

## CFO의 역할 진화: 금융시장 투자자 측면에서 검토 (HOLT framework 및 주주 행동주의 중심)

**Confidential**  
November 2014

PRELIMINARY | SUBJECT TO FURTHER REVIEW AND EVALUATION

These materials may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with Credit Suisse AG or its Affiliates (hereafter "Credit Suisse").

# Agenda

1. Introduction: Evolving roles of CFO
2. HOTL valuation framework
  - 2-1. Overview
  - 2-2. Application
3. Shareholder activism

# 1. Introduction

# Evolving role of CFO

- In recent years, the role of the CFO has evolved significantly. Traditionally being viewed as a financial gatekeeper, the role of the CFO has expanded and evolved to a strategic partner and advisor to the CEO. In fact, in a report released by McKinsey, 88 percent of 164 CFOs surveyed reported that CEOs expect them to be more active participants in shaping the strategy of their organizations. Half of them also indicated that CEOs counted on them to challenge the company's strategy
- According to one source, "The CFO of tomorrow should be a big-picture thinker, rather than detail-oriented, outspoken rather than reserved, prefer to delegate rather than be hands-on, emphasize what gets done rather than how things are done, and make collaborative rather than unilateral decisions. The CFO must serve as the financial authority in the organization, ensuring the integrity of fiscal data and modeling transparency and accountability. The CFO is as much a part of governance and oversight as the Chief Executive Officer (CEO), playing a fundamental role in the development and critique of strategic choices. The CFO is now expected to be a key player in stakeholder education and communication and is clearly seen as a leader and team builder who sets the finance agenda for the organization, supports the CEO directly and provides timely advice to the board of directors."
- The uneven pace of recovery worldwide has made it more challenging for many companies. CFOs are increasingly playing a more critical role in shaping their company's strategies today, especially in light of the highly uncertain macroeconomic environments, where managing financial volatilities is becoming a centerpiece for many companies' strategies
- The duties of a modern CFO now straddle the traditional areas of financial stewardship and the more progressive areas of strategic and business leadership with direct responsibility and oversight of operations (which often includes procurement) expanding exponentially. This significant role-based transformation, which is well underway, is best-evidenced by the "CEO-in-Waiting" status that many CFOs now hold. Additionally, many CFOs have made the realization that an operating environment that values cash, profit margins, and risk mitigation is one that plays to the primary skills and capabilities of a procurement organization, and become increasingly involved (directly via oversight or indirectly through improved collaboration) with the procurement function according to a recent research report that looks at the CFO's relationship with procurement

# Evolving role of CFO

- Active role in the development and critique of strategies: more progressive areas of strategic and business leadership with direct responsibility and oversight of operations
- Active dialogue with various stakeholders particularly existing and potential investors



## Today's main topic:

- HOLT framework: To understand the major institutional investors' valuation methodology
  - Credit Suisse's HOLT framework helps CFO with their strategic decision-making process
- Shareholder activism: To proactively prepare for potential shareholder activism

# Credit Suisse's HOLT framework helps CFO with their strategic decision-making process

## Objectives

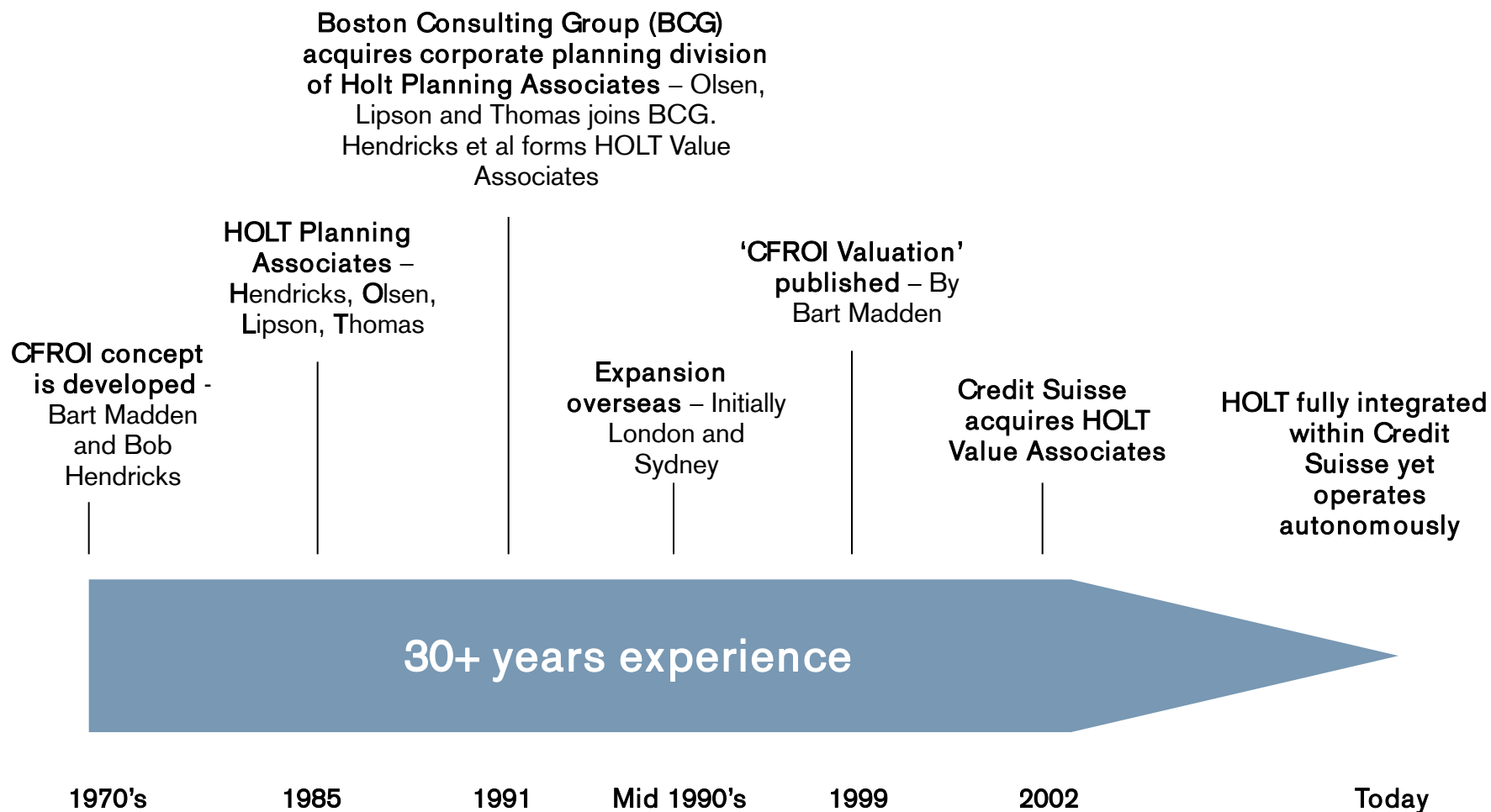
- Help company see itself through the lens of investors
  - Quantify operational expectations embedded in stock price
  - Proactively identify relevant themes for clients and generate transaction ideas
  - Position IPOs for premium valuations
  - Communicate value proposition to investors in their own language
- 
- Quantify valuation gap between management projections and market expectations and identify drivers to close that gap
  - Compare management strategy to HOLT assessment of divisional performance and drivers of value
  - Quantify impact of capital allocation alternatives on share price

