviewed have a clear recession plan compared to 66% of companies interviewed globally. Those plans have included cuts in discretionary spending across 80% of Bay Area companies, versus 71% globally, and reductions in workforce for 62% of Bay Area interviewees, compared to 58% globally.

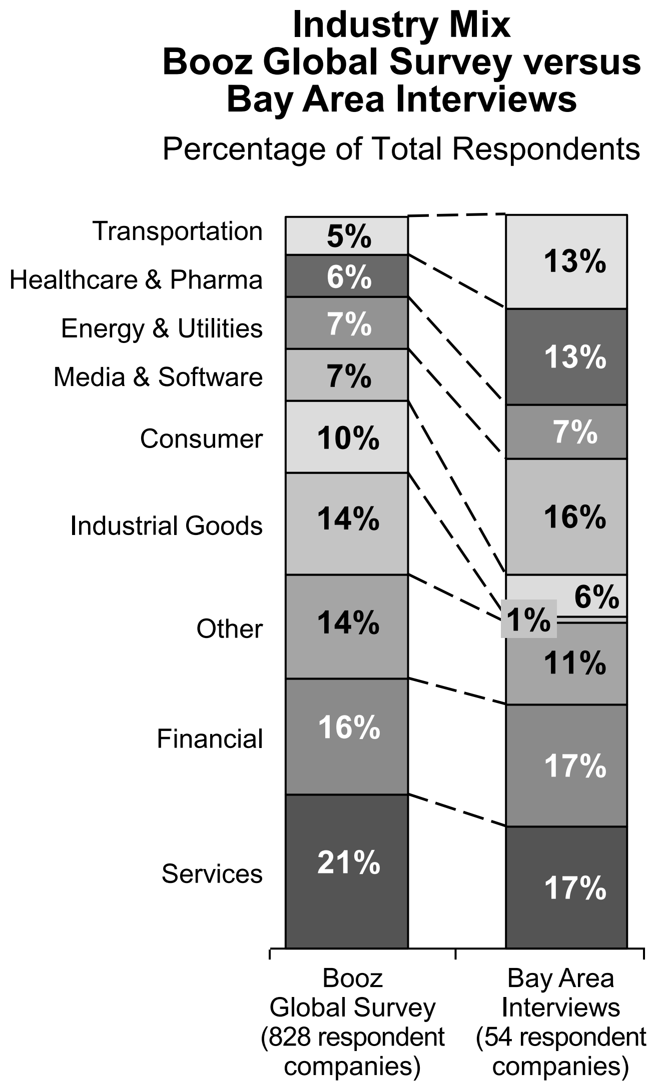
By now, most executives have moved beyond cost cutting to thinking about how to strategically capture opportunities offered by the recession. Almost all Bay Area companies interviewed for this report are leveraging the recession to execute on internal opportunities such as reorganization of business units. Bay Area companies are also more seriously considering external opportunities such as talent acquisition (54% versus 37% globally) and M&A (58% versus 38% globally). Overall, 62% of Bay Area companies are reshaping their corporate strategies and operations to focus on core strengths and improve efficiency and competitiveness.

The key to future growth in the Bay Area—innovation—does not appear to be materially threatened by the recession. Investments in R&D across major industries, such as software, biotech, and energy, have largely escaped the cost reductions—even at financially struggling companies—and executives appear to be focused on fostering innovation despite the depth and length of this economic cycle. Although venture capital financing has been dramatically reduced, underlying entrepreneurial activity remains high and most VC firms and entrepreneurs do not believe future innovation and growth are jeopardized by the recession—if anything, they cite talent as the bottleneck in their business.

Generally, Bay Area companies seem to have a more positive outlook than companies in other regions—58% of companies interviewed believe the recession will help to improve their long-term position versus 54% globally—and the positive sentiment strengthened over time as interviews were conducted (January to April 2009).

The relatively positive outlook expressed by executives does not, unfortunately, extend to public policy. Executives point to a number of issues that have been exacerbated by the recession and urgently need to be addressed. Business leaders repeatedly cited shortcomings in education, transportation, and immigration and trade policy as detrimental to business growth and recovery. The recurrent challenges of working in a region of disparate political and economic agendas, with what some consider a hostile climate toward business, may push executives to make difficult decisions about locating operations outside of the Bay Area. The recession underscores the need for public policy that supports both near-term recovery and long-term growth.





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Market Context

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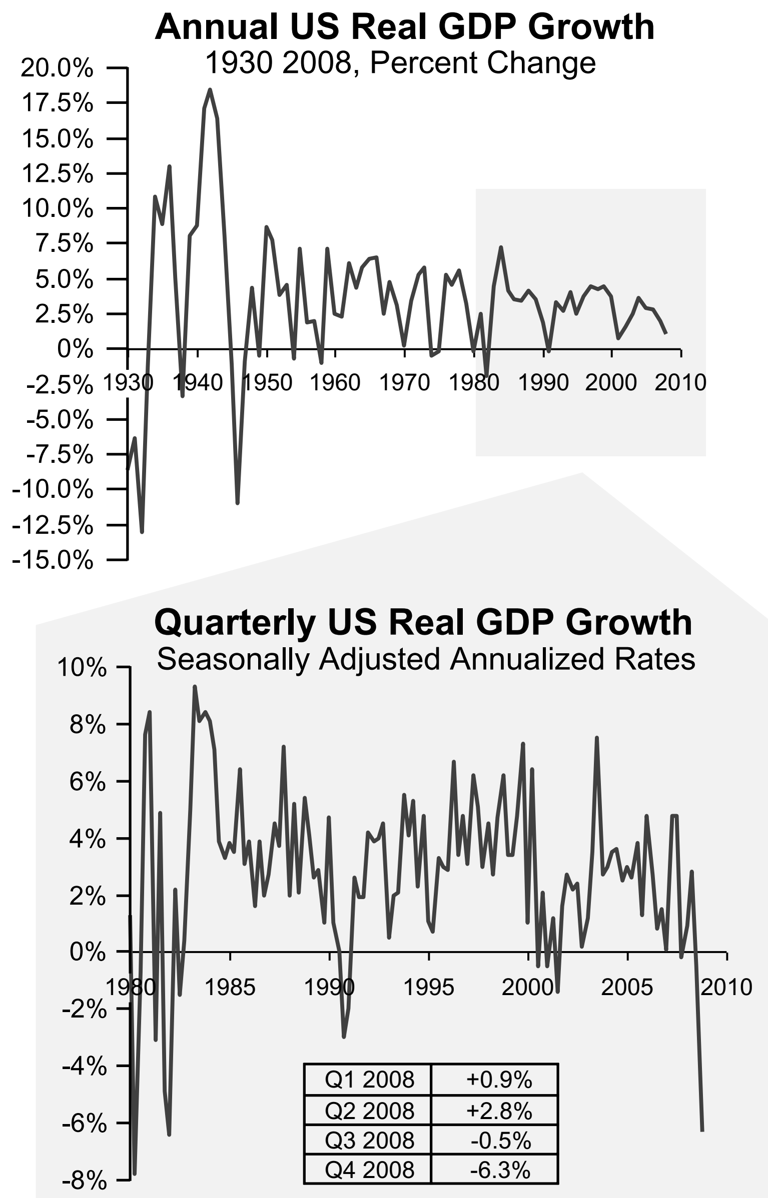
Market Context

US output is declining and the economy is contracting.

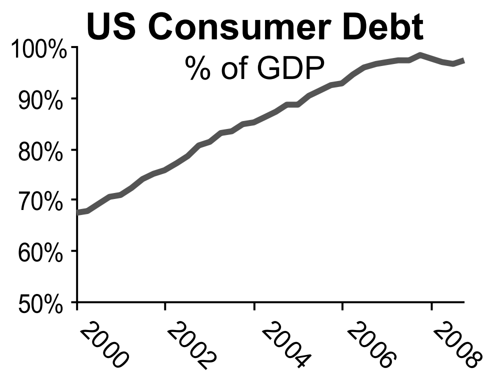
The US economy has experienced significant variability over the past 80 years, and active monetary policy has worked to control the peaks and valleys of GDP growth and contraction. The current recession, compared to the Great Depression and the slowdown in 1946, has seen a much smaller swing in GDP, though its impacts are still acutely felt. Since reaching a 10-year high GDP growth of approximately 7.5% in the second quarter of 2003, the national economy has faltered, experiencing 6.8% negative growth in the fourth quarter of 2008.

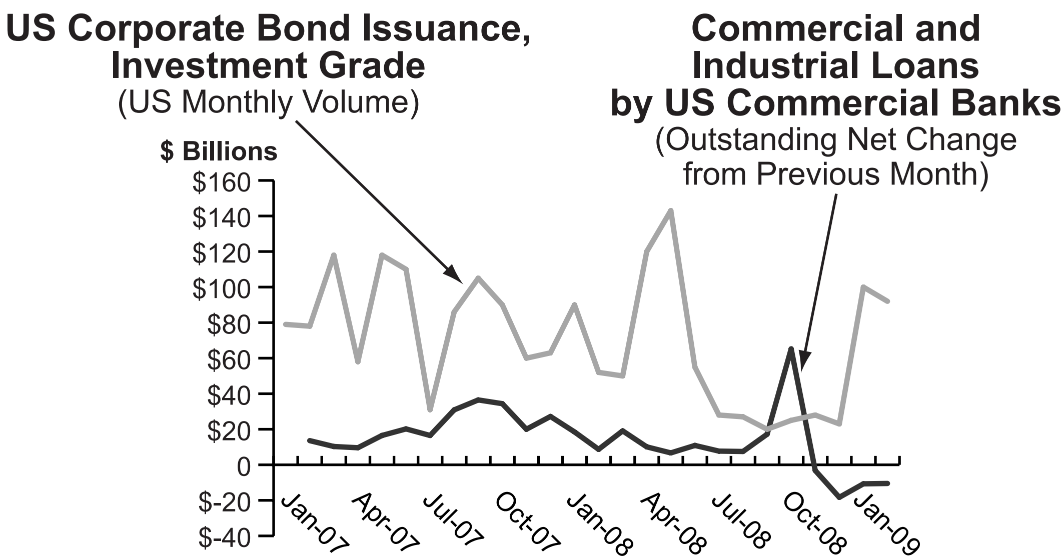


Source: Bureau of Economic Analysis

The crisis has impacted the availability of consumer and business credit.

For the first time this decade, US consumer debt has flattened. US commercial bank lending has dropped since October 2008, corresponding with the low experienced that same month when the US government passed a bailout plan for the nation's major financial institutions. US corporate bond issuance volumes were down in the last half of 2008, but have increased in the period following.

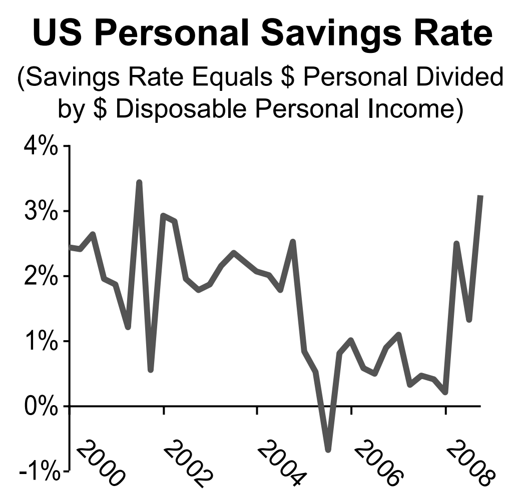




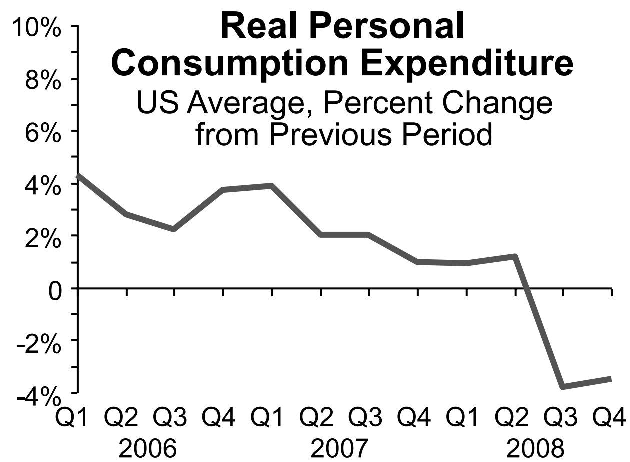
Source: Economagic, Federal Reserve, Dealogic, Bureau of Economic Analysis

Consumer confidence is shaken, as shown in increased savings rates and decreased consumption.

