

information technology

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Agenda

- **Sector Overview**
- **Business Analysis**
- **Economic Analysis**
- **Financial Analysis**
- **Valuation Analysis**
- **Recommendation**



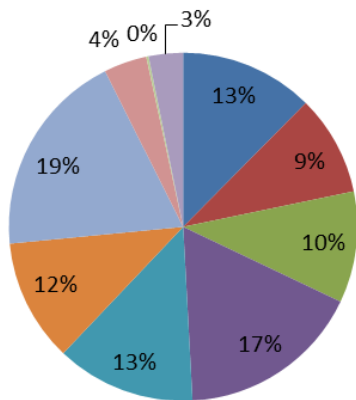
Sector Overview

Information Technology

Information Technology Sector vs. S&P 500

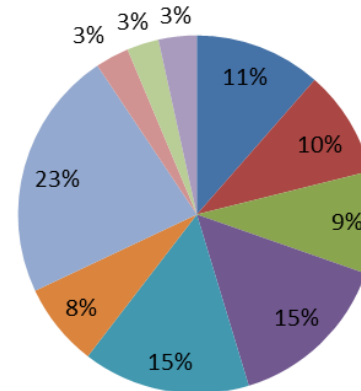
Description	Schwab's Sector Views	Market Cap	Performance				
			YTD	1 Mo	3 Mo	6 Mo	12 Mo
S&P 500 Index Market		\$17.3T	+5.2%	+3.5%	+4.1%	+9.1%	+19.5%
Information Technology <small>1094 companies, 515 rated</small>	Outperform	\$3.7T	+6.5%	+6.1%	+4.6%	+11.2%	+24.5%

S&P 500 Sector Breaks down



- Consumer Discretionary
- Consumer Staples
- Energy
- Financials
- Health Care
- Industrials
- Information Technology
- Materials
- Telecommunication Services
- Utilities

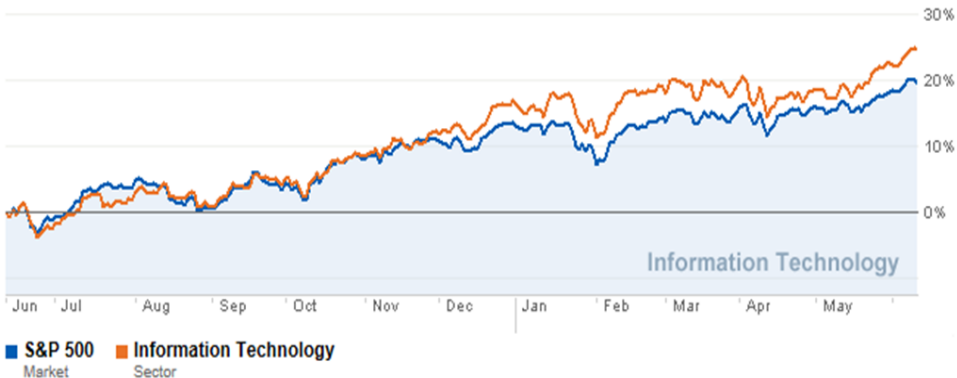
SIM Sector Breaks down



- Consumer Discretionary
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Information Technology vs. S&P 500

as of close June 11, 2014



Performance Fundamentals Valuation

Industries in the Information Technology Sector as of close June 11, 2014

Description	Schwab Industry Rating	Market Cap	Performance				
			YTD	1 Mo	3 Mo	6 Mo	12 Mo
Information Technology Sector	Rated as of 06/11/2014	\$3.7T	+6.5%	+6.1%	+4.6%	+11.2%	+24.5%
Communications Equipment 120 companies, 53 rated	A	\$333.4B	+8.3%	+4.2%	+6.9%	+13.5%	+16.7%
Electronic Equipment Instruments & Components 189 companies, 74 rated	B	\$158.8B	+10.4%	+6.0%	+5.5%	+16.0%	+35.5%
Internet Software & Services 207 companies, 87 rated	D	\$570.5B	+1.5%	+7.9%	-6.7%	+6.0%	+25.4%
IT Services 119 companies, 71 rated	C	\$646.5B	-3.3%	+0.5%	-2.6%	+3.5%	+10.3%
Semiconductors & Semiconductor Equipment 176 companies, 94 rated	A	\$464.3B	+13.7%	+9.0%	+9.9%	+19.2%	+28.5%
Software 223 companies, 108 rated	A	\$692.3B	+6.2%	+4.4%	+3.9%	+10.8%	+21.3%
Technology Hardware, Storage & Peripherals 80 companies, 28 rated	A	\$794.4B	+14.7%	+10.6%	+18.0%	+16.7%	+42.1%