## HOLT offering

Capital markets	Equity markets perspective	<ul style="list-style-type: none"> <li>■ Equity markets perspective on performance and valuation</li> <li>■ Benchmarking analysis</li> <li>■ Quarterly industry reviews</li> </ul>
	IPO	<ul style="list-style-type: none"> <li>■ Valuation and equity story positioning and communication</li> </ul>
	Investor communication	<ul style="list-style-type: none"> <li>■ Support in investor communications</li> <li>■ HOLT-centric non-deal road shows</li> </ul>
Strategic Advisory	Portfolio review	<ul style="list-style-type: none"> <li>■ Divisional performance and valuation analysis</li> </ul>
	Management plan evaluation	<ul style="list-style-type: none"> <li>■ Internal management plan evaluation</li> <li>■ Sensitivity analysis around key value drivers</li> </ul>
	Acquisitions / divestitures	<ul style="list-style-type: none"> <li>■ Identification of acquisition targets</li> <li>■ Assessment of impact of acquisitions/divestitures on valuation</li> </ul>
	Capital allocation strategy	<ul style="list-style-type: none"> <li>■ Capital allocation benchmarking analysis</li> <li>■ Capital allocation strategy assessment</li> </ul>
	Defense advisory	<ul style="list-style-type: none"> <li>■ Identification of potential targets of activism</li> <li>■ Support in defense strategy</li> </ul>

