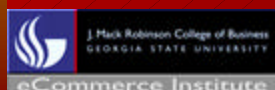


preparing for economic growth: the rebound of the technology market

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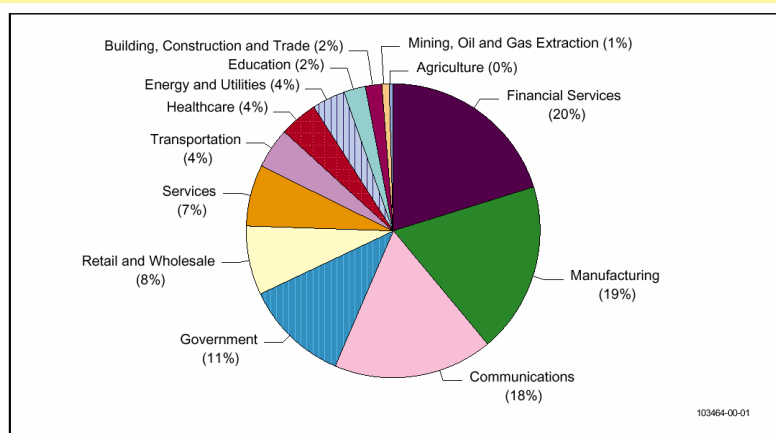


Agenda

- Where we are today
- Predictions for 2002
- Effect of "events" (9/11, Enron)
- Hot sectors and application areas for 2002+
- Looking beyond 2002

Total worldwide IT spend

For 2002: US\$ 1.7 Trillion



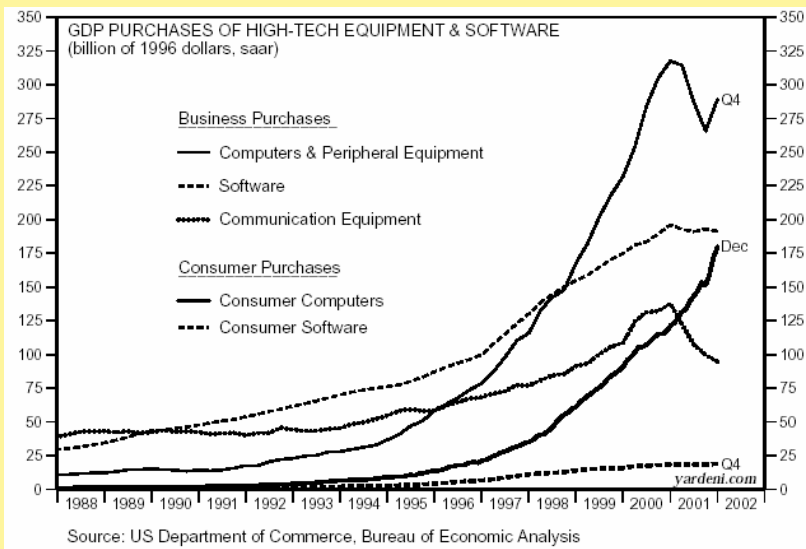
Source: Gartner Dataquest (December 2001)

On average, US IT budgets represent 5.7% of the company's annual revenue

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Good news (sort of)

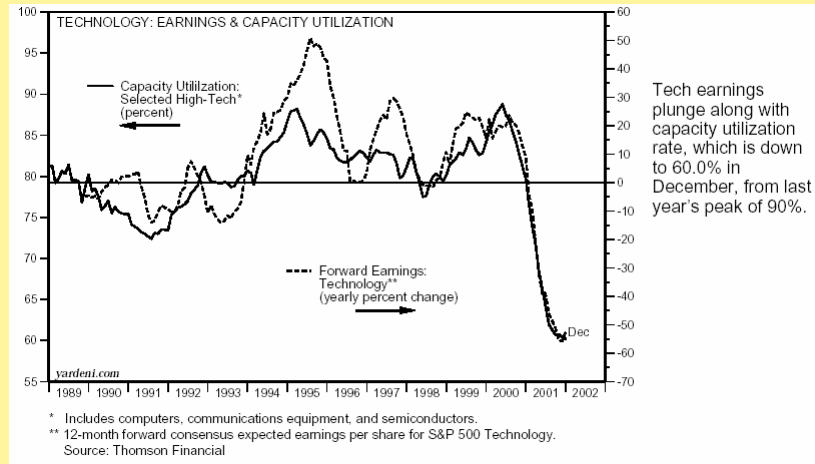


Source: US Department of Commerce, Bureau of Economic Analysis

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Bad news



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2002 IT spending predictions

