

# Microsoft

## A Stock Presentation

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Vivien Sung  
(2014)

Deependra Mookim  
(2015)

Daren Taylor  
(2000)

# Disclaimer

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- 1) Simple to understand
- 2) Consistent operating history and favorable long-term prospects
- 3) Managed by honest and able managers whose interests are aligned with ours
- 4) Can be purchased at a significant discount to intrinsic value

# 1) Simple to Understand

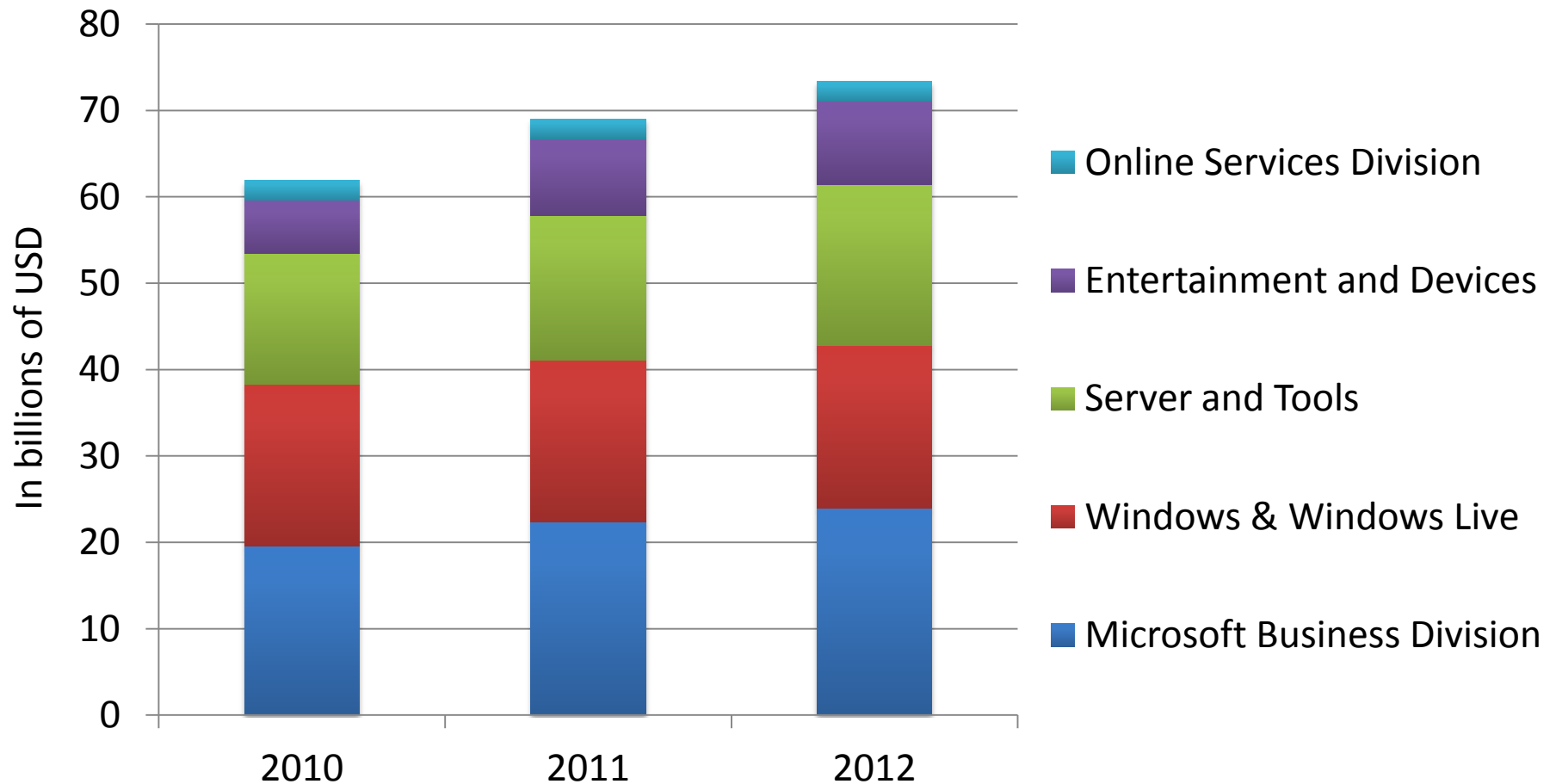


- Founded in 1975
- Global leader in software and services
- Earns revenue primarily from customers paying a fee to license its software
- Core products are dominant within the consumer space and industry standards within enterprise IT
- Lock-in strategy to create moat and command high margins

Business Segments	Key Product Offerings	% of Revenues	Operating Margin
Windows & Windows Live	Windows OS software	25%	63%
Microsoft Business Division	Microsoft Office, Dynamics business solutions	32%	65%
Server & Tools	Windows Server, Microsoft SQL, Enterprise Services	25%	40%
Entertainment & Devices	Xbox 360, Windows Phone, Skype, Mediaroom	13%	4%
Online Services Division	Bing, MSN, advertiser tools	4%	-66%

# 1) Simple to Understand

## Microsoft Divisional Revenues



# 1) Simple to Understand

- Office System, Windows OS and Servers and tools account for lion's share of total revenue
- International now almost half of total revenue

## Revenue by Product Type

<u>% of Total</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Microsoft Office System	28.4%	29.6%	30.2%
Windows PC Operating Systems	29.2%	25.5%	23.5%
Server Products and Tools	19.2%	18.9%	19.3%
Xbox 360 Platform	8.7%	11.6%	10.9%
Consult. and Prod. Support Services	4.9%	4.8%	5.4%
Advertising	4.0%	4.2%	4.3%
Other	5.6%	5.4%	6.3%
Total	100%	100%	100%

## Revenue by Geography

<u>% of Total</u>	<u>2002</u>	<u>2012</u>
United States	74%	53%
International	26%	47%
Total	100%	100%

# 1) Simple to Understand

## Windows & Windows Live

- 75% of sales from OEM purchases of Windows
- Business and consumer sales
  - PC sales to businesses grew 4% and PCs to consumers fell 1% in FY12
  - Net effect: estimated 0-2% growth in total PC market
- Windows 8 launch
  - Designed from the ground up
  - Uses Metro style experience and apps
  - Provides integration and synchronization across other Win 8 devices
  - Pre-sales 40% higher than Windows 7
  - Touch-optimized and focused on the consumer and tablet markets



# 1) Simple to Understand

## Microsoft Business Division

- Microsoft Office system comprises over 90% of division's revenues
- Microsoft Dynamics business solutions for ERP and CRM
- Business and consumer sales
  - Business revenue increased 9%; consumer decreased 4% in FY12
  - Business makes up almost 80% of segment
- Network effect + switching costs = 90% market share





# 1) Simple to Understand

## Server & Tools

- Fastest growing segment within the company
  - Server OS, database management system, cloud computing and virtualization
  - Comprehensive products with reinforcing strengths
- Competitive space
  - Manufacturers: HP, IBM, Oracle
  - Server management: VMWare, BMC, CA
- 50% market share in 1Q12 server shipments



# 1) Simple to Understand

## Entertainment & Devices

- Windows Phone 8
  - Windows Phone picked up by Samsung, supported by major carriers
- Microsoft Surface
  - Surface for Windows RT and for Windows 8 Pro
  - Shorter replacement cycles for tablets
  - Generates App Store fees as ecosystem develops
- Xbox refresh in 2013 holiday season
- Deep Skype integration into Windows 8



