



DIGITAL PLANET 2008

EXECUTIVE SUMMARY



MAY 2008

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Figure 1
Global ICT Spending
(\$US Trillions)

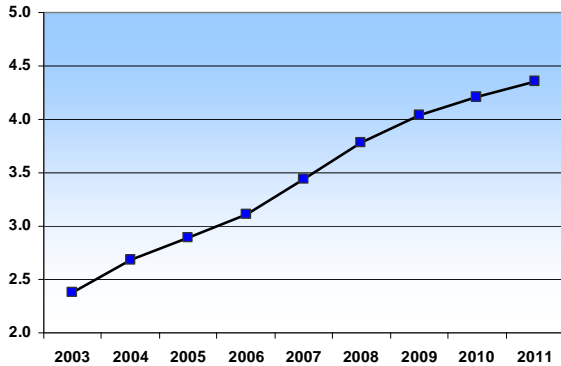


Figure 2
Global ICT Spending
(Annual Percent Change)

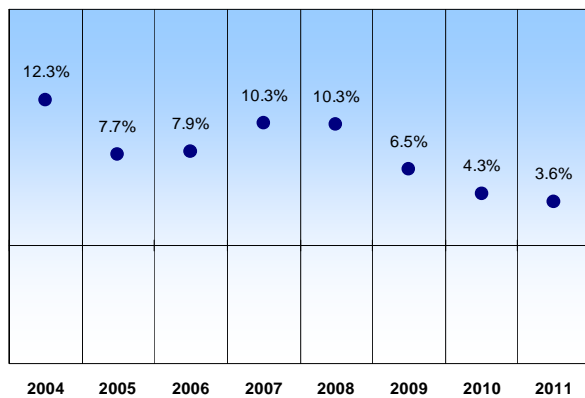
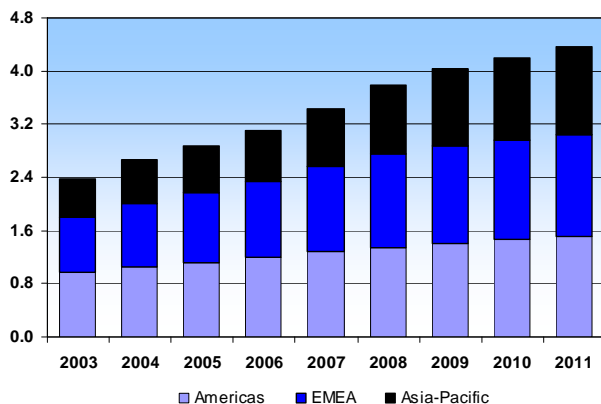


Figure 3
Global ICT Spending by Region
(\$US Trillions)



Total information and communications technology spending will enter a period of moderating growth through 2011. The slowing economies of developed nations will begin to cool their demand for ICT products. The weak US dollar will fuel ICT exports from the US, especially to emerging economies. As depicted in Figure 1, moderate global economic growth and increased penetration will support expanding ICT spending growth at least through 2011, albeit it at a more subdued pace than the past few years. From the trough of \$US 2.1 trillion in 2001, total ICT spending will more than double to \$US 4.4 trillion in 2011, a compound annual growth rate of 7.7%.

The annual growth rate of ICT spending peaked in 2004, at 12.3%, as pent-up demand following the slowdown in 2001 was met. Growth moderated slightly in 2005 and 2006, to 7.7% and 7.9%, respectively. Despite accelerated growth, 2007 marked a transitional year. The specter of economic uncertainty began to loom large as the US began moving towards recession, with other developed economies to possibly follow suit. As a counter-balance, a weak US dollar should inflate US dollar denominated ICT spending, thereby maintaining a growth rate of 10.3% through 2008. However, as other world economies begin to slow, growth in ICT spending will slow substantially – down to 3.6% by 2011.