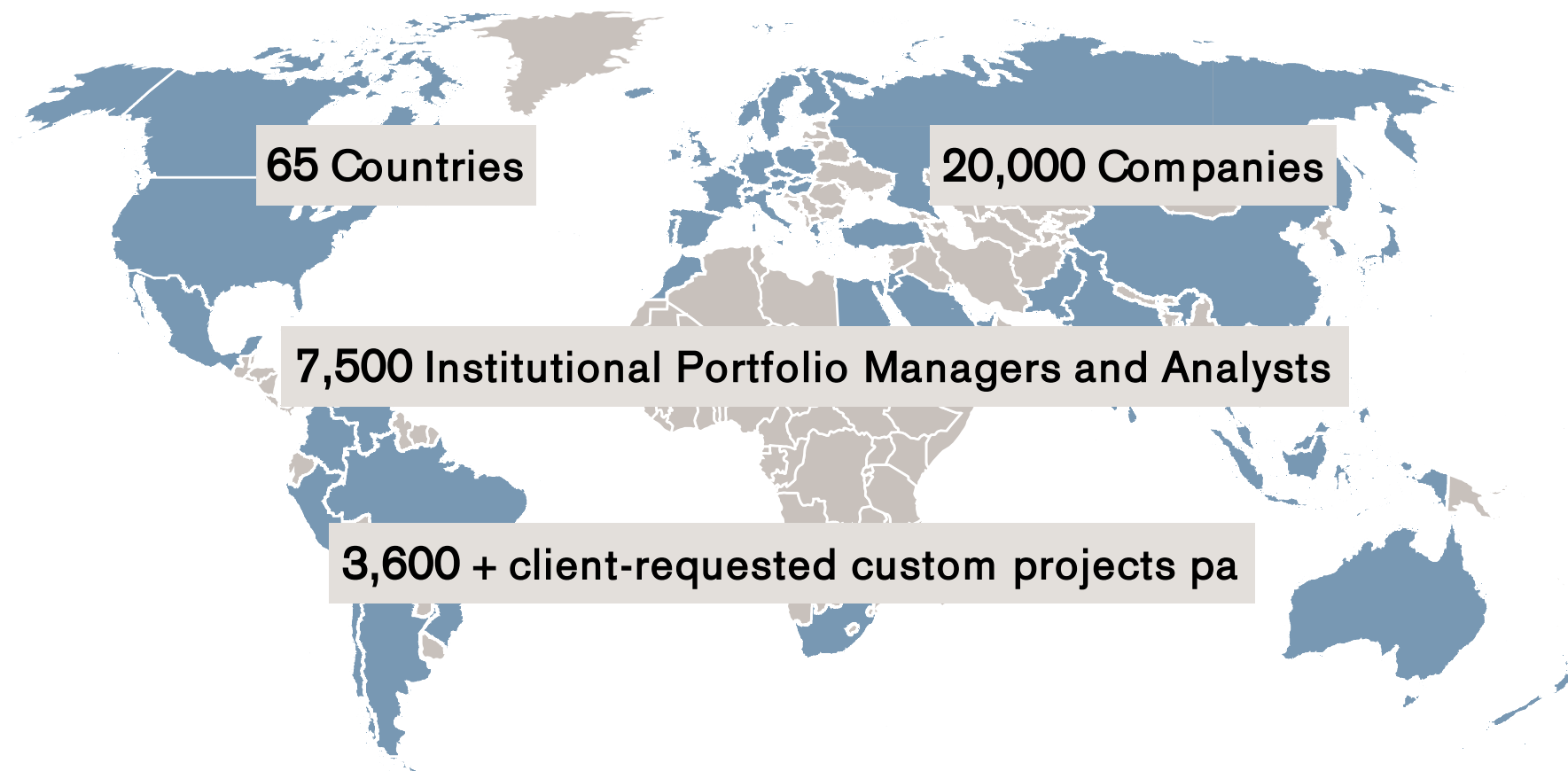
## 2.1. Overview of HOLT framework

# History of HOLT





# HOLT – Global impact



---

**Independent**

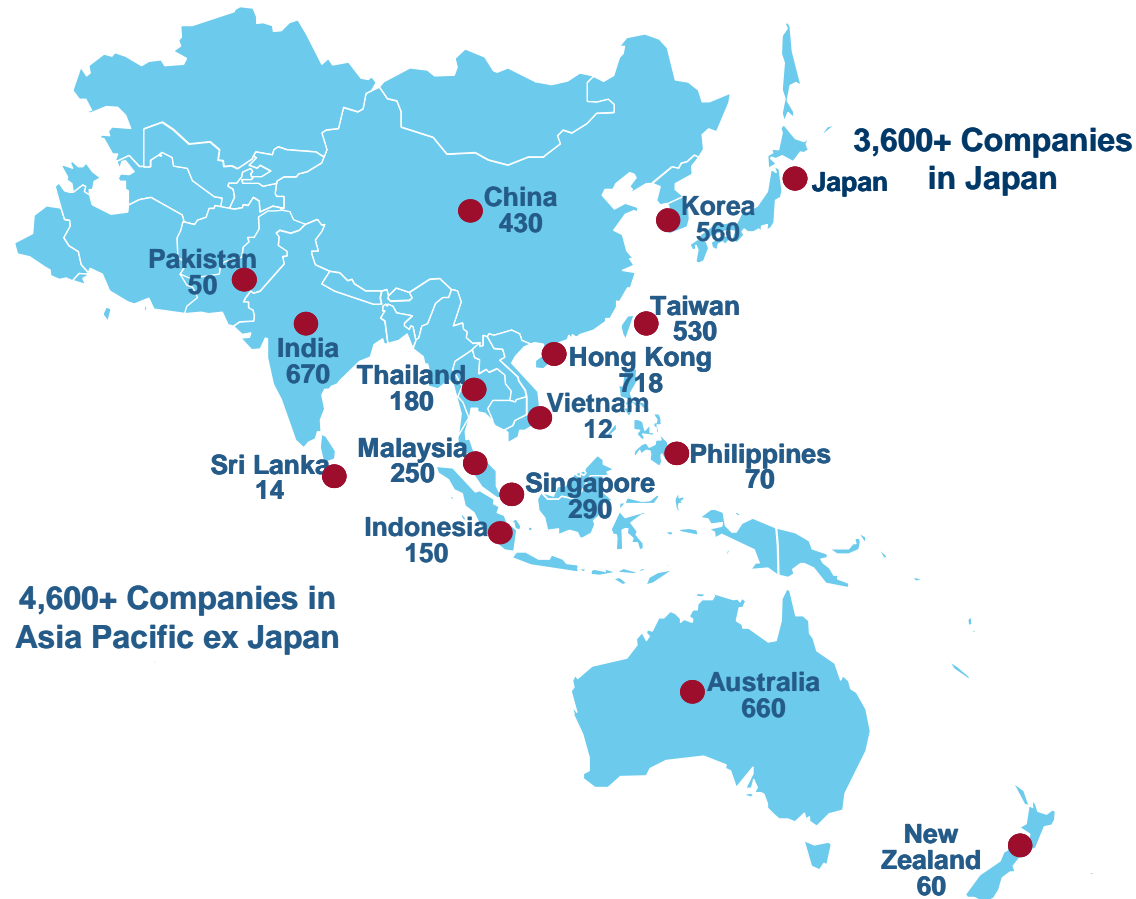
**Objective**

**Insightful**

# Leading market reach in Asia Pacific

HOLT has extensive market reach in the Asia Pacific region

---

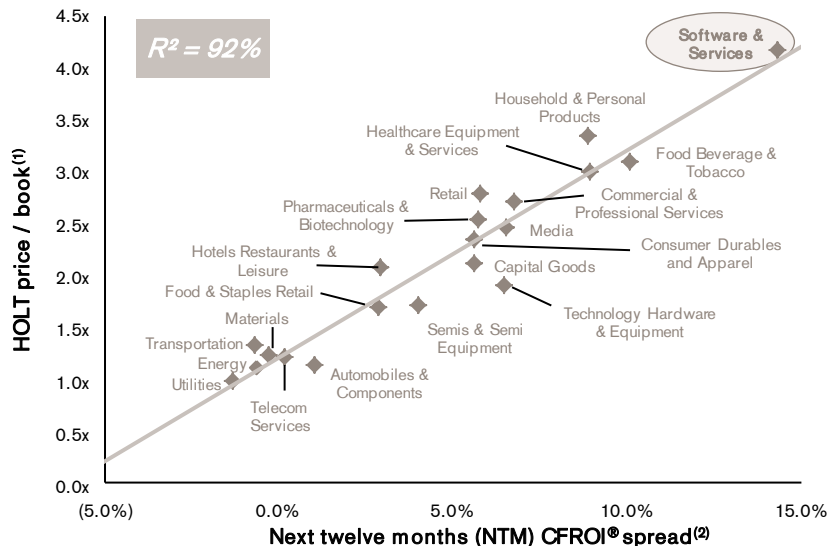


# HOLT helps companies better understand the link between strategic decisions, performance, and shareholder value

## Credit Suisse's HOLT Corporate Advisory

- HOLT is an analytical framework proprietary to Credit Suisse which is used widely by institutional investors around the world for enhanced insights into corporate performance, warranted value, market expectations, and shareholder value creation
- HOLT is also used extensively by corporate clients in evaluating strategic alternatives, business unit performance, M&A, capital deployment, activism / defense, and investor communication

## Developed Europe and US (ex financials)



Source: HOLT CFROI<sup>®</sup> framework and global database, public data.

(1) Defined as  $([\text{market value of equity} + \text{HOLT debt}] / [\text{inflation adjusted net assets, including capitalized operating leases and R\&D}])$ .

(2) Defined as CFROI<sup>®</sup> less the cost of capital; next twelve months (NTM) CFROI<sup>®</sup> based on consensus EPS estimates and interim financial results.

## HOLT is widely embraced by leading buy-side institutions

HOLT usage by Top 50 institutional investors:



US: 72%



Europe: 86%



AsiaPac: 62%



We use a proprietary tool, based on a customized version of Credit Suisse HOLT, modeling cash flows, profitability and growth (2013)



In our view, **CFROI is the most robust metric**. The real advantage of CFROI compared to ROE or ROIC is the fact that we can compare companies in different countries on a truly like for like basis (2012)



Thematic funds. We identify the best companies in a given theme. **The company must have cash flow return on investment (CFROI) that is both increasing and in excess of its cost of capital** (2013)