XBOX 360



# 1) Simple to Understand



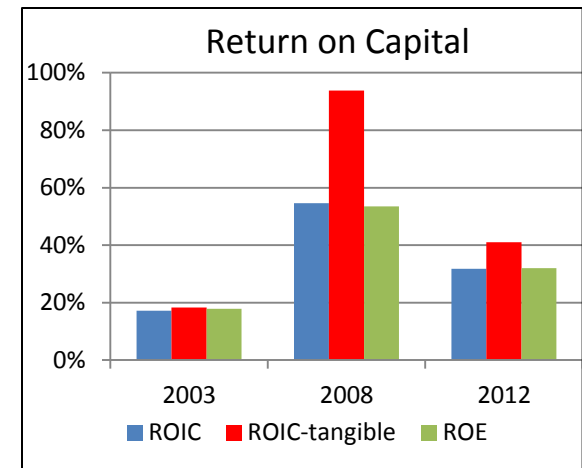
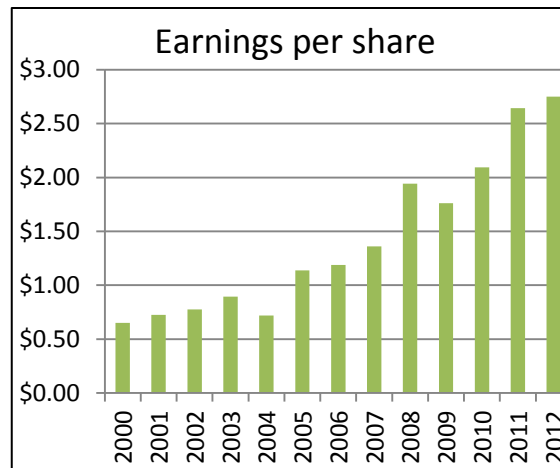
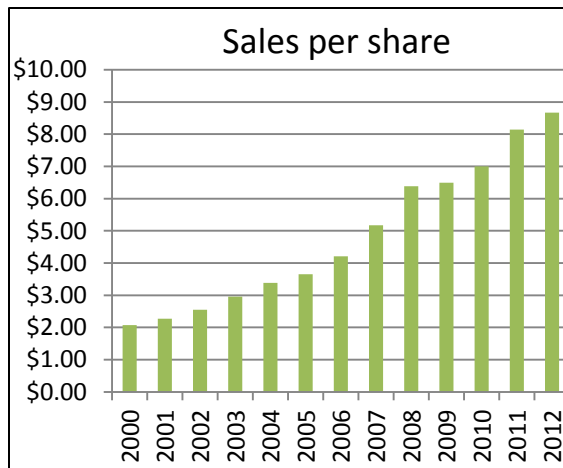
## Online Services Division

- 25% Bing-powered U.S. market share, including Yahoo! properties
  - Yahoo! deal to expand reach and acquire technology
  - Integration of Bing to drive growth
- Financial performance
  - aQuantive goodwill impairment charge of \$6.2B
  - Revenues increased 10% in FY12 on continued search revenue growth



## 2) Consistent Operating History

- 5-year CAGR: Sales/share = 7.6%, EPS = 11.6%
- Free cash flow margins = 40% in FY2012; 5-yr avg. is 34%
- 5-yr avg. return on invested capital = 40%; ROE = 42%



## 2) Consistent Operating History

On reported numbers, returns on capital appear to peak in 2008 and fall off significantly through 2012...

<u>Quality of Earnings</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>		
OCF / NET INCOME	158%	179%	136%	114%	127%	122%	131%	127%	117%	186%		
FCF / REVENUE	46%	37%	40%	29%	30%	31%	27%	35%	35%	40%		
<u>ROC Analysis:</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>5-yr avg.</u>	<u>10-yr. avg.</u>
ROIC-tangible	18.3%	12.2%	21.5%	31.5%	44.9%	93.8%	59.7%	53.2%	48.1%	41.0%	59.1%	42.4%
ROIC	17.2%	11.5%	20.2%	28.4%	37.8%	54.6%	38.9%	38.4%	37.5%	31.7%	40.2%	31.6%
<u>ROE</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>5-yr avg.</u>	<u>10-yr. avg.</u>
ROE	17.8%	11.7%	20.7%	29.9%	41.6%	53.5%	38.6%	41.9%	43.9%	32.0%	42.0%	33.2%
Margin (operations)	31.3%	22.2%	29.3%	27.1%	26.4%	29.9%	25.2%	29.5%	32.1%	27.3%	28.8%	28.0%
Turnover (Investment)	43.7%	43.3%	50.4%	66.0%	79.4%	90.4%	78.2%	76.3%	71.8%	64.1%	76.2%	66.4%
Leverage (financing)	1.3	1.2	1.4	1.7	2.0	2.0	2.0	1.9	1.9	1.8		

### But what about:

1. All that cash on the balance sheet?
2. All those “extraordinary” charges?

## 2) Consistent Operating History



### ROIC Analysis

Line	<u>NOPAT Calculation</u>	<u>FY2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
1	Sales	32,187	36,835	39,788	44,282	51,122	60,420	58,437	62,484	69,943	73,723
2	Cash EBIT	14,294	11,691	16,822	18,254	19,219	24,764	21,567	24,864	27,698	28,514
3	Extraordinary pretax charge	(2,169)	(2,607)	(2,232)	(1,728)	(869)	(1,886)	(1,171)	(59)	0	(6,193)
4	Cumulative - 5 years	(11,072)	(13,679)	(15,911)	(13,719)	(9,605)	(9,322)	(7,886)	(5,713)	(3,985)	(9,309)
5	- <u>Assumed annual expense</u>	<u>(2,214)</u>	<u>(2,736)</u>	<u>(3,182)</u>	<u>(2,744)</u>	<u>(1,921)</u>	<u>(1,864)</u>	<u>(1,577)</u>	<u>(1,143)</u>	<u>(797)</u>	<u>(1,862)</u>
6	= Pretax Income	12,080	8,955	13,640	15,511	17,298	22,900	19,990	23,721	26,901	26,652
7	Tax rate	32%	33%	26%	31%	30%	26%	26%	23%	19%	18%
8	- <u>Assumed taxes</u>	<u>3,865</u>	<u>2,951</u>	<u>3,591</u>	<u>4,868</u>	<u>5,185</u>	<u>5,898</u>	<u>5,297</u>	<u>5,395</u>	<u>5,173</u>	<u>4,797</u>
9	= <b>NOPAT-adjusted for charges</b>	<b>8,215</b>	<b>6,003</b>	<b>10,049</b>	<b>10,643</b>	<b>12,112</b>	<b>17,002</b>	<b>14,693</b>	<b>18,327</b>	<b>21,728</b>	<b>21,855</b>
10	<b>NOPAT-reported</b>	<b>9,721</b>	<b>7,837</b>	<b>12,394</b>	<b>12,525</b>	<b>13,457</b>	<b>18,386</b>	<b>15,852</b>	<b>18,687</b>	<b>22,712</b>	<b>23,381</b>
11											
12	<u>Invested Capital Calculation</u>										
13	Equity Capital	61,020	74,825	48,115	40,104	31,097	36,286	39,558	46,175	57,083	66,363
14	+ Debt Capital:	0	0	0	0	0	0	5,746	5,939	11,921	11,944
15	= Invested Capital (IC)	61,020	74,825	48,115	40,104	31,097	36,286	45,304	52,114	69,004	78,307
16											
17	<u>Cash adjustment:</u>										
18	Cash & equivalents	49,048	60,592	37,751	34,161	23,411	23,662	31,447	36,788	52,772	63,040
19	<b>% of Sales</b>	<b>152%</b>	<b>164%</b>	<b>95%</b>	<b>77%</b>	<b>46%</b>	<b>39%</b>	<b>54%</b>	<b>59%</b>	<b>75%</b>	<b>86%</b>
20	Cash = 40% of sales	12,875	14,734	15,915	17,713	20,449	24,168	23,375	24,994	27,977	29,489
21											
22	<b>IC - adjusted for cash</b>	<b>24,847</b>	<b>28,967</b>	<b>26,279</b>	<b>23,656</b>	<b>28,135</b>	<b>36,792</b>	<b>37,232</b>	<b>40,320</b>	<b>44,209</b>	<b>44,756</b>
23	avg.		<b>26,907</b>	<b>27,623</b>	<b>24,968</b>	<b>25,895</b>	<b>32,463</b>	<b>37,012</b>	<b>38,776</b>	<b>42,264</b>	<b>44,483</b>
24	IC - adjusted for cash & intang.	21,335	25,283	22,471	19,251	22,497	22,711	22,970	26,768	30,884	28,134
25	avg.		23,309	23,877	20,861	20,874	22,604	22,840	24,869	28,826	29,509
26	<u>ROIC Calculation</u>										
27	NOPAT margin		16.3%	25.3%	24.0%	23.7%	28.1%	25.1%	29.3%	31.1%	29.6%
28	x Capital turnover		1.37	1.44	1.77	1.97	1.86	1.58	1.61	1.65	1.66
29	<b>ROIC - adjusted for cash</b>		<b>22.3%</b>	<b>36.4%</b>	<b>42.6%</b>	<b>46.8%</b>	<b>52.4%</b>	<b>39.7%</b>	<b>47.3%</b>	<b>51.4%</b>	<b>49.1%</b>
30	<b>ROIC - adjusted for cash &amp; int.</b>		<b>25.8%</b>	<b>42.1%</b>	<b>51.0%</b>	<b>58.0%</b>	<b>75.2%</b>	<b>64.3%</b>	<b>73.7%</b>	<b>75.4%</b>	<b>74.1%</b>
										<u>5-yr avg.</u>	<u>10-yr avg.</u>
										28.7%	25.8%
										1.67	1.66
										<b>48.0%</b>	<b>43.1%</b>
										<b>72.5%</b>	<b>60.0%</b>