Late 90's into 2000: Approximately 10-15% CAGR in IT budgets

U.S. IT Spending set to rebound with **4.0% growth in 2002**, following a 5% contraction in 2001. Comparable "before 9/11" figures were a 3% contraction in 2001 followed by a 7% increase in 2002.

Gartner

Negative growth (-0.7%) predicted for North American IT industry
October 18, 2001

The worldwide IT industry (save telecommunications, smart handhelds and consumer devices) will see **2.4%** revenue growth in 2001, down from earlier predictions of **7%** growth and down from 10% growth in 2000.

North American IT spending will see its first-ever negative growth rate (**-0.7%**) in 2001 before **rebounding to 4.3% growth in 2002** and **10.8% growth in 2003**.

Meanwhile, IT spending in Western Europe will see **5.7%** growth and the Asia/Pacific region will see growth of **5.5%**.

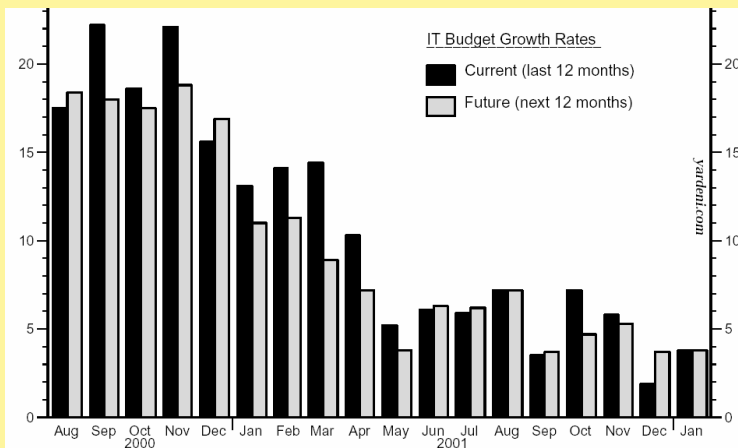
CIO Magazine/IDC

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YAV (yet another view) on tech growth

CIO TECH POLL: FUTURE & CURRENT GROWTH RATES



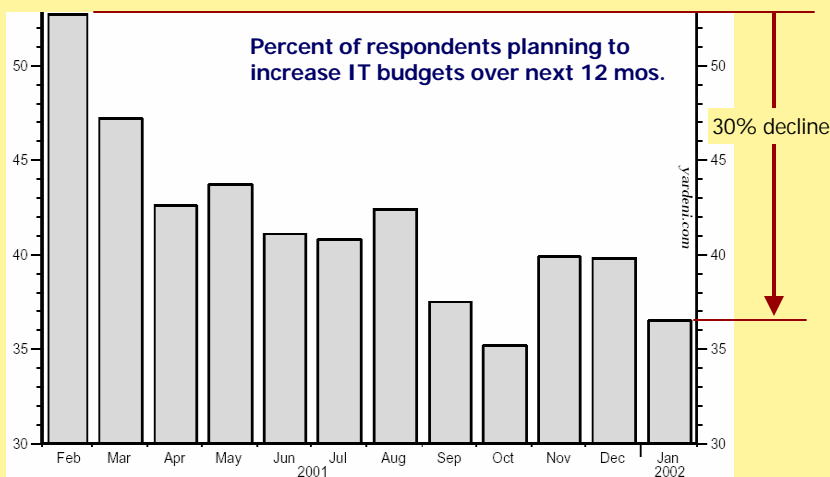
Source: CIO Magazine Tech Poll in partnership with yardeni.com