Major Companies

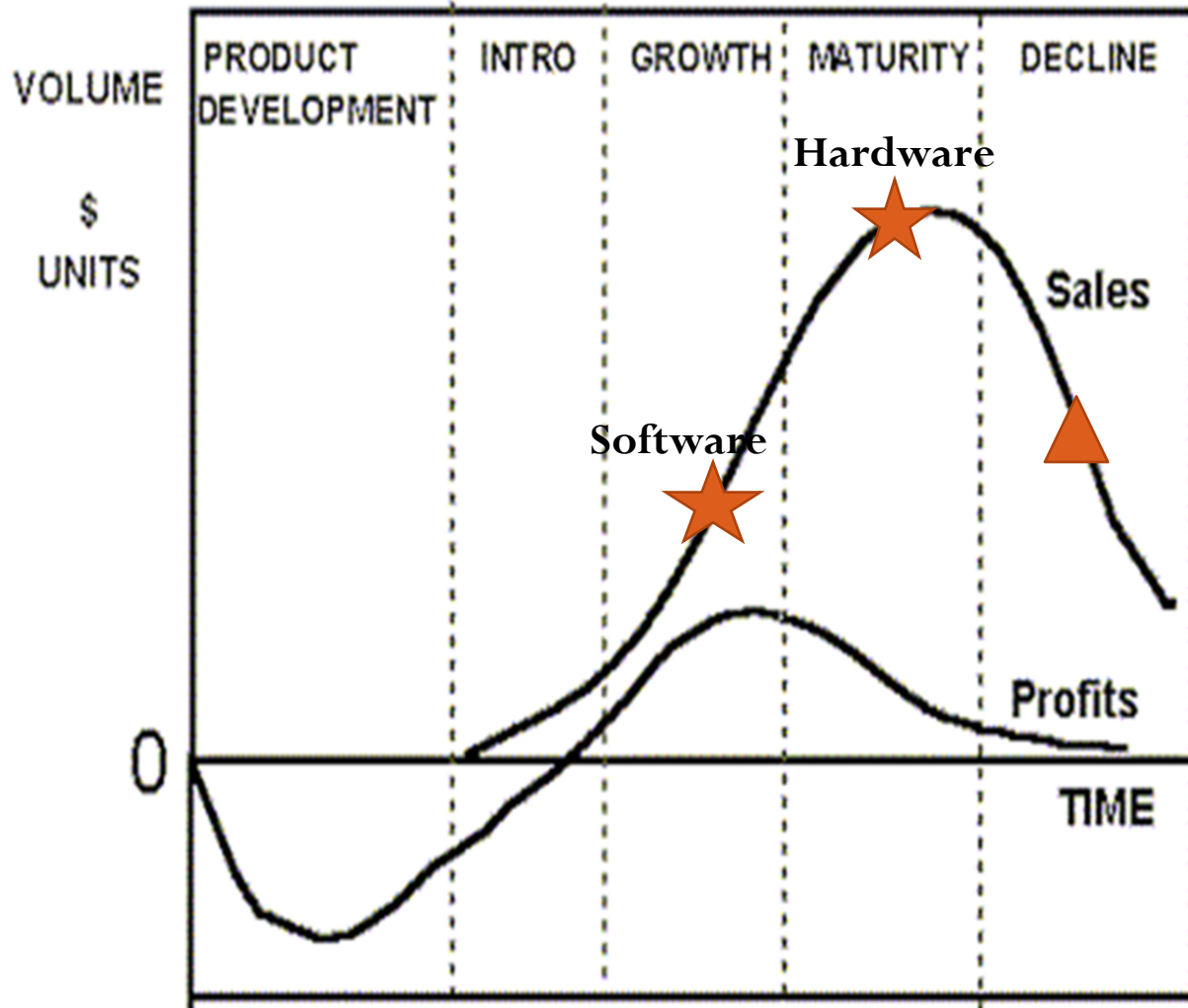
Names (Ticker)	Market Cap.(In Billions)
1. Apple(AAPL)	568.3
2. Google(GOOG)	379.6
3. Microsoft (MSFT)	337.5
4. Oracle(ORCL)	189.8
5. IBM (IBM)	189.5
6. Facebook (FB)	168.8
7. Amazon(AMZN)	159.2
8. Visa(V)	133.6
9. Intel(INTC)	110