\*Returns look much better after adjusting for cash and charges.

## 2) Favorable Long-term Prospects

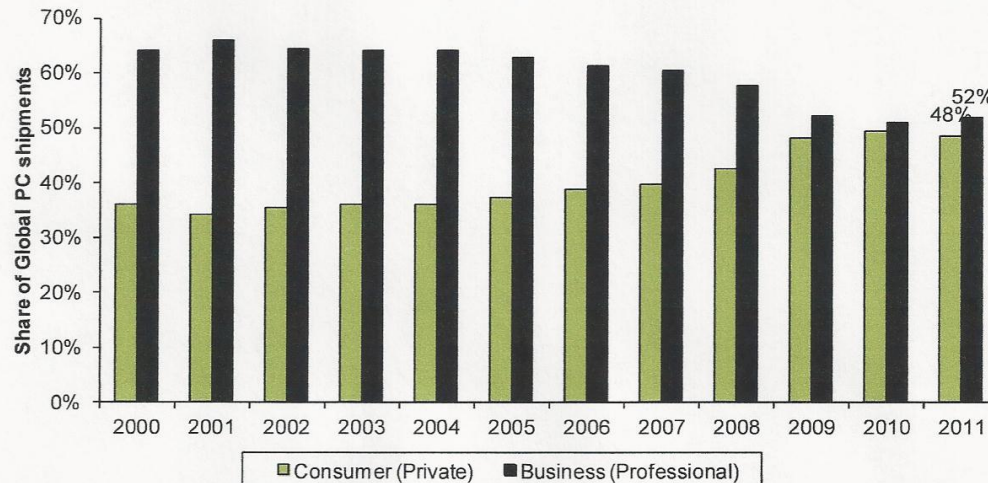
Total Enterprise*	EBIT
Microsoft Business	>80%
Windows & Windows Live	~67%
Server and Tools	=100%
Entertainment and Devices	0%
Online Services	0%
<b>Total</b>	<b>~83%</b>

\*Source: Bernstein.

\*MSFT's Enterprise business, which is much more sticky, could account for ~80% of total EBIT...

**Buffett:** "It is a big deal for a large company to change auditors, law firms or IT support."

Exhibit 3  
Consumer and Corporate PC shipments were split approximately 50/50 globally in 2011



Source: Gartner, Bernstein analysis



## 2) Favorable Long-term Prospects



Exhibit 4

**Microsoft gets a significant price premium for Windows licenses from Enterprises as compared to Consumers, this excludes maintenance, support and updates, such as Software Assurance**

### Windows 7 Prices

### Premium to Home

Windows 7 Professional Software Assurance	\$109.00	
Windows 7 Professional License Only	\$184.00	53%
Windows 7 Professional Upgrade + SA	\$296.00	147%
Windows 7 Professional Upgrade	\$199.99	67%
Windows 7 Ultimate Upgrade	\$219.99	83%
Windows 7 Home Premium Upgrade	\$119.99	
<b>Average Premium</b>		<b>88%</b>

Source: Microsoft websites, Bernstein analysis

Exhibit 6

**Microsoft also receives a large premium from Enterprise customers for Office. Enterprise versions of Office have more features such as Outlook and Access**

### Office Pricing

### Premium to Home and Student

Office Professional Plus 2010 License Only	\$508.00	239%
Office Standard 2010 License Only	\$373.00	149%
Office Professional Plus 2010 License and Software Assurance	\$803.00	
Office Standard 2010 License and Software Assurance	\$588.00	
Office Home and Business 2010	\$279.99	87%
Office Professional 2010	\$499.99	233%
Office Home and Student 2010	\$149.99	
<b>Average Premium</b>		<b>160%</b>



## 2) Favorable Long-term Prospects

- **Office 15**
  - 80% of revenue is corporate; upgraded every 7-10 years
  - Pre-installed into ARM tablets, will expand consumer market, increase refresh rates
  - Major update to embrace touch, cloud, social
  - Not available for iPads/Androids
  - Key Differentiator
    - Only option for those who want Office as their tablet productivity tool
- **Metro Style Apps**
  - Sold through Windows Store (30% cut)
  - Enhancements to already dominant App Ecosystem



## 2) Favorable Long-term Prospects

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- **Enterprise**
  - Only 50% of enterprises have upgraded to Windows 7
  - End of XP support in 2014 will spur switchover
  - Office 365: Sharepoint, Yammer, Skype, Lync, LiveMeeting
- **Windows Azure/ Cloud Computing Services**
  - Building infrastructure to support cloud computing services
  - Unified, seamless experience between Windows devices
  - Elasticity, agility, cost effectiveness for enterprises
- **Servers and Tools**
  - Revenue: 55% multi-year volume licensing agreements, 25% purchased through transactional volume licensing programs, remainder from Enterprise Services

## 2) Favorable Long-term Prospects

### Windows 8

- Tablet-friendly, consumer-friendly OS
  - OEM demand to recapture product leadership
  - Multi-tasking OS
  - Integration, synchronization across Cloud, Phone, Xbox etc.
  - Office 15 on ARM tablets = higher revenue from OEMs
  - Tablets: higher growth, shorter replacement cycle



