

Computer Hardware Industry Outlook

OUTLOOK:  Signs of Weakness

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Overview

The outlook for the Computer Hardware industry is considered neutral with signs of weakness.

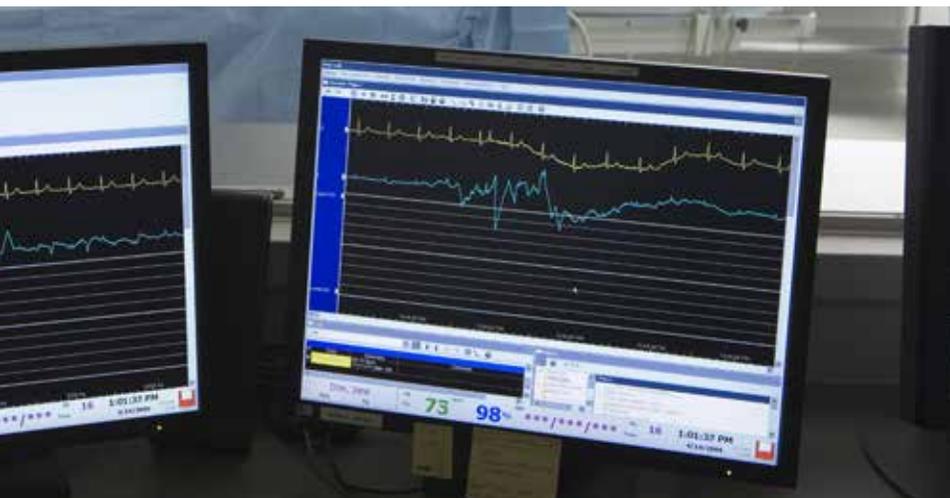
Most U.S. technology products and service providers have globally diversified sales and are therefore affected by worldwide spending trends. The outlook incorporates the following forecasts:

- Global GDP Growth of 2.5% in 2013, 3.2% in 2014, most coming from emerging markets, China, India, Latin America.
- Europe in recession, severe in some countries due to debt crisis. Risk of disorderly default or exit from EMU low.
- U.S. growth an anemic 1.9% in 2013, 2.5% in 2014, due mainly to the ongoing U.S. budget stalemate.
- Growth in IT spending in 2013 will generally slow from 2012 levels.
- Individual subsector performance will vary depending on their respective drivers.

Smart Connected Device by Product Category, Shipments, Market Share, 2012

Product Category	2012 Unit Shipments (Millions)	2012 Market Share	2011 Unit Shipments (Millions)	2011 Market Share	Year over Year Change
Smartphone	722.4	60.1%	494.5	53.1%	46.1%
Tablet	128.3	10.7%	72.0	7.7%	78.2%
Portable PC	202.0	16.8%	209.1	22.5%	-3.4%
Desktop PC	148.4	12.4%	154.8	16.6%	-4.1%
Total	1,201.1	100.0%	930.4	100.0%	29.1%

Source: International Data Corporation



Current Situation

IT spending ended 2012 cautiously as business confidence waned in the shadow of the “fiscal cliff,” economic growth declined in much of Europe, and economies in Asia struggled to cope with reduced exports.

Computer hardware sales overall have been slowing but have been offset by strong demand for storage devices, networking devices, tablets and smartphones. Personal Computers represent a very large part of the industry in terms of employment and know-how. However, the much anticipated release of Windows 8 and the popularity of smartphones and tablets dragged down PC hardware purchases in 2012. PC industry sales declined 2% in 2012.

According to market research firm International Data Corporation (IDC), vendors shipped 367.7 million desktop PCs, portable PCs, tablets, and smartphones – a collective view IDC refers to as “Smart Connected Devices” – in the fourth quarter of 2012, up 28.3% from the prior year. As desktop PCs and portable PCs declined 4.1% and 3.4%, respectively, the overall smart connected device space continued to surge to just over 1.2 billion shipments cumulatively in 2012. Tablet shipments experienced the largest year-over-year growth in 2012, up 78.4% over 2011, while smartphones grew 46.1% but accounted for 60.1% of all smart connected devices shipped throughout the year.

Tablets have dramatically changed the device landscape as consumers increasingly substitute tablets for notebooks and PCs. Smartphones and tablets are growing at a pace that PCs cannot keep up with because of device prices. The average selling price (ASP) for a tablet declined 15.0% in 2012 to \$461 and the trend is expected to continue in 2013.

Revenue declines were also experienced in PC monitors as cannibalization from tablets and smartphones continued to reshape the IT industry landscape. For the first time, spending on smartphones in 2012 exceeded PCs, reaching almost \$300 billion, while PC spending declined to \$233 billion.

Server sales were lackluster in 2012. Market research firm Gartner Inc., estimates that server vendors shipped 2.5 million servers in the fourth quarter of 2012, down 0.2% compared to 2011 server shipments. However, increased average selling prices meant that total revenue for the quarter was up 5.1% over last year to reach \$14.6 billion. For all of 2012, shipments grew 1.5% over 2011 to reach 9.7 million units, bringing server vendors a total of \$52.5 billion in revenue, down 0.6% over last year.

