



Real value in a changing world

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Diagnostic Tool-Kit

High Tech

Industry Diagnostic Toolkit
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Industry Indicators

What the tech industry tracks to forecast demand

Indicator	Important To:		Why?
Private investment in computers & hardware	<ul style="list-style-type: none"> Software Publishing Data Processing & Hosting Services IT Consulting 	<ul style="list-style-type: none"> Microsoft Corp Oracle IBM 	Business investment in computing resources is a primary revenue source. Consumers buying computers often invest in software licenses and additional technology.
Corporate profit	<ul style="list-style-type: none"> Software Publishing IT Consulting Computer Manufacturing 	<ul style="list-style-type: none"> Oracle Accenture Ltd. Hewlett-Packard Co. 	When corporate profit is high, firms are likely to spend on capital goods like software. Spending usually lags behind profit growth by 9 months.
Price of computers & peripheral equipment	<ul style="list-style-type: none"> Operating Systems Software Publishing Data Processing & Hosting Services Computer Manufacturing 	<ul style="list-style-type: none"> Microsoft Corp IBM Hewlett-Packard Co. Dell 	The price of computers affects whether consumers choose to repair an existing computer or purchase a replacement. Replacement sales drive demand for additional tech products.
Consumer sentiment index	<ul style="list-style-type: none"> E-Commerce Computer Manufacturing 	<ul style="list-style-type: none"> Amazon.com Inc. Apple 	During periods of low economic growth, consumer sentiment declines; as a result consumers buy less.
Government consumption & investment	<ul style="list-style-type: none"> Database, Storage & Backup Software IT Consulting Software Publishing 	<ul style="list-style-type: none"> Teradata Corp. EMC Corp Intuit Inc. 	The government is a major buyer of software and IT services. Cutbacks in government spending have a negative effect on tech revenue.
Number of mobile internet connections	<ul style="list-style-type: none"> Internet Publishing and Broadcasting Search Engines Data Processing & Hosting Services 	<ul style="list-style-type: none"> Google Yahoo GoDaddy.com 	Mobile internet connectivity is a major driver of industry growth, allowing consumers to access the internet from devices other than computers.
Per capita disposable income	<ul style="list-style-type: none"> Operating Systems E-Commerce Software Publishing 	<ul style="list-style-type: none"> Apple eBay EMC Corp 	Technology and online goods are a voluntary purchase for most consumers. When incomes shrink consumers cut back tech related purchases.
Percentage of services conducted online	<ul style="list-style-type: none"> Search Engines Data Processing & Hosting Services E-Commerce 	<ul style="list-style-type: none"> Google Salesforce.com Groupon Inc. 	As the rate of computer ownership increases so does usage of search engines, confidence in online services and the need for tech that facilitates online transactions.