## 2) Favorable Long-term Prospects

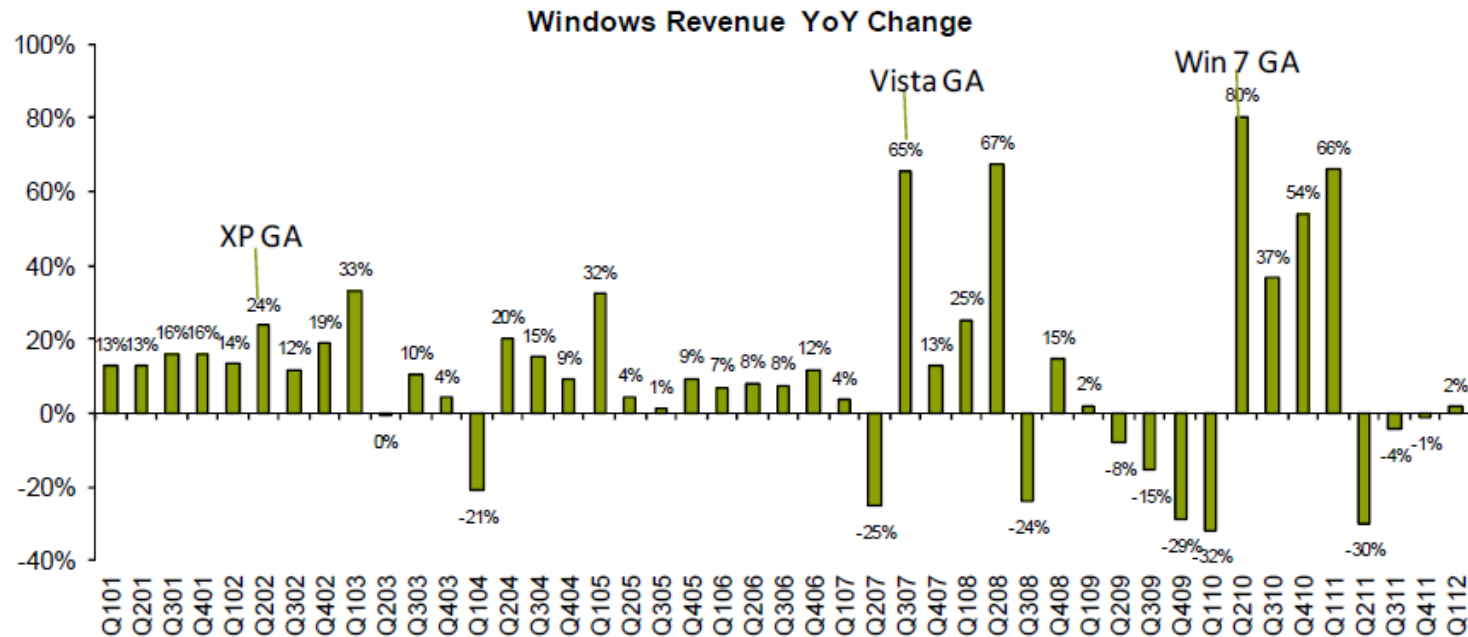


### Windows 8

- Runs on same hardware specs as Windows 7, more efficient and cheaper for notebook manufacturers
- Preinstalled to reduce piracy
- Windows on ARM
  - Credible exposure to tablets
  - Protects from cannibalization of PC revenue
  - Helps create bridge across platforms (PCs, tablets, phones, etc.)



## 2) Favorable Long-term Prospects



Source: Corporate reports and Bernstein analysis.

### 3) Management



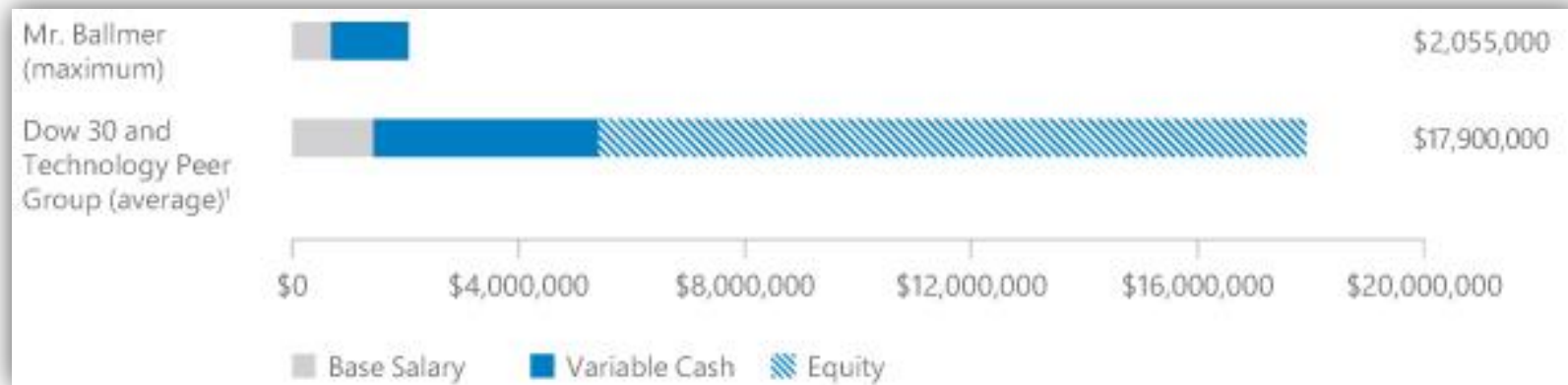
#### Beneficial ownership table

Name	Amount and nature of beneficial ownership of common shares as of 9/14/2012	Percent of class
William H. Gates III	460,984,209	5.47%
Steven A. Ballmer	333,252,990	3.95%
Dina Dublon	33,155	*
Raymond V. Gilmartin	62,539	*
Reed Hastings	226,036	*
Maria M. Klawe	17,380	*
Stephen J. Luczo	135,983	*
David F. Marquardt	1,201,393	*
Charles H. Noski	71,960	*
Helmut Panke	38,372	*
John W. Thompson	5,151	*
Kurt D. DelBene	139,201	*
Peter S. Klein	165,613	*
Steven J. Sinofsky	647,515	*
B. Kevin Turner	169,033	*
<b>Executive Officers and Directors</b>	<b>797,901,802</b>	<b>9.46%</b>

<u>Current Shareholders</u>
Arnold Van Den Berg
John Hussman
Ray Dalio
Jean-Marie Eveillard
Joel Greenblatt
Whitney Tilson
Richard Pzena

# 3) Management

## CEO pay comparison



## Microsoft operating income vs. total direct compensation



# 3) Management



## Microsoft - Acquisitions

<u>2012</u>	<u>Expertise</u>	<u>2008</u>	<u>Expertise</u>
Yammer	Enterprise social networks	Fast Search & Transfer ASA	Enterprise search solutions
Perceptive Pixel	Multi-touch	Calista	Virtualization software
PhoneFactor	Mobile	Caligari	
StorSimple	Cloud	Danger	Mobile software
		YaData	
<u>2011</u>		Credentica	
Skype	Communications software	Kidaro	Desktop Virtualization solutions
Prodiance	ERM software	Rapt	Advertising yield management
VideoSurf	Video discovery technology (Xbox LIVE)	Komoku	
		Farecast	
<u>2010</u>		Navic Networks	Interactive Television technology
Sentillion	Software for the healthcare ind.	MobiComp	
AVIcode	.NET application monitoring	Powerset	
Canesta		Zoomix	
<u>2009</u>		DATALlegro	Data warehouse
Bigpark	Interactive online gaming	Greenfield Online	European online consumer reviews
Interactive Super Comp.	Parallel computing	<u>2007</u>	
LS Retail and To Increase	ERP	Medstory	Software for healthcare industry
Teamprise	software for developers.	Tellme Networks	Mobile
Opalis Software	Datacenter automation	ScreenTonic	Mobile advertising
		aQuantive	Internet advertising platform
		AdECN	Advertising exchange platform
		Pariano	Enterprise group chat
		Global Care Solutions	Software for healthcare ind.
		Multimap	Online mapping