The US consumer savings rate has rebounded from near zero at the beginning of 2008, to a high for the decade in the first quarter of 2009. Spurred by decreased confidence, consumers have cut personal consumption expenditures dramatically.



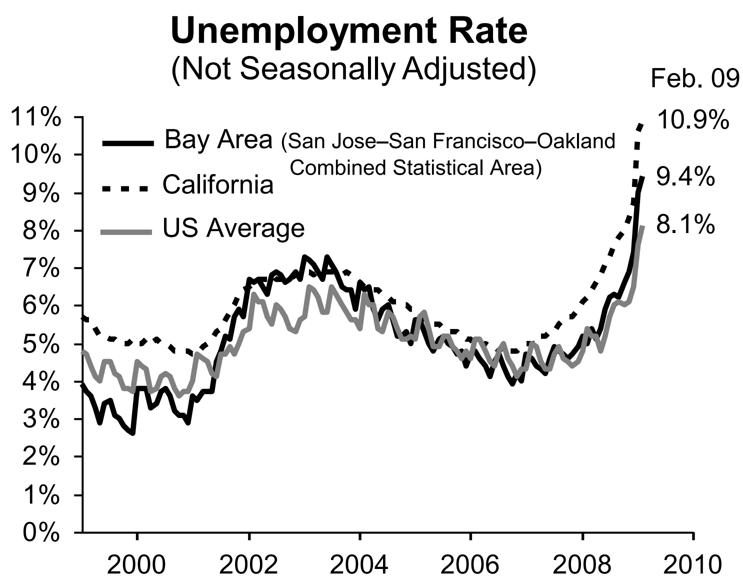
Source: Bureau of Economic Analysis



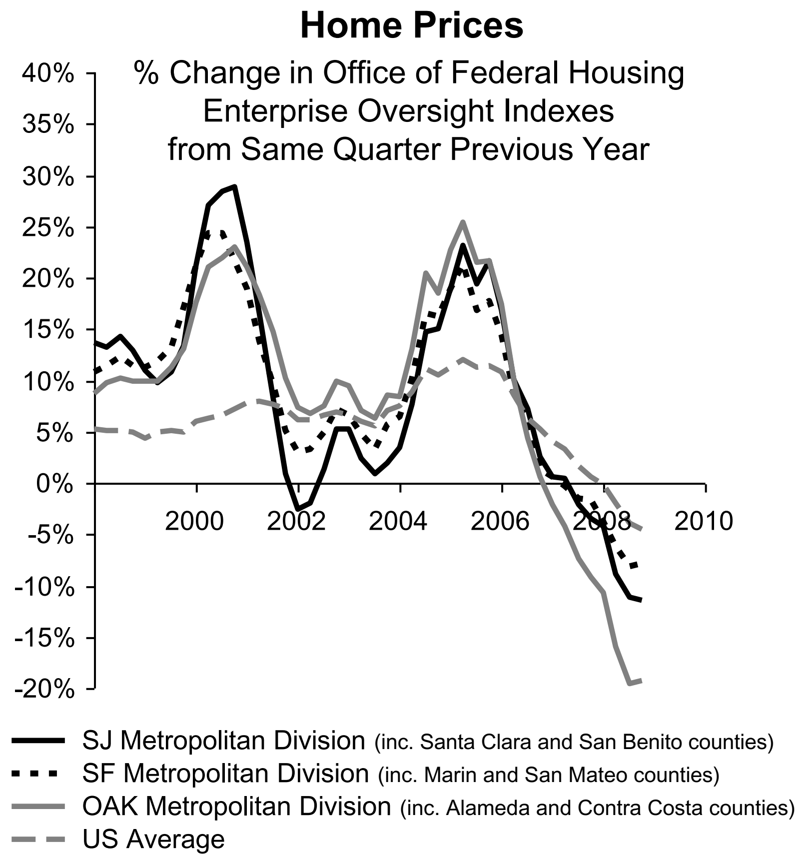
Source: Bureau of Economic Analysis, Booz & Company

The Bay Area has not been immune to the recession, and effects of contraction have been felt sharply in both the labor and housing markets.

The Bay Area has had some of the nation's highest unemployment rates, reaching approximately 9.4% in February 2009. Unemployment is forecast to continue growing through Q1 2010, and may reach 15% in California, according to UC Santa Barbara economists. Similarly, housing prices have fallen more in the region's three major metropolitan areas than they have in the U.S. on average.



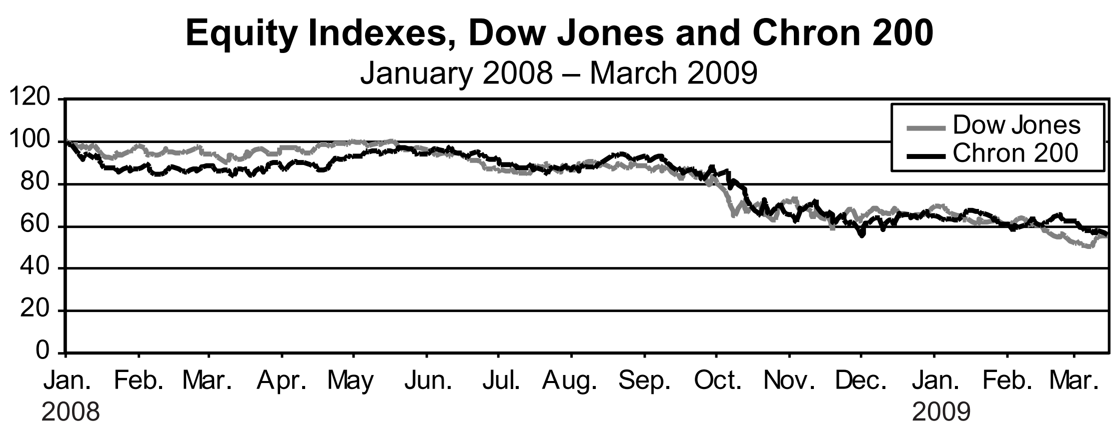
Source: Bureau of Labor Statistics



Source: S&P / Case-Shiller

Bay Area public companies lost over 40% of their market cap during the period January 2008-March 2009.

Though the Bay Area's public companies have seen share prices rebound since the March 2009 low, valuations are still depressed.



Source: Dow Jones, SF Chronicle, Booz Analysis

Notes: The Chron 200 is composed of the 200 largest public companies in the Bay Area. Data is indexed to 100 on January 2, 2008.

Despite taking a market hit, leading Bay Area companies do not seem in danger of failing.

Profit margins for 18 of the region's top 20 companies have remained in the black, and a strong majority has cash reserves of $1 billion or more. Many companies have done this by reducing the size of their workforce, curbing discretionary spending, and delaying major capital expenditures.

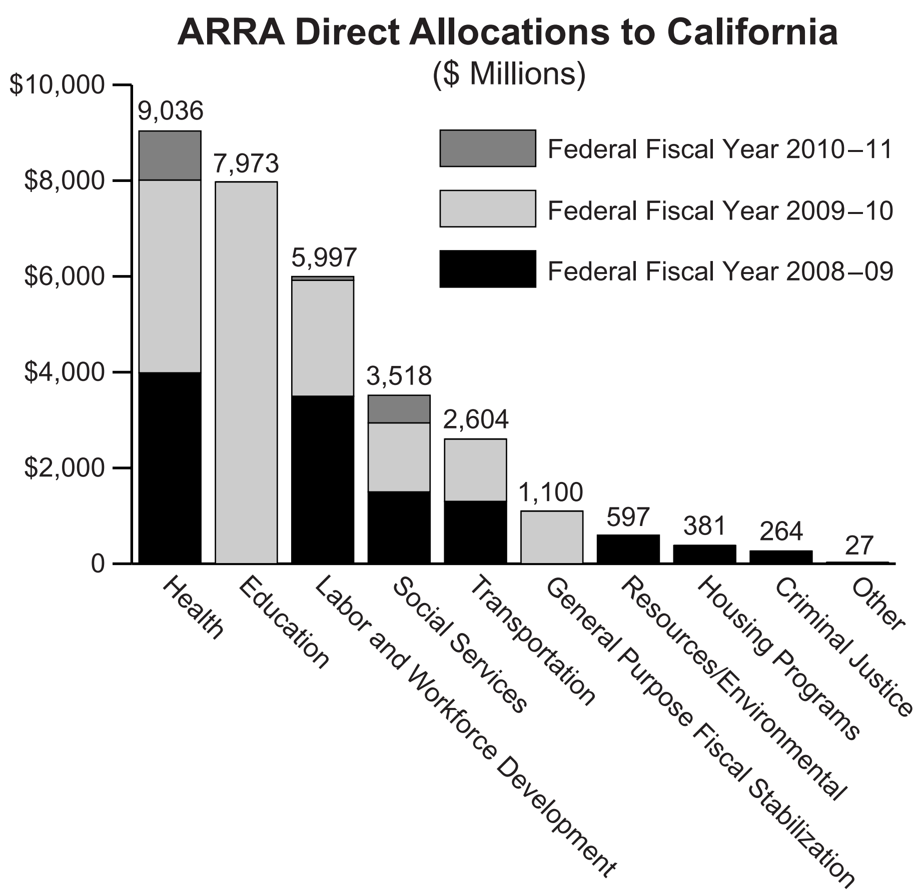
Top 20 Bay Area Companies by Revenue

Company	Revenue, TTM ($ billions)	Profit Margin, TTM	Quarterly Revenue Growth, YOY	Quarterly Net Income Growth, YOY	Cash, MRQ ($ billions)	Current Ratio, MRQ	Recent Layoff Announcements
Chevron Corp.	265.0	9.0%	(13.3%)	0.4%	11.0	N/A	
Hewlett-Packard	118.4	7.0%	18.8%	(2.4%)	10.2	0.98	Sep 08: 24,600 jobs = 7.5% of workforce
McKesson Corp.	106.6	0.8%	2.4%	N/A	1.2	1.14	
Safeway Inc.	43.6	2.1%	3.9%	2.6%	0.4	0.80	
Cisco Systems	39.6	18.9%	(7.5%)	(27.0%)	29.5	2.79	Feb. 09: 1,500–2.000 jobs = 2–3% of workforce
Intel Corp.	37.6	14.1%	(23.2%)	(89.7%)	11.8	2.54	Jan 09: 5,000 jobs
Apple Inc.	33.0	14.7%	5.8%	1.5%	25.6	2.38	
Wells Fargo	26.3	10.8%	(81.8%)	N/A	128.1	N/A	Some cuts expected following merger with Wachovia
Oracle	23.5	24.4%	5.5%	(0.5%)	10.7	1.90	
Google	21.8	19.4%	18.1%	(68.3%)	15.9	8.77	Jan 09: 100 recruiters; March 09: 200 sales staff
Gap	15.1	6.5%	(7.6%)	3.4%	1.6	1.60	
PG&E	14.4	7.1%	12.0%	9.4%	0.3	0.74	
Genentech	13.4	25.5%	24.9%	47.5%	6.2	3.05	
Sun Micro-systems	13.3	(13.8%)	(10.9%)	N/A	2.6	1.20	Nov 08: 5 to 6,000 jobs = 15 %+ of global workforce
Seagate Technology	11.3	(19.7%)	(33.6%)	N/A	1.3	1.26	Jan 09: 800 jobs in the US = 10% of US staff
URS	9.1	2.2%	104.1%	70.0%	0.2	1.58	
eBay	8.5	20.8%	(6.6%)	(30.8%)	3.4	1.70	Oct 08: 1,000 jobs = 10% of workforce
SYNNEX	7.8	1.1%	6.4%	30.8%	0.07	1.52	
Applied Materials	7.4	7.7%	(36.1%)	N/A	1.9	2.48	Feb 09: 2,000 jobs = 14% of workforce
Yahoo!	7.2	5.9%	(1.4%)	N/A	3.5	2.78	Oct 08: 1,500 jobs = 10% of workforce

Source: Company filings, news searches
Notes: TTM = Trailing Twelve Months; YOY = Year on Year; MRQ = Most Recent Quarter

The overall regional economy and Bay Area businesses may find some support through federal stimulus spending.

