

## **IBM Equity Research Report**

**2014-2015 UConn SMF**

**April 7, 2015**

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# International Business Machines, Inc. (NYSE: IBM)

- **Sector:** Technology
- **Industry:** IT Services
- **Date:** 04/07/15
- **Current Price:** \$163.10
- **Target Price:** \$225.25
- **Recommendation:** **BUY**

## Key Financial Metrics

**Market Cap:** \$159.59B  
**52-Week High:** \$199.21  
**52-Week Low:** \$149.52  
**Dividend Yield:** 2.74%  
**Gross Margin:** 50.01%

**Profit Margin:** 12.96%  
**P/E Ratio:** 9.66  
**EPS:** \$16.61  
**FCF/Sh:** \$13.18  
**FCF Yield:** 8.18%

**Price to FCF:** \$12.16  
**ROE:** 69.37%  
**ROIC:** 22.14%  
**ROA:** 9.86%  
**Beta:** 0.768

\*See Appendix A for more information on current financial trends

## Business Summary

IBM is the world's largest IT and consulting services company, providing advanced computer and business solutions in over 170 countries. The Company operates within its five core business segments: Global Technology Services, Global Business Services, Software, Systems and Technology, and Global Financing. In addition, IBM serves as a global pioneer in the business and technology innovation space, focusing on continuous research and development to help shape the future of society. IBM houses over 431,000 full-time employees around the globe.

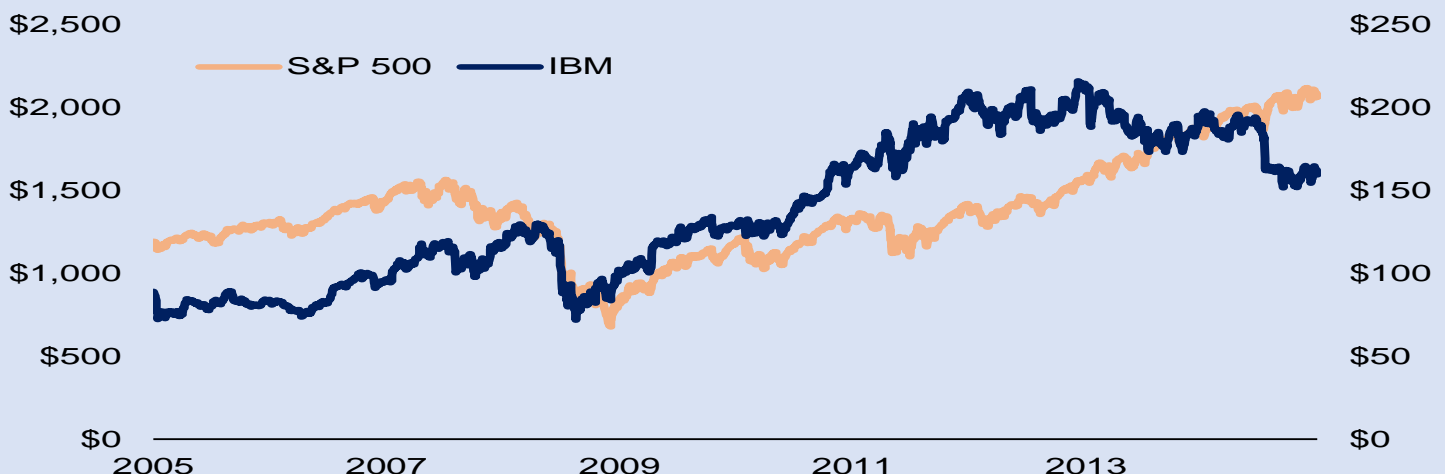
### Positives

- The Company has rewarded shareholders with share buybacks for the past 20 years, most recently purchasing approximately \$64 billion of shares over the last five years, and plans to continue its share repurchase program in the future
- A long history of consecutive rising dividends paid out to shareholders
- Acquisition of many higher-value businesses to add to IBM's strategic position in cloud computing, big data analytics, and cognitive computing
- Deep-rooted relationships with large, global enterprises

### Negatives

- The IT Services industry remains highly competitive, and consumers have many options to choose from as innovation continues to grow at a rapid rate
- Political instability and legal concerns in expanding into emerging markets for potential growth
- The risk of cybersecurity and privacy protection from moving to a more integrated and wireless technological platform such as cloud computing

## IBM vs. S&P 500 (10YR)



# Sector Breakdown

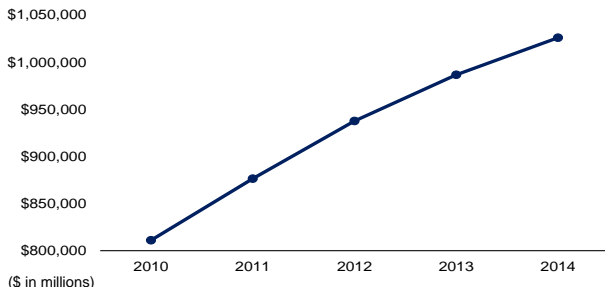
## Technology Overview

The Technology sector consists of approximately 4,820 companies and has a market capitalization of \$7.60 trillion. This sector has returned 19.4% for 2014, which outperformed every sector, besides Healthcare. The Technology sector is broken up into seven different industries: Electronic Office Equipment, IT Services, Software, Telecommunication Services, Semiconductors, Computer Services, and Hardware. The largest industry by market capitalization is Semiconductors, which has been the best performing segment, up around 27% for 2014. The Technology sector is one of the most competitive sectors in the market, however, some companies in the sector have developed strong competitive advantages that make them safe long-term investments. In today's market, companies in this sector have strong balance sheets and have continually rewarded shareholders with high dividends and share repurchases. Despite some uncertainty as to how the industry will evolve over the next ten years, several companies in the sector are positioned to capitalize on emerging trends and will continue to reward shareholders in the future.

## Hardware

The Hardware industry has continued to grow despite falling PC sales. The industry has seen a shift toward mobile products with smartphones experiencing rapid YoY growth. Tablet sales had also continued to grow as consumer demand shifts toward mobile, but with a lack of recent innovation, tablet sales stayed stagnant in 2014. The other segments of the Hardware industry, servers and storage, have also stayed relatively stagnant.

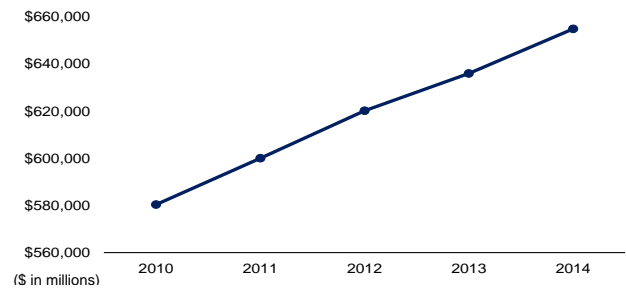
Hardware Sector Spending



## IT Services

The IT Services industry consists of services such as software support, operations/data processing management, and computer systems design. Demand for IT services is being driven by rapid technological advances, the rate of data being generated, and IT systems becoming more complex. Large players in the industry have significant advantages by providing broad service offerings and global reach.

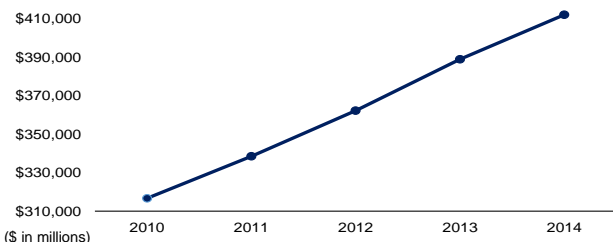
IT Services Sector Spending



## Software

Data management and security software are driving growth in the Software industry. The major trend in the industry is companies shifting their data management away from hardware and towards virtualized on demand storage (the Cloud). There are concerns with security as companies shift their data management, which has created high demand for security software. The industry has continued to consolidate as larger companies expand into growing and niche markets through the acquisition of smaller competitors.

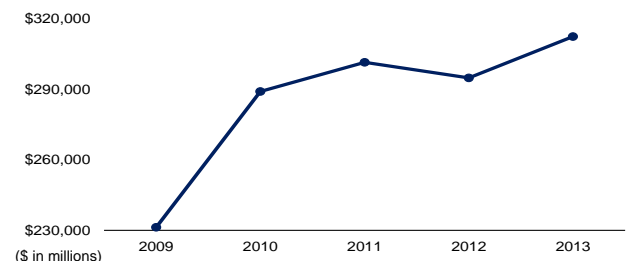
Software Sector Spending



## Semiconductor

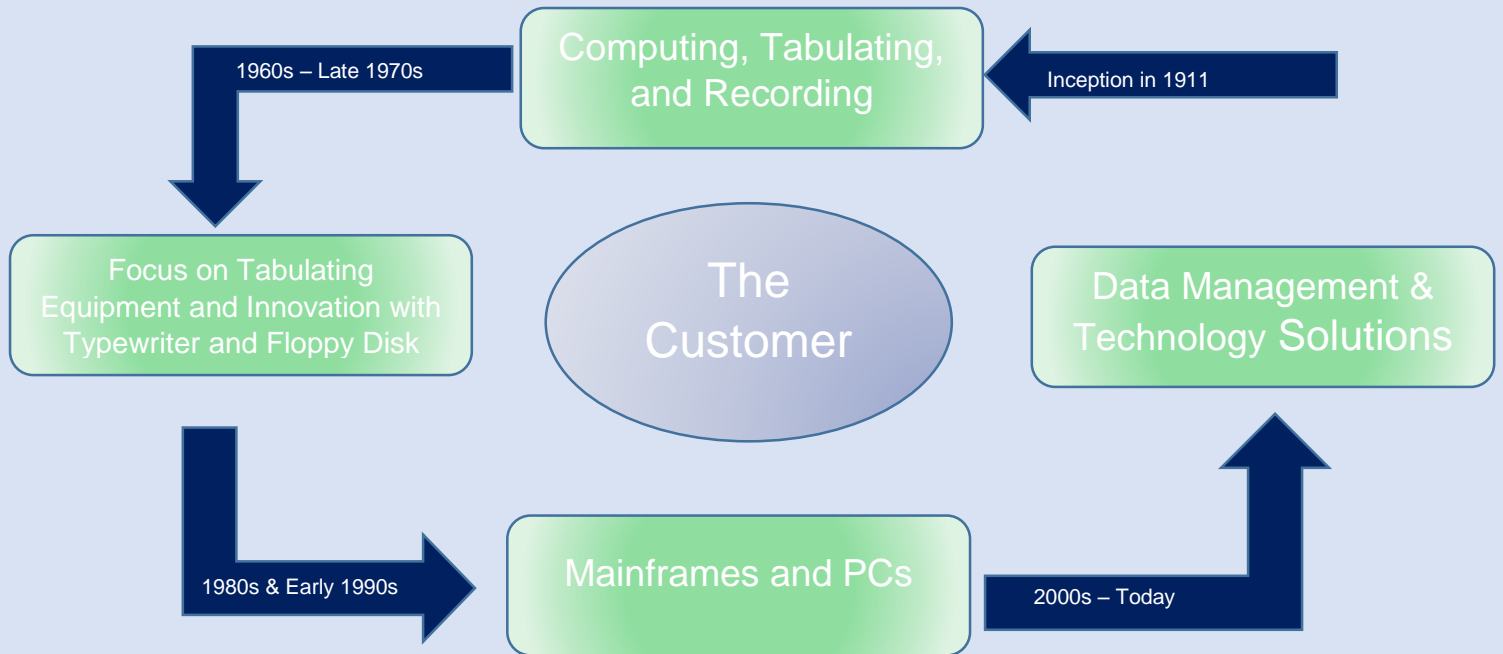
The Semiconductor industry depends highly on demand from the computer industry and telecommunication providers products, which can be very volatile YoY. Companies succeed in the industry by producing standard parts at low cost or by producing highly specialized components. The market for highly specialized components allows small companies to compete effectively with larger ones. Areas for growth in this industry are the use of semiconductors in wearable technology and for the cloud.