**Areas of Focus:**  
 Enterprise  
 Cloud  
 Mobile  
 Healthcare



### 3) Management

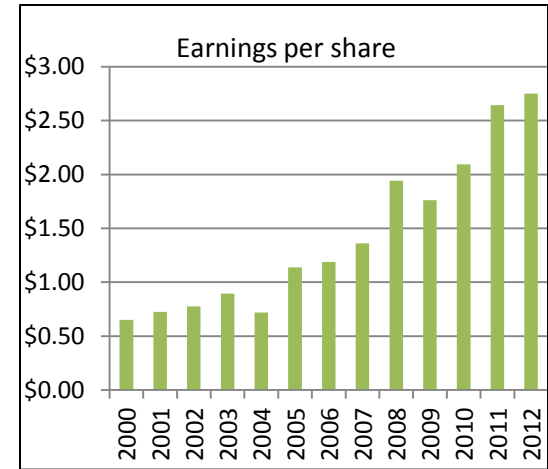
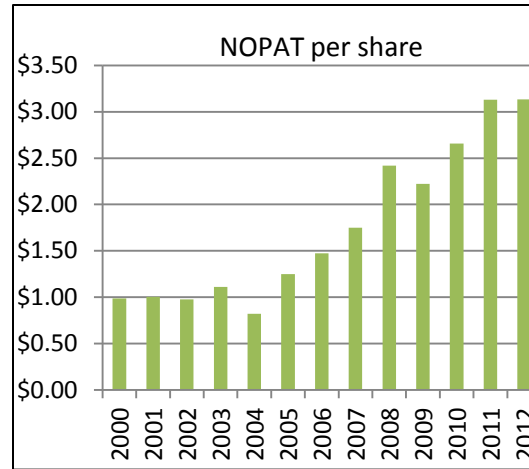
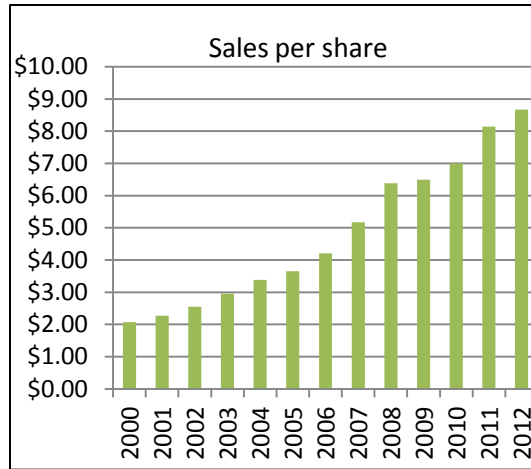
Management returning significant value to shareholders. Large piece of value is trapped overseas...

MSFT - Historical Cash Flows		
(\$ in millions)		
Cumulative Cash Flows: 2008-2012	Total	Line
Funds from Operating Activities	\$123,342	1
- Capital Expenditures	\$12,938	2
<b>= FCF</b>	<b>\$110,404</b>	<b>3</b>
- Net Assets from Acquisitions	\$19,349	4
<b>= FCF, net</b>	<b>\$91,055</b>	<b>5</b>
+ Change in Current Debt	\$0	6
+ Change in Long-Term Debt	\$11,895	7
<b>= FCF available for div. &amp; repurchases</b>	<b>\$102,951</b>	<b>8</b>
Cash Dividends Paid - Total	\$24,626	9
- Stock Repurchases	\$38,865	10
<b>= Total Returned to Shareholders*</b>	<b>\$63,491</b>	<b>11</b>
<i>*Cash held by foreign sub.'s at 6/30/12 =</i>	<b>\$54,000</b>	12

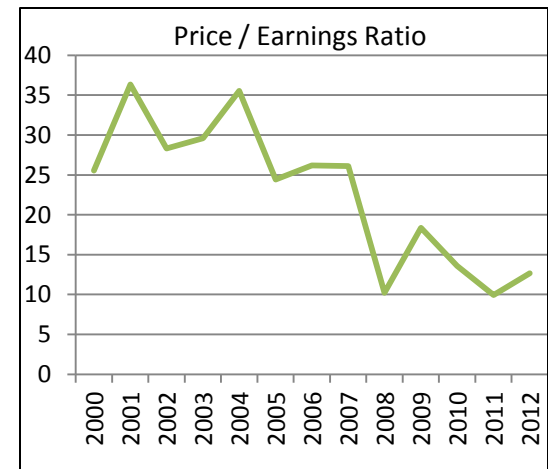
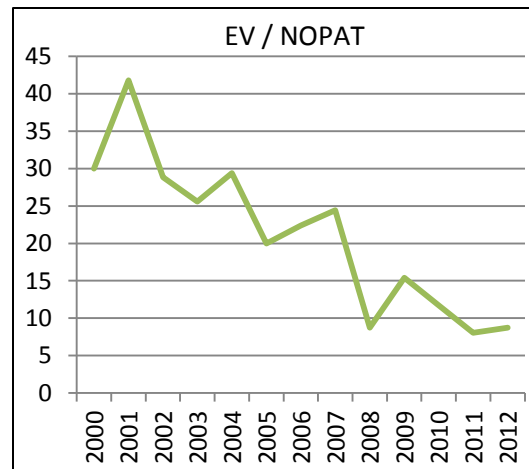
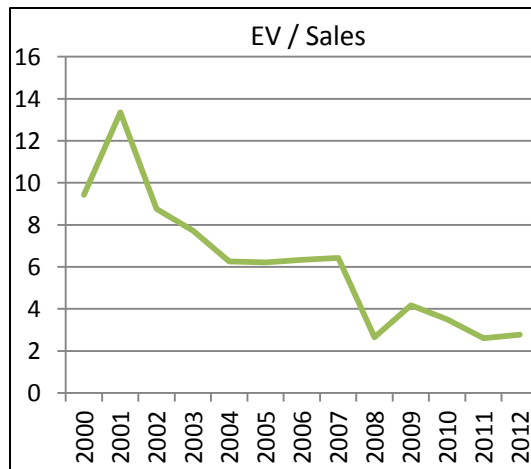
Source: Company, SLC analysis

# 4) Valuation

## Are Microsoft's Underlying Economics...



## ...outperforming its stock price?



# 4) Valuation

Trading Multiples						
	Enterprise Value as a Multiple of:			Price / Earnings		
	Sales	EBITDA	EBIT	P/E	ex. cash	ex. cash & invest.
2012	2.6	6.3	6.8	9.6	7.5	7.2
2013E	2.4	5.7	6.4	9.1	7.0	6.8
Financial Results	Sales	EBITDA	EBIT	Cash EPS	Cash /share	cash & inv. /share
2012	\$73,723	\$30,923	\$28,514	\$3.11	\$7.41	\$8.56
2013E	\$80,000	\$34,344	\$30,122	\$3.29		

Current Market Capitalization	
Market Price	\$ 30.00
x Diluted Shares Outstanding (M)	8,506
= Equity Value	\$ 255,180
+ Total Debt	\$ 11,944
- Cash & Equivalents	\$ 63,040
- Investments	\$ 9,776
= Enterprise Value	\$ 194,308
Cash / Share	\$ 7.41
Cash + Investments / Share	\$ 8.56
Cash + Investments as a % of Market Value	29%

*“The stock market is filled with individuals who know the price of everything, but the value of nothing.”*