Worldwide Smart Connected Device Mix

Unit Shipments are in Millions

Product Category	2011		2012		Projected 2017	
	Unit Shipments	Market Share	Unit Shipments	Market Share	Unit Shipments	Market Share
Smartphone	494.5	53.1%	722.4	60.1%	1,516.1	67.4%
Tablet	72.0	7.7%	128.3	10.7%	352.3	15.7%
Portable PC	209.1	22.5%	202.0	16.8%	240.9	10.7%
Desktop PC	154.8	16.6%	148.4	12.4%	141.0	6.3%
Total	930.4	100.0%	1,201.1	100.0%	2,250.3	100.0%

Source: International Data Corporation



Top 5 Smart Connected Device Vendors, Shipments and Market Share, 2012

Rank	Vendor	2012 Unit Shipments (Millions)	2012 Market Share	2011 Unit Shipments (Millions)	2011 Market Share	Year over Year Change
1	Samsung	250.0	20.8%	114.0	12.3%	119.3%
2	Apple	218.7	18.2%	151.5	16.3%	44.4%
3	Lenovo	78.3	6.5%	48.5	5.2%	61.4%
4	HP	58.2	4.8%	63.6	6.8%	-8.5%
5	Dell	38.8	3.2%	44.6	4.8%	-13.1%
	Others	557.1	46.4%	508.1	54.6%	9.6%
	Total	1,201.1	100.0%	930.4	100.0%	29.1%

Source: International Data Corporation

Outlook

The outlook for the U.S. Technology sector is considered neutral with signs of weakness, as U.S. deficit issues, a recession in Europe and China's attempt to slow down its economy result in cautious customer spending.

More than the upgrade of Windows 8, these issues should be mitigated by positive secular demand for security clouds, tablets, automation and analytics as well as continued growth in emerging markets. The important IT spending areas will continue to be around mobile devices, cloud services, social technologies and big data.

According to IDC, worldwide IT spending in 2013 will increase 5.7% to exceed \$2.1 trillion. The biggest driver of that growth will be mobility. Sales of mobile devices, including smartphones and tablets will total \$431 billion in 2013, an increase of 20% over 2012. Mobile devices will account for 20% of all IT spending in 2013, which IDC puts at \$2.1 trillion worldwide. Excluding smart mobile devices, IT industry growth will be just 2.9%.

Some mobile device sales will come at the expense of PCs. IDC predicts that 2015 will mark the first time more U.S. consumers access the internet through mobile devices than from PCs. By 2016, IDC predicts, there will be 225 million PC users, and 265 million users of mobile devices. It implies, of course, that there have been enough investments in the new infrastructures making it possible for the fourth generation of mobile phone mobile communication technology standards to be working.

Another driver of industry growth is emerging markets, where IT spending is projected to grow by 8.8% to more than \$730 billion or 34% of all IT spending. The rate of growth in emerging markets is twice that of developed countries.



The hardware industry is expected to remain constrained by guarded U.S. and European consumer spending and government budget constraints. Overall hardware sales are expected to slow until Windows 8, ultrabooks and hybrid PC-tablets gain traction later in 2013. Sales of storage, networking devices, tablet and smartphones are expected to remain strong.

Ultrabooks with their lighter weight and better performance are far superior than traditional laptops or notebooks. The hybrid PC tablets offer more flexibility over slate type tablets. The downside is that consumers will never become comfortable with Windows 8 given the new graphic interface.

Enterprise customers will probably stay with Windows 7, but it is unlikely they will abandon the Windows platform due to the significant installed base of Microsoft based computers and their familiarity with Windows Microsoft Office.

According to IDC, global PC unit shipments will decline 1.3% in 2013, following a 3.7% drop in 2012. Disappointing holiday sales, an underwhelming reception to Windows 8, and continuing economic malaise that further crimped IT budgets marked the face of the market during the second half of 2012. This led to a year-on-year decline of 83% in fourth quarter shipments, the most substantial decline recorded for a holiday quarter. In addition, emerging market growth potential is declining and coming closer to that of mature regions. For mature regions, 2013 will mark the third consecutive year of volume declines. IDC continues to expect limited growth in 2014 and 2015 with contracting volume in later years.

While the substitution effect will pressure PC and laptop sales, the computer hardware industry overall is expected to benefit from growth in tablets. In addition, the increase in mobile computing devices stimulates data traffic handled by servers.

Given growing demand for internet-based solutions that offer companies opportunities for cost reductions and improved customer services, sales of servers and data-center computer hardware should benefit. IDC predicts that, among the other major IT categories, software momentum will continue (6% growth), driving more IT services spending (4%) in 2013, and the server and PC markets will return to very modest positive growth (1.8% and 1.7%, respectively) in 2013, in part, thanks to favorable compares.

For 2013, overall demand for computer hardware is expected to remain lackluster. Price competition is expected to intensify resulting in lower industry profitability but it should not incite consumers to buy computer equipment short of purchasing power. To offset the lower hardware profitability, vendors are expected to continue offering higher margin services, software and storage products.

Top 5 Vendors, Worldwide PC Shipments, 2012

Rank	Vendor	2012 Unit Shipments (Millions)	2012 Market Share	2011 Unit Shipments (Millions)	2011 Market Share	Year over Year Change
1	HP	58.1	16.5%	62.3	17.1%	-6.7%
2	Lenovo	52.4	14.9%	44.0	12.1%	19.2%
3	Dell	37.7	10.7%	44.3	12.2%	-14.8%
4	Acer Group	33.5	9.5%	37.1	10.2%	-9.7%
5	ASUS	24.1	6.9%	20.6	5.7%	17.0%
	Others	145.5	41.4%	155.6	42.8%	-6.5%
	Total	351.4	100.0%	363.9	100.0%	-3.4%

Source: International Data Corporation

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KEYS TO SYMBOLS



Positive fundamentals & outlook



Structural weaknesses



Signs of weaknesses



Imminent or recognised crisis