The American Recovery and Reinvestment Act (ARRA) of 2009 has dedicated $791 billion to help reinvigorate the US economy through tax relief and increased spending. The California Legislative Analyst's Office reports that the state will be receiving approximately $31.5 billion in direct allocations across a variety of program areas over the fiscal years 2009–2011, a portion of which will come to the Bay Area. What is less clear is whether the positive impact from stimulus dollars will be negated by California's budget shortfall and related cutbacks in state spending.



Source: California Legislative Analysts's Office

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Managing Through the Downturn

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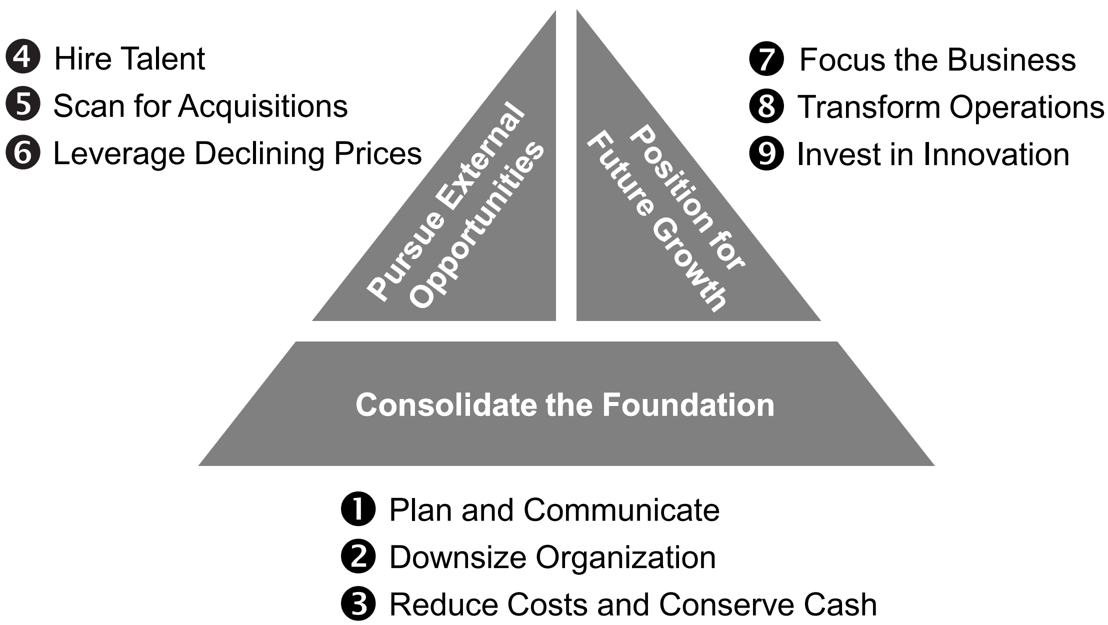
Managing Through the Downturn

Across industries, most companies are responding to the recession with a mix of defensive and offensive strategies.

Key Elements of Recession Response



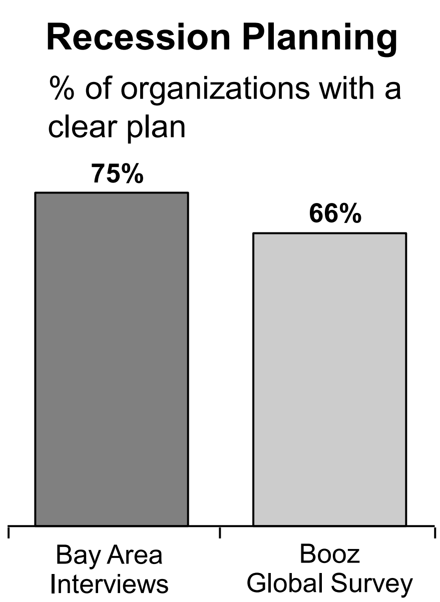
By "consolidating the foundation," companies refocus on core business operations and value-creation, and scale the company in order to meet essential needs. This consists of creating and communicating a clear strategy for doing business through the recession, downsizing the workforce, and controlling cash and expenses. Where purchasing power exists, pursuing external opportunities has become a focus of management attention, as the recession has made labor, company and technology acquisition, and commodities markets more favorable for buyers. Finally, with an eye to future growth, some companies are making significant structural changes that may deliver benefits in the medium to long term. This includes investing more time in customer retention, undertaking operational changes that may meet greater resistance during good economic times, and continuing to invest in research and development.

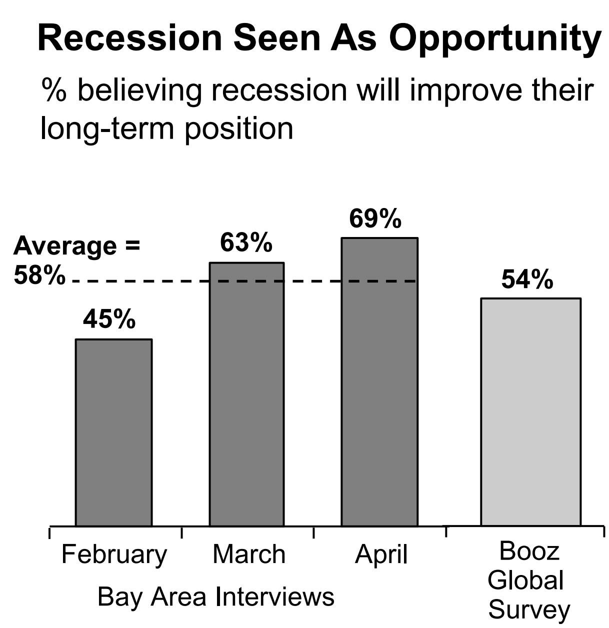
❶ Plan and Communicate

Most Bay Area organizations are pursuing scenario-based plans to navigate the recession.

What we have heard:

- Companies feel better prepared to weather this recession compared to the 2000 downturn.
- Traditional budget planning has been replaced by scenario planning based on depth and duration of recession—best-case scenarios currently being implemented assume no economic improvement until late 2009.
- Key plan components are cost reductions, cash conservation, and credit risk reduction.
- Management must maintain the difficult balance of demonstrating prudence while not stifling desire to take risk.
- Broad communication with employees is recognized as very important, serving multiple purposes:
  - Soliciting feedback and ideas.
  - Achieving buy-in and aligning actions.
  - Inspiring confidence and eliminating uncertainty to energize and retain staff.
- In many companies, management's plans have not yet been widely communicated.





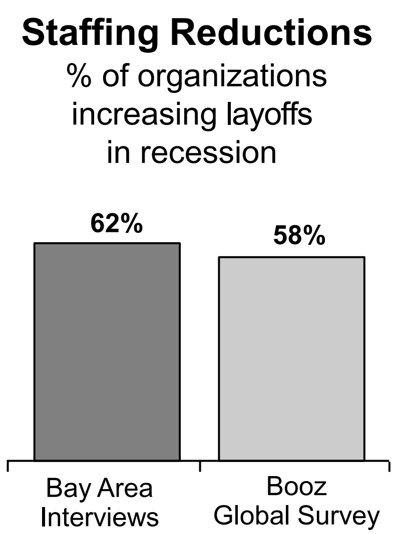
Source: Booz & Company Interview and Survey, Booz Analysis
Notes: Global Survey conducted December 2008; Bay Area Interview conducted February 2009.

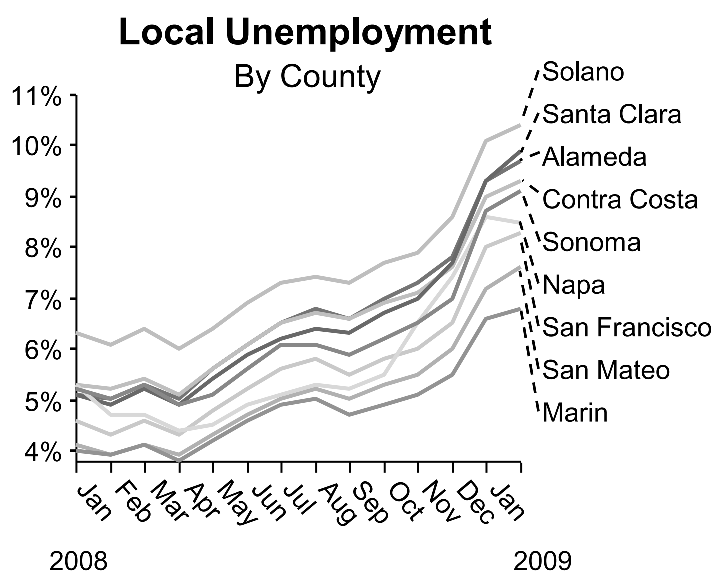
❷ Downsize Organization

With labor dominating companies' cost structures, layoffs are inevitable as revenues decline.

What we have heard:

- Labor costs account for more than 60–70% of total costs for most Bay Area companies.
- All companies we talked to appear to be laying off 5–15% of their workforces.
  - Layoffs generally occur across all levels.
  - Many "first round" layoffs have already been implemented.
- Most companies, with very few exceptions, are implementing net hiring freezes.
- Attrition is slowing but still leaves some room for new hiring.
- In addition to layoffs, companies are eliminating overtime and implementing reduced time options.
- Faced with uncertainty, many companies are making labor costs more variable through increased use of temps and contractors.





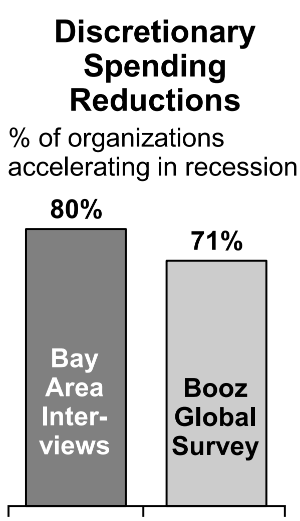
Source: Booz & Company Interviews, California Employment Development Department, Booz Analysis

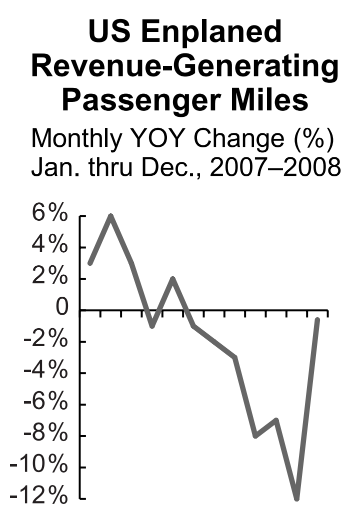
❸ Reduce Costs and Conserve Cash

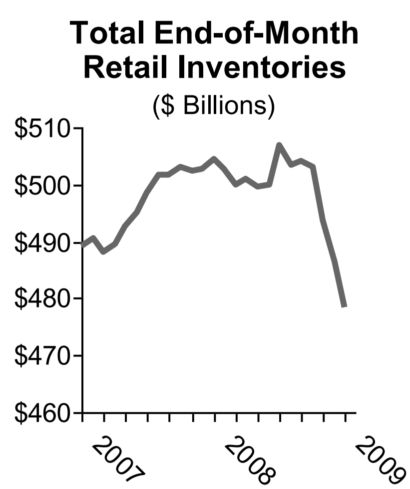
Almost all companies have taken steps to reduce discretionary spending and conserve cash.

What we have heard:

- Whether or not companies needed to reduce discretionary spending, almost all have made reductions through:
  - Limitation of travel, substituting phone/video conferencing for in-person meetings.
  - Reduction of conference/trade show presence.
  - Elimination of employee perks.
- In some areas, reductions are primarily cosmetic in nature and done to avoid negative public relations.
- Wage concessions are viewed as a place of last resort, and often limited to salary freezes at higher levels, making retention of top performers is a key concern.
- Given limited credit availability, uncertain recession duration, and potential future M&A activity, cash conservation is a primary consideration for most leaders.
  - Reducing working capital, primarily through accounts receivable and payable adjustments, as well as inventory reductions.
  - Deferring capital expenses and postponing new projects.
  - Scrutinizing all up-front payment arrangements.
- Customer-specific investments are reserved for the best and most creditworthy customers.