As indicated in Figure 3, all three broad regions will grow throughout the forecast interval. The Americas will grow the slowest at 4.0% per year from 2007 through 2011, while Asia-Pacific and EMEA will post compound annual growth of 10.5% and 5.0%, respectively. During 2008 purchases of ICT products and services within EMEA will surpass the Americas. With its double digit growth rate, Asia Pacific's share of ICT spending will rise from 25.6% in 2007 to 30.1% in 2011.

Figure 4
Global ICT Spending by Technology
(\$US Trillions)

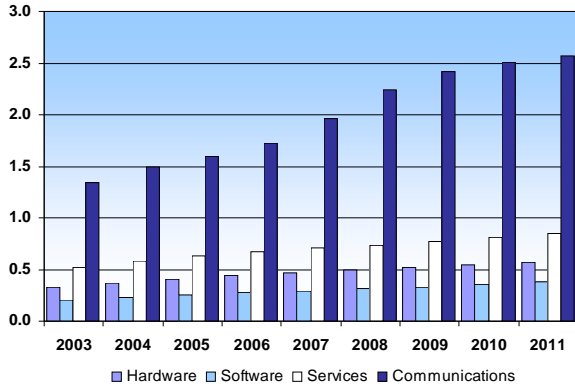


Figure 5
Global ICT Spending by Major Segment
(\$US Trillions)

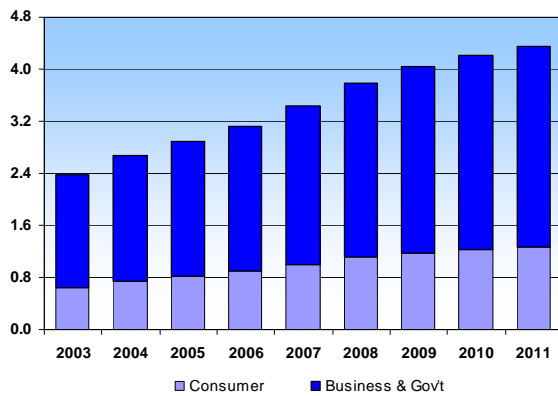
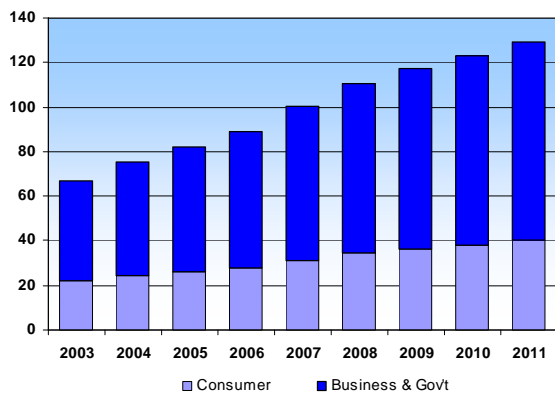


Figure 6
Global Consumer and Business Commerce
(\$U.S. Trillions)



All four technology groups will also grow through the forecast interval. Communications technology dominates ICT spending, with a share just over 57% in 2007. The services group has the second largest share at nearly 20%, while hardware and software hold nearly 13% and 9% of the market, respectively. Communications will post the fastest growth at 7.0% on a compound annual basis. Software, hardware, and services will grow 6.0%, 5.3%, and 4.4% over the next four years on a compound annual basis.

The consumer market comprised nearly 29% of total ICT spending as of 2007, while the business and government segment accounted for 71%. As captured in Figure 5, these shares will change slightly over the forecast interval with consumer rising to 29.2% in 2011, while ICT spending within business/government slightly dips to 70.8%. Over the next four years, annual growth in the consumer market will slow to 6.4%, a significant drop from the 11.2% pace from 2003 through 2007. The business/government market will cool to a 6.1% growth rate over the forecast period, down from the 8.9% rate from 2003 through 2007.