Business Analysis

Information Technology

Product Life Cycle

Information Technology Sector

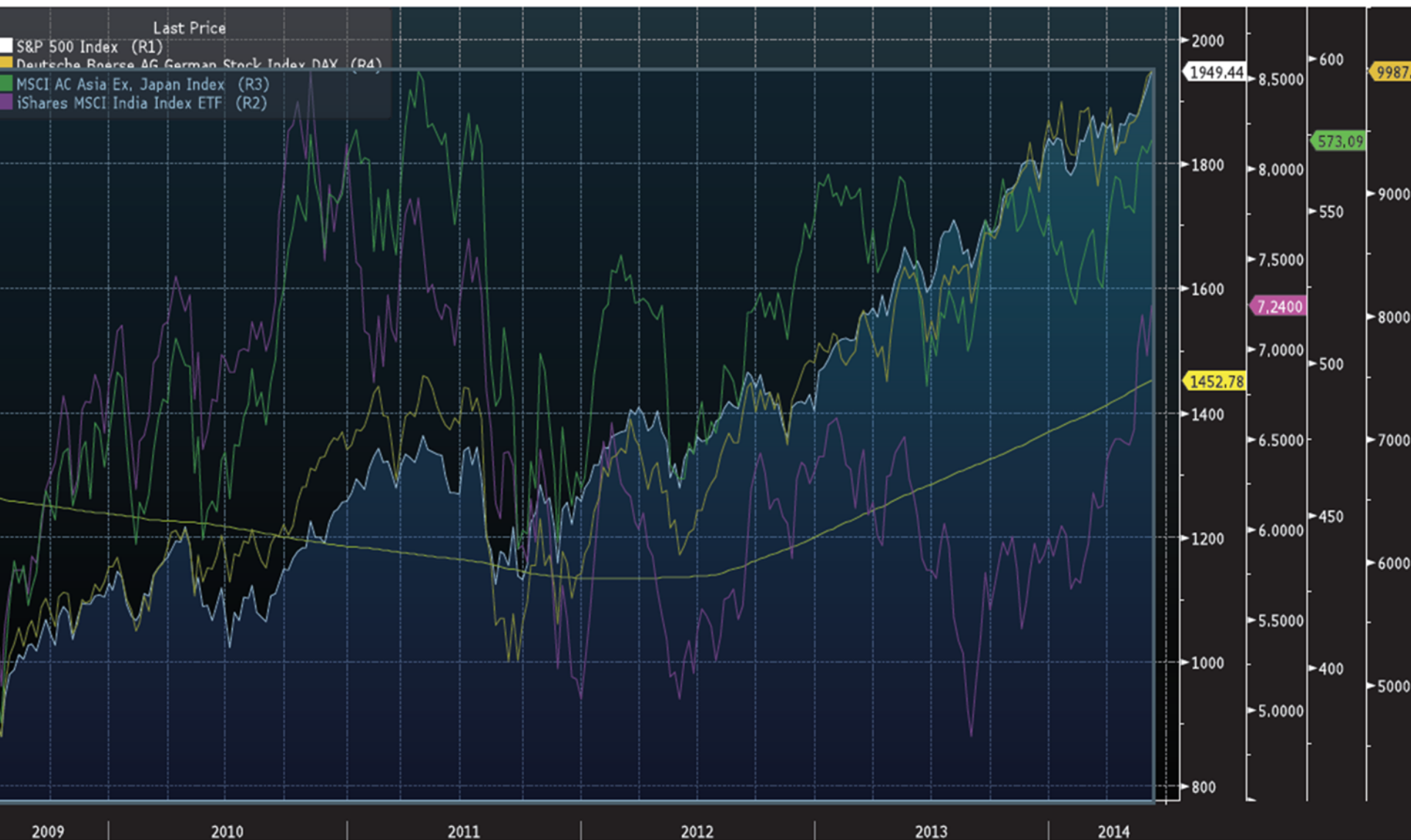


- Cyclical
- Lifecycle is becoming shorter
- Some product lines are in a declining trend

Index (Deutsche Boerse AG German Stock Index DAX)

J Index (MSCI AC Asia Ex. Japan Index)