Source: IBIS World

State of the Industry

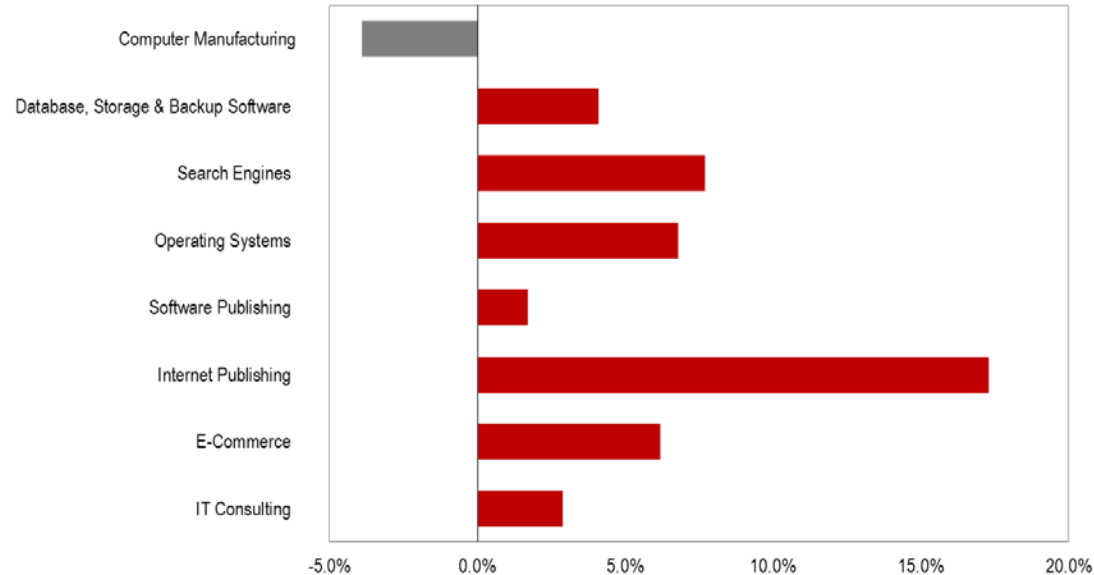
Opportunities

- Corporate profit is expected to increase
- Per capita disposable income is expected to increase slowly
- The number of mobile internet connections is rising
- Investment in computers and software is expected to increase, mostly due to rising demand from the business sector
- There will be more demand for hosting services
- Web content, such as graphics, videos and web page layouts will be in greater demand
- Global demographics support demand (growing populations, income and GDP in emerging markets)

Threats

- Heavy competition
- Slow growth in consumer spending may constrain online advertising budgets
- Consumers remain uncertain about economy and continue to limit discretionary spending
- Government spending and investment is expected to decline
- The interest rate is expected to rise, which has a negative impact on spending and investment decisions
- Import penetration

Annual Revenue Forecast 2013 - 2018



Top 5 Concerns

Emerging Tech Companies		Established Tech Companies	
1.	Talent	1.	Talent
2.	Funding	2.	Competition
3.	Competition	3.	Market Share
4.	Target Market	4.	Intellectual Property
5.	Strategic Partnerships	5.	Stock Performance/ IPO Eligibility

Source: IBIS World, JLL Research

Leading industry trends & their impact on real estate

Growth in the tech sector is driven by sustainable demand	Job growth in the tech industry is 4x faster than the overall economy	Despite a slowdown in VC funding, the start-up community expands
<p>The post-recession tech boom is very different from the dot.com boom – from the sophistication of the technology to the volume of technology consumed. Growth today is built upon stronger companies, solid financials and a structural change in how the world perceives and uses technology. With more than \$400 billion in gross cash the high-tech sector is the only industry holding more cash than debt.</p>	<p>Intellectual capital is essential to high-tech companies and the battle for talent is intensifying. The need for programmers, marketers and business developers is increasing at young start-ups. The labor pool is tighter in established high-tech markets such as Silicon Valley, Austin and Seattle. As a result, companies are looking to less traditional markets such as Phoenix and Minneapolis to set up shop.</p>	<p>Venture capital activity has slowed, the result of economic uncertainty and shrewd lending. However, the start-up community continues to grow steadily. Accelerators and incubators are playing a major role in this expansion by providing a community and platform for start-ups to test ideas, build a brand and generate funding. Accelerators and incubators not only put money behind start-ups, but they also provide feedback on products and help many acquire seed funding to launch a business.</p>
Technology hubs command an operating cost premium	Location and workspace must attract/retain talent	Accelerators and incubators fuel office demand
<p>Asking rents continue to climb in the amenity and talent rich areas high-tech firms like to cluster. Willing to pay a premium, rent is less a factor than access to public transit or creative space for some firms. Landlords have responded by branding buildings as ‘tech-centric’ and, while less flexible on rates, offering TIs and free rent to encourage expansion and longer terms.</p>	<p>High-tech firms use creative space as a tool to attract top talent. Connectivity, mobility, and convenience are the key features used in creative space design. Private offices and partitioned cubicles are viewed as counter-productive to collaboration. Demand is intense for renovated warehouses and brick-and-beam buildings that offer interesting architectural elements. In suburban markets, developers are renovating older campuses to mimic urban centers.</p>	<p>Accelerators and incubators are driving real estate demand through two channels. First, accelerators and incubators are growing rapidly and leasing more office space to accommodate demand from a start-up community that had historically worked from their kitchen tables. Second, they enable start-ups to set out on their own with a stronger business model and more funding. By positioning start-ups up for success, accelerators and incubators are reducing risk and building sustainable demand within the tech sector.</p>

Key Business Performance Issues

What challenges are we most often asked to address by tech companies?