Figure 6 shows that the total value of sales for all goods and services in the global economy surpassed \$US 100 trillion in 2007 and will surge to nearly \$US 130 trillion in 2011. Total business-to-consumer commerce will stand at 31% of the total over the forecast period, while business-to-business commerce will account for the other 69%. This helps explain the business market's large share of total ICT spending. Businesses strive to contain costs by using ICT equipment, software, and services to boost labor productivity and enhance their competitiveness in increasingly global markets.

Figure 7
ICT Spending by Industry Segment in 2007
(\$U.S. Billions)

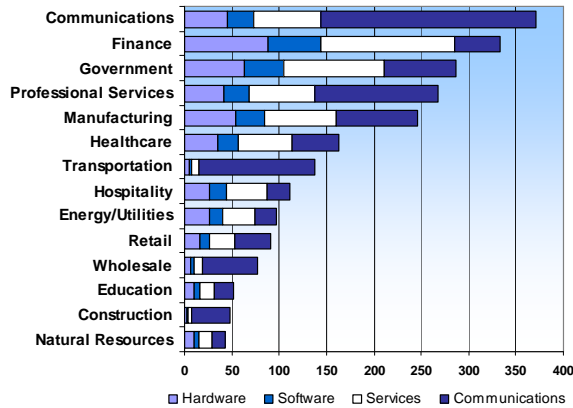


Figure 8
ICT Spending by Industry Segment in 2007
(% Distribution)

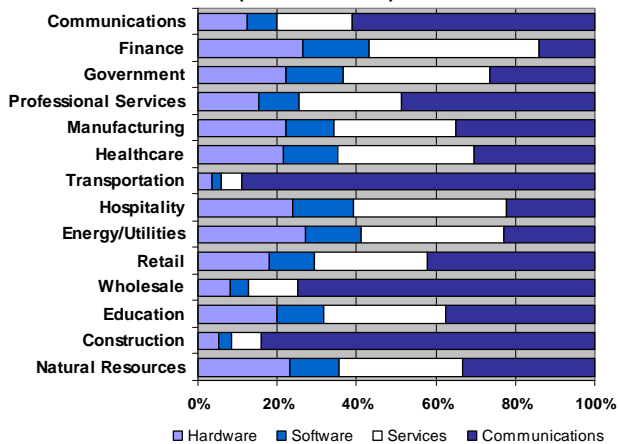
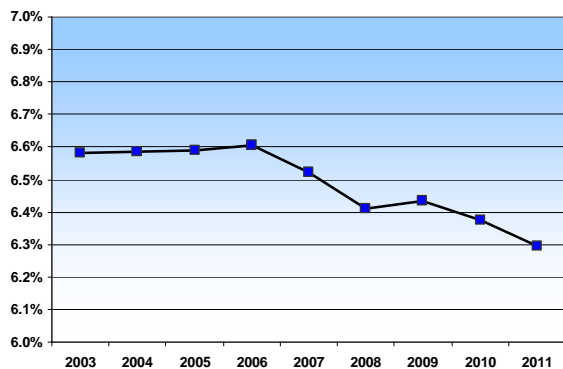


Figure 9
ICT Spending as a Percent of World GDP
(Percent)



Figures 7 and 8 show two different perspectives on ICT spending by industry segment. Figure 7 shows the uneven distribution of ICT spending across industry segments. The communications sector is the largest, closely followed by the finance services segment. Figure 8 shows spending in the industry segments also vary significantly in terms of the distribution of spending for the four broad technology groups – hardware, software, services, and communications.

Figure 8 also provides some insight into how ICT spending aligns with the business models employed in various industries. For example, the dependence of the communication segment on the effective utilization and deployment of communications technologies is shown by the high percentage of ICT spend on these technologies. The financial services segment, on the other hand, needs to continually deploy and integrate disparate systems that process financial transactions at higher levels of efficiency, explaining ICT spending emphasizing hardware and services.

When viewed as a percent of total GDP, ICT spending remained relatively stable from 2003 to 2006. From 2007 onward, ICT spending as a percent of GDP will trend downwards, reaching 6.3% by 2011. This is a dramatic drop from the peak of 7.3% in 2000. As with the recession in 2001, cooling global economies will translate to cancellation of some ICT investments and slightly extended technology replacement cycles, contributing to the lower proportion of ICT spend relative to GDP over time.