Semiconductor Sector Revenue by End Markets



# Business Model

## History of IBM



## Business Strategy

IBM has prospered through its century of existence by constantly listening to their customers and adapting to their needs. As the industry and customers' demand shift with technological innovation, IBM has kept their customers in the middle and core to all of its operations. Their customer focus has allowed the company to succeed through a series of transitions, with the most recent being a shift from a manufacturer of hardware to a provider of software, services, and systems. In the past, IBM would not only sell a computer, but also what their customers can do with the computer, and today IBM is not just selling technology, but also how to use its data-science, cloud, and mobile offerings. The services and support IBM has always provided to its customers has created deep rooted relationships and has allowed customers to change work practices and achieve competitive advantages. These existing client relationships with large enterprises around the globe serve as the real competitive advantage for IBM. As the company's products and services have already been established and integrated within these corporations for quite some time, an enterprise is not going to simply rip out IBM products for a competitor's. There are significantly high switching costs in this industry, and IBM's long-standing rapport with these global corporations has them locked in to the company's business.

Although IBM has faced a hard time growing its revenue recently, the company has recognized this difficulty and adopted a concrete set of strategies that will enable IBM to capitalize on new industry trends. The company's strategic imperatives include remixing to higher-value assets, managing for the long-term, and returning significant value to shareholders. In regards to higher-value assets, IBM is focusing on its industry shift with what it calls, "CAMSS" – Cloud, Analytics, Mobile, and Security Services. With this, IBM is divesting some of its outdated, less profitable businesses, and acquiring smaller companies to fill the gap in its portfolio of assets. Recently, IBM sold off its x86-based server business to Lenovo and semiconductor manufacturing line to Global Foundries. These selloffs free up capital, allowing the company to invest in higher-value assets such as the purchase of the cloud computing infrastructure company, SoftLayer Technologies, and Xtify, an in-app mobile messaging and push notification platform. These acquisitions show IBM's response to the industry change towards cloud and platform services. While the company may take a hit in the short-term, it is positioning for the tremendous growth opportunity in the near future. Furthermore, IBM is also taking steps to grow organically by investing in higher-value assets and in areas of R&D for cutting-edge technology, such as its cognitive computing system, Watson.

Lastly, IBM has begun to establish strategic partnerships with major corporations such as Apple, Twitter, SAP, and Tencent, in order to become the go-to platform for enterprise. So far, IBM's Apple partnership has seen success as they have released the first wave of IBM MobileFirst for iOS solutions geared towards business apps and supporting cloud services. This has effectively allowed IBM's big data and analytics abilities to prosper on the iPhone and iPad devices in enterprise. As mentioned in October, SAP selected IBM to be their global cloud provider for their enterprise cloud solution, which proved to be a key differentiator for SAP as IBM is able to integrate public and private workloads within its hybrid cloud system.

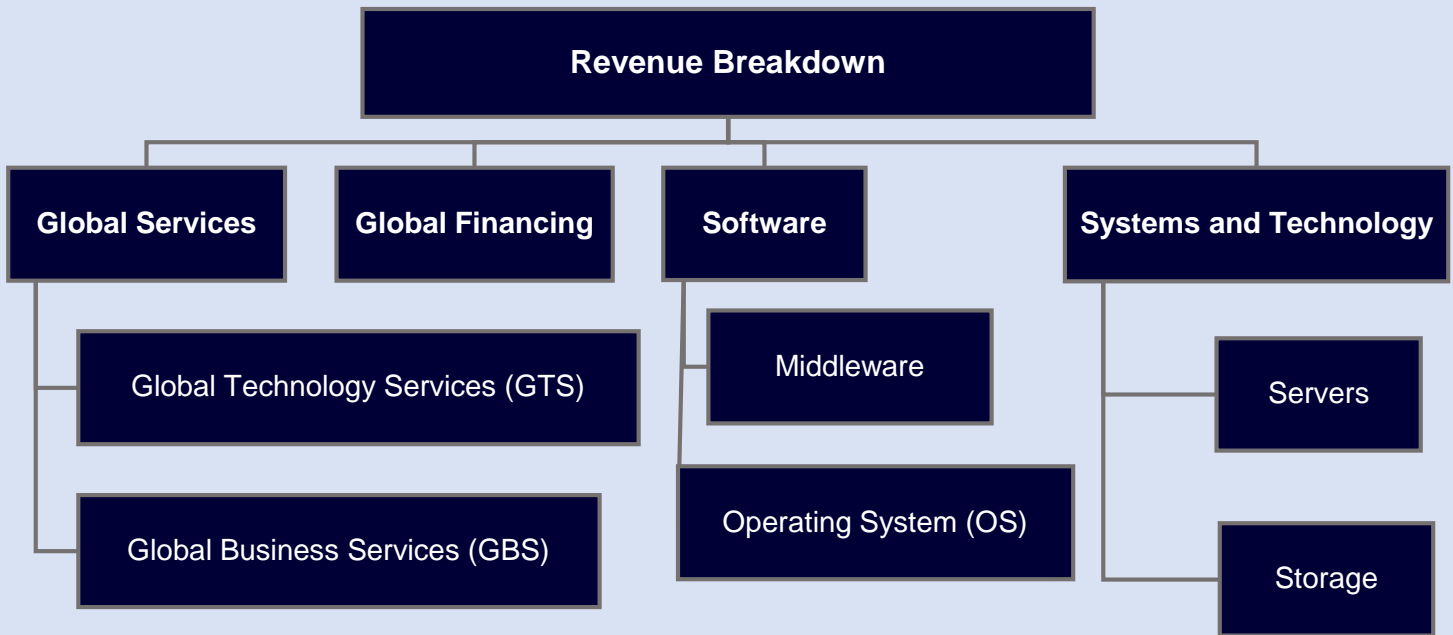
## Future Outlook

IBM is in a period of strategic transition where it is shedding businesses with lower profit margins to position itself for high growth and margins in the future. The company has invested more than \$22 billion to build its capabilities in big data and analytics, \$6 billion into their cloud infrastructure, and will be investing another \$4 billion into cloud computing, data analytics, security, and mobile and social apps for corporate customers. The most prominent investments for IBM are Watson solutions for the next era of cognitive systems and services, and SoftLayer, a leading provider in cloud solutions for enterprise clients. These efforts support all the prominent economic and tech trends that IBM is focused on:

- **Big Data:** 2.4 billion gigabytes of data generated every day
- **Cloud:** 85% of new software being built for the cloud, double digit growth YoY for cloud software revenue
- **Cognitive Science:** 80% of the world's data is unstructured, \$45 billion industry today

IBM's heavy investments into solutions for these three trends and divesting from lower value markets will create significant cash and growth for the company moving forward. IBM is best positioned to be the market leader for data mining and cloud computing because of their combined offerings of a cloud infrastructure provided through Softlayer and IBM's cognitive computing expertise through Watson. Other companies are simply building out server farms and creating the storage space for the big data of enterprises. IBM will have a competitive advantage to these offerings because the cloud and cognitive computing for IBM can be complementary. IBM can provide offerings for enterprises that no other companies can compete with by providing virtualized on demand storage for data generated by companies and cognitive computing to organize the big data to provide extremely useful analytics. No other company can provide this because they are not as advanced as IBM with cognitive computing and cannot provide the same quality packaged solutions. This plays into the goal IBM has had from the beginning of being integral to their clients. The middle is always moving in the technology industry, and IBM may be ahead of the curve right now in terms of cognitive computing, but they are always finding a way to be vital to their customer's success - and that trend certainly is not going to change with the industry.

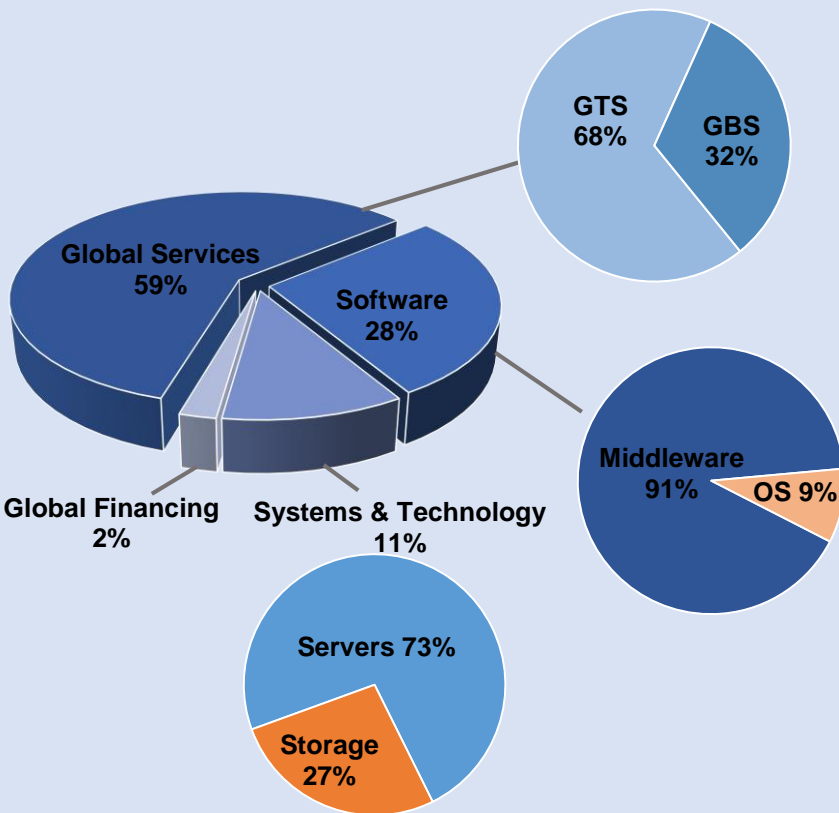
# Revenue Breakdown



## Revenue Breakdown by Business Segments

The **GTS** segment is up ~1.6%\* from 2013. GTS mostly includes outsourcing and integrated technology services, which has benefited since the SoftLayer deal. The cloud platform offered by Softlayer has gained new workloads as IBM continues to expand its datacenters globally and outsourcing contracts increase the use of more cloud computing, data analytics, and mobile solutions. The **GBS** segment is down ~1.1% from 2013. GBS mostly includes consulting and services integration, which saw growth in areas that address cloud, analytics, mobile, and social. The **Software** segment saw a 0.9% decline from 2013. Middleware remained relatively flat, while software-as-a-service (SaaS) increased ~50%, with the help from the cloud-platform-as-a-service for the enterprise, Bluemix. The company also saw strong growth in Commerce-as-a-service, aided by the purchases of Silverpop and Aspera. Operating systems revenue declined ~13.5% due to declines in Power Systems. In **Systems and Technology**, which mostly comprises Servers and Storage, this segment saw a ~17% drop, IBM divested the industry standard server business, System x, and its Microelectronics business. In January 2015, the company announced the z13, the new generation mainframe. Lastly, the **Global Financing** segment saw a 3% increase as IBM continues to focus on providing IT financing to the company's clients and business partners.

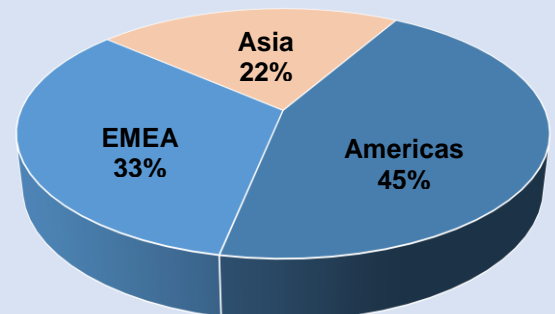
\*All YoY percent changes adjusted for divestitures and currency



## Revenue Breakdown by Geography

The Americas, EMEA, and Asia saw revenue declines of 0.8%\*, 0.6%, and 4.1% from 2013, respectively. Major markets revenue decreased by 1.0%, while growth markets and BRIC countries saw drops of 3.2% and 4.5%, respectively. While YoY revenue showed a decline in growth areas, Latin America and Europe saw a spur in activity as they increased 8% and 1%, respectively. In BRIC countries, growth performance in Brazil and Russia more than offset the declines in China and India. Within the North American major markets, the U.S. and Canada both saw a decline of 2%. For EMEA, there was a 1% contraction overall. Major market growth in EMEA from Germany, Italy, and Spain, more than offset drops in activity from UK and France, compared to the previous year.