SP Equity (iShares MSCI India Index ETF)

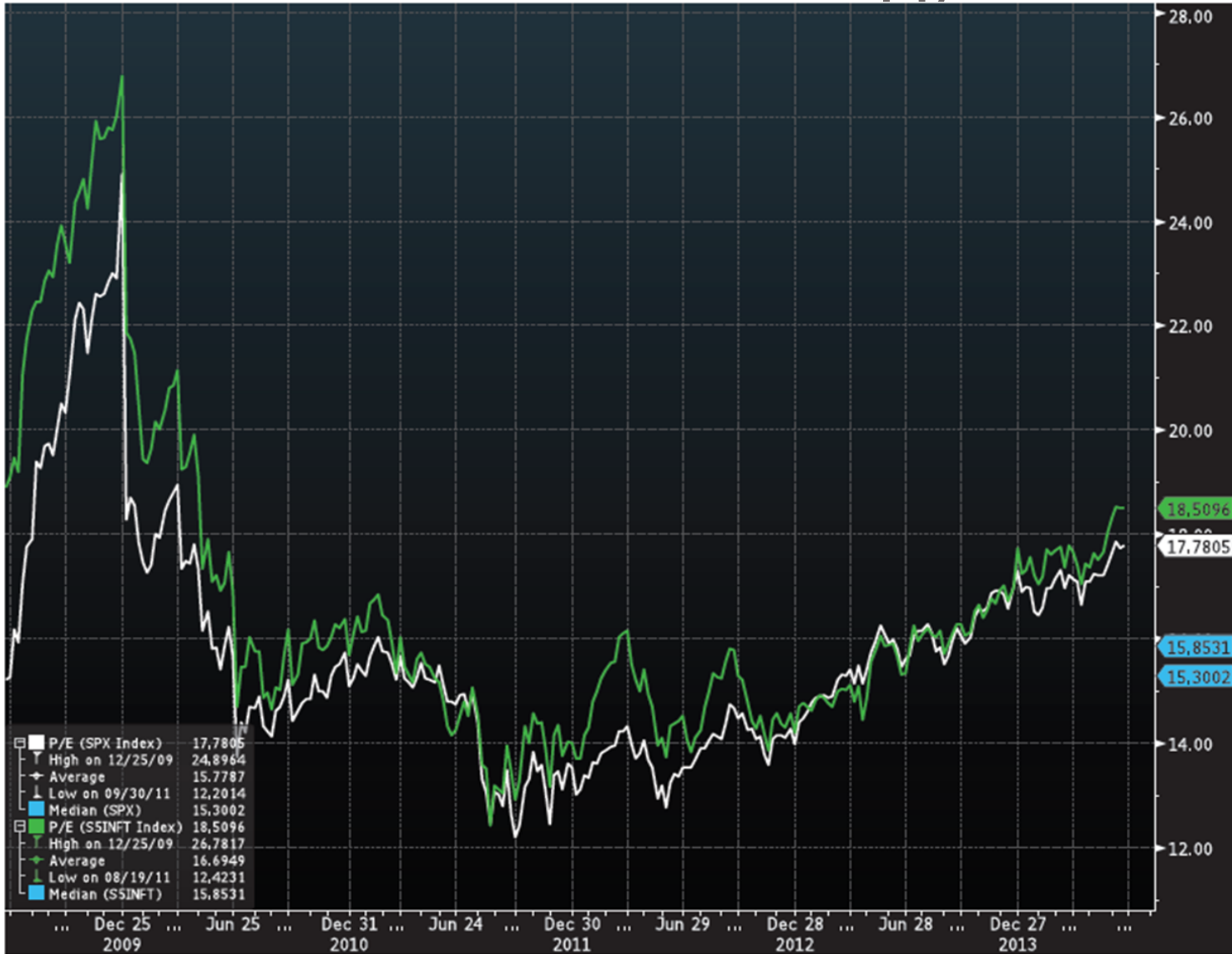


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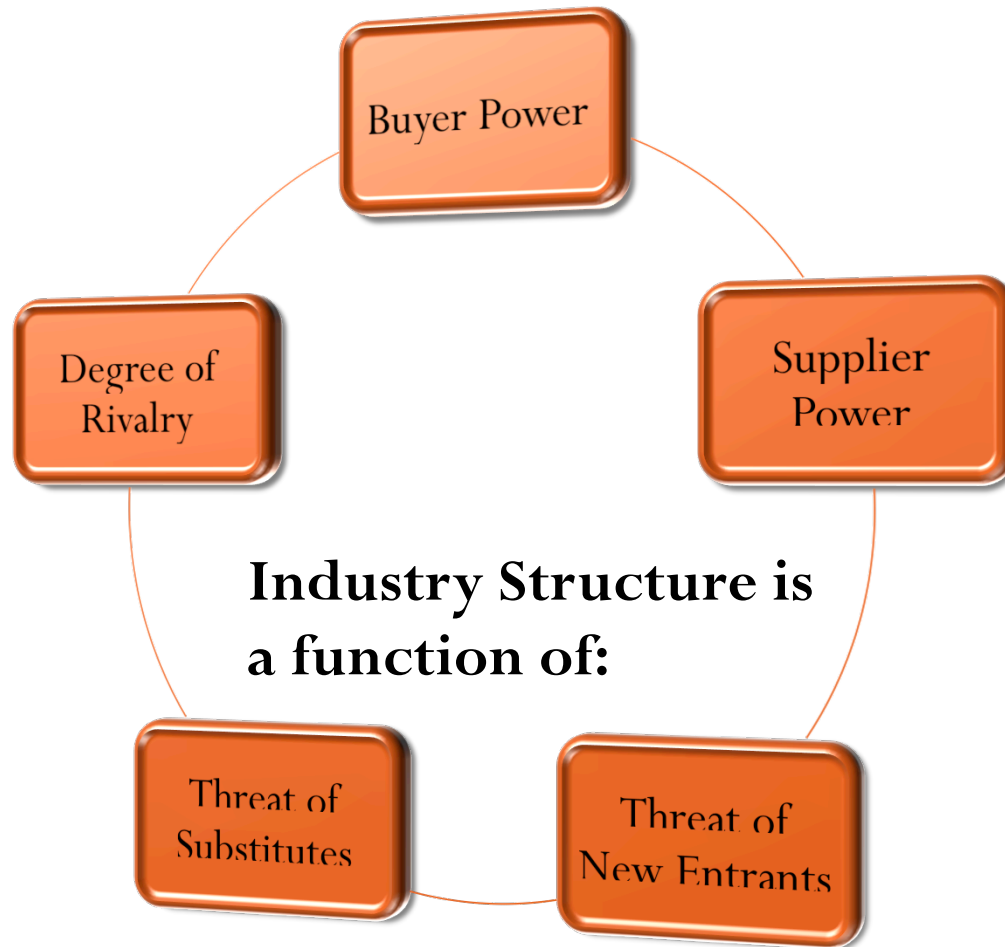
Economic Analysis

Information Technology

S&P 500 vs. Technology Sector



Porter's Five Forces



Porter's 5 Forces Analysis

- **Bargaining Power of Buyers –Varies**
- **Bargaining Power of Suppliers –Varies**
- **Threat of New Entrants –Medium/High**
 - Switching Costs & “Lock-in”
 - Software – Microsoft Product Suite for businesses
 - Customer loyalty and Brand Name
 - Apple: Iphone, Ipad, Mac, and other Apple product line
 - Regulations
 - Google is prohibited in China & Russia