Figure 10
ICT Spending Growth: History and Forecast
(Percent Growth)

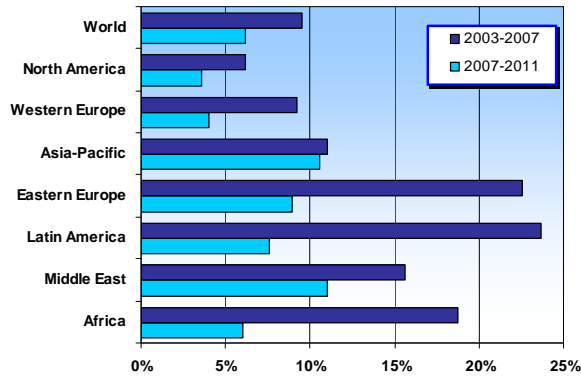


Figure 11
ICT Spending by Market Segment
(\$US Billions, Percent Growth)

Market Segment	ICT Spend 2007	% Growth	
		2003-07	2007-11
Consumer	993.8	11.2%	6.4%
Construction	54.2	10.3%	6.4%
Communications	403.6	11.5%	8.3%
Educational Services	53.4	10.2%	8.1%
Energy / Utilities	105.5	15.8%	7.0%
Financial Services	334.5	8.1%	4.7%
Government	285.4	6.5%	4.8%
Healthcare	152.1	7.5%	6.9%
Hosp. / Hotels & Leisure	97.4	9.0%	4.8%
Manufacturing	277.7	10.3%	4.7%
Natural Resources	49.6	14.4%	5.2%
Professional Services	275.5	8.1%	4.6%
Retail Trade	96.6	2.9%	2.7%
Transportation	167.9	9.4%	10.5%
Wholesale / Distribution	86.3	5.9%	5.4%

Figure 12
Output/Total Spending by Market Segment
(Nominal \$US Billions, Percent Growth)

Market Segment	2007	% Growth	
		2003-07	2007-11
Consumer	30,952.1	8.9%	6.6%
Construction	6,446.0	11.6%	6.4%
Communications	2,614.6	10.0%	7.7%
Educational Services	3,206.2	9.8%	9.3%
Energy / Utilities	7,701.8	20.1%	8.0%
Financial Services	6,033.2	9.6%	6.3%
Government	9,005.7	9.3%	6.3%
Healthcare	4,374.4	9.6%	7.9%
Hospitality / Hotels & Leisure	3,369.4	8.7%	6.5%
Manufacturing	27,591.2	11.6%	6.6%
Natural Resources	3,962.6	13.8%	5.5%
Professional Services	21,289.7	7.4%	5.3%
Retail Trade	4,391.0	8.2%	4.9%
Transportation	4,295.1	10.9%	7.8%
Wholesale / Distribution	4,857.7	10.0%	7.7%

Growth patterns for total ICT spending vary significantly across world regions, as shown in Figure 10. First, note that growth in all regions will slow – in many cases dramatically – over the forecast period. And the differences between inter-regional growth rates will shrink as all markets become increasingly saturated. Latin America and Eastern Europe, which experienced the fastest growth from 2003 to 2007, will be outpaced by Asia Pacific and the Middle East over the forecast interval. North America and Western Europe posted the slowest historical growth and will continue growing slower than the other regions through 2011.

Similarly, spending levels and growth vary widely across the major ICT market segments. Referring to Figure 11, seven out of 15 segments posted double-digit growth from 2003-2007, driven by the release of pent-up demand following the 2001 downturn. Looking forward, only the transportation segment is expected to grow faster than it did from 2003 through 2007. The drop-off in many other segments will be significant. Of major concern is the slowing of consumer spending, which signals faltering consumer sentiment. As overall consumer spending slows, output in other market segments will decline, further slowing growth in ICT spending.