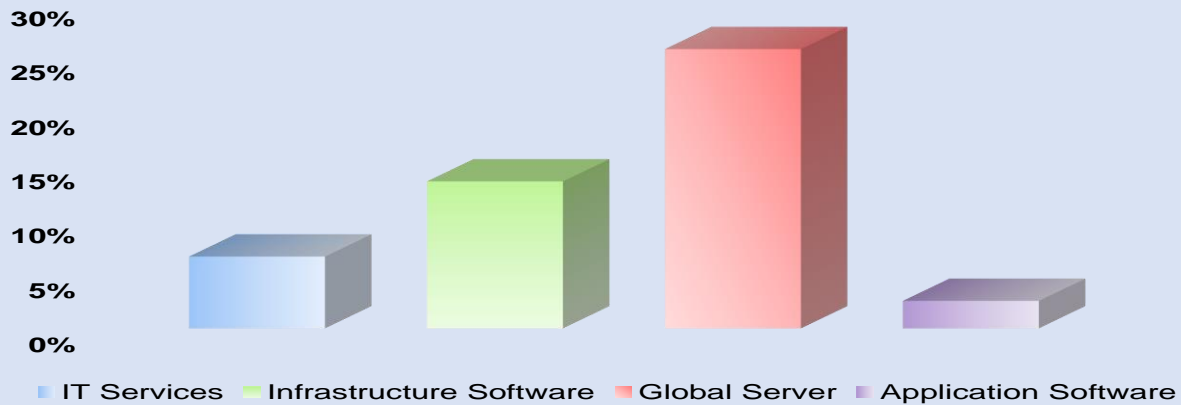
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# Market Trends

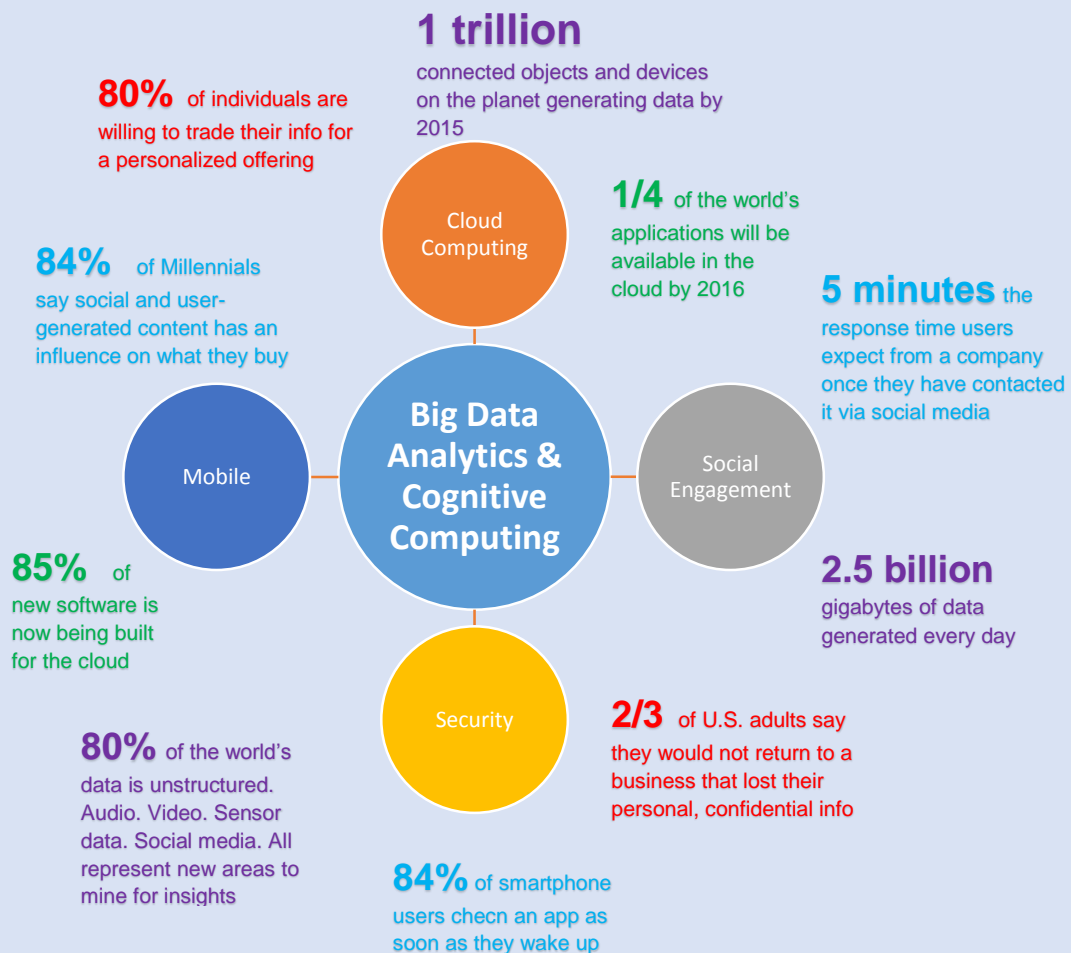
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## IBM's Market Share in Major Markets



## Positioning For the New Middle

The IT Services industry remains very competitive and is experiencing a major shift. The current themes dominating this segment of the market include cloud computing, big data, analytics, social, mobile, and security – all of which IBM is positioned to exploit. The desire for engagement and integration across social and mobile platforms, along with business analytics in the cloud infrastructure look to drive future growth within this industry, especially in the emerging markets. This shows the industry has huge upside potential and a large demand for IBM to satisfy. In terms of the company's competitors, IBM's challenges are primarily with Microsoft and Oracle in the cloud computing space, and Accenture in terms of IT consulting. However, what really differentiates IBM from its competitors and provides the company with a competitive advantage are its already existing client relationships with large corporations. IBM's technology and services are already integrated within these companies, leaving IBM ready to take advantage of the IT Enterprise side of cloud computing by offering dynamic platforms that can be tailored to suit its client's business and data analytical needs. While everyone within the industry is racing towards the cloud, IBM is positioning themselves for the new middle. They are focusing on creating services and solutions to manage and analyze the massive amounts of data being generated, in order to provide business solutions with cognitive computing, which looks to be the new middle.



# Risk Factors

## Cloud Computing Infrastructure

Due to the relatively new nature of the cloud computing system and infrastructure, IBM needs to figure out how to successfully implement this shift across its global enterprise – and this could present some hurdles as the business transitions. It is possible that many of IBM's previous products and services are not able to switch over to the cloud, which could interfere with customer demand. In many ways, the transition to this new technology is going to go by a process of trial and error. While it is true that everyone within the industry is under the same circumstances and undergoing the same shift, it is especially sensitive for IBM due the sheer size of the organization. IBM's massive scale is two-sided for the tech giant. On a positive note, the company's global reach is a plus since it can obtain more scale and depth through emerging markets around the world and penetrate those upcoming business markets. On the other hand, the company faces a hard time changing and updating its business in a timely and efficient manner. This could pose a threat for IBM if a smaller, more nimble competitor breaks through and is able to provide the services faster and more efficiently to IBM customers. Yet, in our opinion, it seems like IBM is making a successful shift to the cloud.

## Cybersecurity

Two-thirds of U.S. adults say that they would not return to a business that lost their personal, confidential information. In today's society, there is no such thing as privacy anymore. It has been replaced by convenience. 80% of individuals are willing to trade their info for a personalized offering (i.e. provide your basic, personal information in return for a discount membership card at a grocery store). All of this contributes to the concept of big data, and a lot of it is sensitive information such as medical records and social security numbers. This information is critical to the operations of a business and must be protected. As IBM is one of the top companies in providing computer and software business solutions to large corporations, it is vital that it successfully protects its client's information. It is the company's fiduciary responsibility. The risk of a cyberattack or information breach on IBM will always be a potential threat to the company or any company that stores its information digitally. It is especially important that IBM manages and protects its customer's information so that the company can continue to foster and establish its long-standing customer relationships.

## Too much, Too Fast

Right now, IBM is receiving a lot of criticism for some of its strategic business decisions. Some believe that the company is trying to do too much, too fast. By this we mean that IBM is attempting to stay ahead of the industry by pushing multiple, unnecessary research and development initiatives. Some think that these pursuits may be ahead of the industry's time and something that the customer does not want or has not even thought about yet. For example, IBM's efforts in the cognitive computing space with Watson.

IBM's strategic plan is becoming more internally focused. IBM has flourished in the past because of their ability to listen and understand what the customer wants. The company has continued to adapt to customer needs and evolve with changing technology, but it begs the question if their new found focus on projects like Watson are just ahead of their customers time. There will clearly be demand in the future for a company to provide cognitive computing solutions to organize and analyze the massive amounts of data being generated. IBM is making heavy investments into cognitive computing with Watson and should have the first quality offering, in the cognitive computing space. However, the first to market is not always the one that gains and sustains market share. Similar to Tesla with the electric car, the global enterprise network might not have the infrastructure or be ready to embrace the cognitive computing solutions provided by Watson. IBM is at risk that its heavy investments into cognitive computing do not pay off. A new company or current competitor may come in when the market is ready, and expands and improves upon the work IBM has done with cognitive computing to gain overall market share of the massive opportunity.

The company's efforts have been focused on controlling the middle, while continuing to provide their enterprise clients with solutions that make clients more efficient, competitive, and innovative. The only problem is that the middle might not yet be cognitive computing and the cloud, and the company has evolved too fast for their customers. Also, divesting from what was their core business could prove detrimental if IBM cannot supplement the profits with their new business ventures. IBM has strayed away from their external focus which had kept them successful and now a good portion of their investments are internally focused on projects that the customers are not necessarily asking for. The problems IBM faces today may very well just be hiccups and natural for a company that has existed for so long and is continually evolving.