- **Threat of Substitute Products –High**

- Even though there're some software/ services can be more defensible
- Innovations and short product life cycle
- High acquisition and R&D expenses to maintain the market position

- **Rivalry –High**

- Especially for those companies & brands without distinctive advantage
- For Internet: Winners take most of the market
 - Google, E-bay, Amazon, Baidu
 - Priority is in gaining market shares before going into monetization (Ex: Facebook, LinkedIn, Twitter)

Financial Analysis

Information Technology

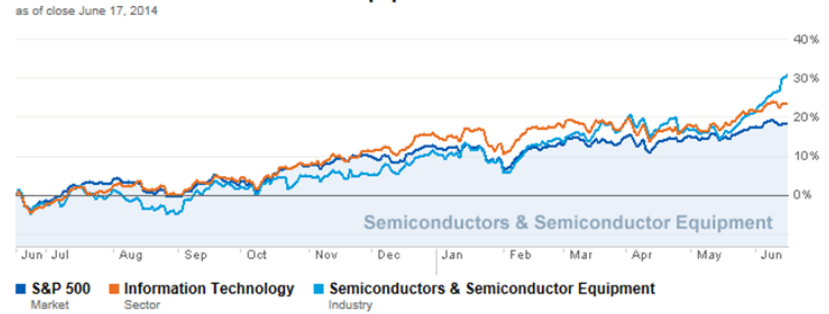
Industries

- Market Cap
- Profit Margin
- Return on Equity
- Long Term Debt to Equity
- EPS 5 Year Growth