The distribution of ICT spending growth by segment generally mirrors the underlying activity of each market segment. Indeed, Figure 12 shows that output/total spending growth is expected to slow across all segments over the forecast interval. ICT intensity – the ratio of a segment's Share of ICT Spend to its Share of Output – also varies widely by segment. The most ICT-intensive segment is Communications (6.30), followed by Financial Services (2.29). The least ICT-intensive segments are Manufacturing (0.41) and Construction (0.34). Finally, Figure 13 presents the macro-economic factors driving ICT spending by world region.

Figure 13
Underlying Macroeconomic Factors that Affect ICT Demand by World Region

	2003	2004	2005	2006	2007	2008	2009	2010	2011	% Growth 2003-07	% Growth 2007-11
Gross Domestic Product (Billions of U.S. Dollars)											
Americas	13,537.5	14,657.3	15,982.1	17,277.5	18,544.0	19,610.2	20,589.2	21,553.3	22,554.5	8.2%	5.0%
	5.4%	8.3%	9.0%	8.1%	7.3%	5.7%	5.0%	4.7%	4.6%		
Asia-Pacific	8,980.9	10,080.2	10,781.3	11,454.0	12,799.7	14,915.4	16,869.2	18,468.4	20,022.2	9.3%	11.8%
	10.7%	12.2%	7.0%	6.2%	11.7%	16.5%	13.1%	9.5%	8.4%		
EMEA	13,519.8	15,697.0	16,742.4	18,132.7	21,021.8	24,230.9	24,869.8	25,621.5	26,300.8	11.7%	5.8%
	21.6%	16.1%	6.7%	8.3%	15.9%	15.3%	2.6%	3.0%	2.7%		
Global Total	36,221.9	40,655.0	43,758.9	47,135.0	52,658.0	59,071.8	62,664.1	66,003.4	69,263.7	9.8%	7.1%
	12.4%	12.2%	7.6%	7.7%	11.7%	12.2%	6.1%	5.3%	4.9%		
Personal Consumption Spending (Billions of U.S. Dollars)											
Americas	9,256.0	9,971.3	10,806.6	11,624.4	12,557.4	13,285.9	13,932.4	14,579.9	15,270.8	7.9%	5.0%
	5.2%	7.7%	8.4%	7.6%	8.0%	5.8%	4.9%	4.6%	4.7%		
Asia-Pacific	4,978.4	5,484.3	5,754.0	5,984.0	6,576.9	7,584.3	8,452.8	9,212.6	9,993.5	7.2%	11.0%
	9.4%	10.2%	4.9%	4.0%	9.9%	15.3%	11.5%	9.0%	8.5%		
EMEA	7,810.8	9,015.6	9,572.8	10,259.6	11,817.8	13,644.0	13,984.0	14,381.2	14,755.4	10.9%	5.7%
	21.3%	15.4%	6.2%	7.2%	15.2%	15.5%	2.5%	2.8%	2.6%		
Global Total	22,045.3	24,471.2	26,133.4	27,868.1	30,952.1	34,514.3	36,369.3	38,173.6	40,019.8	8.9%	6.6%
	11.4%	11.0%	6.8%	6.6%	11.1%	11.5%	5.4%	5.0%	4.8%		
Investment Spending (Billions of U.S. Dollars)											
Americas	2,470.1	2,767.2	3,123.1	3,405.9	3,557.6	3,645.7	3,821.3	4,029.9	4,269.4	9.5%	4.7%
	5.4%	12.0%	12.9%	9.1%	4.5%	2.5%	4.8%	5.5%	5.9%		