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and ... 2002 IT spending

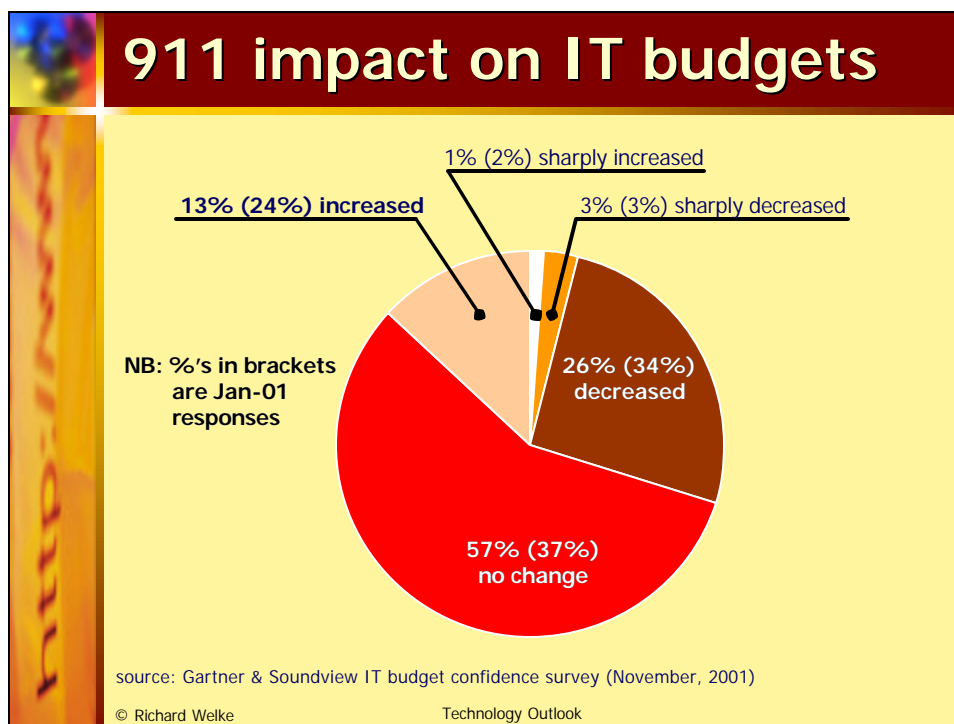
CIO TECH POLL: FUTURE IT SPENDING PLANS ON SEVEN BASIC IT CATEGORIES



Source: CIO Magazine Tech Poll in partnership with yardeni.com

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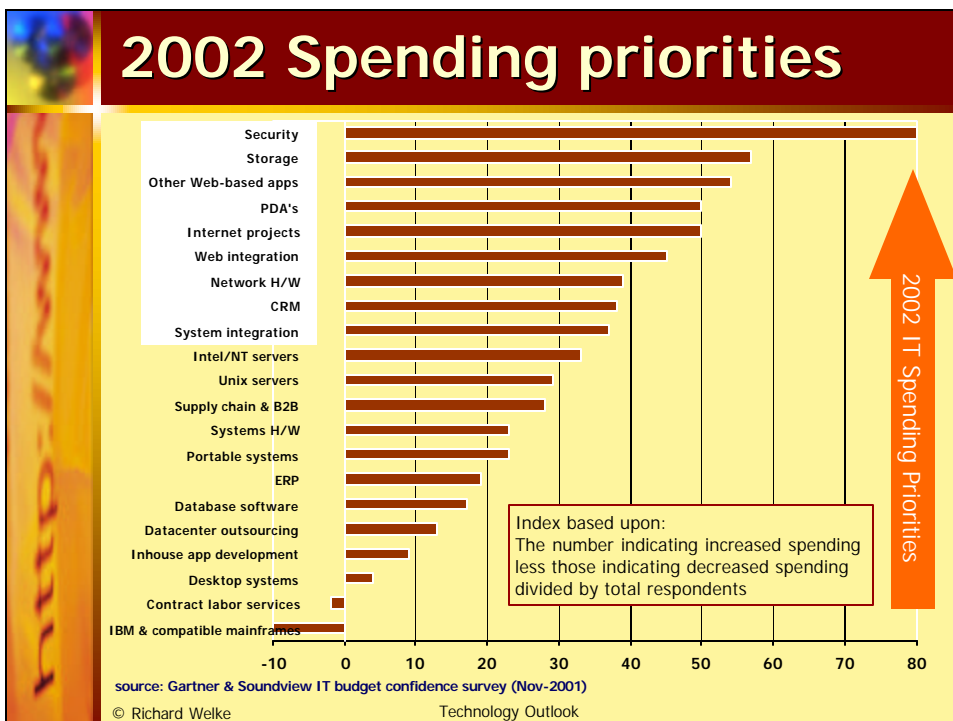