# Discounted Cash Flow Valuation

## IBM

### Discounted Cash Flow Analysis

(\$ in millions, except share data, fiscal year ending December 31)

	Historical Period			CAGR (Historical Period)	2014	Projection Period					CAGR (Projection Period)
	2011	2012	2013			2015E	2016E	2017E	2018E	2019E	
Revenue	\$ 106,916.0	\$ 104,507.0	\$ 98,367.0	-2.7%	\$ 92,793.0	\$ 97,432.7	\$ 102,304.3	\$ 107,419.5	\$ 112,790.5	\$ 118,430.0	4.0%
% growth	NA	-2.3%	-5.9%		-5.7%	5.0%	5.0%	5.0%	5.0%	5.0%	
EBITDA	\$ 25,515.0	\$ 26,495.0	\$ 26,291.0	1.0%	\$ 24,119.0	\$ 25,325.0	\$ 26,591.2	\$ 27,920.8	\$ 29,316.8	\$ 30,782.6	4.0%
% margin	23.9%	25.4%	26.7%		26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	
Depreciation & Amortization	4,815.0	4,676.0	4,678.0		4,492.0	4,716.6	4,952.4	5,200.1	5,460.1	5,733.1	
EBIT	\$ 20,700.0	\$ 21,819.0	\$ 21,613.0	1.4%	\$ 19,627.0	\$ 20,608.4	\$ 21,638.8	\$ 22,720.7	\$ 23,856.7	\$ 25,049.6	4.0%
% margin	19.4%	20.9%	22.0%		21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	
Taxes	4,386.3	4,623.4	4,579.8		4,159.0	4,366.9	4,585.3	4,814.5	5,055.2	5,308.0	
EBIAT	\$ 16,313.7	\$ 17,195.6	\$ 17,033.2	1.4%	\$ 15,468.0	\$ 16,241.4	\$ 17,053.5	\$ 17,906.2	\$ 18,801.5	\$ 19,741.6	4.0%
Plus: Depreciation & Amortization	4815.0	4676.0	4678.0		4492.0	4716.6	4952.4	5200.1	5460.1	5733.1	
Less: Capital Expenditures	(4108.0)	(4082.0)	(3623.0)		3740.0	(3927.0)	(4123.4)	(4329.5)	(4546.0)	(4773.3)	
Less: Increase in Net Working Capital						(1339.8)	(970.3)	(1074.0)	(1139.8)	(1209.1)	
<b>Unlevered Free Cash Flow</b>						\$ 15,691.3	\$ 16,912.3	\$ 17,702.7	\$ 18,575.8	\$ 19,492.2	
WACC	10.0%										
Discount Period						0.5	1.5	2.5	3.5	4.5	
Discount Factor						0.96	0.87	0.79	0.72	0.65	
<b>Present Value of Free Cash Flow</b>						\$ 15,032.5	\$ 14,729.3	\$ 14,016.1	\$ 13,370.3	\$ 12,754.5	

Implied Equity Value and Share Price		Enterprise Value Perpetuity Model	
Enterprise Value	\$ 256,684.3	Free Cash Flow (FY5E)	\$ 19,492.2
Less: Total Debt	40,804	Perpetuity Growth Rate	3.00%
Less: Preferred Securities	146	WACC	10.0%
Less: Noncontrolling Interest	-	<b>Present Value of Terminal Value</b>	<b>186,781.5</b>
Plus: Cash and Cash Equivalents	8,476	<b>Enterprise Value</b>	<b>256,684.3</b>
<b>Implied Equity Value</b>	<b>\$ 224,210.3</b>	<b>Implied EV/EBITDA</b>	
Fully Diluted Shares Outstanding	995.4	Enterprise Value	\$ 256,684.3
		LTM EBITDA	23,744.0
<b>Implied Share Price</b>	<b>225.25</b>	<b>Implied EV/EBITDA</b>	<b>10.8x</b>

	Enterprise Value					Implied Share Price					
	Perpetuity Growth Rate					Perpetuity Growth Rate					
	1.0%	2.0%	3.0%	4.0%	5.0%	1.0%	2.0%	3.0%	4.0%	5.0%	
9.0%	\$ 213,888.83	\$ 233,282.26	\$ 258,216.68	\$ 291,462.57	\$ 338,006.82	9.0%	\$ 182.25	\$ 201.74	\$ 226.79	\$ 260.19	\$ 306.94
9.5%	\$ 213,115.28	\$ 232,508.71	\$ 257,443.13	\$ 290,689.02	\$ 337,233.26	9.5%	\$ 181.48	\$ 200.96	\$ 226.01	\$ 259.41	\$ 306.17
10.0%	\$ 212,356.46	\$ 231,749.89	\$ 256,684.31	\$ 289,930.20	\$ 336,474.44	10.0%	\$ 180.71	\$ 200.20	\$ 225.25	\$ 258.65	\$ 305.41
10.5%	\$ 211,612.00	\$ 231,005.44	\$ 255,939.85	\$ 289,185.74	\$ 335,729.99	10.5%	\$ 179.97	\$ 199.45	\$ 224.50	\$ 257.90	\$ 304.66
11.0%	\$ 210,881.56	\$ 230,274.99	\$ 255,209.41	\$ 288,455.30	\$ 334,999.54	11.0%	\$ 179.23	\$ 198.72	\$ 223.76	\$ 257.16	\$ 303.92

## IBM Valuation

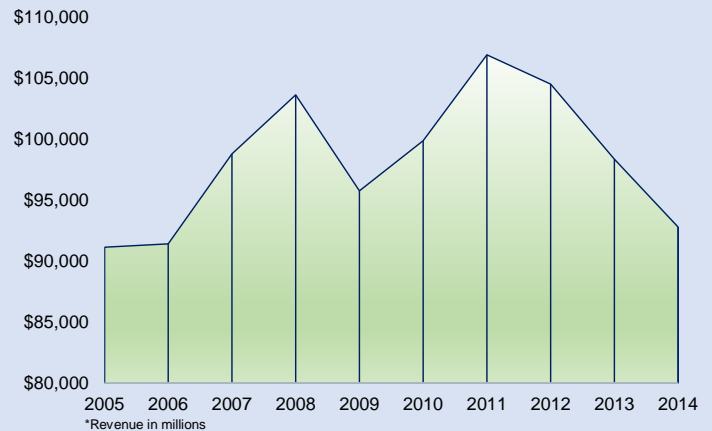
Based on the data provided in IBM's 2014 10-K, we estimate that the intrinsic value of IBM is \$225.25 per share. Our 5% growth rate was calculated by multiplying the company's reinvestment rate by the return on invested capital net goodwill. The 5% growth rate is a little lower than IBM's 5-year average free cash flow growth of 5.80% because IBM is repositioning itself to capitalize on market trends and higher-value opportunities. As growth stays in the mid-single digits IBM has stayed focused on returning their earnings through dividends and share buybacks. The company has a 20 year history of share buybacks and has increased its dividend 19 consecutive quarters, with a 5-year dividend growth of 14.32%. We conservatively estimate that IBM will grow at the average rate of GDP of 3% into perpetuity. We used a WACC of 10% for IBM because 10% is the average WACC over a 50 year time horizon for the market. Current interest rate levels may skew today's cost of capital, which would not provide a reliable discount rate to assume for the life of the company. The effects of shifting the perpetuity growth rate and the WACC are portrayed in the sensitivity analysis tables above. The Student Managed Fund has taken a position in IBM at \$192.17 and believes that IBM is currently trading at a 40.39% discount and a 17.21% discount from our purchase price.



# Appendix A: Financial Trends

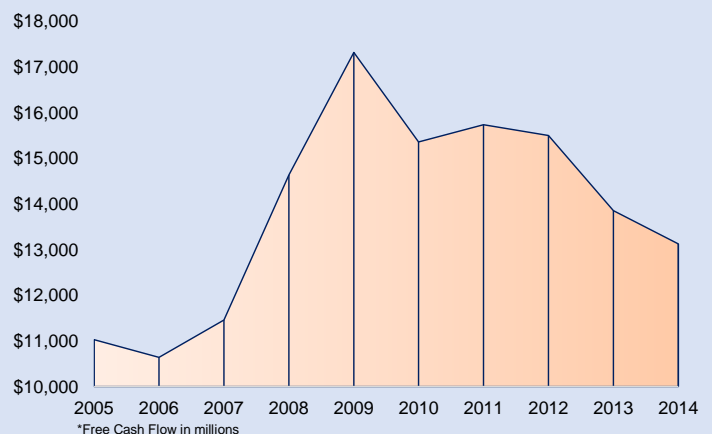
## Revenue

IBM's revenue has been declining as it divests from businesses with lower profit margins. The company has been restructuring the business toward higher-value, more profitable markets and opportunities. Currently new businesses have not offset the contraction in IBM's old-line hardware, software and services offerings. Despite revenue declining, IBM's growth initiatives in data-analysis software and services and cloud computing have grown YoY 7% and 60%, respectively.



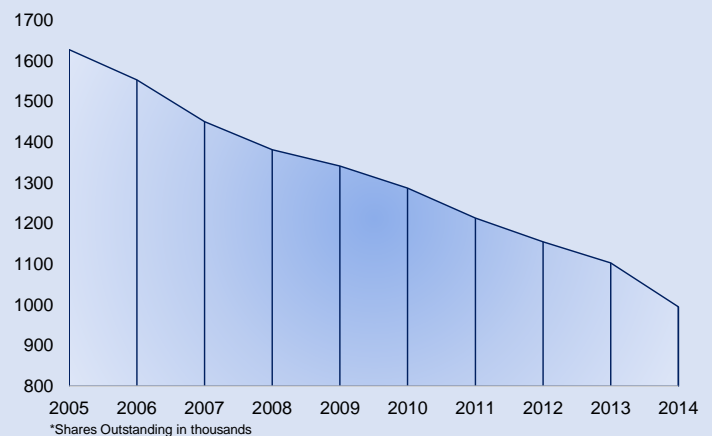
## Free Cash Flow

IBM has been unable to grow its free cash flow recently as revenues have continued to decline. Although IBM's free cash flows have been decreasing, IBM has consistently been able to generate a high amount of cash that it has reinvested into the company and returned to shareholders. IBM's FCF margins have stayed the same and as their new higher margin businesses grow, we expect FCF margins and the amount of FCF generated to improve.



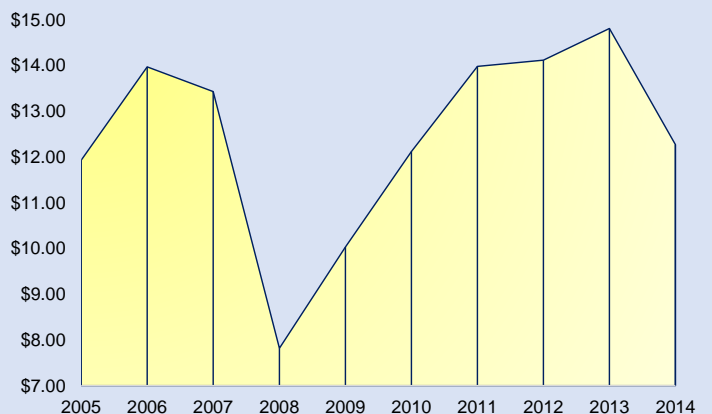
## Shares Outstanding

IBM has a 20 year history of share buybacks, which will be continued into the future. IBM has approximately \$6.3 billion remaining in its share repurchase authorization, which represents the majority of funds being spent on buybacks in 2015. If IBM continues to repurchase shares at its average rate for the past 10 years there will be no more publicly traded shares left in 2034. Share repurchases have greatly increased IBM's shareholders EPS and percentage of ownership.



## Average Price/Free Cash Flow

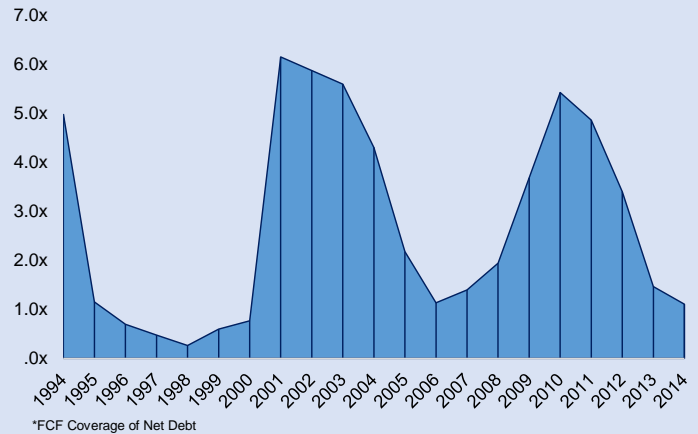
IBM's current Average Price/FCF is \$12.27, which is slightly below IBM's 5-year Average Price/FCF of \$12.49. We believe IBM's price has been lagging its FCF because of an overall concern in the market with IBM's place in the competitive landscape and its ability to reposition with their new business ventures. Additionally investors are concerned from the lack of top line growth, caused by growth in new revenue sources like cloud computing and data analytics being unable to make up for declines in older businesses and a drop in sales from divestitures.



