# Technology as a strategic imperative or commodity

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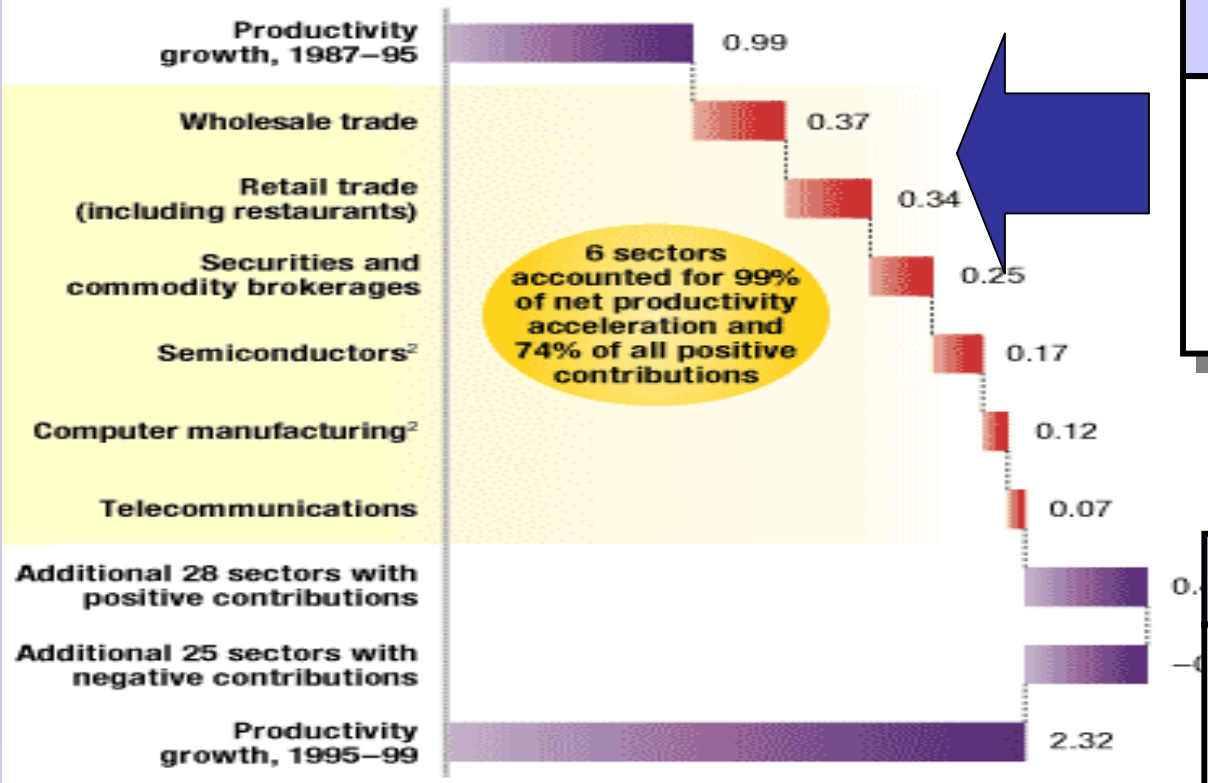
# The IT productivity paradox!

**Six sectors led the way**

Contributions of selected sectors to 1995–99 US labor productivity growth acceleration,[1] compound annual growth rate (CAGR), percent




[1]Analysis based on US Bureau of Economic Analysis (BEA) sector data, which differ slightly from widely publicized US Bureau of Labor Statistics (BLS) aggregate data. BLS labor productivity gr figures show 1.4% CAGR for 1987–95 and 2.5% CAGR for 1995–2000.
[2]Semiconductors industry (representing 20% of overall productivity growth) is a subset of Electronic and Electric Equipment, which as a group contributed 17%; computer manufacturing (representing 10% of overall productivity growth) is a subset of Industrial Machinery and Equipment, which as a group contributed 12%.
Source: US Bureau of Economic Analysis; McKinsey analysis