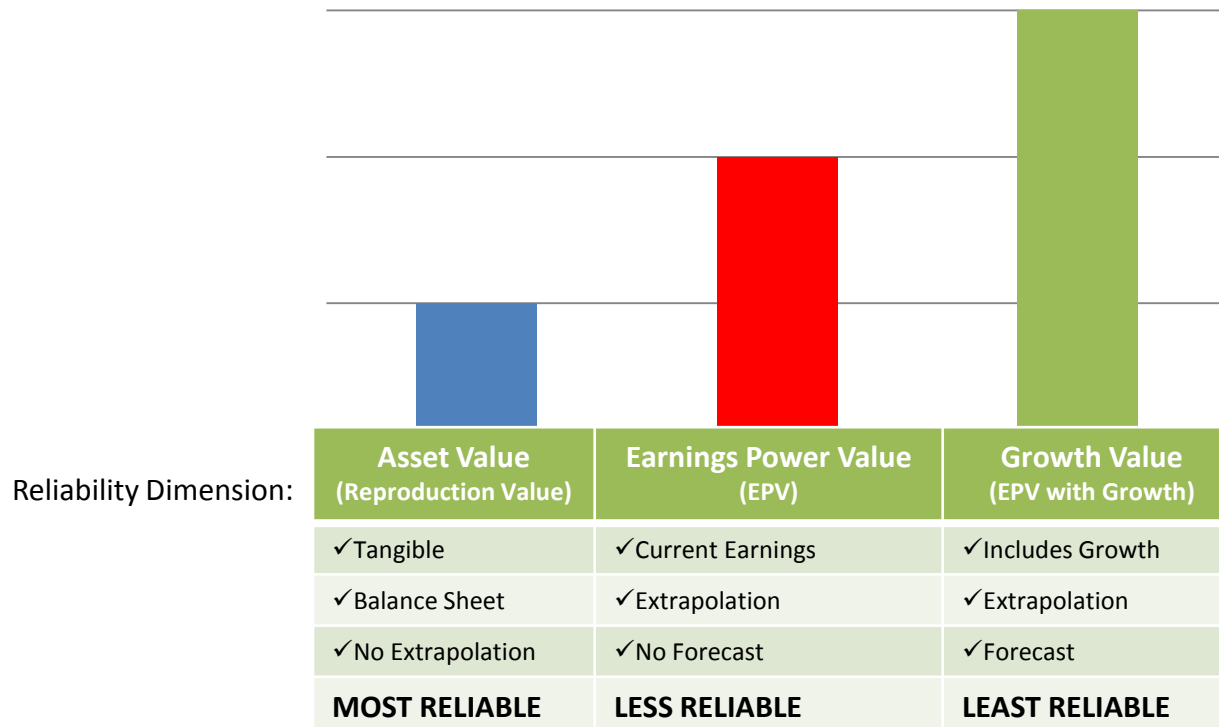
-Philip Fisher

**What is the Value of MSFT?**

# 4) Valuation

## Trading at a significant discount to intrinsic value?

- Value comes from three main sources: Assets, Earnings Power and Growth.
- Separate the good information from the bad information.



Adapted from Bruce Greenwald's Value Investing Program at Columbia Business School.

# 4) Valuation



## ADJUSTMENTS FOR REPRODUCTION VALUE

Assets	BV @ 6/30/12	Adjustment	Reproduction
Cash & Short Term Investments	\$ 63,040		\$ 63,040
Receivables, Net	\$ 15,780	\$ 389	\$ 16,169
Inventories	\$ 1,137		\$ 1,137
Other Current Assets	\$ 5,127		\$ 5,127
<b>Total Current Assets</b>	<b>\$ 85,084</b>	<b>\$ 389</b>	<b>\$ 85,473</b>
Property, Plant, & Equipment, net	\$ 8,269		\$ 8,269
Investments & Long-Term Receivables	\$ 9,776		\$ 9,776
Goodwill and Intangibles	\$ 16,622	\$ (16,622)	\$ -
Other Intangibles		\$ 82,846	\$ 82,846
Other Assets	\$ 1,520		\$ 1,520
<b>Total Assets</b>	<b>\$ 121,271</b>	<b>\$ 66,613</b>	<b>\$ 187,884</b>
<b>Subtract Spontaneous Liabilities:</b>			
Accounts Payable	\$ 4,175		\$ 4,175
Income Taxes Payable	\$ 789		\$ 789
Other Current Liabilities	\$ 26,493		\$ 26,493
Provisions for Risks & Charges	\$ -		\$ -
Deferred Taxes	\$ 1,893		\$ 1,893
Total Spontaneous Liabilities	\$ 33,350		\$ 33,350
<b>Net Assets (Total Reproduction Value)</b>	<b>\$ 87,921</b>		<b>\$ 154,534</b>
ST Debt & Current Portion of LT Debt	\$ 1,231		\$ 1,231
Long-Term Debt	\$ 10,713		\$ 10,713
Other Liabilities	\$ 9,614		\$ 9,614
Total Interest-bearing Debt	\$ 21,558		\$ 21,558
<b>Reproduction Cost of Equity</b>	<b>\$ 66,363</b>		<b>\$ 132,976</b>

### Notes:

Add back provision  
FIFO accounting

Discard.  
3 years of SG&A and R&D exp.

## 4) Valuation

What is the value of Microsoft's current earnings power  
(excluding future growth)?

Earnings Power Value	FY2012	Line
Normalized EBIT (ex. amort.)	\$ 28,894	1
+ 10% of R&D	\$ 981	2
+ 10% of SG&A	\$ 1,843	3
= EBIT adjusted	\$ 31,718	4
- tax @ 18% rate	\$ 5,709	5
+ 10% of D&A	\$ 220	6
= <b>MSFT Earnings Power</b>	<b>\$ 26,229</b>	<b>7</b>
/ Capitalization rate	8.0%	8
= <b>Firm Earnings Power Value</b>	<b>\$ 327,857</b>	<b>9</b>
- Debt	\$ 11,944	10
+ Cash and Investments	\$ 72,816	11
= <b>Equity Earnings Power Value</b>	<b>\$ 388,729</b>	<b>12</b>

## 4) Valuation

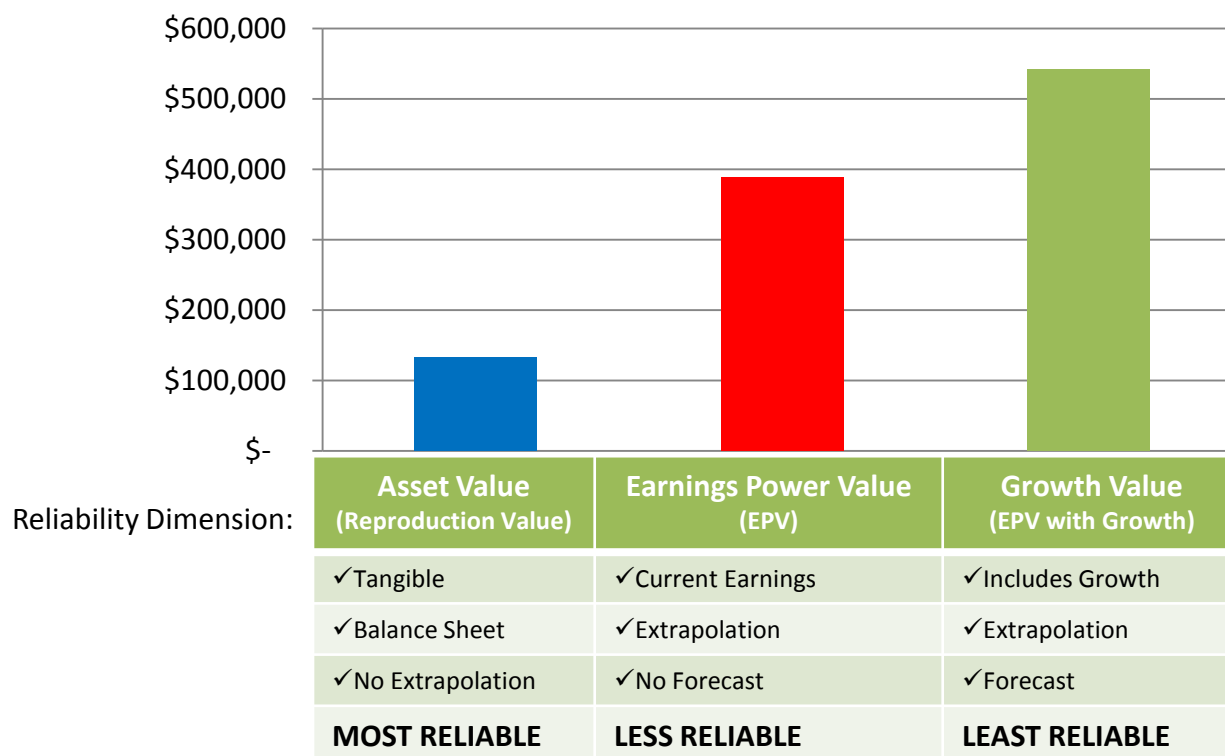
What is the value of Microsoft's total earnings power  
(including future growth)?

EARNINGS POWER VALUE		
Assuming LT Growth of 3%		
Normalized EBIT	\$	28,894
- tax	\$	5,201
<b>= NOPAT Earnings Power</b>	<b>\$</b>	<b>23,693</b>
+ Depreciation	\$	2,200
+ Other		
- Capex	\$	2,305
- Change in WC	\$	(428)
<b>= Free Cash Earnings Power</b>	<b>\$</b>	<b>24,016</b>
Discount rate		8.0%
Growth rate		3.0%
Implied multiple		20
Firm Earnings Power Value	\$	480,326
- Debt	\$	11,944
+ Cash and Investments	\$	72,816
<b>= Equity Earnings Power Value</b>	<b>\$</b>	<b>541,198</b>

# 4) Valuation

## Equity Valuation of Microsoft:

- Asset Value = \$133 billion
- Earnings power value = \$389 billion. Growth does add value!
- Total intrinsic value likely between \$500 billion — \$600 billion.