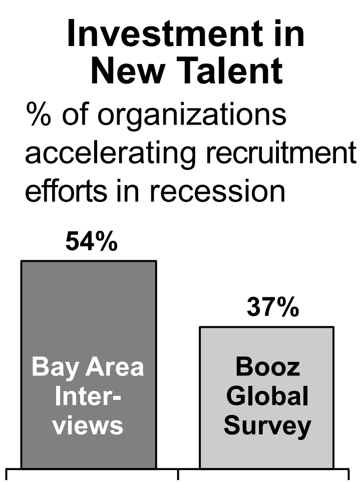
Source: Booz & Company Interviews, Bureau of Transportation Statistics, Monthly Retail Trade Survey, Booz Analysis
Note: YOY = Year on Year

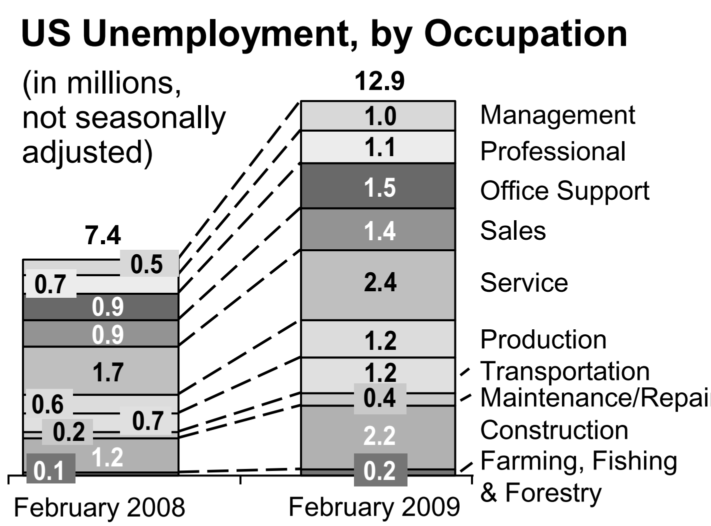
❹ Hire Talent

The current environment is providing unique opportunities to recruit talent not normally available.

What we have heard:

- Companies are seeing dramatic increases in the quantity and—to some extent—quality of résumés they are receiving.
- Even companies undertaking lay-offs are maintaining aggressive recruiting strategies.
  - Actively targeting talent at struggling competitors.
  - Looking outside their industry for talent.
  - Upgrading talent in all positions—often at a lower cost.
- Unusual availability of talent is most pronounced for business talent; less for scientific and technical talent.
- Industries traditionally considered less “sexy” have a window of opportunity to hire top talent.
- Lack of large potential equity upside remains a barrier to recruiting top talent for mature Silicon Valley companies.
- Potential recruits for start-ups seem more risk-averse in the recession and are increasingly questioning the viability and career impact of joining a start-up.





Source: Booz & Company Interviews and Survey, Bureau of Labor Statistics, Booz Analysis

❺ Scan for Acquisitions

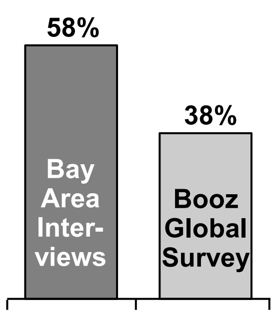
Financially stable companies are preparing to increase mergers and acquisitions (M&A) activity and drive consolidation towards the end of the recession.

What we have heard:

- Financially stable companies are carefully monitoring their industries for potential acquisitions at low valuation multiples.
  - Acquire struggling competitors to buy market share and gain further scale.
  - Acquire start-ups (especially as venture capital and private equity funding tightens) to gain access to new technology and products.
- Companies are reluctant to act immediately, however, given the uncertainty of the market.
  - Unsure how much cash is needed to get through recession.
  - Difficult to predict where valuations will bottom out.
- In addition, leverage levels, lack of access to debt markets, and depressed share price—even for stable companies—are currently barriers to larger M&A transactions.
- Many industries are ripe for consolidation—and some Bay Area companies believe they will be buyers.

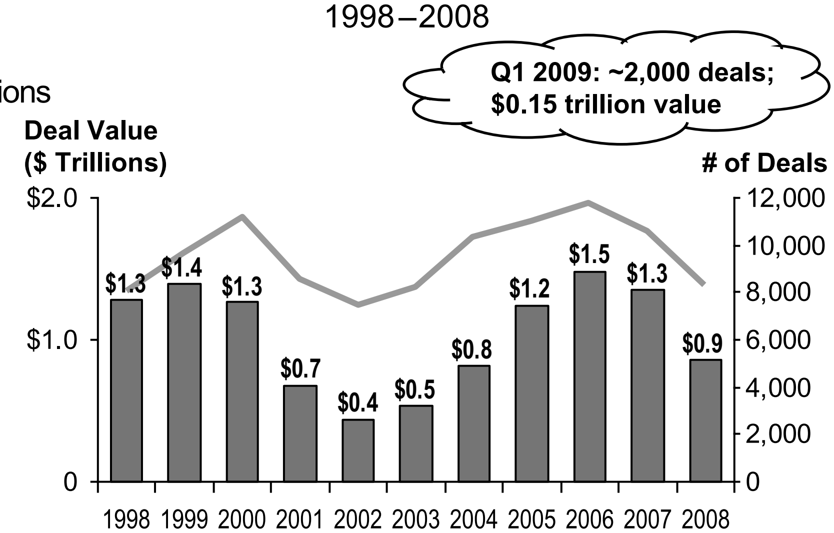
Acquiring Assets and/or Companies

% of organizations considering acquisitions as a result of the recession



US M&A Activity, Public and Private

1998–2008



Source: Booz & Company Interviews and Survey, FactSet MergerStat, Booz Analysis

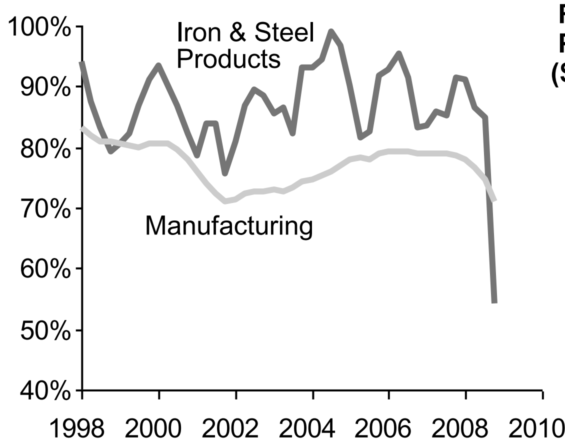
❻ Leverage Declining Prices

Falling asset prices and slack capacity are providing an opportunity for longer term cost reductions.

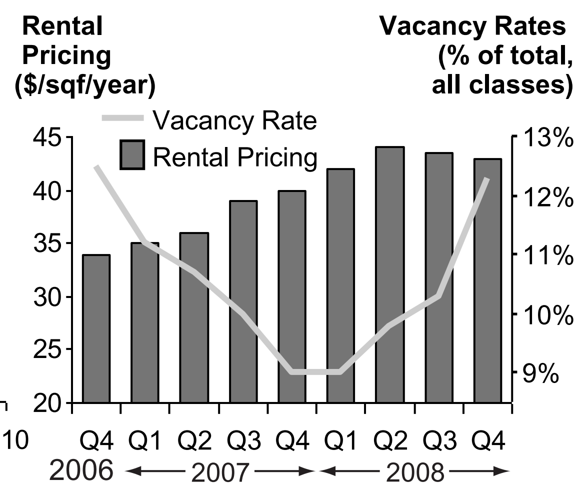
What we have heard:

- Companies with cash or access to credit reap benefits from making counter-cyclical capital expenditures in a deflationary environment, potentially accelerating investments such as:
  - Purchase or lease of real estate.
  - Construction of new plants and facilities.
  - Purchase of new or used equipment.
- Excess capacity in many industries and falling commodity prices provide leverage to revisit and renegotiate contracts for direct and indirect materials and services, especially for financially stable companies that can offer credible long-term commitments.
- These strategies, however, clearly involve risk and are being pursued cautiously and opportunistically, depending on each company's situation.

Capacity Utilization, Select Industries
% of Total Capacity, 1998–2009



San Francisco Office Space Market
Q4 2006–Q4 2008



Source: Booz & Company Interview, Federal Reserve, Cushman & Wakefield, Booz Analysis

❼ Focus the Business

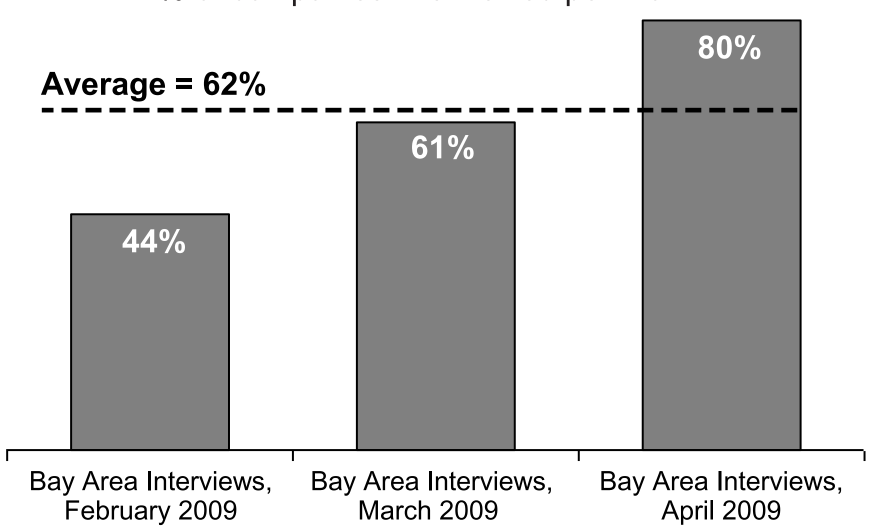
In this recession, companies are anchoring their corporate strategy on their core business and most valuable customers.

What we have heard:

- At the portfolio level, companies are re-focusing their core businesses to where future growth is likely to be strong when the economy recovers.
- Some financially stable companies are increasing marketing investments in an attempt to attract customers from competitors who have cut those expenses.
- Customer retention is receiving extraordinary attention.
  - Paying close attention to changing customer needs as a result of the recession—and adapting products and marketing.
  - Identifying most valuable customers—own and competitors'.
  - Directing more resources to those customers that will drive post-recession growth.
  - Shedding low-margin customers and customers that pose credit risks or may not survive recession.
  - Taking calculated risks to "stand by" good customers during hard times, when necessary.
- The most struggling businesses are adopting a "back to basics" mentality—reducing complexity, scaling back exotic plans, and focusing on maintaining high-quality delivery of essential products and services.

Companies Modifying Corporate Strategy in Recession

% of companies interviewed per month



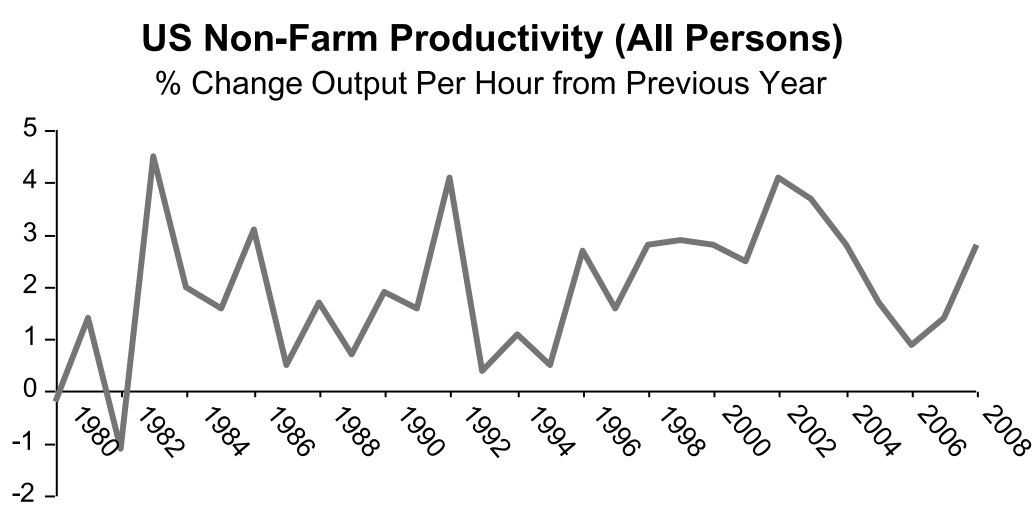
Source: Booz & Company Interviews, Booz Analysis

❽ Transform Operations

Some companies are taking advantage of the recession to implement operational changes that are hard to make during good times.