## Contributing factors

Competitive intensity
Regulatory changes
Shift in purchasing patterns

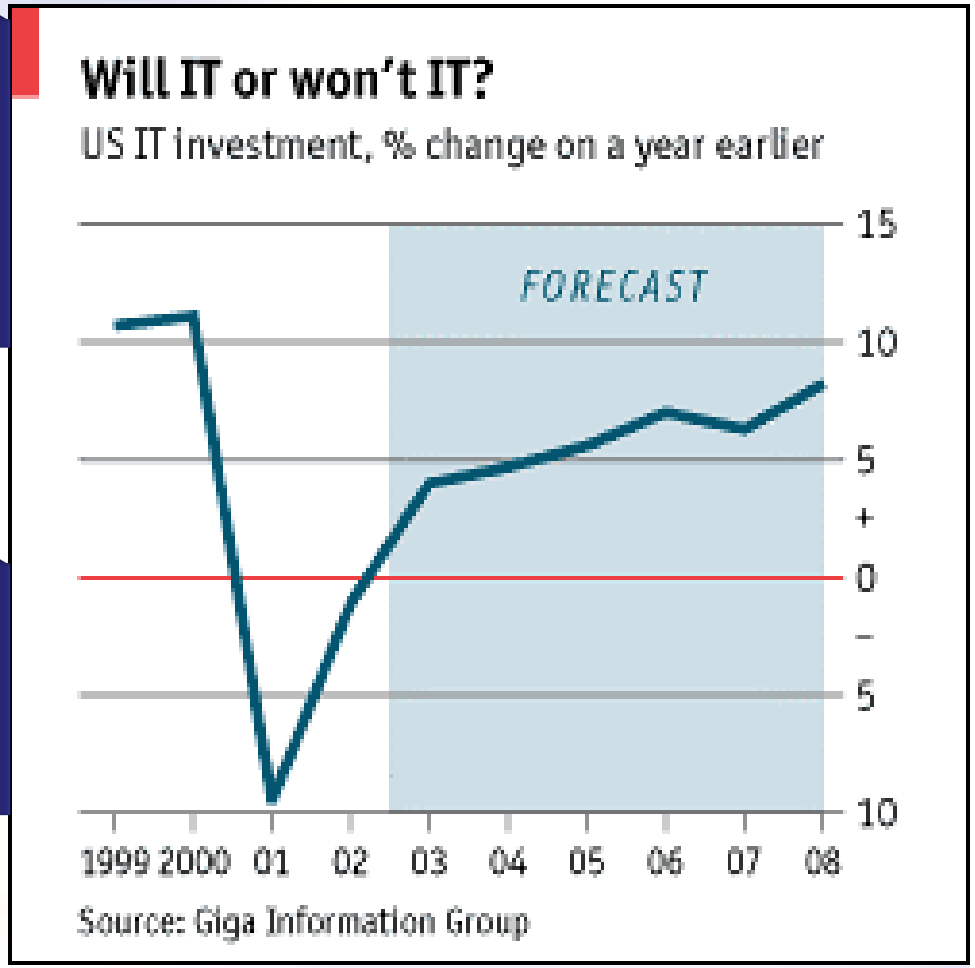
## IT's role

Necessary but not a sufficient enabler of productivity gains

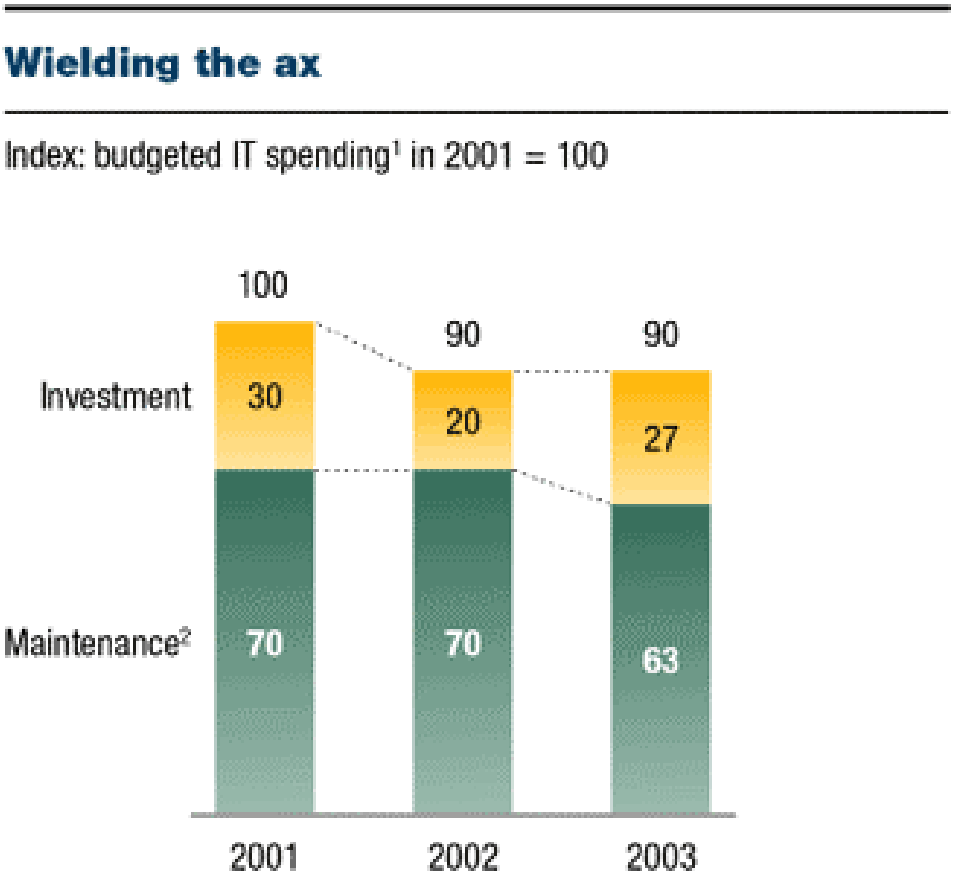
# IT spending: The vital signals

From 1995 to 1999, U.S. companies spent $**1.5 trillion** on IT with the hope that it would drive business success.

In 2002, spending dropped by 10% from 1999 levels which was UNPRECEDENTED.



# The spending mix has changed




Source: Mckinsey.
Based on interviews with top 200 CIOs

**Year 2003**
**U.S.$ 33.8 billion**

| | |
|---|---|
| Maintenance: | 81% |
| Replacement: | 11% |