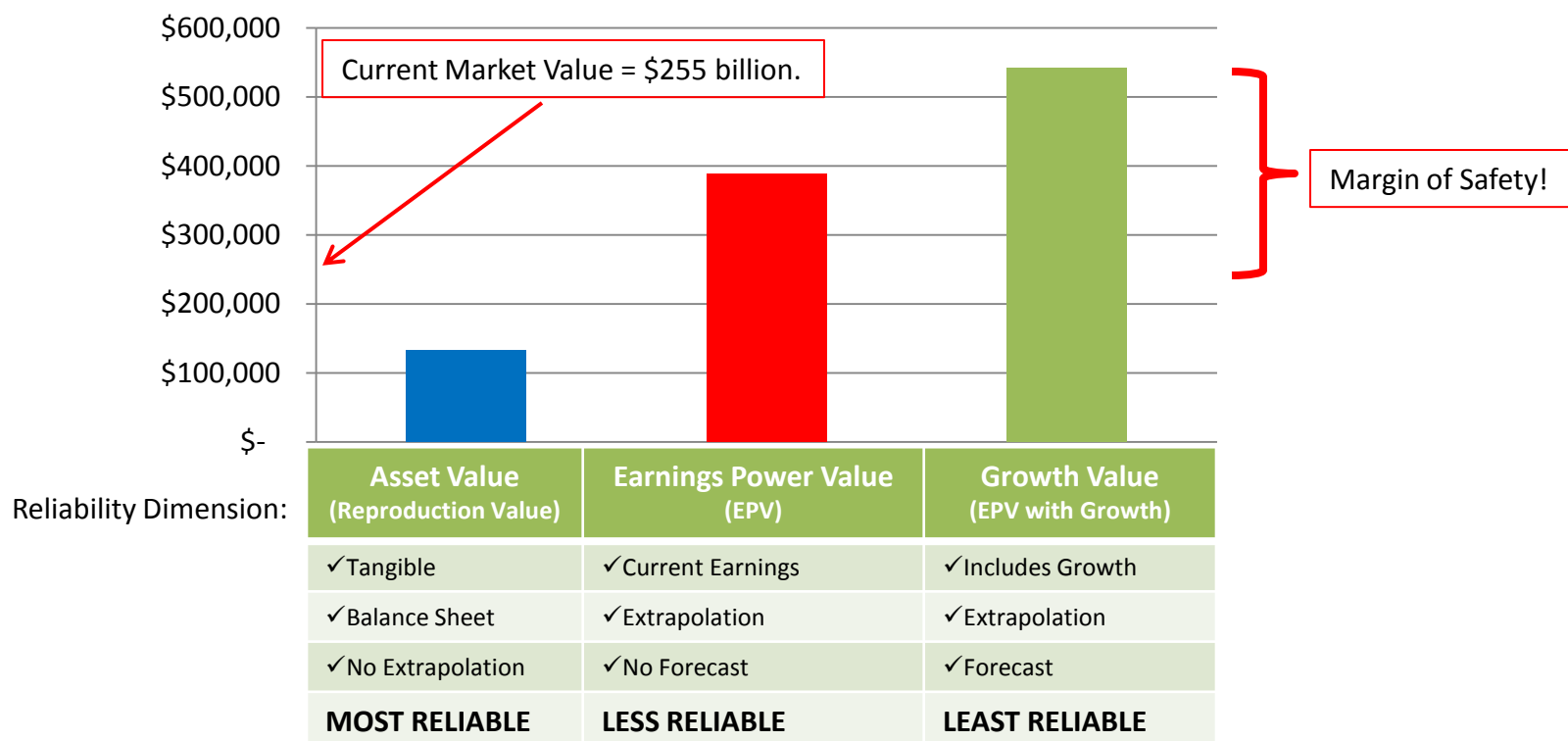
Adapted from Bruce Greenwald's Value Investing Program at Columbia Business School.



# 4) Valuation

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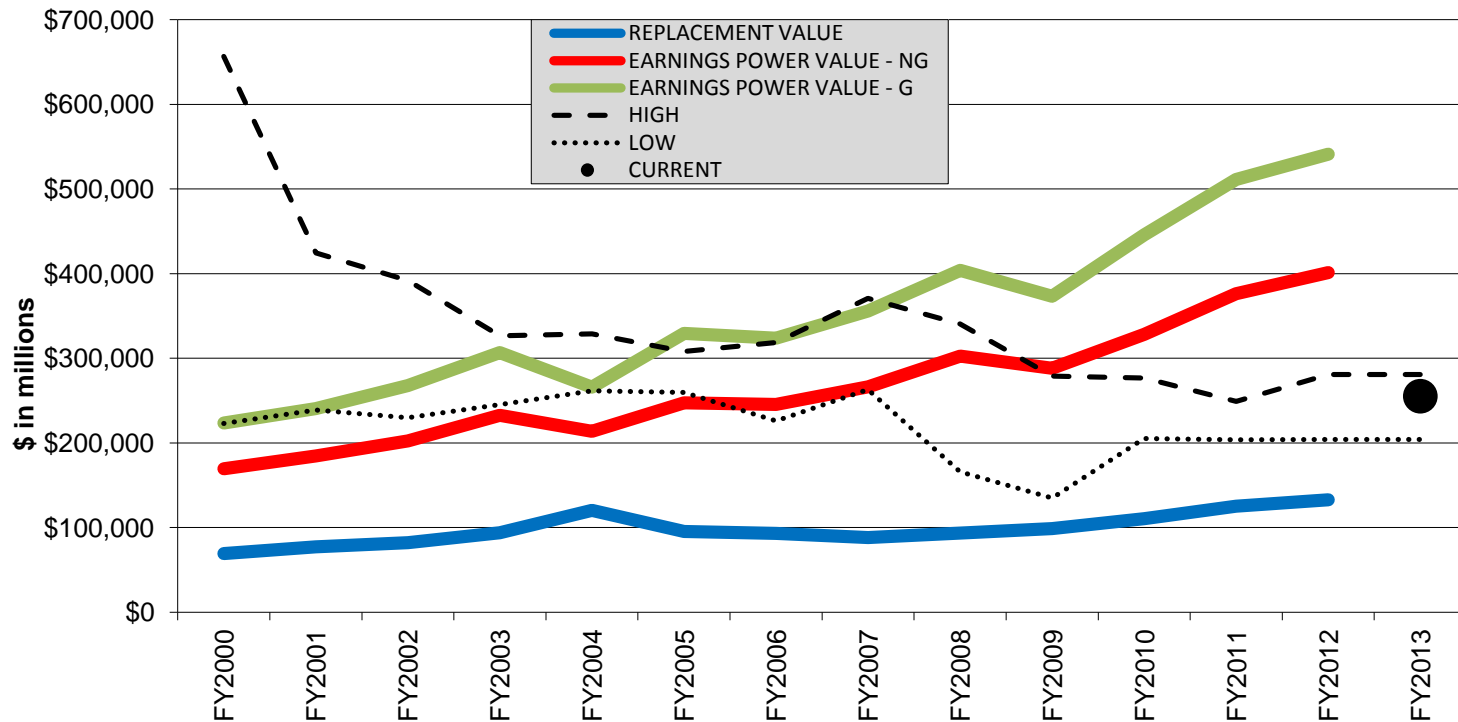
Adapted from Bruce Greenwald's Value Investing Program at Columbia Business School.