What we have heard:

- During recession, stakeholders are much more accepting of a "burning platform" for change, and employees have fewer outside options.
- Several companies are taking advantage of decreased institutional inertia to implement significant changes in a variety of areas, for example:
  - Consolidation of business units.
  - Full integration of past acquisitions.
  - Creation of shared services.
  - Centralization of decision rights.
  - Renegotiation of labor and service contracts.
  - Revamping of compensation structures.
  - Cross-training and elimination of support functions.
  - Retirement of legacy IT systems.
- Many of these changes would have occurred anyway, but the recession is providing an opportunity to implement them sooner, faster, and more comprehensively.



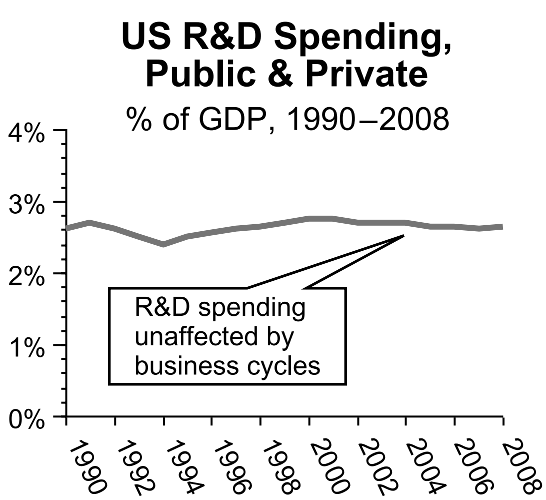
Source: Booz & Company Interviews, Booz Analysis, Bureau of Labor Statistics

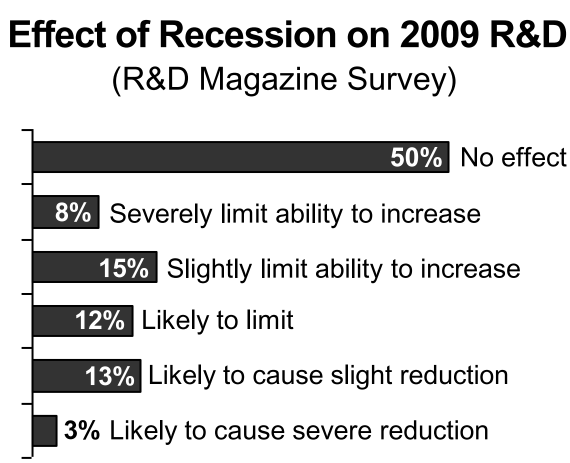
❾ Invest in Innovation

Most companies are recognizing the importance of continued innovation for future growth.

What we have heard:

- Almost none of the companies surveyed—even those that are impacted the most—have reduced investments in research and development (R&D) and other types of innovation, recognizing the importance for long-term growth.
- There is a clear sense that the recession is fertile ground for innovation—inside both mature companies and start-ups.
- Much of the recession-driven innovation is aiming to reduce cost.
- Many leaders express confidence about the Bay Area's ability to "innovate to recovery," which may be attributable to:
  - Legacy and mentality of innovation.
  - Diversity along multiple dimensions.
  - Strong presence of green tech and software companies.
  - World-class research institutions.
- Some are concerned, however, that the uncertainty and lack of job security will cause employees to take too little risk for fear of failure.
- Declining public investment in basic research is considered a long-term challenge.





Source: Booz & Company Interviews, Bureau of Labor Statistics, R&D Magazine, Booz Analysis

III

Industry Perspectives

III

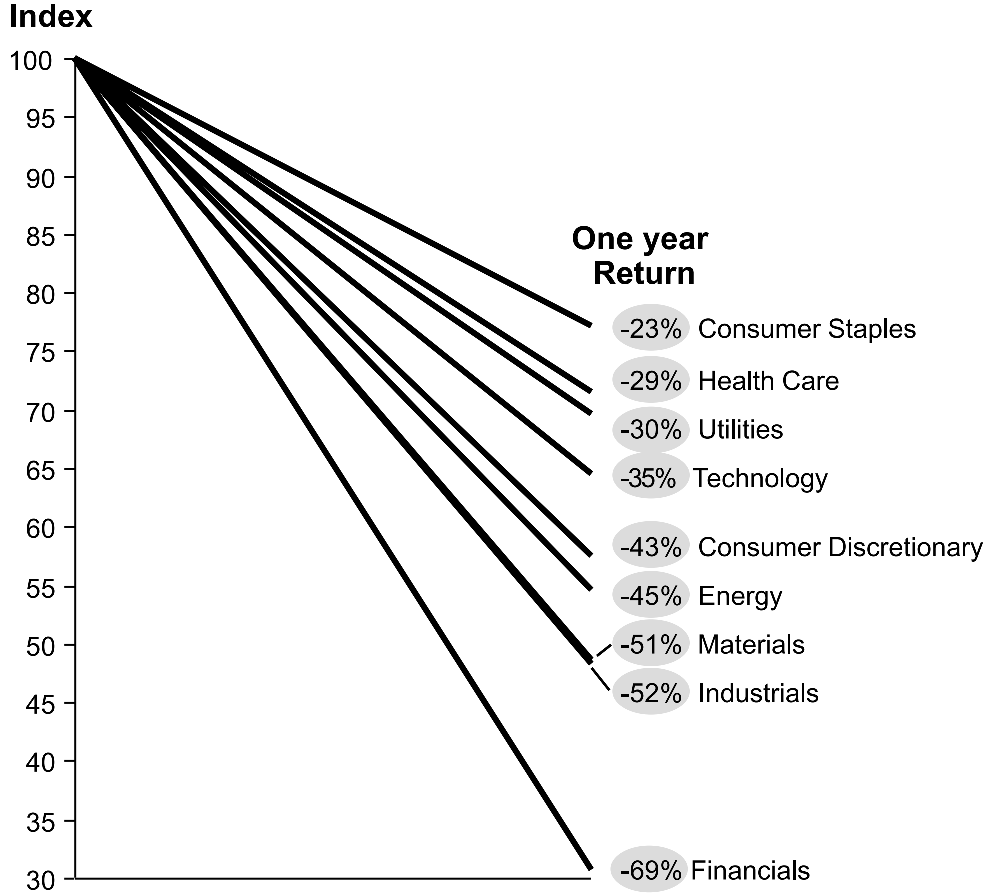
Industry Perspectives

Although the recession is broad, some sectors are more affected than others.

The financial sector has been the hardest hit of all sectors, losing 69% of its total worth since February 2008. Industries with more inelastic demand—consumer staples, health care and utilities—predictably are faring better, but they too have lost between 20–30% of their value.

Select Sector S&P Depository Receipts Performance

Indexed One-Year Total Return from 2/28/08



Source: State Street Global Advisors, Booz Analysis

➊ Academia / Non-Governmental Organizations

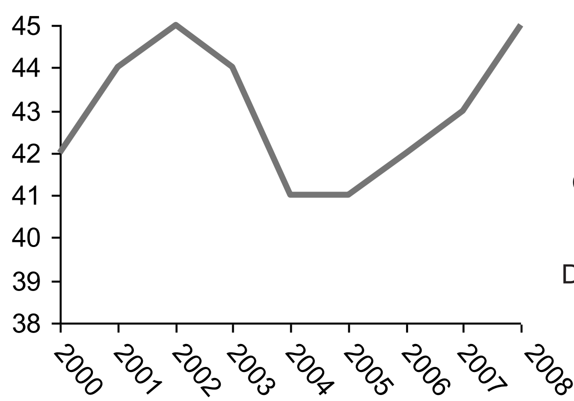
The recession is increasing demand for education and charitable work while decreasing funds available.

What we have heard:

- Demand for higher education is increasing, both at community colleges and universities.
- Education funding in California is declining or not keeping pace with costs, due to outdated funding formulas, inflation, state budget cuts, shrinking endowments, and fewer private donations.
- Institutions are responding with a mix of strategies, including tuition increases (where allowed), increased out-of-state student enrollment, and cost reductions.
- Despite opportunities for efficiency gains, cost reductions will impact educational outcomes, due to changes such as larger class sizes and elimination of summer school programs.
- Charitable organizations are suffering as fundraising is more difficult and assets shrink—many assume double digit declines in funding for 2009. Some donors are able to maintain funding levels or even act counter-cyclically, but this is uncommon and insufficient to make up for reductions from other donors.
- The recession increases demand for charitable services as unemployment rises and public programs are cut. Some foundations and donors correspondingly shift funding towards basic needs instead of education and the arts.

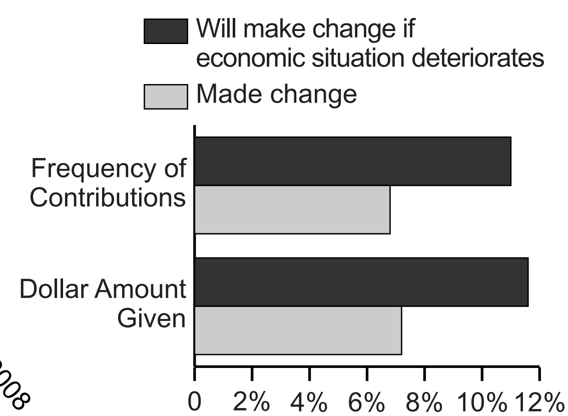
Foothill-DeAnza Community College District, Fall Enrollment

2000 – 2008 (Thousands of Students)



Consumer Charitable Contributions Reductions

% of consumers changing behavior, as reported in Booz & Company Survey



Source: Booz & Company Interviews, Foothill DeAnza Community College District, Booz Analysis

❷ Consumer Goods

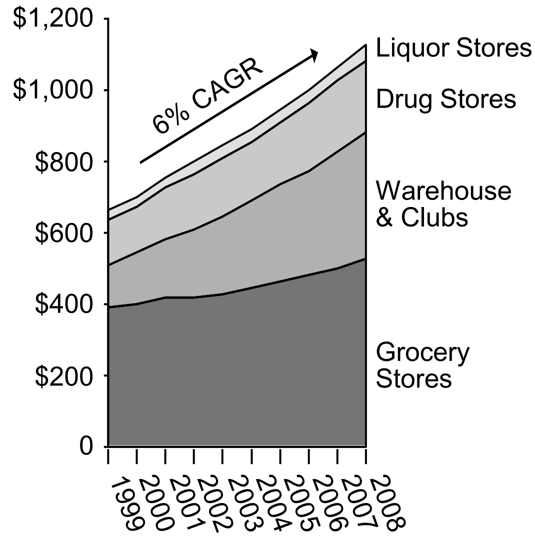
Demand for household staples is holding up, as consumers are focusing more on value.

What we have heard:

- Demand in basic categories, traditionally recession-resistant, is being helped by a trend towards spending more leisure time at home.
- Demand is shifting towards value products and channels—discounters and second-hand stores are seeing strong sales growth.
- Purchase decisions are increasingly made at home, with less room for impulse shopping.
- Retailers are cutting assortment to reduce working capital, which hurts secondary brands but benefits tier one brands and private label.
- Further industry consolidation is expected to be minimal, as both retailers and manufacturers have been consolidating for several years.
- Consumers currently have less appetite for new products, but companies are maintaining innovation projects to keep the pipeline full for recovery.

Estimated Retail Sales in Select Outlet Categories

1999–2008 ($ Billions)



Consumer Changes in Grocery Purchasing

% of consumers changing behavior, as reported in Booz & Company Survey

Source: Booz & Company Interviews, Booz Analysis
Note: CAGR = Compound Annual Growth Rate

❸ Financial Services

Most Bay Area banks appear strong and have ample liquidity to continue to lend to qualified customers.

What we have heard:

- Commercial bank loans are performing well, and customers have continued paying off their debt.
- Most Bay Area banks have the balance sheet strength to keep lending, although fewer customers are qualifying for loans as banks apply slightly stricter criteria.
- The lack of credit is primarily driven by a few large banks and the fact that the market for securitized debt remains largely frozen.
  - Several smaller banks refused to take TARP funds or are considering returning funds received, due to the restrictions imposed. Compensation and dividend restrictions unduly impede business operations.
- Deposits are growing strongly as people save more and are more reluctant to use riskier investments.