# Appendix A: Financial Trends

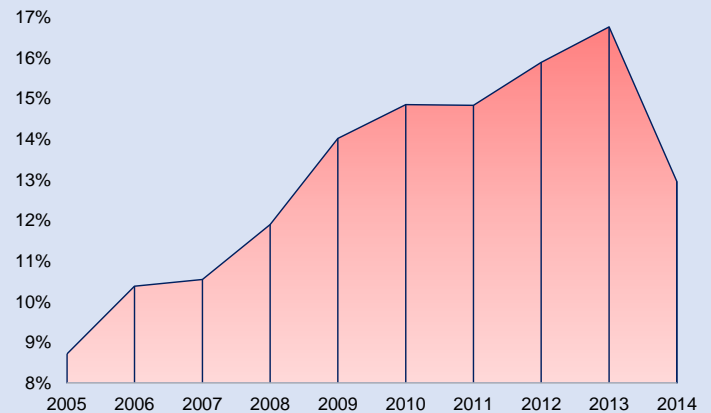
## Net Debt

IBM has been criticized by analysts for borrowing billions of dollars to repurchase stock thus manipulating their EPS and stock price. However, looking 20 years back at the company's annual report and you can see their net debt and coverage ratios have not changed drastically. In 1994, IBM had total debt of \$22,118 billion. This is offset by notes and accounts receivable for equipment (\$14.018 billion) and sales-type leases (\$6.351 billion) for net debt of \$1.749 billion. In 1997, IBM had total debt of \$26.926 billion, offset by receivables of \$22.570 billion for net debt of \$4.356 billion. In 2014, IBM has total debt of \$40.804 billion, offset by receivables for net debt of \$11.879 billion. This does not support analyst's claims of IBM borrowing 10s of billions of dollars. Additionally, in 1997 IBM had FCF of \$3.2 billion to cover their \$4.3 billion of debt, and today their FCF of \$13.1 billion more than covers their net debt of \$11.9 billion.



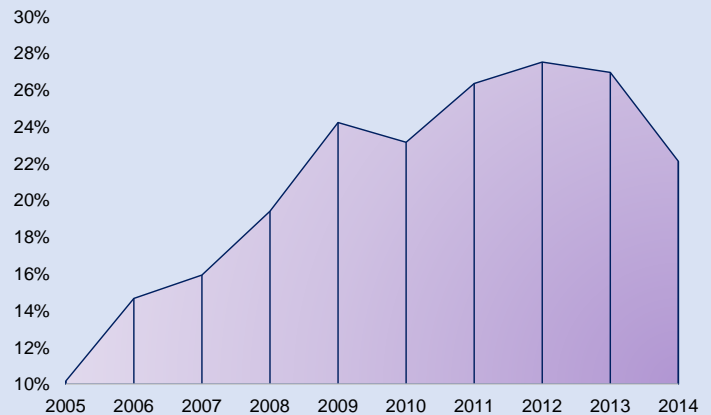
## Profit Margins

IBM had continually increased its profit margins until 2014. IBM has been able to do this despite decreasing revenues because of their ability to lower COGS by 11% over the past five years. The company has also lowered their effective tax rate from 24.79% to 21.19% over the same five year time span. We expect IBM's profit margin to continue to increase as IBM shifts towards higher-value businesses.



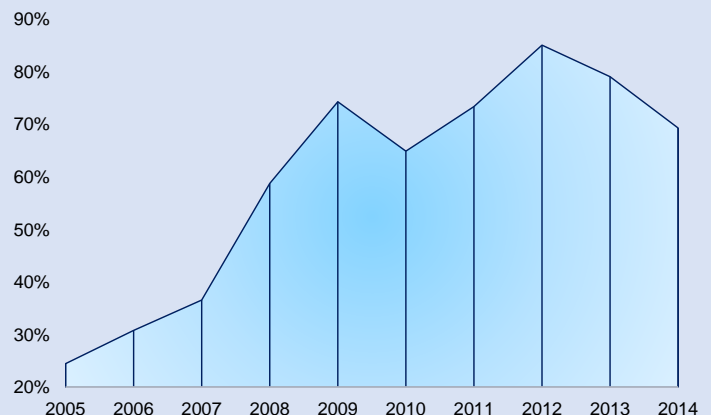
## ROIC

Return on invested capital measures a company's core operating profitability – how well a company generates cash flow given the capital it has invested into the business. There is no doubt that over the past few years, IBM has been facing some hurdles as it is adapting its business strategy. Yet, even the massive challenges that the company is faced with in this transitional period, IBM has still managed to average ~20% ROIC. This is a testament to management's ability to still create value while pivoting the business for new strategic imperatives.



## ROE

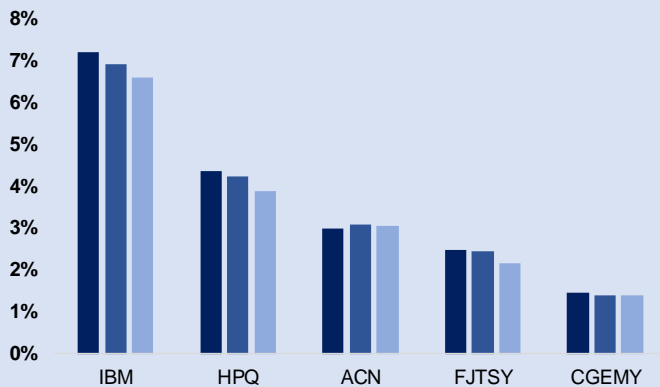
Return on equity measures a company's profitability by showing how much profit a company creates with the money shareholders have invested. IBM has managed to return significant value to its shareholders by means of share buybacks and rising dividend payouts. IBM's ROE has also taken slight dips as it continues to acquire new companies to expand upon the businesses it classifies as higher-value.



# Appendix B: Competitive Landscape

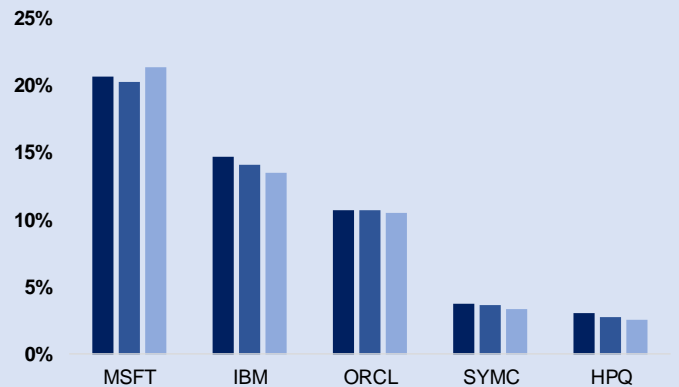
	Market Cap	Industry Focus	P/E Ratio	FCF Yield	ROE	ROIC	Profit Margin	1yr EPS Growth	ESG Score	Price to CF
<b>Average</b>	\$111.63 B	Technology	22.62	7.56%	22.23%	16.00%	12.16%	12.23%	37.18	11.58
<b>IBM</b>	\$158.59 B	IT Services	9.66	8.18%	69.37%	22.14%	12.96%	1.69%	47.93	9.52
<b>MSFT</b>	\$330.53 B	Inf Software	15.30	8.12%	26.17%	20.76%	25.42%	1.92%	33.47	10.30
<b>ORCL</b>	\$186.12 B	Inf Software	17.52	7.15%	23.94%	17.35%	28.62%	5.68%	25.21	13.06
<b>ACN</b>	\$62.45 B	IT Services	20.00	6.51%	55.02%	61.13%	9.23%	-8.66%	11.98	14.20
<b>HPQ</b>	\$57.07 B	Hardware	9.79	10.67%	18.57%	9.70%	4.50%	0.76%	54.13	5.82

## IT Services Market Share



	IBM	HPQ	ACN	FJTSY	CGEMY
<b>2011</b>	7.18%	4.37%	2.98%	2.48%	1.45%
<b>2012</b>	6.91%	4.24%	3.08%	2.45%	1.38%
<b>2013</b>	6.58%	3.90%	3.06%	2.16%	1.38%

## Infrastructure Software Market Share



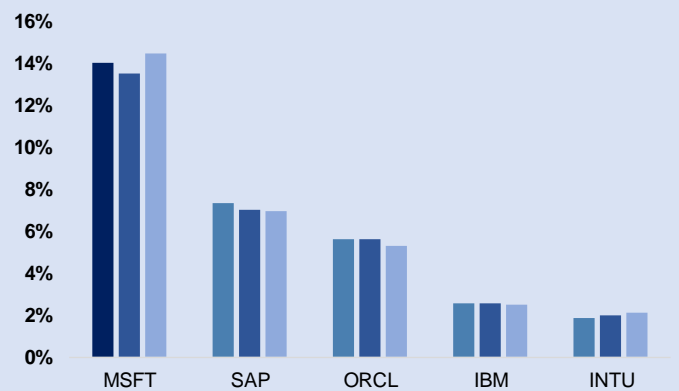
	MSFT	IBM	ORCL	SYMC	HPQ
<b>2011</b>	20.70%	14.70%	10.70%	3.77%	3.05%
<b>2012</b>	20.28%	14.14%	10.70%	3.62%	2.77%
<b>2013</b>	21.38%	13.48%	10.56%	3.40%	2.51%

## Global Server Market Share



	IBM	HPQ	DELL	FJTSY	ORCL
<b>2011</b>	31.10%	29.00%	14.80%	4.50%	6.10%
<b>2012</b>	30.30%	27.20%	15.50%	3.80%	5.10%
<b>2013</b>	25.60%	26.60%	17.10%	3.40%	4.70%

## Application Software Market Size



	MSFT	SAP	ORCL	IBM	INTU
<b>2011</b>	14.07%	7.37%	5.62%	2.58%	1.88%
<b>2012</b>	13.53%	7.05%	5.64%	2.55%	1.98%
<b>2013</b>	14.50%	6.94%	5.29%	2.52%	2.11%

# Appendix B: Competitive Landscape

## Microsoft

### Discounted Cash Flow Analysis

(\$ in millions, except share data, fiscal year ending December 31)

	Historical Period			CAGR	2014	Projection Period					CAGR
	2011	2012	2013			Historical Period	2015E	2016E	2017E	2018E	
Revenue	\$ 69,943.0	\$ 73,723.0	\$ 77,849.0	3.6%	\$ 86,451.0	\$ 90,773.6	\$ 95,312.2	\$ 100,077.8	\$ 105,081.7	\$ 110,335.8	4.0%
% growth	NA	5.4%	5.6%		11.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
EBITDA	\$ 29,927.0	\$ 30,923.0	\$ 31,252.0	1.5%	\$ 32,716.0	\$ 34,448.1	\$ 36,271.9	\$ 38,192.3	\$ 40,214.5	\$ 42,343.8	4.2%
% margin	42.8%	41.9%	40.1%		37.8%	37.9%	38.1%	38.2%	38.3%	38.4%	
Depreciation & Amortization	2,766.0	2,967.0	3,755.0		5,212.0	5,472.6	5,746.2	6,033.5	6,335.2	6,652.0	
EBIT	\$ 27,161.0	\$ 27,956.0	\$ 27,497.0	0.4%	\$ 27,504.0	\$ 28,975.5	\$ 30,525.7	\$ 32,158.8	\$ 33,879.3	\$ 35,691.8	4.3%
% margin	38.8%	37.9%	35.3%		31.8%	31.9%	32.0%	32.1%	32.2%	32.3%	
Taxes	5,608.7	5,772.9	5,678.1		5,679.6	5,983.4	6,303.5	6,640.8	6,996.1	7,370.4	
EBIAT	\$ 21,552.3	\$ 22,183.1	\$ 21,818.9	0.4%	\$ 21,824.4	\$ 22,992.0	\$ 24,222.1	\$ 25,518.0	\$ 26,883.2	\$ 28,321.5	4.3%
Plus: Depreciation & Amortization	2,766.0	2,967.0	3,755.0		5,212.0	5,472.6	5,746.2	6,033.5	6,335.2	6,652.0	
Less: Capital Expenditures	(2355.0)	(2305.0)	(4257.0)		5485.0	(5759.3)	(6047.2)	(6349.6)	(6667.1)	(7000.4)	
Less: Increase in Net Working Capital						(236.8)	(508.9)	(473.4)	(490.7)	(508.7)	
<b>Unlevered Free Cash Flow</b>						\$ 22,942.2	\$ 24,430.0	\$ 25,675.3	\$ 27,042.0	\$ 28,481.7	
WACC	10.0%										
Discount Period						0.5	1.5	2.5	3.5	4.5	
Discount Factor						0.96	0.87	0.79	0.72	0.65	
<b>Present Value of Free Cash Flow</b>						\$ 21,979.1	\$ 21,276.7	\$ 20,328.4	\$ 19,464.1	\$ 18,636.7	