Deutsche Bank



[The] CFROI concept (using HOLT) [is used] in order to ensure that companies are valued regarding their economic performance (not for creativity in accounting) (2010)



Anthony Bolton. Founder and manager of Fidelity Special Situations Fund until retirement in 2007. How Anthony Bolton Values Stocks: Bolton looks at five main types of ratios: [...] 5. Cash flow return on investment (CFROI)



A number of weekly screens aid idea generation, while the main focus of analysis is on CFROI (2009)



The key valuation metric used is CFROI. Stocks are selected on the basis of being undervalued by the market according to our criteria (2011)



Our investment process has its roots in the CFROI<sup>®</sup> Valuation model, which strips out material distortions in accounting data and provides insights into wealth creation and valuation (2010)



Cash flow return on investment (CFROI<sup>®</sup>) calculated by Credit Suisse HOLT is the preferred measure of return on capital. This is the team's common investment language which provides the foundation for all company research (2009)



We use HOLT's CFROI (cash flow return on investment) valuation methodology for our equity valuation work. This basically examines the cash generated by the business relative to capital invested, and helps compare the current share price to the actual value of the company (2011)

# Key principles of the HOLT framework

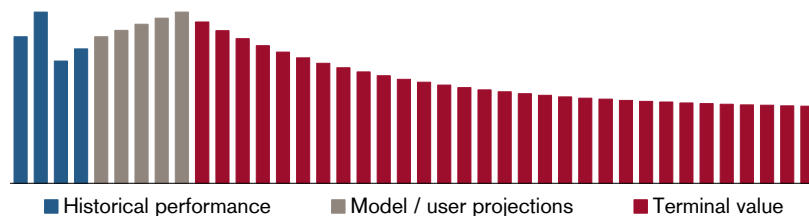
## Broad usage by Money Managers

- 5,000+ money managers utilize the HOLT framework to analyze corporate performance, determine intrinsic value, quantify market expectations, and make investment decisions
  - 60 of the top 100 US Institutions
  - 19 of the top 20 UK Institutions



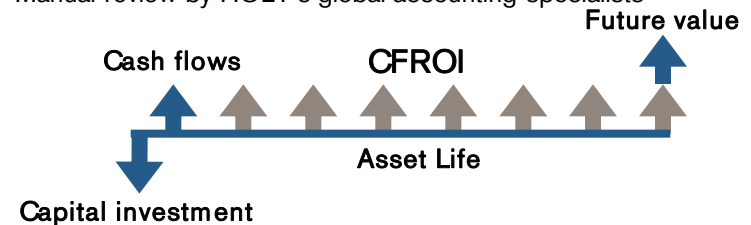
## Objective, long-term DCF valuation methodology

- Model and user-defined projections for future returns and growth drive future free cash flows
- Empirically derived terminal value recognizes competitive life-cycle of returns and growth (mean-reverting fade concept)