Financial Health of Bay Area FDIC Insured Banks with Total Assets of $1 Billion or Greater

(FDIC Data as of December 31, 2008)

Bank	Total Assets ($ Billions)	Tier 1 Capital Ratio	Cash ($ Millions)
Wells Fargo	$539	7.26%	$27,600
Union Bank	$70	8.67%	$4,400
Bank of the West	$67	9.15%	$3,500
United Commercial Bank	$14	11.93%	$600
Silicon Valley Bank	$10	8.66%	$2,000
Westamerica Bank	$4	9.31%	$141
Mechanics Bank	$3	13.35%	$224
Fremont Bank	$2.1	10.02%	$40
Heritage Bank of Commerce	$1.5	11.08%	$30
Borel Private Bank	$1.4	9.77%	$12
Fireside Bank	$1.4	18.39%	$2
Bank of Marin	$1	12.30%	$30

Source: Booz & Company Interviews, FDIC, Booz Analysis

❹ Health Care and Bio-Pharma

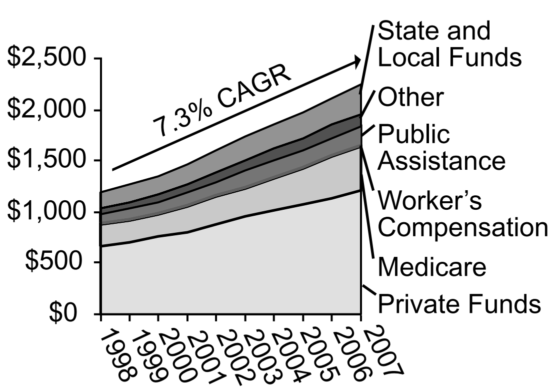
Rising unemployment is impacting health care providers and insurers.

What we have heard:

- Overall health care spending is declining as disposable income across households declines. In particular, the out-of-pocket cost of co-pays has led to a decrease in doctor visits and drug purchases.
- Health care providers and insurers have suffered the largest revenue decreases as laid-off workers lose employer-sponsored insurance and move to government-sponsored programs that reimburse at lower rates.
- Large pharma & biotech companies and drug distributors have seen more limited revenue impacts from the recession.
- Capital intensive biotech start-ups struggle to obtain venture and private equity financing, which creates acquisition opportunities for larger companies to fill their technology pipelines.
- Innovation spending is being maintained, with allocations shifting more towards cost-saving technologies rather than medical breakthroughs.

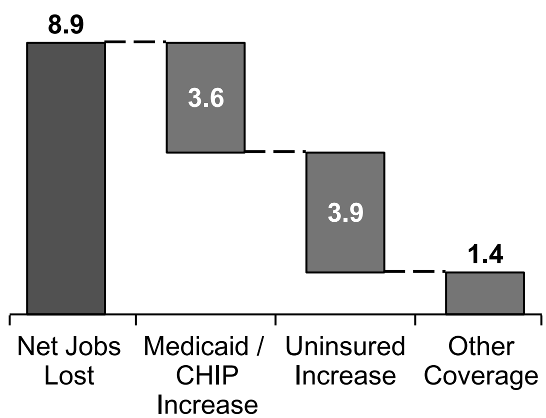
US Health Care Expenditures, by Type

1998–2007 ($ Billions)



Unemployment Impacts on Health Insurance Coverage

2007–Present (Millions of People, Estimated)



Source: Booz & Company Interviews, Kaiser Family Foundation
Notes: CAGR = Compound Annual Growth Rate; CHIP = Children's Health Insurance Program

❺ Media and Entertainment

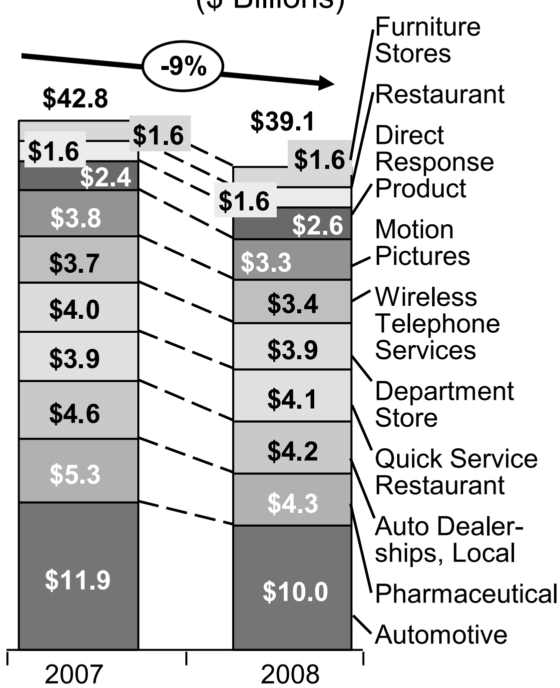
Advertising spending is down and consumers are less willing to leave their homes for entertainment.

What we have heard:

- Reduced advertising spending is having a significant impact on media companies—print, broadcast, and online.
- Broad brand marketing has been reduced the most, while targeted and online performance marketing ("pay-per-click") is holding up better.
- Media companies are responding by reducing costs and seeking new sources of revenues.
  - Driving efficiencies in content production.
  - Leveraging fixed content production costs by distributing through multiple outlets/platforms.
  - Innovating and tailoring the advertising inventory to create more value
- As consumers reduce discretionary consumption, they increasingly choose to curb entertainment spending outside of the home.

Spending in Top 10 Advertising Categories, 2007 vs. 2008

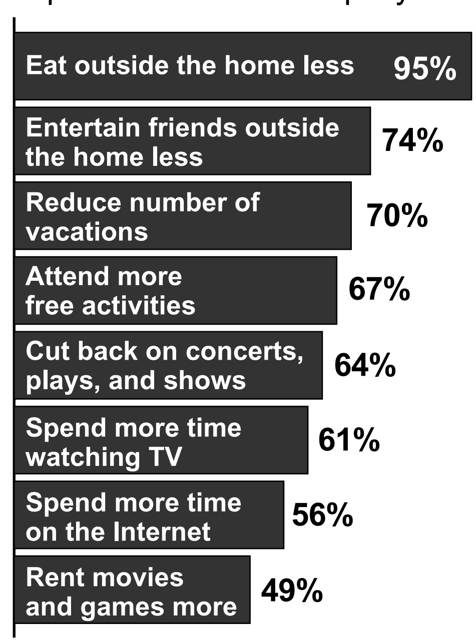
($ Billions)



Source: Booz & Company Interviews, Nielsen, Booz Analysis

Changes in Consumer Entertainment Consumption

% of consumers changing behavior, as reported in Booz & Company Survey



❻ Real Estate / Construction

Real estate continues to struggle in the current environment, although existing home sales are picking up slowly.

What we have heard:

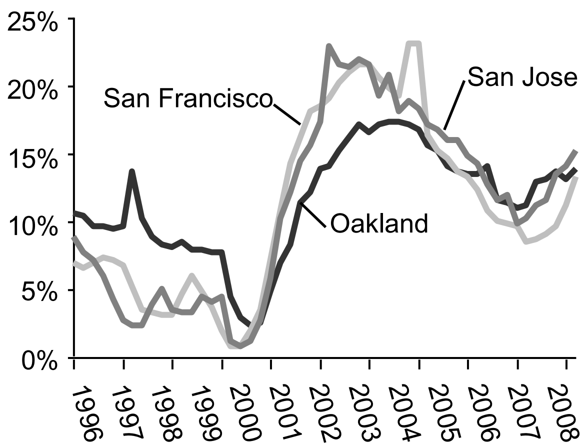
Residential

- With home prices declining dramatically, new residential construction has come to a stand-still, although pockets of stabilization are starting to emerge.
- Buyers are focusing on value, preferring more efficient homes.
- Existing home sales volume is picking up amid lower prices.

Commercial

- Commercial real estate prices continue to fall as project leverage decreases and income models become more conservative.
  - Office and retail facilities are suffering most due to growing vacancy rates.
  - Multifamily and industrial properties are faring better.
- Would-be sellers are starting to take commercial properties off the market and continuing to operate them.
- Commercial lease rates are falling and new leases are generally shorter term.
- The effect on commercial construction companies lags somewhat due to long-term projects that have not been cancelled.

Bay Area Commercial Real Estate Vacancy Rates, 1996–2008



Bay Area Existing Home Sales by Sales Volume & Price
% Change, Jan 2008 – 2009

County	Sales Volume	Price
Alameda	27.40%	-38.50%
Contra Costa	99.90%	-52.50%
Marin	0.00%	-37.90%
Napa	77.30%	-30.50%
Santa Clara	19.30%	-37.40%
San Francisco	-21.80%	-24.50%
San Mateo	-7.50%	-27.50%
Solano	126.70%	-44.60%
Sonoma	57.60%	-29.50%
Bay Area Avg.	40.80%	-45.50%

Source: Booz & Company Interviews, RAND, Office of Federal Housing Enterprise Oversight, National Association of Realtors, Booz Analysis

❼ Business Services

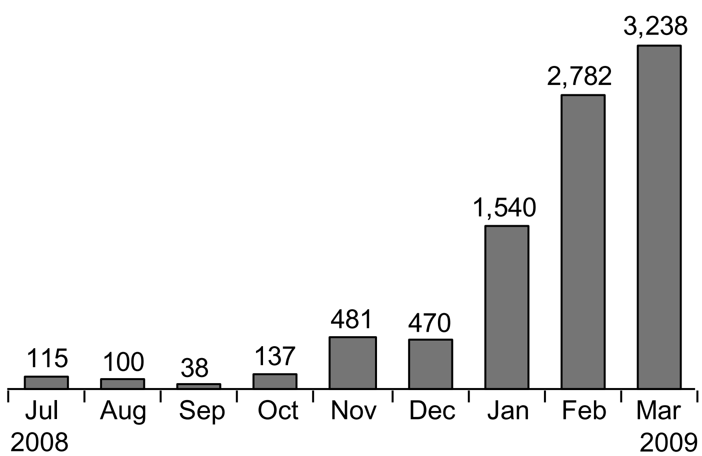
External service providers are often among the first casualties of cost cutting efforts, but outsourcing is holding up well.

What we have heard:

- In most cost reduction efforts, external spending on services is one of the first areas to be addressed.
- Many companies are leveraging the recession to negotiate concessions from their service providers.
- Legal services are suffering from dramatically reduced M&A and IPO activity, whereas litigation is faring better and expected to benefit from conflicts arising out of large asset declines.
- Outsourced services such as call centers are continuing to perform strongly as companies focus on core activities. The key challenge for outsourcers is credit risk caused by the need to make up-front, customer-specific investments.
- Recruiting firms have seen some declines in searches, but demand for executive searches remains strong, while shifting from business development towards operations roles.

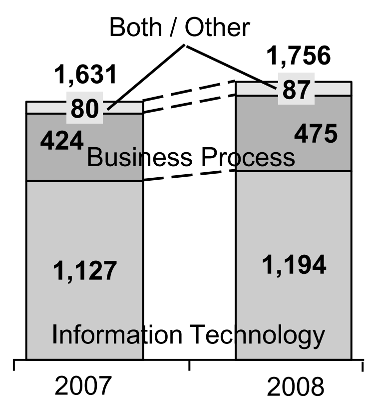
US Law Firm Layoffs, Attorneys & Staff

July 2008–March 2009



US Outsourcing of Business Functions, 2007 vs. 2008

Number of Transactions



Source: Booz & Company Interviews, RAND, American Lawyer, Bureau of Labor Statistics, Everest Research

❽ Software / High Tech

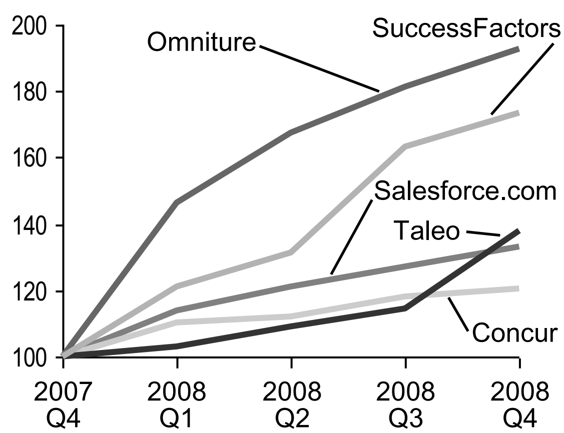
Technology spending has been reduced by both companies and consumers, but Software as a Service (SaaS) continues to grow.