| New technology: | 8% |

3 % CAGR

**Year 2007**
**U.S. $38.2 billion**

| | |
|---|---|
| Maintenance: | 81% |
| Replacement: | 14% |
| New technology: | 11% |

Source: Tower Group estimates of IT spending by the FSI sector

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# The utility analogy cant be ignored.!

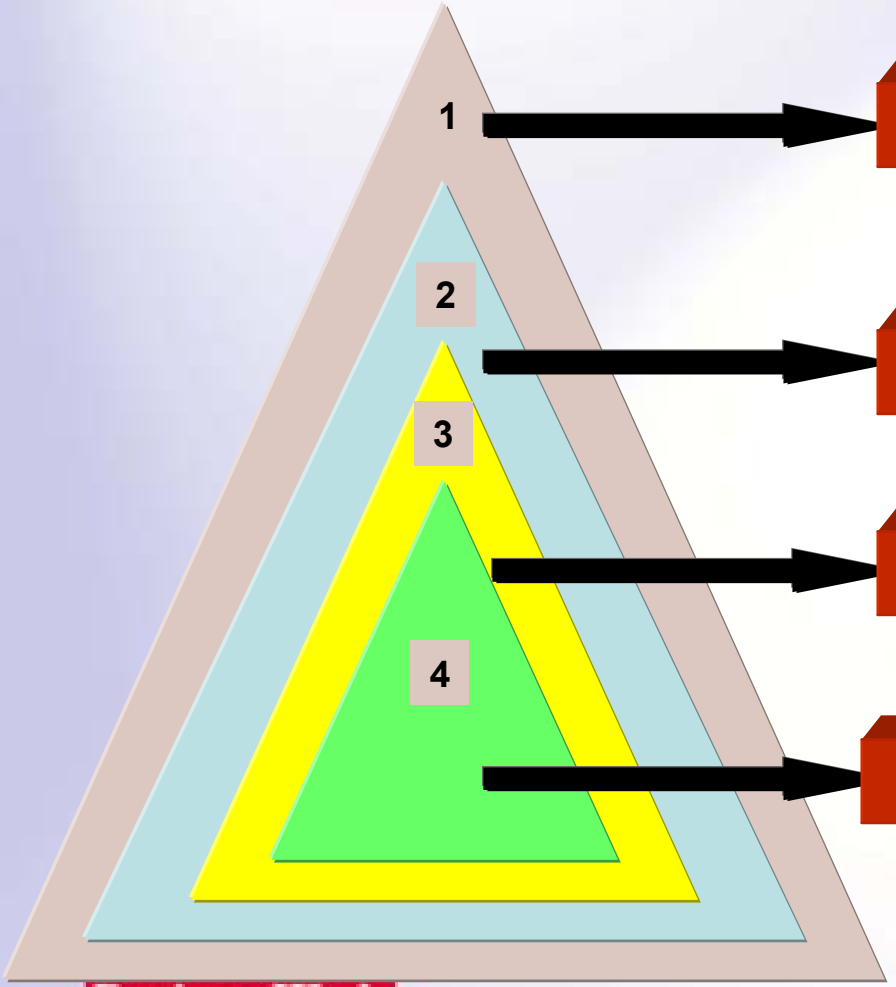
| | | |
|---|---|---|
| 1 | Commodization | Hardware, bandwidth etc |
| 2 | Replication | Software, especially hosted |
| 3 | Delivery channel | Internet |
| 4 | Outsourcing | Offshoring, incl Biz Process |
| 5 | Consolidation | M&A, lower margins |
| 6 | Grid computing | IBM, Microsoft, Oracle |