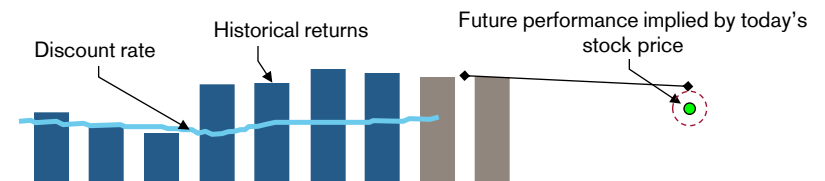
## Superior performance metric (CFROI)

- CFROI is a cash-based return on capital metric that improves comparability of corporate performance across companies, geographies and time
- Systematic adjustments applied to a global database
  - ~ 20,000 companies in 67 countries
  - ~ 50 years of clean, comparable data and financial metrics
- Manual review by HOLT's global accounting specialists



## Market-calibrated valuation

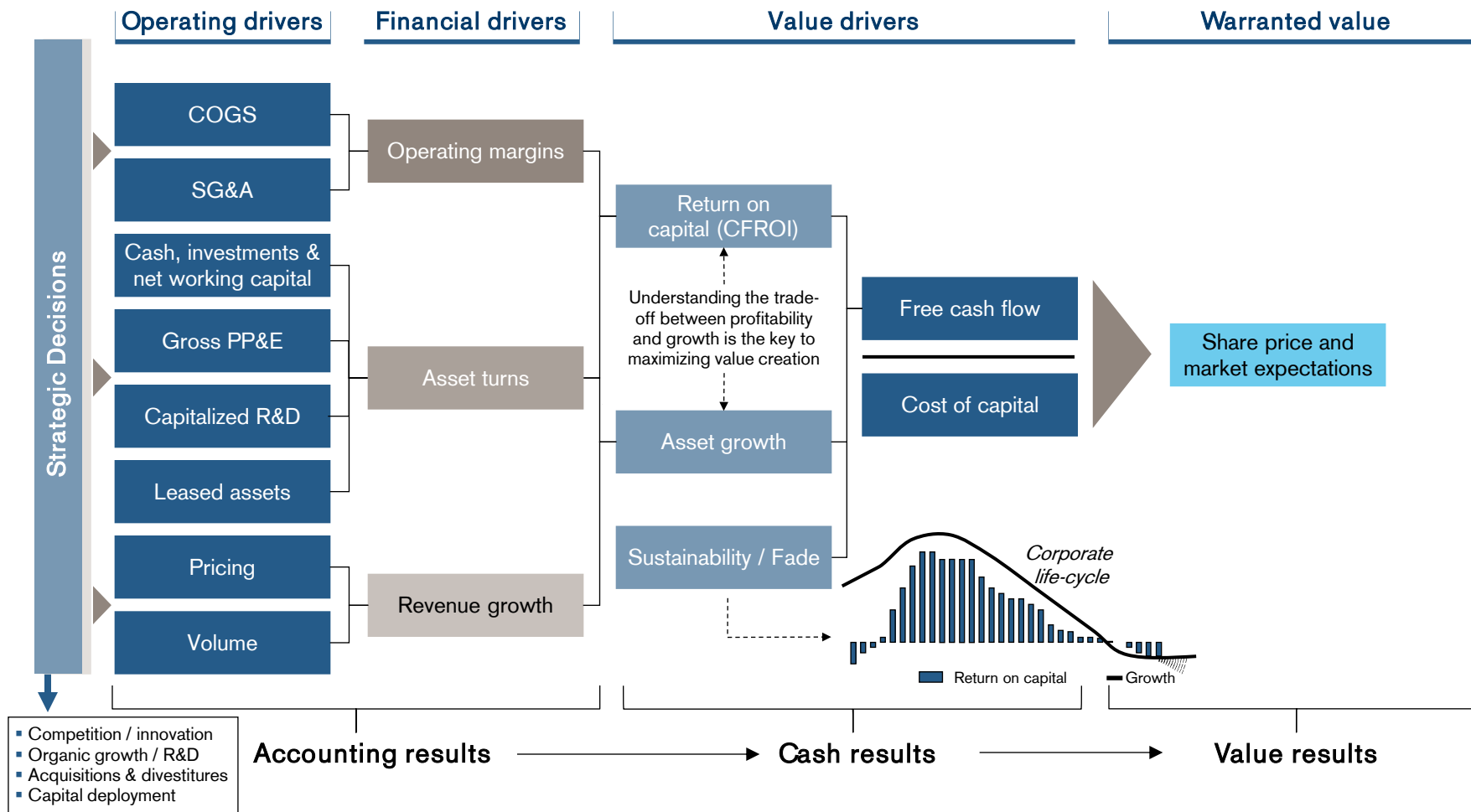
- Forecasted free cash flow calibrated to current market values through observed, market implied discount rate
- Calibrate future CFROI and growth rates embedded in the current stock price



HOLT leverages a robust value-based framework to provide superior insights into real corporate performance, warranted value, market expectations, and shareholder value creation

Source: HOLT CFROI framework and global database.