What we have heard:

- New investments in software and hardware by companies are generally being de-prioritized in the recession.
- Software customers are increasingly demanding subscription-based licensing with increased ability to flex with headcount changes.
- The paradigm shift towards SaaS and cloud computing will likely accelerate because of the recession, as up-front investment is low.
- Traditional software companies and venture firms are channeling significant investments towards SaaS, but a full shift is still many years away due to technology barriers and security concerns.
- Open source software offerings may also gain increased traction in the recession.
- The semiconductor industry has seen significant revenue drops with decreased consumer electronics sales—but, due to leaner supply chains, the impact is not as severe as in previous recessions.

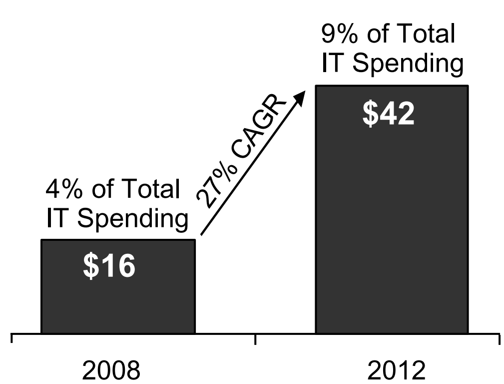
One-Year Revenue Growth for Selected SaaS Companies

Indexed to 2007 Q4



IDC Cloud Computing Global Spending Forecast

($ Billions)



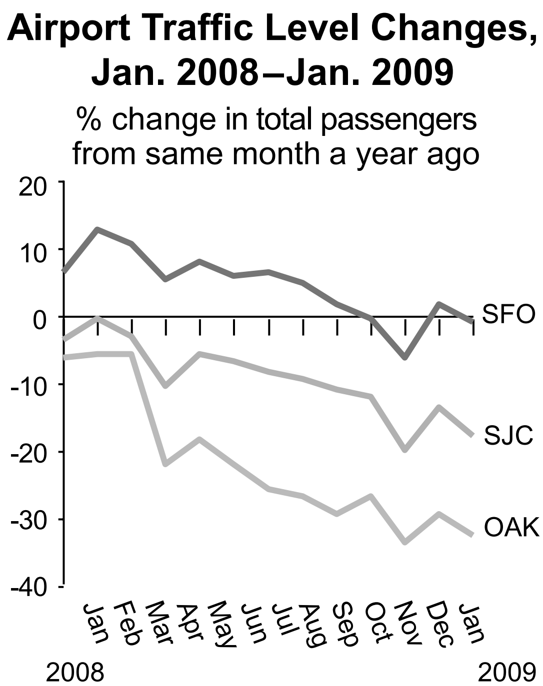
Source: Booz & Company Interviews, IDC, Company Filings, Booz Analysis

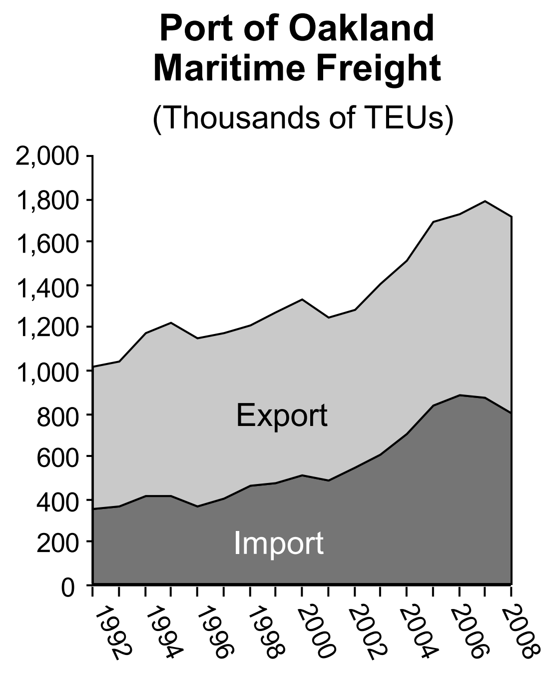
❾ Transportation

Reduced fuel costs are helping to offset lower transportation volumes.

What we have heard:

- Ridership on mass transit spiked with high oil prices, but is now down 10–15% as unemployment grows.
- Public transportation revenue from all sources (fares, taxes, advertising) is declining, and is being met with aggressive cost and investment reductions—and fare increases.
- Freight volumes have been declining as consumption drops and inventories are reduced, but freight companies are now seeing more stable demand and some signs of improvement.
- Airlines are operating in a very soft environment, but revenue declines have so far been more than offset by reduced fuel costs.
- As airlines cut routes, the Oakland and San Jose airports have been affected the most, while San Francisco has seen more stable traffic.





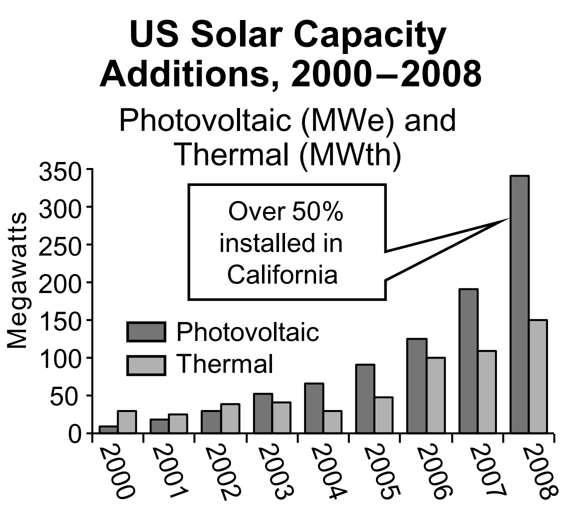
Source: Port of Oakland, San Francisco International Airport, Mineta San Jose International Airport
Note: TEU = Twenty-foot Equivalent Unit.

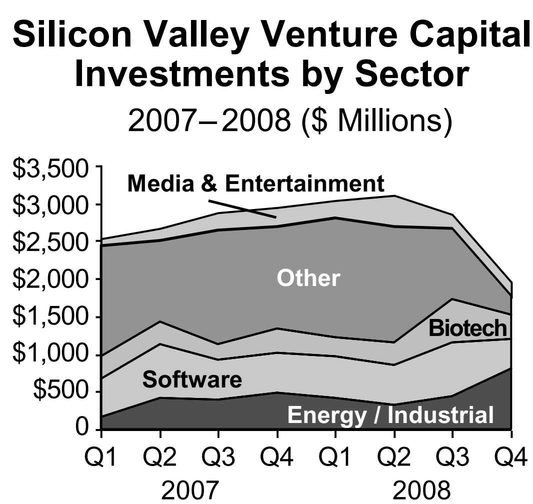
⓾ Utilities / Energy

The recession is unlikely to have long term effects on the green trend in energy.

What we have heard:

- Large energy companies, utilities and venture firms continue to invest in renewable energy and conservation technologies, as fossil fuel prices are expected to rise post-recession and renewable mandates remain in place.
  - Global venture capital investments in cleantech have risen from ~$500 million in 2001 to $8.5 billion in 2008—70% are made in the US.
  - In 2008, the majority of investments were made in solar (40%), bio-fuels (11%), transportation (10%).
- Businesses are continuing efforts to raise their green energy profiles.
  - Energy efficiency retrofits are seen as a cost-saving activity.
  - Consumer and other stakeholder demand remains strong, although there are some signs that consumer willingness to pay a "green premium" may be waning in the recession.
- The solar industry is suffering from an inventory glut and limited access to financing, and significant industry consolidation is expected. Interest in next generation solar power technologies is strong, though, and many expect more cost competitive technologies to emerge soon.
- Investments in smart grid technology by utilities are growing strongly and will likely continue.





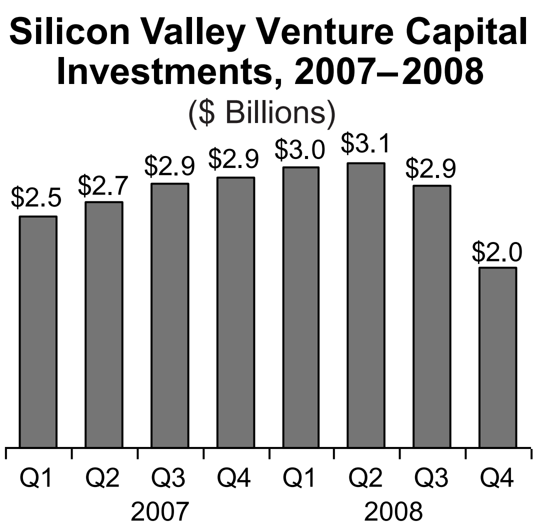
Source: Booz & Company Interviews, Solar Energy Industries Association, PWC/Moneytree, Booz Analysis
Note: MWe = Megawatts electric; MWth = Megawatts thermal

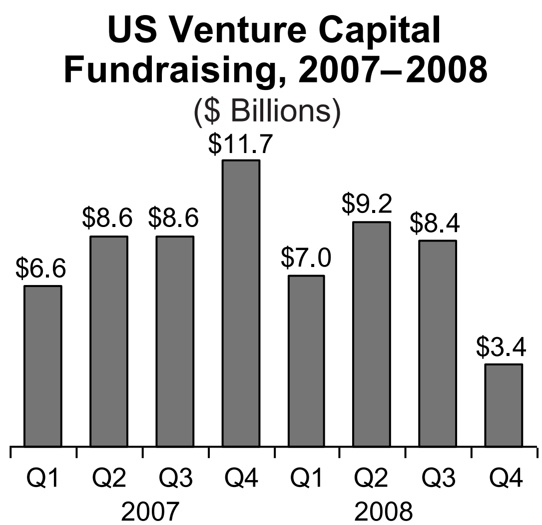
⓫ Venture Capital / Start-ups

Start-ups struggle as venture capital availability is constrained by lack of funding from traditional sources.

What we have heard:

- Although venture firms still have significant funds to invest, there is concern about their ability to raise new funds.
- The key challenge is the "denominator effect".
  - As other asset classes decline in value, the relative portfolio weight of illiquid venture investments increases.
  - Endowments and other investors reduce future venture investments in order to rebalance their portfolios.
- Venture firms rationalize their portfolios and reduce the burn rate of remaining companies—and many venture firms may not survive, as only the top performers will be able to raise new funds.
- At the same time, venture firms are starting to seek new sources of funds to enable investments at current attractive valuations, for example from sovereign wealth funds.
- The current lack of debt and public equity available for later-stage start-ups necessitates more venture investment into existing portfolios.
- Overall, the sense is that there is still sufficient funding available to fund the next generation of successful ventures, as talent (not capital) continues to be the key constraint.





Source: Booz & Company Interviews, Thompson Reuters, PWC/Moneytree, Booz Analysis

IV

Policy Implications

IV

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Policy Implications

Business leaders highlight six issues that they believe are essential for the recovery and long-term viability of the Bay Area.

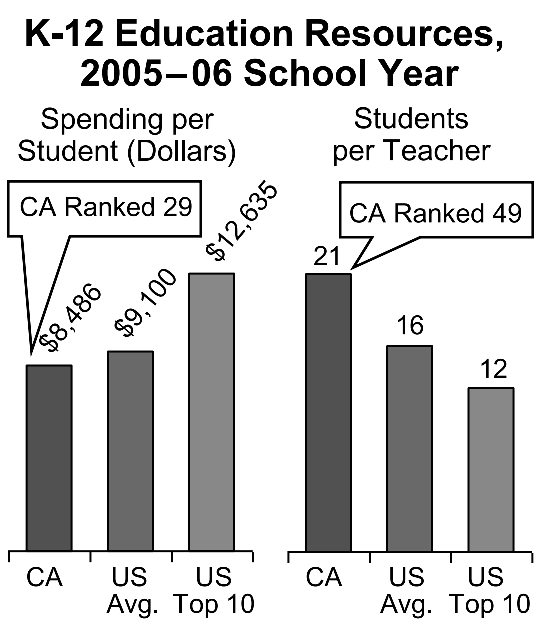
Issue	Summary Perspective
1 Education	The Bay Area is a knowledge economy, yet investment in education is significantly lagging the nation.
2 Transportation Infrastructure	Mobility is key for our economy, and the need for infrastructure investment is growing.
3 Business Environment	The cost of doing business and a perceived anti-business climate in the Bay Area are causing businesses to reconsider investing here.
4 Immigration & Protectionism	Immigration and foreign trade are essential for the Bay Area but are at risk due to recession-driven protectionism.
5 Regional Coordination	The Bay Area is too fragmented, and better regional coordination could be a significant differentiator.
6 Clean Technology	Clean technology could be the next big wave of innovation for the Bay Area.