Implied Equity Value and Share Price	
Enterprise Value	\$ 374,606.8
Less: Total Debt	28,308
Less: Preferred Securities	-
Less: Noncontrolling Interest	-
Plus: Cash and Cash Equivalents	90,249
<b>Implied Equity Value</b>	<b>\$ 436,547.8</b>
Fully Diluted Shares Outstanding	8297.0
<b>Implied Share Price</b>	<b>52.62</b>

Enterprise Value Perpetuity Model	
Free Cash Flow (FY5E)	\$ 28,481.7
Perpetuity Growth Rate	3.00%
WACC	10.0%
<b>Present Value of Terminal Value</b>	<b>272,921.8</b>
<b>Enterprise Value</b>	<b>374,606.8</b>
Implied EV/EBITDA	
Enterprise Value	\$374,606.8
LTM EBITDA	34,150.0
<b>Implied EV/EBITDA</b>	<b>11.0x</b>

	Enterprise Value				
	Perpetuity Growth Rate				
	1.0%	2.0%	3.0%	4.0%	5.0%
9.0%	\$ 312,065.81	\$ 340,403.17	\$ 376,836.90	\$ 425,415.22	\$ 493,424.87
9.5%	\$ 310,940.03	\$ 339,277.38	\$ 375,711.12	\$ 424,289.44	\$ 492,299.08
10.0%	\$ 309,835.71	\$ 338,173.06	\$ 374,606.80	\$ 423,185.11	\$ 491,194.76
10.5%	\$ 308,752.30	\$ 337,089.65	\$ 373,523.39	\$ 422,101.71	\$ 490,111.36
11.0%	\$ 307,689.30	\$ 336,026.66	\$ 372,460.39	\$ 421,038.71	\$ 489,048.36

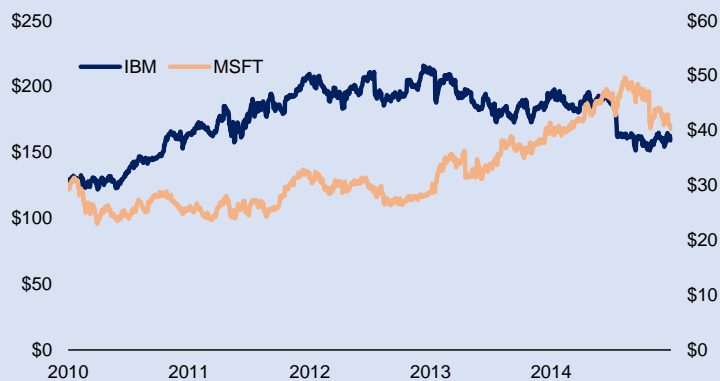
	Implied Share Price				
	Perpetuity Growth Rate				
	1.0%	2.0%	3.0%	4.0%	5.0%
9.0%	\$ 45.08	\$ 48.49	\$ 52.88	\$ 58.74	\$ 66.94
9.5%	\$ 44.94	\$ 48.36	\$ 52.75	\$ 58.60	\$ 66.80
10.0%	\$ 44.81	\$ 48.22	\$ 52.62	\$ 58.47	\$ 66.67
10.5%	\$ 44.68	\$ 48.09	\$ 52.48	\$ 58.34	\$ 66.54
11.0%	\$ 44.55	\$ 47.97	\$ 52.36	\$ 58.21	\$ 66.41

## Microsoft

Microsoft develops, manufactures, licenses, sells, and supports software products. Microsoft is one of IBM's largest competitors in the software industry. Microsoft is the market leader in infrastructure and application software, and both segments are growing for the company. Similar to IBM, Microsoft has ingrained itself into the enterprise ecosystem with their integration of Office Suite and their OS systems. The risk Microsoft is facing is implementation in areas they have identified as areas of growth. The company is investing into the cloud, after failed attempts in the technology consumer product market. The lack of a clear vision of future growth and company direction is why we did not take a position in Microsoft.

According to the data provided in Microsoft's 2014 10-K, we believe the intrinsic value of Microsoft is \$52.62 per share. The key assumptions made were a WACC of 10%, a growth rate of 5%, and a perpetuity growth rate of 3%. Our intrinsic value for Microsoft has the company currently trading at a 26.67% discount. We believe Microsoft would be a safe quality investment, but we feel IBM is better positioned to capitalize on industry trends.

## IBM vs. Microsoft (5 YR)



# Appendix B: Competitive Landscape

## Oracle

### Discounted Cash Flow Analysis

(\$ in millions, except share data, fiscal year ending December 31)

	Historical Period			CAGR Historical Period	2014	Projection Period					CAGR Projection Period
	2011	2012	2013			2015E	2016E	2017E	2018E	2019E	
Revenue	\$ 35,622.0	\$ 37,121.0	\$ 37,180.0	1.4%	\$ 38,275.0	\$ 39,997.4	\$ 41,797.3	\$ 43,678.1	\$ 45,643.6	\$ 47,697.6	3.6%
% growth	NA	4.2%	0.2%		2.9%	4.5%	4.5%	4.5%	4.5%	4.5%	
EBITDA	\$ 15,394.0	\$ 16,940.0	\$ 17,330.0	4.0%	\$ 17,881.0	\$ 18,685.6	\$ 19,526.5	\$ 20,405.2	\$ 21,323.4	\$ 22,283.0	3.6%
% margin	43.2%	45.6%	46.6%		46.7%	46.7%	46.7%	46.7%	46.7%	46.7%	
Depreciation & Amortization	2,796.0	2,916.0	2,931.0		2,908.0	3,038.9	3,175.6	3,318.5	3,467.8	3,623.9	
EBIT	\$ 12,598.0	\$ 14,024.0	\$ 14,399.0	4.6%	\$ 14,973.0	\$ 15,646.8	\$ 16,350.9	\$ 17,086.7	\$ 17,855.6	\$ 18,659.1	3.6%
% margin	35.4%	37.8%	38.7%		39.1%	39.1%	39.1%	39.1%	39.1%	39.1%	
Taxes	2,527.2	2,813.2	2,888.4		3,003.6	3,138.7	3,280.0	3,427.6	3,581.8	3,743.0	
EBIAT	\$ 10,070.8	\$ 11,210.8	\$ 11,510.6	4.6%	\$ 11,969.4	\$ 12,508.0	\$ 13,070.9	\$ 13,659.1	\$ 14,273.8	\$ 14,916.1	3.6%
Plus: Depreciation & Amortization	2,796.0	2,916.0	2,931.0		2,908.0	3,038.9	3,175.6	3,318.5	3,467.8	3,623.9	
Less: Capital Expenditures	(450.0)	(648.0)	(650.0)		580.0	(606.1)	(633.4)	(661.9)	(691.7)	(722.8)	
Less: Increase in Net Working Capital						(178.5)	(243.1)	(248.8)	(258.7)	(269.0)	
<b>Unlevered Free Cash Flow</b>						\$ 14,762.3	\$ 15,370.0	\$ 16,066.9	\$ 16,791.3	\$ 17,548.2	
WACC	10.0%										
Discount Period	0.5										
Discount Factor	0.96										
	1.5										
	2.5										
	3.5										
	4.5										
<b>Present Value of Free Cash Flow</b>						\$ 14,142.5	\$ 13,386.2	\$ 12,721.0	\$ 12,085.9	\$ 11,482.5	

Implied Equity Value and Share Price		Enterprise Value Perpetuity Model	
Enterprise Value	\$ 219,999.2	Free Cash Flow (FY5E)	\$ 17,548.2
Less: Total Debt	32,257	Perpetuity Growth Rate	2.50%
Less: Preferred Securities	437	WACC	10.0%
Less: Noncontrolling Interest	-	<b>Present Value of Terminal Value</b>	<b>156,181.2</b>
Plus: Cash and Cash Equivalents	43,777	<b>Enterprise Value</b>	<b>219,999.2</b>
<b>Implied Equity Value</b>	<b>\$ 231,082.2</b>	<b>Implied EV/EBITDA</b>	
Fully Diluted Shares Outstanding	4494.0	Enterprise Value	\$219,999.2
<b>Implied Share Price</b>	<b>51.42</b>	LTM EBITDA	17,891.0
		<b>Implied EV/EBITDA</b>	<b>12.3x</b>

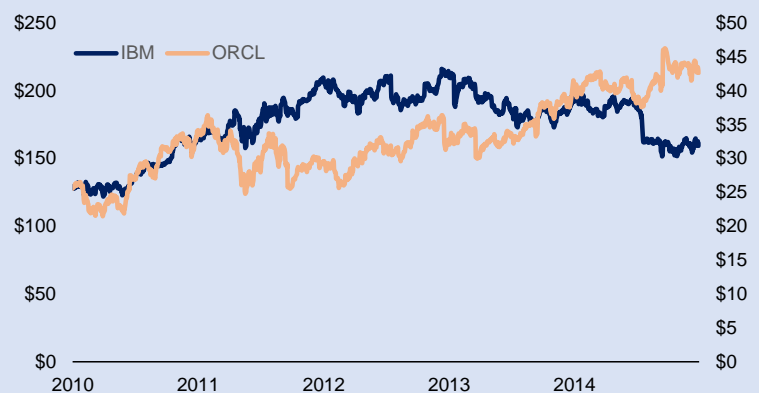
	Enterprise Value					Implied Share Price				
	Perpetuity Growth Rate					Perpetuity Growth Rate				
	0.5%	1.5%	2.5%	3.5%	4.5%	0.5%	1.5%	2.5%	3.5%	4.5%
9.0%	\$ 186,100.73	\$ 201,668.14	\$ 221,386.86	\$ 247,172.89	\$ 282,335.64	43.88	\$ 47.34	\$ 51.73	\$ 57.47	\$ 65.29
9.5%	\$ 185,400.26	\$ 200,967.67	\$ 220,686.40	\$ 246,472.42	\$ 281,635.17	43.72	\$ 47.19	\$ 51.57	\$ 57.31	\$ 65.14
10.0%	\$ 184,713.11	\$ 200,280.52	\$ 219,999.24	\$ 245,785.26	\$ 280,948.02	43.57	\$ 47.03	\$ 51.42	\$ 57.16	\$ 64.98
10.5%	\$ 184,038.94	\$ 199,606.35	\$ 219,325.07	\$ 245,111.09	\$ 280,273.85	43.42	\$ 46.88	\$ 51.27	\$ 57.01	\$ 64.83
11.0%	\$ 183,377.43	\$ 198,944.84	\$ 218,663.56	\$ 244,449.58	\$ 279,612.34	43.27	\$ 46.74	\$ 51.12	\$ 56.86	\$ 64.69

## Oracle

Oracle supplies software for enterprise information management. Oracle integrates itself into enterprises by utilizing its high market share in the database market to push other products such as Software, Middleware, Hardware, and Applications. This creates high switching costs for its customers and allows them to generate more revenue with the same number of customers. Oracle has invested heavily into cloud-computing and Software as a Service (SaaS). The company is facing some difficulties with competition as it has lost market share in the Infrastructure and Application Software industries. Although Oracle would be a quality investment, we believe IBM is better positioned to secure a larger market share in cloud-computing and the more lucrative market of data mining and data analytics.