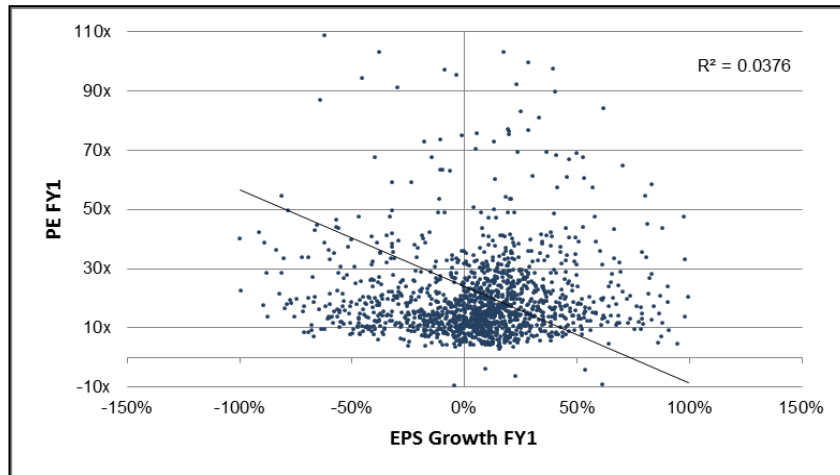
# A value-based framework helps translate strategic decisions into operating performance and warranted value



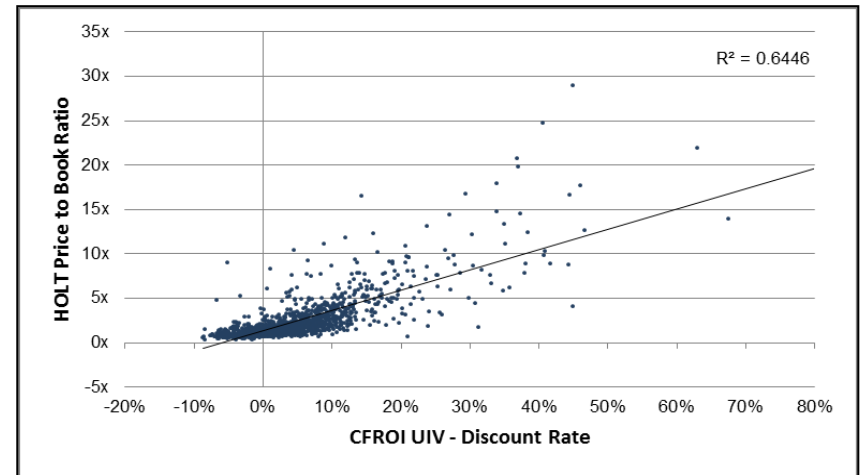
A robust value creation framework can help management assess and communicate the expected impact of strategic decisions on operating performance, warranted value, and shareholder value creation

# Earnings vs Cash-based metrics

## Earnings has poor explanatory power



## Cash counts



Asia Pacific ex-Japan, Market cap > USD 1bn, EPS growth < 100%, 1449 companies, Feb 2014

# Traditional return measures don't track market performance

## Ways to improve accounting returns

Leverage  
Share repurchases  
Let assets age  
Lease assets off balance sheet  
Realize gains  
Change depreciation schedule  
Take one-time charges

## Ways to improve economic returns

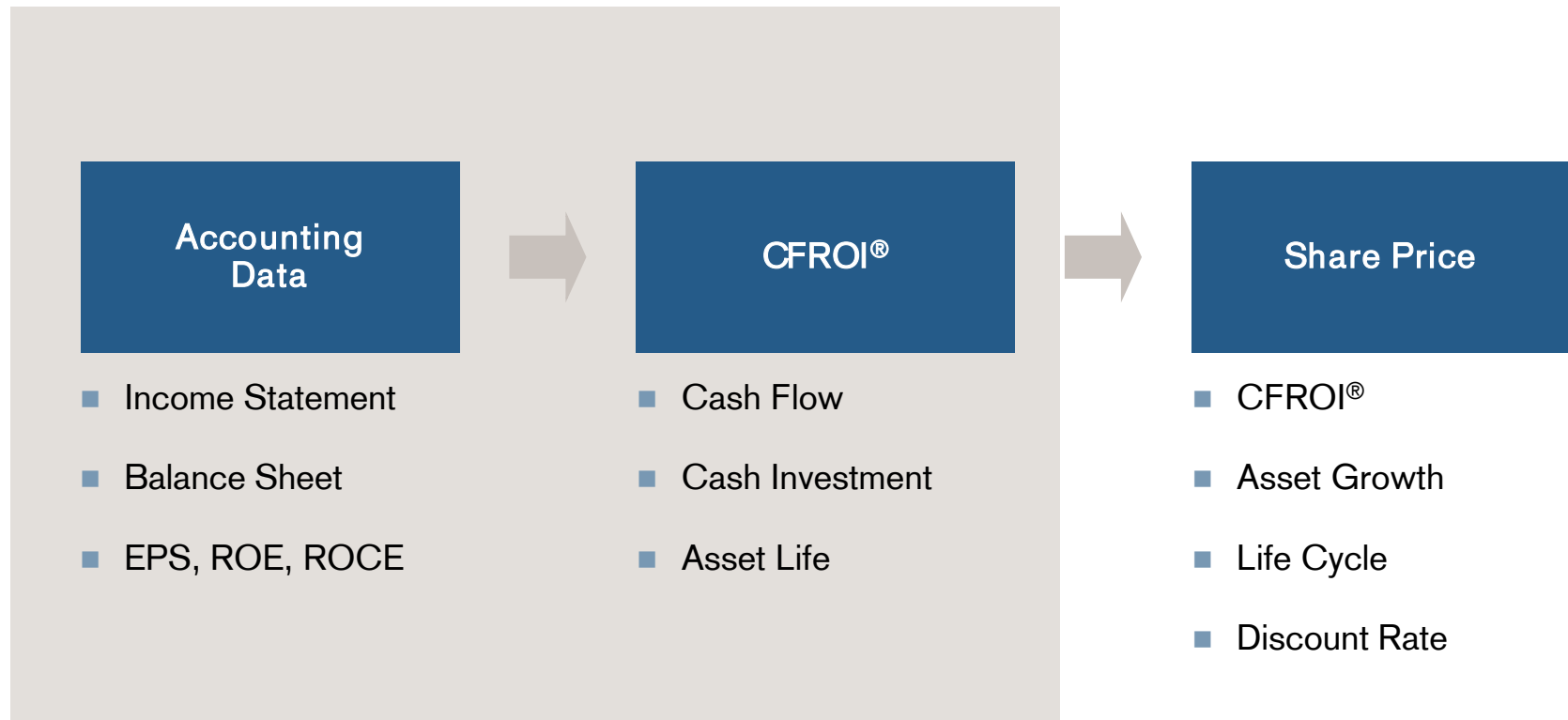
<No Economic Benefit>

Grow sales  
Increase margins  
Improve fixed asset utilization  
Reduce inventory  
Shorten receivables  
Stretch payables  
Sell unprofitable business