- ## Enron fallout
- Cable & Wireless announces it booked as revenue the total value of all lease arrangements (some as long as 20 years)
 - Qwest communications discloses off-balance sheet partnership with KMC Telecom holdings
 - KPNQwest said 15% of revenue from capacity-swapping arrangements
 - Qualcomm's share price drops amid concerns about its accounting practices
 - Optus restates its 2001 earnings after investigation of its accounting practices
- © Richard Welke Technology Outlook

Spending up in some sectors

- ◆ Financial services (Banking)
 - 4Q 1999 to 4Q 2001 I/T spending dropped from 27% of total budget to 15%
 - FY 2002 -- back to 25%
 - Drivers: differentiation, competition from insurance and brokerage, cross-selling and CRM
- ◆ Retailing
 - Best performers spending the most
 - Drivers: warehouse management, SCM, financial controls
 - Example:
 - Kmart turns: 3.6 Wal-Mart turns: 7.3

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IT Staffing

From staff to skill shortages

(January 2002 CIO survey):

- <1% reported IT staff shortage problem
- >63% reported skills shortage
- Skill shortages reported (frequency)
 - 53% Application development
 - 53% Project management
 - 46% Networking
 - 43% Database management
 - 39% Website development
 - 36% Security
- Greatest skills shortages (all categories) reported in the Southeast

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Beyond 2002

- ◆ The drivers of new technology spending
 - First wave (2002)
 - Security
 - Data warehousing & rationalization (SAN)
 - Customer relationship management
 - Supply chain management
 - Second wave (2003)
 - Revised business models
 - Application integration
 - Collaboration (intra and inter enterprise)
 - Mobile commerce (workforce)
 - Third wave (2004)
 - Web services (.NET vs. J2EE)
 - Broadband to the home

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US spend on external IT services

Industry	2000 \$M's	2005 \$M's	CAGR (%) 2000-2005
Manufacturing	62,971	96,127	8.8
Financial Services	59,908	94,404	9.5
Government	24,114	48,096	14.8
Retail and Wholesale	14,371	23,337	10.2
Communications	15,850	22,947	7.7
Services	13,304	22,071	10.7
Healthcare	11,640	21,635	13.2
Transportation	12,658	20,595	10.2
Energy and Utilities	9,398	15,331	10.3
Building, Construction and Trade	8,230	14,023	11.2
Education	4,437	8,217	13.1
Mining, Oil and Gas Extraction	3,108	5,333	11.4
Agriculture	1,798	3,173	12.0
Total	241,787	395,287	10.3

Source: Gartner Dataquest (December 2001)

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Wrapping up

- 2002 won't be a great year for technology
 - But, better than 2001
 - In most sectors, short-term focus on ROI
 - Fermenting behind the scenes are new or revised business models
- 2003 focus will swing back to revenue enhancement and strategic focus
 - Much larger up tick in services and applications
 - Followed with H/W and comm purchases
 - Best in sector will be doing this in 2002
- 2004 will see a number of must-do technology initiatives emerge
 - Driven by advances in H/W and S/W

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