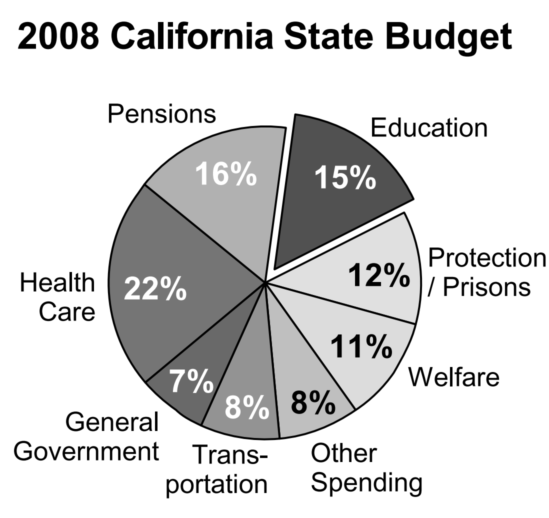
❶ Education

The Bay Area is a knowledge economy, yet investment in education is significantly lagging the nation.

What we have heard:

- Despite high taxes, California education spending and outcomes lag the rest of the country.
- California students rank 5% below the US average in standardized tests, and low math and science levels are particularly troubling.
- For the Bay Area, as a knowledge economy, the most important investment is in education at all levels, especially as reading and math skills are requirements for almost any job.
- In addition, world class public education is essential to our ability to continue to attract and retain a high-skilled workforce.
- The latest California spending plans will further reduce funds available for education.





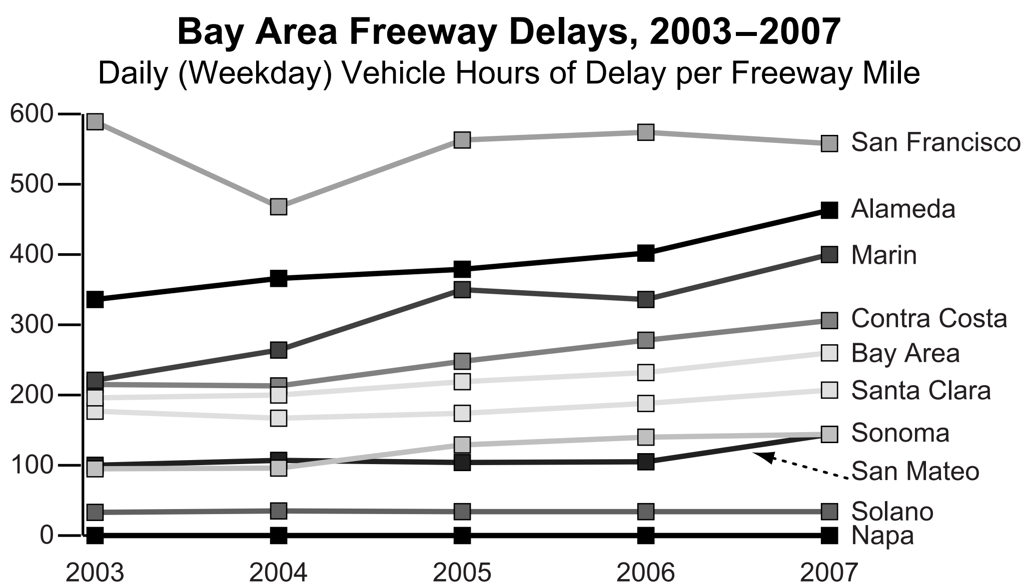
Source: Booz & Company Interviews, CA Governor's Office, Ed-Data, Booz Analysis

❷ Transportation Infrastructure

Mobility is key for our economy, and a recession creates opportunities to make infrastructure investments.

What we have heard:

- Long commutes and traffic congestion are notorious in the Bay Area, especially as many cannot afford to live close to work.
- In addition, transportation accounts for a majority of the total CO_2 emissions in the Bay Area, and rethinking transit will be important for reducing the region's carbon footprint.
- While the public transit system is excellent by national standards, there are still many opportunities to expand service.
- Transportation improvement is a key driver of multiple objectives:
  - Quality of life and the ability to attract and retain a world class workforce.
  - Productivity.
  - Environmental benefits.
- The recession provides a unique opportunity to increase infrastructure investments:
  - Lower construction costs.
  - Job creation.



Source: Booz & Company Interviews, Metropolitan Transportation Commission, Booz Analysis

❸ Business Environment

The cost of doing business and a perceived anti-business climate in the Bay Area are causing many companies to reconsider investing here.

What we have heard:

- Some companies are considering relocating from the Bay Area or are favoring other locations for new investments and job growth—especially as the talent pool continues to improve in other locations relative to the Bay Area.
- High tax rates, home prices, and health care costs contribute to the high cost of living in the Bay Area—which directly impacts the cost of doing business and impedes our ability to attract and retain talent.
- Other costs of doing business in the Bay Area are compounding the issue, including city regulations, long wait times for environmental and other certifications, and high costs of litigation.
- The State of California and some local governments have weak track records in providing investment and job creation incentives, and the current budget situation leaves little room for a government-led business investment vision.
- There is a sense that local and state politicians take growth and job creation for granted and that there is a risk to the long-term economic viability of the region unless the climate becomes more business-friendly.

Tax and Home Price Comparisons

City or County	Median Home Price ($ Thousands)	Highest Income Tax Rate	Sales Tax Rate	State & Local Tax as % of Statewide Average Personal Income
Las Vegas	$181.7	N/A	6.50%	10.1%
Phoenix	$155.9	4.54%	5.60%	10.0%
Salt Lake City	$225.4	5.35%	4.70%	11.0%
Portland	$264.5	9.00%	N/A	10.0%
Seattle	$325.9	N/A	6.50%	10.2%
San Francisco	$562.0	10.55%	9.50%	11.3%
Alameda County	$300.0	10.55%	9.75%	11.3%
Santa Clara Country	$400.0	10.55%	9.25%	11.3%

Source: Booz & Company Interviews, National and California Association of Realtors, Bureau of Economic Analysis, US Census, Booz Analysis

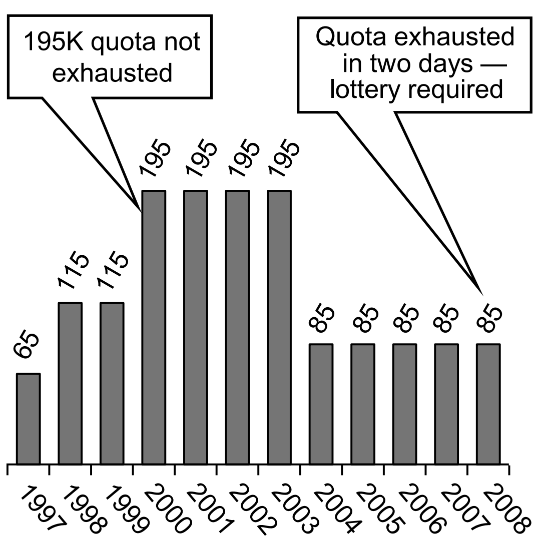
❹ Immigration & Protectionism

Immigration and foreign trade are essential for the Bay Area, but both are at risk due to recession-driven protectionism.

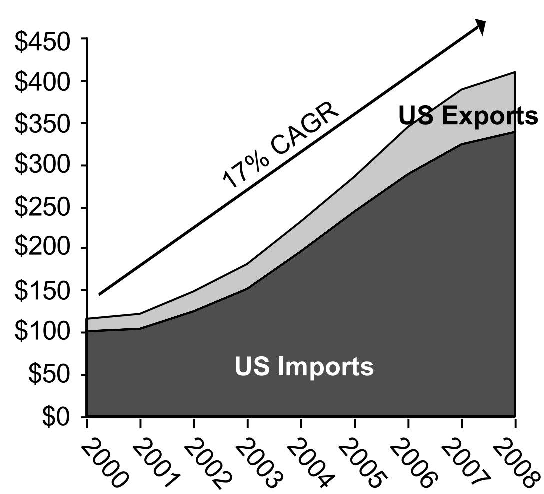
What we have heard:

- Immigration of talented and well-educated people has been a key growth engine for the Bay Area, and some of the region's most successful entrepreneurs are immigrants.
- By restricting the number of temporary work visas for skilled professionals and by continuing a slow and restrictive green card process, we are not leveraging our competitive advantage.
- The recession decreases the likelihood of raising the H1-B quota ceiling, as concern about unemployment among US citizens (and job loss to foreign nationals) increases.
- Buy America provisions and restrictions on foreign hiring in the federal stimulus program raise barriers that can damage trade and hurt competitiveness.
- As developing Asian economies continue to grow, the Bay Area has an opportunity to become the US hub of the Pacific Rim.

H-1B Visa Annual Allotment Ceiling, 1997–2008
(Thousands)



US-China Trade Volume, 2000–2008
($ Billions, Nominal)



Source: Booz & Company Interviews, USCIS, US Census Bureau, Booz Analysis
Note: H-1B Visa Annual Allotment Ceiling includes 20,000 H-1B visas reserved for advanced degree holders from 2004 and excludes petitions exempt from the cap.

❺ Regional Coordination

The Bay Area is fragmented and would benefit from better regional coordination.

What we have heard:

- The Bay Area is a regional economy covering nine counties, 101 cities and a population of seven million. Coordination on a regional scale is lacking, despite the ongoing efforts of the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Commission (MTC), and other regional agencies and organizations.
- Planning and regulatory activities are often conducted in isolation, and businesses have to engage and accommodate multiple stakeholders for the same issue.
- Better coordination could potentially be a significant differentiator for the Bay Area.
  - Economies of scale in service delivery.
  - Lower cost of doing business across city and county lines.
  - More influence at state and national levels.
  - Decisions that optimize outcomes for the entire region.
  - Ability to “go-to-market” as one region, with integrated public service solutions.

❻ Clean Technology

Clean technology could be the next big wave of innovation for the Bay Area.

What we have heard:

- The Bay Area is clearly advantaged in some aspects of cleantech, particularly those that leverage semiconductor technology (e.g,. solar) and software (e.g., smart grid).
- More broadly, the Bay Area benefits from the availability of funding and the entrepreneurial mindset required to disrupt traditional industries.
- Public subsidies and programs will continue to play a significant role in alternative energy technology, as price parity is still several years away.
- The recession negatively impacts clean technology in the near term—in particular, solar (credit access) and recycling (commodity prices).
- To ensure lasting leadership in cleantech, the Bay Area should continue to focus public and private investments.

Project Sponsors

Bay Area Council Economic Institute

The Bay Area Council Economic Institute is a public-private partnership of business, labor, government and higher education that works to support the economic vitality and competitiveness of California and the Bay Area. Its work builds on the twenty-year record of fact-based economic analysis and policy leadership of the Bay Area Economic Forum, which merged with the Bay Area Council in January 2008. The Bay Area Council and the Association of Bay Area Governments are its leading institutional partners. The Economic Institute also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's leading scientific research institutions and laboratories. Through its economic and policy research and partnerships, the Economic Institute addresses major issues impacting the competitiveness, economic development and quality of life of the region and the state, including infrastructure, globalization, science and technology, and governance. Its Board of Trustees, which oversees the development of its products and initiatives, is composed of leaders representing business, labor, government, higher education, science and technology, and philanthropy.

Bay Area Council

Founded in 1945, the Bay Area Council develops and drives regional public policy initiatives and researches critical infrastructure issues. Led by CEOs, the Bay Area Council presents a strong, united voice for hundreds of major employers throughout the Bay Area region who employ more than 500,000 workers, or one of every six private sector employees in the Bay Area.

Association of Bay Area Governments

The Association of Bay Area Governments (ABAG) is the official comprehensive planning agency for the San Francisco Bay Area region. ABAG's mission is to strengthen cooperation and coordination among local governments. ABAG addresses social, environmental, and economic issues that transcend local borders, such as land use, growth management, housing, and economic competitiveness. All nine counties and 101 cities within the Bay Area are voluntary members of ABAG, representing nearly all of the region's population.

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