Grow sales  
Increase margins  
Improve fixed asset utilization  
Reduce inventory  
Shorten receivables  
Stretch payables  
Sell unprofitable business

# Linking corporate performance to valuation





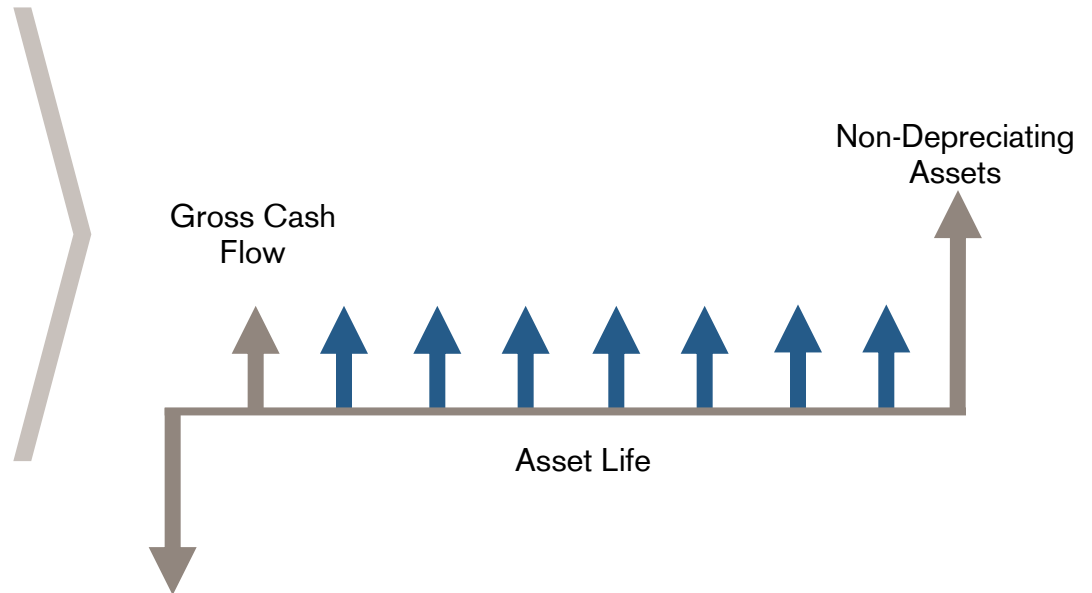
# CFROI® – Superior performance measure

- Cash Flow Return on Investment (CFROI) corrects for accounting distortions leading to a more accurate measure of economic performance. These adjustments result in a measure that is comparable across time and place

## Accounting distortions are corrected by:

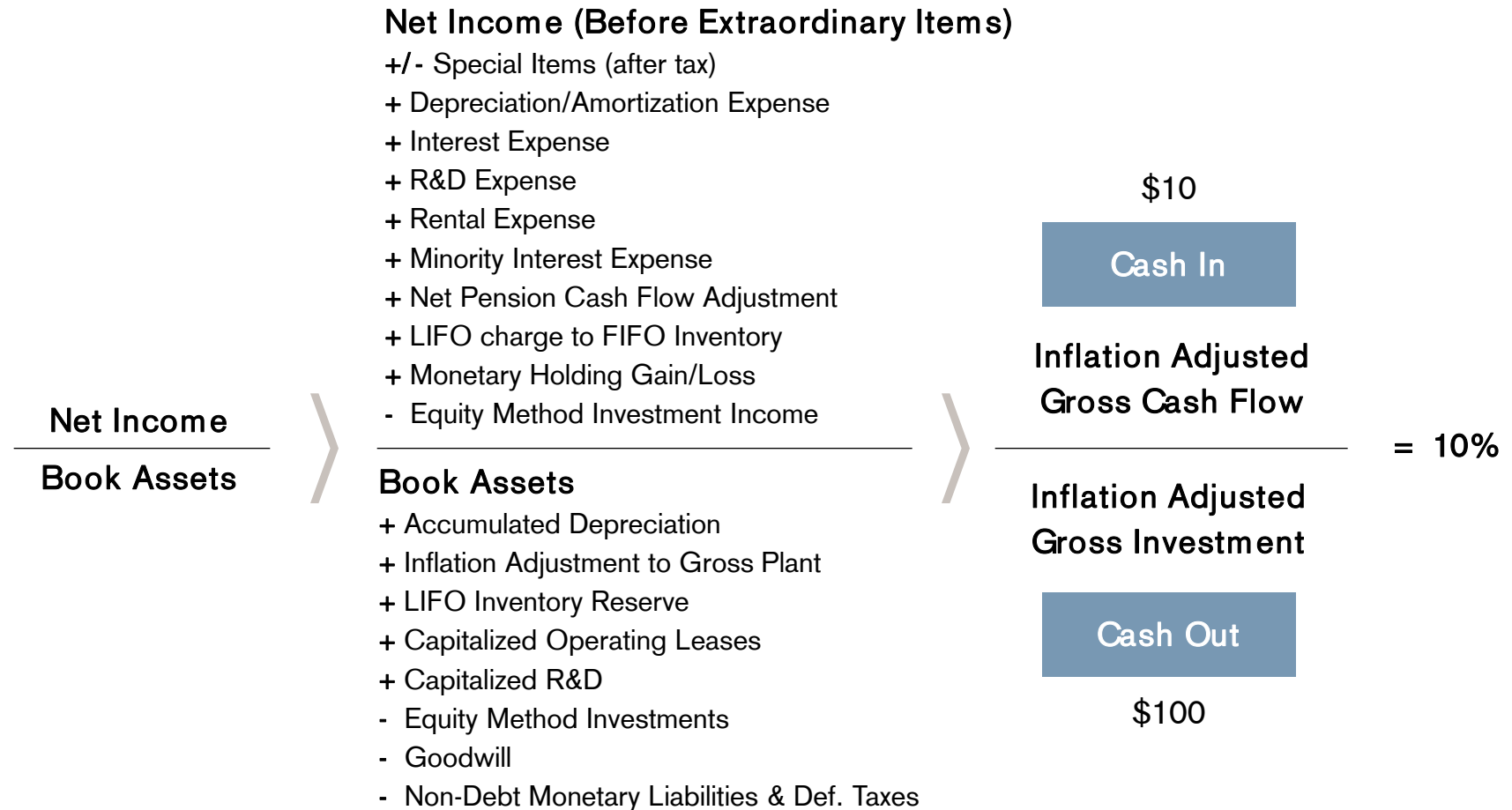
- Using gross assets instead of net
- Inflation-adjusting assets
- Capitalizing leases
- Using cash instead of accounting profit
- Recognizing asset mix
- Taking into account asset lives