According to the data provided in Oracle's 2014 10-K, we estimate the intrinsic value to be \$51.42 per share. The key assumptions made were a WACC of 10%, a growth rate of 4.5%, and a perpetuity growth rate of 2.5%. Our intrinsic value has Oracle currently trading at a 19.69% discount.

## IBM vs. Oracle (5 YR)



# Appendix B: Competitive Landscape

## Hewlett-Packard

### Discounted Cash Flow Analysis

(\$ in millions, except share data, fiscal year ending December 31)

	Historical Period			CAGR Historical Period	2014	Projection Period					CAGR (Projection Period)
	2011	2012	2013			2015E	2016E	2017E	2018E	2019E	
Revenue	\$ 127,387.0	\$ 120,357.0	\$ 112,298.0	-4.1%	\$ 111,454.0	\$ 114,797.6	\$ 118,241.5	\$ 121,788.8	\$ 125,442.5	\$ 129,205.7	2.4%
% growth	NA	-5.5%	-6.7%		-0.8%	3.0%	3.0%	3.0%	3.0%	3.0%	
EBITDA	\$ 16,717.0	\$ 14,456.0	\$ 12,754.0	-8.6%	\$ 13,149.0	\$ 13,572.6	\$ 14,009.8	\$ 14,461.1	\$ 14,927.1	\$ 15,408.0	2.6%
% margin	13.1%	12.0%	11.4%		11.8%	11.8%	11.8%	11.9%	11.9%	11.9%	
Depreciation & Amortization	4,984.0	5,095.0	4,611.0		4,334.0	4,464.0	4,597.9	4,735.9	4,878.0	5,024.3	
EBIT	\$ 11,733.0	\$ 9,361.0	\$ 8,143.0	-11.5%	\$ 8,815.0	\$ 9,108.5	\$ 9,411.9	\$ 9,725.3	\$ 10,049.1	\$ 10,383.8	2.7%
% margin	9.2%	7.8%	7.3%		7.9%	7.9%	8.0%	8.0%	8.0%	8.0%	
Taxes	2,763.1	2,204.5	1,917.7		2,075.9	2,145.1	2,216.5	2,290.3	2,366.6	2,445.4	
EBIAT	\$ 8,969.9	\$ 7,156.5	\$ 6,225.3	-11.5%	\$ 6,739.1	\$ 6,963.5	\$ 7,195.4	\$ 7,435.0	\$ 7,682.6	\$ 7,938.4	2.7%
Plus: Depreciation & Amortization	4984.0	5095.0	4611.0		4334.0	4464.0	4597.9	4735.9	4878.0	5024.3	
Less: Capital Expenditures	(4539.0)	(3706.0)	(3199.0)		3853.0	(3968.6)	(4087.6)	(4210.3)	(4336.6)	(4466.7)	
Less: Increase in Net Working Capital						(312.4)	(355.9)	(231.5)	(232.8)	(234.1)	
<b>Unlevered Free Cash Flow</b>						\$ 7,146.5	\$ 8,061.6	\$ 8,192.1	\$ 8,456.8	\$ 8,730.1	
WACC	10.0%										
Discount Period						0.5	1.5	2.5	3.5	4.5	
Discount Factor						0.96	0.87	0.79	0.72	0.65	
<b>Present Value of Free Cash Flow</b>						\$ 6,846.5	\$ 7,021.0	\$ 6,486.1	\$ 6,086.9	\$ 5,712.4	

Implied Equity Value and Share Price		Enterprise Value Perpetuity Model	
Enterprise Value	\$ 104,640.2	Free Cash Flow (FY5E)	\$ 8,730.1
Less: Total Debt	19,061	Perpetuity Growth Rate	2.00%
Less: Preferred Securities	397	WACC	10.0%
Less: Noncontrolling Interest	-	<b>Present Value of Terminal Value</b>	<b>72,487.2</b>
Plus: Cash and Cash Equivalents	12,919	<b>Enterprise Value</b>	<b>104,640.2</b>
<b>Implied Equity Value</b>	<b>\$ 98,101.2</b>	<b>Implied EV/EBITDA</b>	
Fully Diluted Shares Outstanding	1861.0	Enterprise Value	\$ 104,640.2
		LTM EBITDA	13,096.0
<b>Implied Share Price</b>	<b>52.71</b>	<b>Implied EV/EBITDA</b>	<b>8.0x</b>

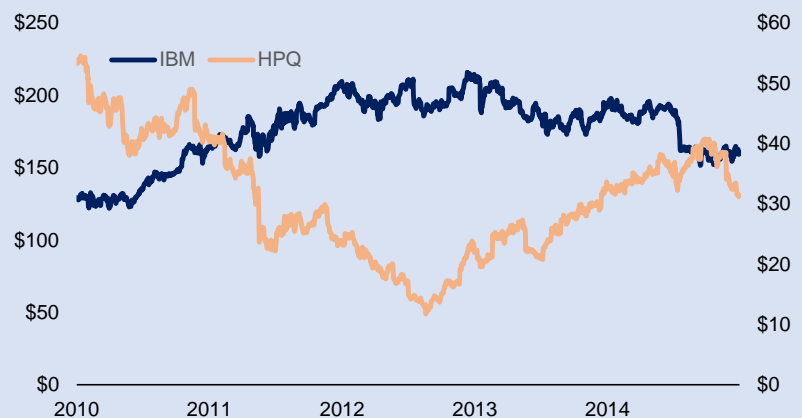
	Enterprise Value					Implied Share Price					
	Perpetuity Growth Rate					Perpetuity Growth Rate					
	0.0%	1.0%	2.0%	3.0%	4.0%	0.0%	1.0%	2.0%	3.0%	4.0%	
9.0%	\$ 89,706.06	\$ 96,654.73	\$ 105,340.56	\$ 116,508.06	\$ 131,398.06	9.0%	\$ 44.69	\$ 48.42	\$ 53.09	\$ 59.09	\$ 67.09
9.5%	\$ 89,352.55	\$ 96,301.22	\$ 104,987.05	\$ 116,154.55	\$ 131,044.55	9.5%	\$ 44.50	\$ 48.23	\$ 52.90	\$ 58.90	\$ 66.90
10.0%	\$ 89,005.75	\$ 95,954.41	\$ 104,640.25	\$ 115,807.75	\$ 130,697.75	10.0%	\$ 44.31	\$ 48.05	\$ 52.71	\$ 58.72	\$ 66.72
10.5%	\$ 88,665.48	\$ 95,614.14	\$ 104,299.98	\$ 115,467.48	\$ 130,357.47	10.5%	\$ 44.13	\$ 47.86	\$ 52.53	\$ 58.53	\$ 66.53
11.0%	\$ 88,331.58	\$ 95,280.24	\$ 103,966.08	\$ 115,133.58	\$ 130,023.57	11.0%	\$ 43.95	\$ 47.68	\$ 52.35	\$ 58.35	\$ 66.35

## Hewlett-Packard (HP)

Hewlett-Packard provides imaging and printing systems, computing systems, and information technology services for business and homes. Similar to IBM, HP is a company attempting to go through a transitional period where it is altering its core businesses to adapt to the changing technological environment. With approximately 50% of HP's revenues coming from printing and personal systems, the company is looking to shift towards higher-value businesses. The company has struggled during the transition with its market share in the IT services and infrastructure software industries continually declining.

According to the data provided in HP's 2014 10-K, we estimate their intrinsic value to be \$52.71 per share. The key assumptions made were a WACC of 10%, a growth rate of 3%, and a perpetuity growth rate of 2%. Our intrinsic value has HP trading at a 65.60% discount, however their business model and position in the competitive landscape makes them a risky investment with limited upside.

## IBM vs. Hewlett-Packard (5 YR)



# Appendix B: Competitive Landscape

## Accenture

### Discounted Cash Flow Analysis

(\$ in millions, except share data, fiscal year ending December 31)

	Historical Period			CAGR [Historical Period]	2014	Projection Period					CAGR [Projection Period]
	2011	2012	2013			2015E	2016E	2017E	2018E	2019E	
Revenue	\$ 27,352.9	\$ 29,778.0	\$ 30,394.3	3.6%	\$ 31,874.7	\$ 33,946.6	\$ 36,153.1	\$ 38,503.0	\$ 41,005.7	\$ 43,671.1	5.2%
% growth	NA	8.9%	2.1%		4.9%	6.5%	6.5%	6.5%	6.5%	6.5%	
EBITDA	\$ 4,060.3	\$ 4,466.5	\$ 4,659.6	4.7%	\$ 4,903.2	\$ 5,233.5	\$ 5,586.0	\$ 5,962.3	\$ 6,363.9	\$ 6,792.6	5.4%
% margin	14.8%	15.0%	15.3%		15.4%	15.4%	15.5%	15.5%	15.5%	15.6%	
Depreciation & Amortization	513.3	593.5	593.0		620.7	661.0	704.0	749.8	798.5	850.4	
EBIT	\$ 3,547.0	\$ 3,873.0	\$ 4,066.6	4.7%	\$ 4,282.5	\$ 4,572.4	\$ 4,882.0	\$ 5,212.5	\$ 5,565.4	\$ 5,942.1	5.4%
% margin	13.0%	13.0%	13.4%		13.4%	13.5%	13.5%	13.5%	13.6%	13.6%	
Taxes	925.8	1,010.9	1,061.4		1,117.7	1,193.4	1,274.2	1,360.5	1,452.6	1,550.9	
EBIAT	\$ 2,621.2	\$ 2,862.1	\$ 3,005.2	4.7%	\$ 3,164.8	\$ 3,379.0	\$ 3,607.8	\$ 3,852.0	\$ 4,112.8	\$ 4,391.2	5.4%
Plus: Depreciation & Amortization	513.3	593.5	593.0		620.7	661.0	704.0	749.8	798.5	850.4	
Less: Capital Expenditures	(403.7)	(372.0)	(369.6)		321.9	(342.8)	(365.1)	(388.8)	(414.1)	(441.0)	
Less: Increase in Net Working Capital						(210.3)	(109.3)	(121.6)	(134.8)	(148.9)	
<b>Unlevered Free Cash Flow</b>						\$ 3,487.0	\$ 3,837.3	\$ 4,091.4	\$ 4,362.4	\$ 4,651.7	
WACC	10.0%										
Discount Period						0.5	1.5	2.5	3.5	4.5	
Discount Factor						0.96	0.87	0.79	0.72	0.65	
<b>Present Value of Free Cash Flow</b>						\$ 3,340.6	\$ 3,342.0	\$ 3,239.3	\$ 3,140.0	\$ 3,043.8	

Implied Equity Value and Share Price	
Enterprise Value	\$ 57,506.6
Less: Total Debt	27
Less: Preferred Securities	558
Less: Noncontrolling Interest	-
Plus: Cash and Cash Equivalents	4,064
<b>Implied Equity Value</b>	<b>\$ 60,985.4</b>
Fully Diluted Shares Outstanding	679.2
<b>Implied Share Price</b>	<b>89.79</b>

Enterprise Value Perpetuity Model	
Free Cash Flow (FY5E)	\$ 4,651.7
Perpetuity Growth Rate	2.50%
WACC	10.0%
<b>Present Value of Terminal Value</b>	<b>41,400.9</b>
<b>Enterprise Value</b>	<b>57,506.6</b>
Implied EV/EBITDA	
Enterprise Value	\$ 57,506.6
LTM EBITDA	5,111.9
<b>Implied EV/EBITDA</b>	<b>11.2x</b>

	Enterprise Value				
	Perpetuity Growth Rate				
	0.5%	1.5%	2.5%	3.5%	4.5%
9.0%	\$ 48,511.22	\$ 52,637.86	\$ 57,864.95	\$ 64,700.37	\$ 74,021.40
9.5%	\$ 48,330.31	\$ 52,456.95	\$ 57,684.04	\$ 64,519.46	\$ 73,840.49
10.0%	\$ 48,152.86	\$ 52,279.51	\$ 57,506.59	\$ 64,342.01	\$ 73,663.04
10.5%	\$ 47,978.80	\$ 52,105.44	\$ 57,332.53	\$ 64,167.95	\$ 73,488.97
11.0%	\$ 47,808.02	\$ 51,934.67	\$ 57,161.75	\$ 63,997.17	\$ 73,318.20