The key driver seems to be COST CONTAINMENT

# Though the opportunity to exploit IT exists..!

- Provides a number of new options and possibilities
- IT may be pervasive, but the ability to exploit it is not
- IT beyond the enterprise provides enormous leverage
- Executing tactically yet aligned to a specific strategy
- Effective use of Business Intelligence applications
- Adherence to a specific value discipline

# The IT portfolio: Managing returns and risks appropriately




Infrastructure → Standardization, Agility, Reduce costs

Transactional → Cut costs, Improve throughput

Informational → Improved decisions, Better control

Strategic → Service neccesity, Differentiation, Innovation

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# GLOBALIZATION GOES WHITE COLLAR

## A global pool of skilled workers . . .

NUMBER OF NATURAL-SCIENCE AND ENGINEERING COLLEGE GRADUATES

| | BAs | | MAs and PhDs | |
|---|---|---|---|---|
| | 1989 | 1999 | 1989 | 1999 |
| CHINA | 127,000 | 322,000 | 19,000 | 41,000 |
| INDIA | 165,000 | 251,000 | 64,000 | 63,000 |
| PHILIPPINES | 40,000 | 66,000 | 255 | 937 |
| MEXICO | 32,000 | 57,000 | 340 | 63,000 |
| U.S. | 196,000 | 220,000 | 61,000 | 77,000 |

Data: National Science Foundation, *BusinessWeek*

## . . . is drawing more Western companies

| COMPANY | NO. OF WORKERS AND COUNTRY | TYPE OF WORK MOVING |
|---|---|---|
| ACCENTURE | 2,000 in the Philippines by 2004 | Accounting, software, back-office work |
| CONSECO | 1,700 in India, 3 more centers planned | Insurance claim processing |
| DELTA AIR LINES | 600 contract workers in India, Philippines | Airline reservations, customer service |
| FLUOR | 700 in the Philippines | Architectural blueprints |
| GENERAL ELECTRIC | 20,000 in India alone by yearend; big China R&D center | Finance, IT support, R&D for medical, lighting, aircraft |

## . . . that are eager to cut costs . . .

| COMPANY | NO. OF WORKERS AND COUNTRY | TYPE OF WORK MOVING |
|---|---|---|
| HSBC | 4,000 in China, India | Credit-card, loan processing |
| INTEL | 3,000 in India by 2005 | Chip design, tech support |
| MICROSOFT | 500 in India, China by year end | Software design, IT support |
| ORACLE | Doubling India staff to 4,000 | Software design, customer support, accounting |
| PHILIPS | 700 Chinese engineers in China | Consumer electronics R&D |
| PROCTER & GAMBLE | 650 in Philippines, 150 in China | Tech support, accounting |

Data: Gartner Inc., McKinsey & Co., Forrester Research Inc., *BusinessWeek*

## . . . a trend that's likely to grow

NUMBER OF U.S. JOBS MOVING OFFSHORE*

| | 2005 | 2010 | 2015 |
|---|---|---|---|
| LIFE SCIENCES | 3,700 | 14,000 | 37,000 |
| LEGAL | 14,000 | 35,000 | 75,000 |
| ART, DESIGN | 6,000 | 14,000 | 30,000 |
| MANAGEMENT | 37,000 | 118,000 | 288,000 |
| BUSINESS OPERATIONS | 61,000 | 162,000 | 348,000 |
| COMPUTER | 109,000 | 277,000 | 473,000 |
| ARCHITECTURE | 32,000 | 83,000 | 184,000 |
| SALES | 29,000 | 97,000 | 227,000 |
| OFFICE SUPPORT | 295,000 | 791,000 | 1,700,000 |
| **TOTAL** | **588,000** | | **3,300,000** |

*To low-wage countries such as India, China, Mexico, and the Philippines  Data: Forrester Research Inc.

# Implications for CIOs

- Demonstrate value to businessunits (now is REDUCE COSTS)
- Gain a shared understanding of organization strategy and the levers of competitive advantage at all levels
- Ensure faster, more complete strategy alignment and execution, both within IT and across business units
- Assess performance and communicate results on a regular basis
- Evaluate and prioritize initiatives more quickly and effectively
- Establish greater shared accountability through a robust IT governance mechanism