Talent & Location	Flexibility	Structural Costs
<ul style="list-style-type: none">• What locations have the best talent to support innovation?• What locations are the best for global or regional manufacturing?• What is the best deployment of operations across geography (region, country, metro)?• What locations best support core products and services, business life cycle, and operating model?• Where are the best talent markets today and in the future?	<ul style="list-style-type: none">• How do we reduce the number of locations and size of the portfolio without compromising business flexibility?• How can we improve the workplace and enable better employee engagement?• How can we structure transactions to better flex with periods of expansion and contraction?• How do we optimize the real estate portfolio following a merger or acquisition?	<ul style="list-style-type: none">• How do we leverage location to lower the ongoing cost of operations?• How do we better align business activities supported in the organization with location?• Is there opportunity to bifurcate operations and move portions of the business to lower cost locations?• How can we reduce RSF per worker?

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Questions to ask during the first meeting and the solutions/services to win

Business Objective	Measured By	Qualifying Questions	Our Services/ Solutions	Results (case study)
Drive Growth	<ul style="list-style-type: none">• Revenue• Sales• Market share	<ul style="list-style-type: none">• Are revenue producing activities appropriately supported in growth markets?• Is manufacturing capable of supporting new or growth markets?• Does the location of my R&D center promote innovation?	<ul style="list-style-type: none">• TR• Business Consulting• Business Economics & Incentives• iDesk• Location Intelligence• Occupancy Planning	<ul style="list-style-type: none">• Nook by Barnes & Noble• Silver Spring Networks• Twitter (HQ)• Tremor Video
Boost Profitability	<ul style="list-style-type: none">• Operating costs• Share price• R&D/Sales	<ul style="list-style-type: none">• What segments of our business could take advantage of alternative, lower cost geographies or collocate to enable critical interaction?• Impact of higher fuel and labor costs on offshoring?	<ul style="list-style-type: none">• TR• iDesk• Blackbird• Supply Chain• SCON (portfolio strategy)	<ul style="list-style-type: none">• NeoPhotonics• WeWork
Improve Operational Efficiency	<ul style="list-style-type: none">• Asset efficiency (plant, property & equipment)	<ul style="list-style-type: none">• What is the utilization of manufacturing, distribution and office assets?• How much excess capacity exists across the operating footprint?• Do you have proximity to core business, customers, data center or call center?• Do you bring best practices and consistent operations across business lines?	<ul style="list-style-type: none">• TR• Business Consulting• SCON• IFM• Portfolio Command• Property Management	<ul style="list-style-type: none">• Twitter (call center)• Yahoo!• QinetiQ North America• Foursquare
Maximize Employee Productivity/ Retention	<ul style="list-style-type: none">• Turnover• Manufacturing overhead cost	<ul style="list-style-type: none">• Does my workspace attract top talent and align with my company culture?• How can I improve the underlying cost structure of the business?	<ul style="list-style-type: none">• TR• iLocate• Location Intelligence• SCON (workplace strategy)	<ul style="list-style-type: none">• Kabam• CSC• Second Market
Mitigate Risk	<ul style="list-style-type: none">• Diversity of suppliers• Exposure	<ul style="list-style-type: none">• How can we better assess risk and ensure business sustainability?• Exposure to natural disasters and unforeseen events?	<ul style="list-style-type: none">• PDS• Supply Chain• Property Management	<ul style="list-style-type: none">• Juniper Networks• Rovi

Opportunity Assessment

Does the real estate solution align with the lifecycle stage?

Industry Segment	Rate of Change	Lifecycle Stage
Internet Publishing and Broadcasting	25%	High growth industry, strong expansion
E-Commerce & Online Auctions	24%	High growth industry, strong expansion
Search Engines	13%	High growth industry, strong expansion
Operating Systems & Productivity Software Publishing	11%	Mature industry, strong revenue growth, strong hiring by fewer firms
IT Consulting	6%	Mature industry, stable outlook
Software Publishing	3%	Growing but at slow pace
Computer Peripheral Manufacturing	3%	Mature industry, stable outlook
Design, Editing & Rendering Software Publishing	3%	Growing but at slow pace
Database, Storage & Backup Software Publishing	3%	Moderate revenue growth, declining number of companies and workers
Business Analytics & Enterprise Software Publishing	3%	Moderate revenue growth, declining number of companies and little hiring
Data Processing & Hosting Services	-5%	Moderate revenue growth, declining number of companies and workers
Computer Manufacturing	-8%	Declining industry, consolidation and downsizing