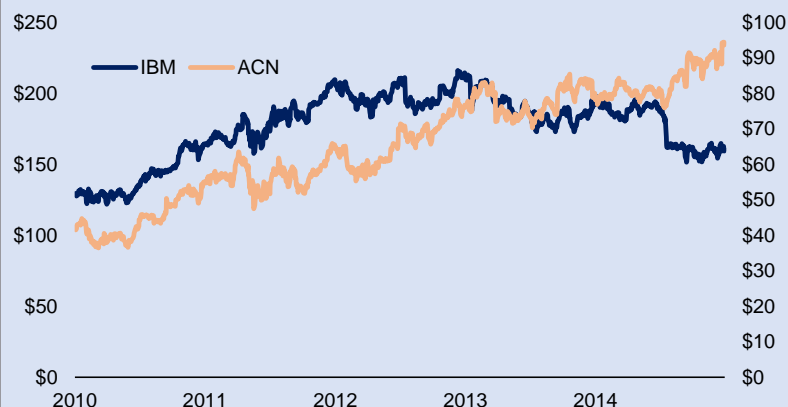
	Implied Share Price				
	Perpetuity Growth Rate				
	0.5%	1.5%	2.5%	3.5%	4.5%
9.0%	\$ 76.55	\$ 82.62	\$ 90.32	\$ 100.38	\$ 114.11
9.5%	\$ 76.28	\$ 82.36	\$ 90.05	\$ 100.12	\$ 113.84
10.0%	\$ 76.02	\$ 82.09	\$ 89.79	\$ 99.85	\$ 113.58
10.5%	\$ 75.76	\$ 81.84	\$ 89.53	\$ 99.60	\$ 113.32
11.0%	\$ 75.51	\$ 81.59	\$ 89.28	\$ 99.35	\$ 113.07

## Accenture

Accenture provides management and technology consulting services and solutions. Accenture has built a network of strong long-lasting client relationships. A strong indicator of the company's ability to sustain valuable relationships is that out of their 100 largest clients, 91 have been clients for at least 10 years. The company is making strategic investments into their digital business, which includes interactive/digital marketing, analytics, mobility and cloud computing. Accenture has grown as clients are requesting higher volumes of outsourcing services with an emphasis on cost savings, which falls directly into Accenture's consulting solutions. However, the company has faced a slowdown with pricing pressure caused by increased competition.

According to the data provided in Accenture's 2014 10-K, we estimate their intrinsic value to be \$89.79 per share. The key assumptions made were a WACC 10%, a growth rate of 6.5%, and a perpetuity growth rate of 2.5%. Our intrinsic value has Accenture currently trading at a 6.17% premium. Since we felt Accenture was currently overpriced we did not invest into the company.

## IBM vs. Accenture (5 YR)



# Appendix C: Financial Statements

## Consolidated Statement of Earnings

International Business Machines Corporation and Subsidiary Companies

(\$ in millions except per share amounts)

For the year ended December 31:	Notes	2014	2013*	2012*
<b>Revenue</b>				
Services		\$55,673	\$57,655	\$ 59,453
Sales		35,063	38,666	41,381
Financing		2,057	2,047	2,040
<b>Total revenue</b>	T	<b>92,793</b>	98,367	102,874
<b>Cost</b>				
Services		36,034	37,564	39,166
Sales		9,312	11,009	12,260
Financing		1,040	1,110	1,087
<b>Total cost</b>		<b>46,386</b>	49,683	52,513
<b>Gross profit</b>		<b>46,407</b>	48,684	50,361
<b>Expense and other (income)</b>				
Selling, general and administrative		23,180	23,451	23,463
Research, development and engineering	O	5,437	5,743	5,816
Intellectual property and custom development income		(742)	(822)	(1,074)
Other (income) and expense		(1,938)	(333)	(843)
Interest expense	D&J	484	402	459
<b>Total expense and other (income)</b>		<b>26,421</b>	28,440	27,821
<b>Income from continuing operations before income taxes</b>		<b>19,986</b>	20,244	22,540
Provision for income taxes	N	4,234	3,363	5,541
<b>Income from continuing operations</b>		<b>15,751</b>	16,881	16,999
Loss from discontinued operations, net of tax	C	(3,729)	(398)	(395)
<b>Net income</b>		<b>\$12,022</b>	\$16,483	\$ 16,604
<b>Earnings/(loss) per share of common stock</b>				
<b>Assuming dilution</b>				
Continuing operations	P	\$ 15.59	\$ 15.30	\$ 14.71
Discontinued operations	P	(3.69)	(0.36)	(0.34)
<b>Total</b>	P	<b>\$ 11.90</b>	\$ 14.94	\$ 14.37
<b>Basic</b>				
Continuing operations	P	\$ 15.68	\$ 15.42	\$ 14.88
Discontinued operations	P	(3.71)	(0.36)	(0.35)
<b>Total</b>	P	<b>\$ 11.97</b>	\$ 15.06	\$ 14.53
<b>Weighted-average number of common shares outstanding</b>				
Assuming dilution		1,010,000,480	1,103,042,156	1,155,449,317
Basic		1,004,272,584	1,094,486,604	1,142,508,521

\* Reclassified to reflect discontinued operations presentation.

Amounts may not add due to rounding.

The accompanying notes on pages 86 through 150 are an integral part of the financial statements.



# Appendix C: Financial Statements

## Consolidated Statement of Financial Position

International Business Machines Corporation and Subsidiary Companies

(\$ in millions except per share amounts)

At December 31:	Notes	2014	2013
<b>Assets</b>			
Current assets			
Cash and cash equivalents		\$ 8,476	\$ 10,716
Marketable securities	D	0	350
Notes and accounts receivable—trade (net of allowances of \$336 in 2014 and \$291 in 2013)		9,090	10,465
Short-term financing receivables (net of allowances of \$452 in 2014 and \$308 in 2013)	F	19,835	19,787
Other accounts receivable (net of allowances of \$40 in 2014 and \$36 in 2013)		2,906	1,584
Inventories	E	2,103	2,310
Deferred taxes	N	2,044	1,651
Prepaid expenses and other current assets		4,967	4,488
<b>Total current assets</b>		<b>49,422</b>	<b>51,350</b>
Property, plant and equipment	G	39,034	40,475
Less: Accumulated depreciation	G	28,263	26,654
Property, plant and equipment—net	G	10,771	13,821
Long-term financing receivables (net of allowances of \$126 in 2014 and \$80 in 2013)	F	11,109	12,755
Prepaid pension assets	S	2,160	5,551
Deferred taxes	N	4,808	3,051
Goodwill	I	30,556	31,184
Intangible assets—net	I	3,104	3,871
Investments and sundry assets	H	5,603	4,639
<b>Total assets</b>		<b>\$ 117,532</b>	<b>\$ 126,223</b>
<b>Liabilities and equity</b>			
Current liabilities			
Taxes	N	\$ 5,084	\$ 4,633
Short-term debt	D&J	5,731	6,862
Accounts payable		6,864	7,461
Compensation and benefits		4,031	3,893
Deferred income		11,877	12,557
Other accrued expenses and liabilities		6,013	4,748
<b>Total current liabilities</b>		<b>39,600</b>	<b>40,154</b>
Long-term debt	D&J	35,073	32,856
Retirement and nonpension postretirement benefit obligations	S	18,261	16,242
Deferred income		3,691	4,108
Other liabilities	K	8,892	9,934
<b>Total liabilities</b>		<b>105,518</b>	<b>103,294</b>
Contingencies and commitments	M		
Equity	L		
IBM stockholders' equity			
Common stock, par value \$.20 per share, and additional paid-in capital		52,666	51,594
Shares authorized: 4,687,500,000			
Shares issued (2014—2,215,209,574; 2013—2,207,522,548)			
Retained earnings		137,793	130,042
Treasury stock, at cost (shares: 2014—1,224,685,815; 2013—1,153,131,611)		(150,715)	(137,242)
Accumulated other comprehensive income/(loss)		(27,875)	(21,602)
<b>Total IBM stockholders' equity</b>		<b>11,868</b>	<b>22,792</b>
Noncontrolling interests	A	146	137
<b>Total equity</b>		<b>12,014</b>	<b>22,929</b>
<b>Total liabilities and equity</b>		<b>\$ 117,532</b>	<b>\$ 126,223</b>

Amounts may not add due to rounding.

The accompanying notes on pages 86 through 150 are an integral part of the financial statements.

# Appendix C: Financial Statements

<b>Consolidated Statement of Cash Flows</b>			
International Business Machines Corporation and Subsidiary Companies			
(\$ in millions)			
<b>For the year ended December 31:</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>Cash flows from operating activities</b>			
Net income	\$ 12,022	\$ 16,483	\$ 16,604
Adjustments to reconcile net income to cash provided by operating activities			
Depreciation	3,145	3,327	3,392
Amortization of intangibles	1,347	1,351	1,284
Stock-based compensation	512	614	688
Deferred taxes	(237)	(1,610)	797
Net (gain)/loss on asset sales and other	(1,535)	(236)	(729)
Loss on microelectronics business disposal	3,381	—	—
Change in operating assets and liabilities, net of acquisitions/divestitures			
Receivables (including financing receivables)	1,270	(1,407)	(2,230)
Retirement related	(655)	294	(1,008)
Inventories	(39)	(57)	280
Other assets/other liabilities	(1,886)	(747)	733
Accounts payable	(456)	(529)	(224)
<b>Net cash provided by operating activities</b>	<b>16,868</b>	<b>17,485</b>	<b>19,586</b>
<b>Cash flows from investing activities</b>			
Payments for property, plant and equipment	(3,740)	(3,623)	(4,082)
Proceeds from disposition of property, plant and equipment	404	372	410
Investment in software	(443)	(517)	(635)
Purchases of marketable securities and other investments	(2,338)	(4,608)	(4,109)
Proceeds from disposition of marketable securities and other investments	2,493	4,873	3,142
Non-operating finance receivables—net	(1,078)	(1,063)	(808)
Acquisition of businesses, net of cash acquired	(656)	(3,056)	(3,722)
Divestiture of businesses, net of cash transferred	2,357	297	599
<b>Net cash used in investing activities</b>	<b>(3,001)</b>	<b>(7,326)</b>	<b>(9,004)</b>
<b>Cash flows from financing activities</b>			
Proceeds from new debt	8,180	16,353	12,242
Payments to settle debt	(4,644)	(10,013)	(9,549)
Short-term borrowings/(repayments) less than 90 days—net	(1,753)	621	(441)
Common stock repurchases	(13,679)	(13,859)	(11,995)
Common stock transactions—other	709	1,074	1,540
Cash dividends paid	(4,265)	(4,058)	(3,773)
<b>Net cash used in financing activities</b>	<b>(15,452)</b>	<b>(9,883)</b>	<b>(11,976)</b>
Effect of exchange rate changes on cash and cash equivalents	(655)	28	(116)
<b>Net change in cash and cash equivalents</b>	<b>(2,240)</b>	<b>304</b>	<b>(1,511)</b>
Cash and cash equivalents at January 1	10,716	10,412	11,922
<b>Cash and cash equivalents at December 31</b>	<b>\$ 8,476</b>	<b>\$ 10,716</b>	<b>\$ 10,412</b>
<b>Supplemental data</b>			
Income taxes paid—net of refunds received	\$ 5,748	\$ 4,024	\$ 3,169
Interest paid on debt	\$ 1,061	\$ 982	\$ 1,009
Capital lease obligations	\$ 2	\$ 14	\$ 10
Amounts may not add due to rounding.			
The accompanying notes on pages 86 through 150 are an integral part of the financial statements.			