Asia-Pacific	2,361.7	2,718.8	3,018.9	3,329.2	3,806.0	4,574.6	5,311.8	5,895.6	6,456.7	12.7%	14.1%
	13.3%	15.1%	11.0%	10.3%	14.3%	20.2%	16.1%	11.0%	9.5%		
EMEA	2,614.9	3,064.1	3,316.9	3,705.0	4,446.6	5,188.9	5,362.2	5,547.9	5,739.2	14.2%	6.6%
	20.6%	17.2%	8.2%	11.7%	20.0%	16.7%	3.3%	3.5%	3.4%		
Global Total	7,446.6	8,550.2	9,458.8	10,440.2	11,810.1	13,409.2	14,495.3	15,473.4	16,465.3	12.2%	8.7%
	12.9%	14.8%	10.6%	10.4%	13.1%	13.5%	8.1%	6.7%	6.4%		
Government Spending (Billions of U.S. Dollars)											
Americas	2,153.2	2,308.1	2,515.1	2,718.8	2,941.2	3,136.1	3,255.6	3,355.3	3,453.6	8.1%	4.1%
	7.9%	7.2%	9.0%	8.1%	8.2%	6.6%	3.8%	3.1%	2.9%		
Asia-Pacific	1,411.7	1,563.3	1,662.2	1,736.5	1,960.6	2,295.6	2,600.0	2,852.3	3,078.4	8.6%	11.9%
	10.0%	10.7%	6.3%	4.5%	12.9%	17.1%	13.3%	9.7%	7.9%		
EMEA	2,733.7	3,146.1	3,333.6	3,593.5	4,104.0	4,690.3	4,768.7	4,880.4	4,974.8	10.7%	4.9%
	23.3%	15.1%	6.0%	7.8%	14.2%	14.3%	1.7%	2.3%	1.9%		
Global Total	6,298.6	7,017.5	7,510.8	8,048.8	9,005.7	10,122.0	10,624.4	11,088.0	11,506.9	9.3%	6.3%
	14.6%	11.4%	7.0%	7.2%	11.9%	12.4%	5.0%	4.4%	3.8%		
Population (Millions of Persons)											
Americas	796.1	806.2	816.4	826.3	836.0	845.4	854.7	863.8	873.0	1.2%	1.1%
	1.3%	1.3%	1.3%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%		
Asia-Pacific	3,366.5	3,403.3	3,440.0	3,475.9	3,512.4	3,548.7	3,584.7	3,620.6	3,656.3	1.1%	1.0%
	1.1%	1.1%	1.1%	1.0%	1.1%	1.0%	1.0%	1.0%	1.0%		
EMEA	1,213.2	1,223.1	1,233.5	1,244.2	1,254.7	1,264.0	1,273.3	1,282.5	1,291.6	0.8%	0.7%
	0.8%	0.8%	0.9%	0.9%	0.8%	0.7%	0.7%	0.7%	0.7%		
Global Total	5,413.6	5,471.3	5,529.3	5,586.4	5,643.6	5,699.3	5,754.6	5,809.4	5,864.0	1.0%	1.0%
	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%		
Employment (Millions of Persons)											
Americas	337.4	340.6	345.1	351.2	356.6	360.7	365.5	370.7	376.1	1.4%	1.3%
	1.4%	1.0%	1.3%	1.8%	1.5%	1.2%	1.3%	1.4%	1.5%		
Asia-Pacific	1,547.7	1,574.9	1,603.7	1,630.2	1,654.9	1,678.8	1,701.7	1,728.0	1,752.9	1.7%	1.4%
	1.4%	1.8%	1.8%	1.7%	1.5%	1.4%	1.4%	1.5%	1.4%		
EMEA	1,547.7	1,574.9	1,603.7	1,630.2	1,654.9	1,678.8	1,701.7	1,728.0	1,752.9	1.7%	1.4%
	1.4%	1.8%	1.8%	1.7%	1.5%	1.4%	1.4%	1.5%	1.4%		
Global Total	2,294.4	2,330.3	2,369.2	2,408.6	2,445.1	2,477.6	2,509.2	2,544.6	2,578.5	1.6%	1.3%
	1.2%	1.6%	1.7%	1.7%	1.5%	1.3%	1.3%	1.4%	1.3%		