Industries in the Information Technology Sector as of close June 17, 2014

Description	Schwab Industry Rating	Market Cap	Performance				
			YTD	1 Mo	3 Mo	6 Mo	12 Mo
Information Technology Sector	Rated as of 06/17/2014	\$3.7T	+6.6%	+5.4%	+5.4%	+11.1%	+23.8%
Communications Equipment 120 companies, 53 rated	A	\$330.7B	+7.5%	+1.1%	+6.1%	+12.4%	+14.0%
Electronic Equipment Instruments & Components 189 companies, 75 rated	B	\$158.6B	+10.2%	+6.0%	+5.4%	+14.4%	+33.6%
Internet Software & Services 207 companies, 88 rated	D	\$558.7B	-0.6%	+4.7%	-8.0%	+3.6%	+22.3%
IT Services 119 companies, 70 rated	C	\$844.0B	-3.7%	+1.0%	-2.3%	+1.9%	+9.0%
Semiconductors & Semiconductor Equipment 176 companies, 94 rated	A	\$480.8B	+17.8%	+13.8%	+14.0%	+	+
Software 224 companies, 108 rated	B	\$703.5B	+8.0%	+4.6%	+6.3%	+	+
Technology Hardware, Storage & Peripherals 60 companies, 27 rated	A	\$788.1B	+13.8%	+7.5%	+18.3%	+	+

Semiconductors & Semiconductor Equipment vs. S&P 500 as of close June 17, 2014



Best Performance

Industries in the Information Technology Sector as of close June 17, 2014

Description	Schwab Industry Rating	Profit Margin	Return on Equity	LT Debt To Equity	EPS Growth 5Yr
Information Technology Sector	Rated as of 06/17/2014	12.98%	18.54%	0.28	13.36%
Communications Equipment 120 companies, 53 rated	A	15.29%	14.36%	0.19	11.64%
Electronic Equipment Instruments & Components 189 companies, 75 rated	B	3.49%	10.24%	0.26	13.32%
Internet Software & Services 207 companies, 88 rated	D	18.07%	11.56%	0.10	20.44%
IT Services 119 companies, 70 rated	C	14.07%	32.98%	0.60	13.26%
Semiconductors & Semiconductor Equipment 176 companies, 94 rated	A	12.22%	11.70%	0.25	13.60%
Software 224 companies, 108 rated	B	21.39%	21.16%	0.31	11.66%
Technology Hardware, Storage & Peripherals 60 companies, 27 rated	A	12.96%	24.64%	0.26	11.80%

Valuation analysis

Information Technology

S&P 500 Valuation (Type in stock ticker SPX <Index> <GO>)

Absolute Basis	High	Low	Median	Current
P/E	22.6748	11.2592	16.3905	17.2696
P/B	2.9812	1.6399	2.415	2.6217
P/S	1.7055	0.7422	1.4355	1.6862
P/EBITDA	8.7483	4.1378	6.9837	8.6973
P/CF	19.9448	4.863	9.1466	9.3291

Absolute Basis	High	Low	Median	Current
P/E	30.5238	11.7032	18.907	17.893
P/B	5.0607	2.486	3.6432	3.8047
P/S	3.101	1.4049	2.4812	3.0078
P/EBITDA	16.6331	6.8312	11.0318	11.0318
P/CF	17.4513	7.5943	11.8584	11.8887

Relative to SP500	High	Low	Median	Current
P/E	1.3462	1.0394	1.1535	1.0361
P/B	1.6975	1.5159	1.5086	1.4512
P/S	1.8182	1.8929	1.7285	1.7838
P/EBITDA	1.9013	1.6509	1.5796	1.2684
P/CF	0.8750	1.5616	1.2965	1.2744

Recommendation

Information Technology

Our Recommendation

SELL

- We are going to sell our entire position of **Global Payment** [2.85% of the portfolio]
- We are going to sell the split of the **GOOG** share [1.30% of the portfolio]

BUY

- We are going to buy Oracle (ORCL) & Micron (MU)



Thank you for Listening

Any questions do you have?