# 4) Valuation

## Trading at a significant discount to intrinsic value? (cont.)

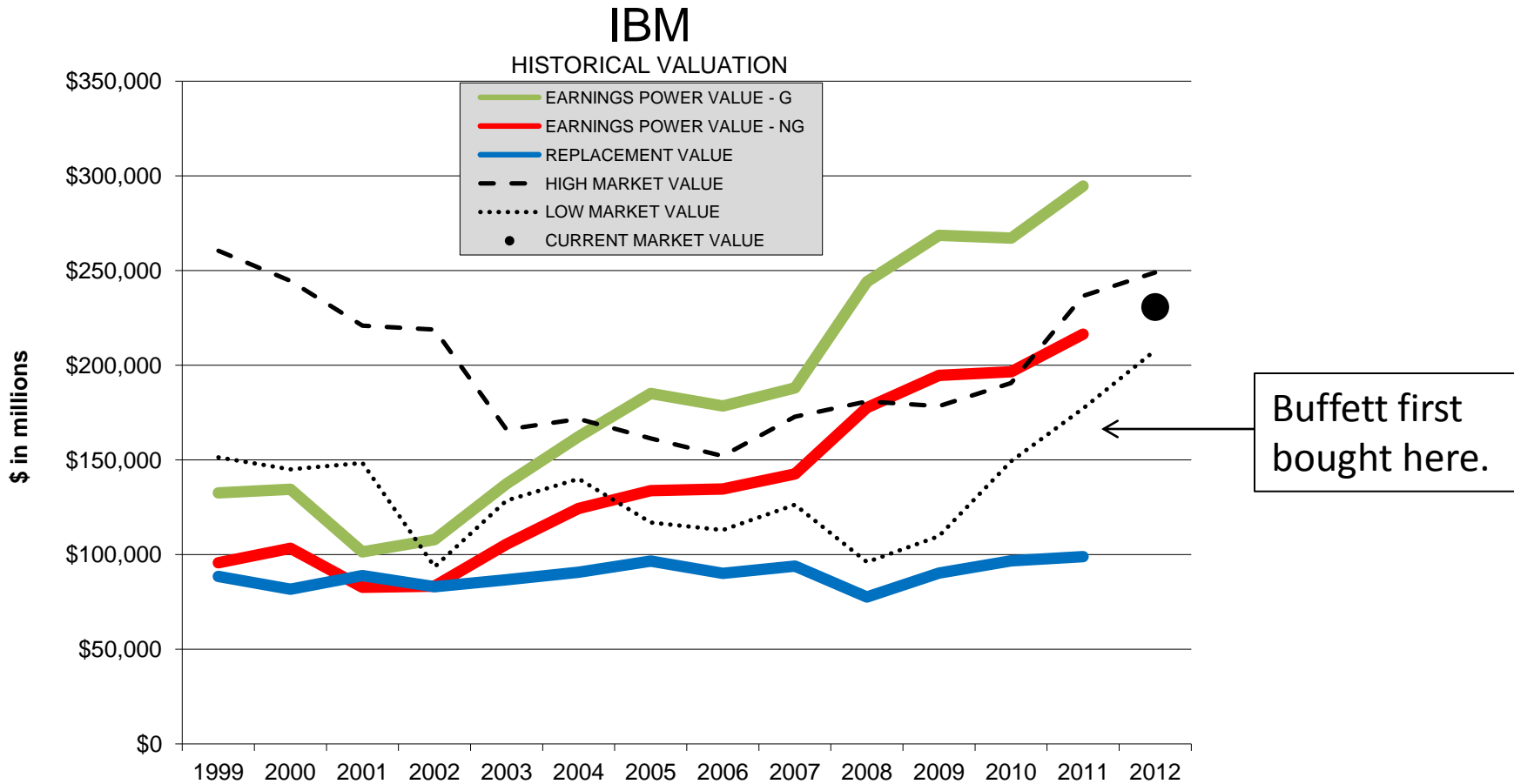
- From 2000 through 2005, the stock was overvalued.
- In FY2009, the stock traded down close to reproduction value.
- Today (11/9/2012), MSFT's stock appears significantly undervalued.

### MSFT Historical Valuation



# 4) Valuation

Example of another dominant enterprise IT company...



## 4) Valuation

Another way to look at it:  
**Free Cash Flow Implied Rate of Return**

Expected Forward Rate of Return		FY2012
Free Cash Flow Margin:		
FY2012		40%
3-yr avg.		37%
<b>5-yr avg.</b>		<b>34%</b>
Expected FY2013 FCF (using 5-yr avg. margin)	\$	27,233
Current Market Value of equity	\$	255,180
80% of cash and Investments on B/S	\$	70,861
FY 2012 non-operating interest income, net	\$	610
<b>FCF Yield</b>		<b>10.7%</b>
<b>FCF Yield - adjusted for cash &amp; investments</b>		<b>14.4%</b>
+ Volume Growth		2.0%
+ LT Inflation		2.0%
<b>= Implied Forward Rate of Return</b>		<b>14.7% - 18.4%</b>
<i>MSFT current dividend yield</i>		<i>3.2%</i>
<i>10-year Treasury bond yield</i>		<i>1.65%</i>

# 4) Valuation

**Exhibit 8**  
**The value of Microsoft's Enterprise operating business without cash is \$31**

Windows & Windows Live Division	\$14,841
Server and Tools	\$20,045
Online Services Division	\$0
Microsoft Business Division	\$21,676
Entertainment and Devices Division	\$0
Corporate-level activity - costs	0
<b>Total</b>	<b>\$56,562</b>
<b>Enterprise EBIT</b>	
Windows & Windows Live Division	\$9,710
Server and Tools	\$7,417
Online Services Division	\$0
Microsoft Business Division	\$13,864
Entertainment and Devices Division	\$0
Corporate-level activity - costs	(\$4,515)
<b>Total</b>	<b>\$26,475</b>
<b>Enterprise EBIT Margins</b>	
Windows & Windows Live Division	65.4%
Server and Tools	37.0%
Online Services Division	NA
Microsoft Business Division	64.0%
Entertainment and Devices Division	NA
Corporate-level activity - costs	NA
<b>Total</b>	<b>46.8%</b>
Taxes	20%
NOPLAT	\$21,180
Avg PFE ex-cash (ORCL, SAP, CA)	12.3x
MSFT Discounted Net Cash as of 3FQ13	67,088
Market Cap	\$326,582
Diluted Shares (M) 3FQ13	8,252
<b>MSFT Enterprise Business per share value</b>	<b>\$39.58</b>
<b>ex-cash per share value of Enterprise</b>	<b>\$31.45</b>

Source: Company reports, Capital IQ, Microsoft websites, Bernstein estimates and analysis

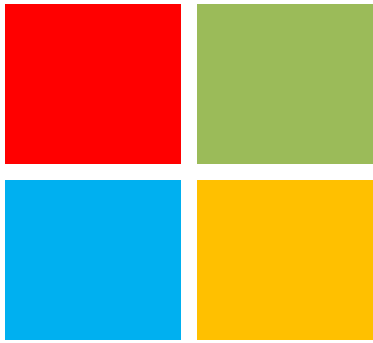
Current market value may only reflect the value of MSFT's Enterprise business.

## Our Investment Tenets?

- ✓ Simple to understand?
- ✓ Have favorable long-term economic characteristics?
- ✓ Managed by honest and able managers?
- ✓ Can it be purchased at a significant discount to intrinsic value?

### Conclusion:

1. Sticky Enterprise business, which accounts for lion's share of MSFT's value, is a sound, well-protected franchise.
2. Market value is roughly 65% of no-growth earnings power value.
3. Market value is roughly 50% of intrinsic value.
4. Free cash flow-based implied forward rate of return = 14% - 18%.
5. Getting the Consumer business for free?
6. The stock should be bought with a large position!



# Microsoft

Purchase Price:  
BELOW \$40

Recommendation:  
**BUY**

Sell Price:  
ABOVE \$55

## A Stock Presentation

November 9, 2012

Vivien Sung  
(2014)

Deependra Mookim  
(2015)

Daren Taylor  
(2000)