## CFROI® measure



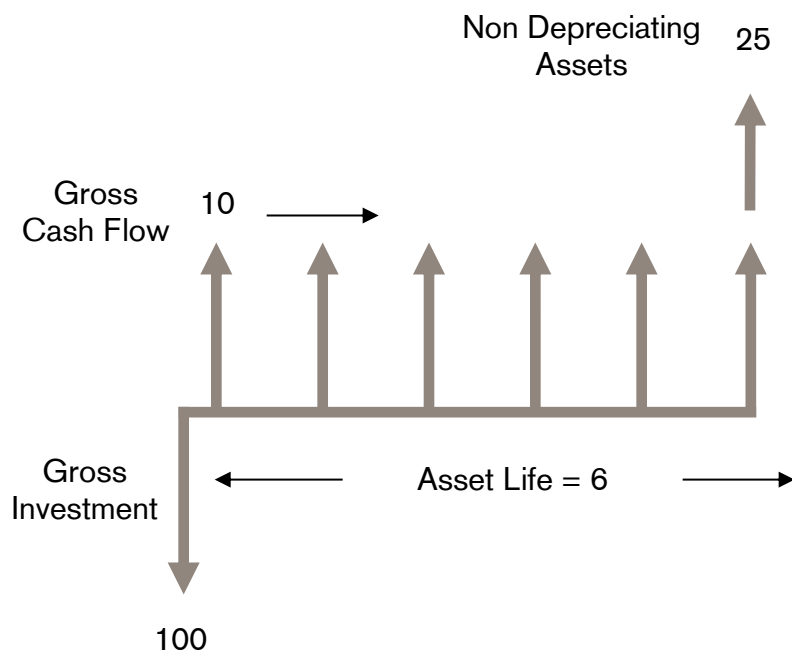
# From accounting to cash

- HOLT adds back a number of items that have been deducted to get to Net Income and Book Assets and makes a number of other adjustments to get to a cash based measure



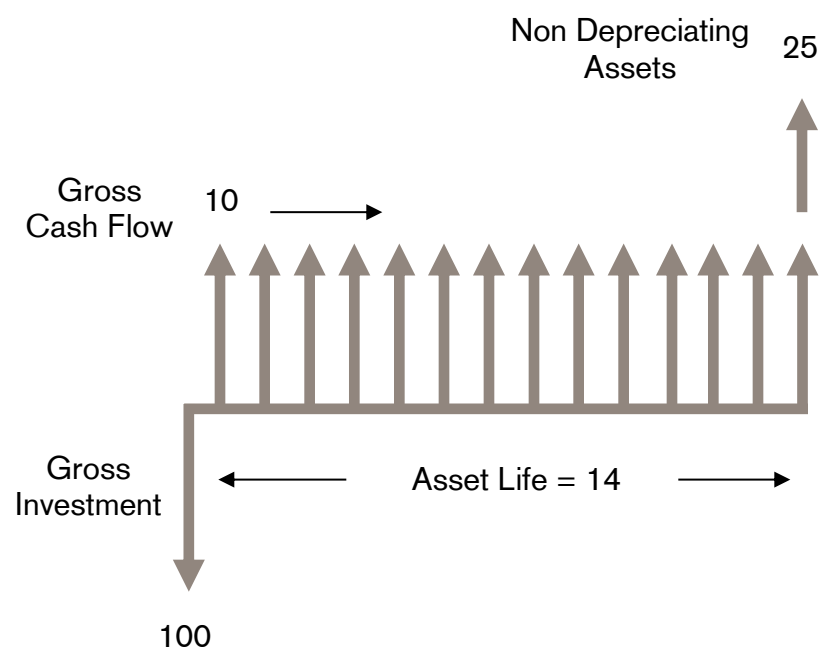
# Why explicitly account for Asset Life?

## High technology company



CFROI® = -3.71%

## Engineering company



CFROI® = 6.57%



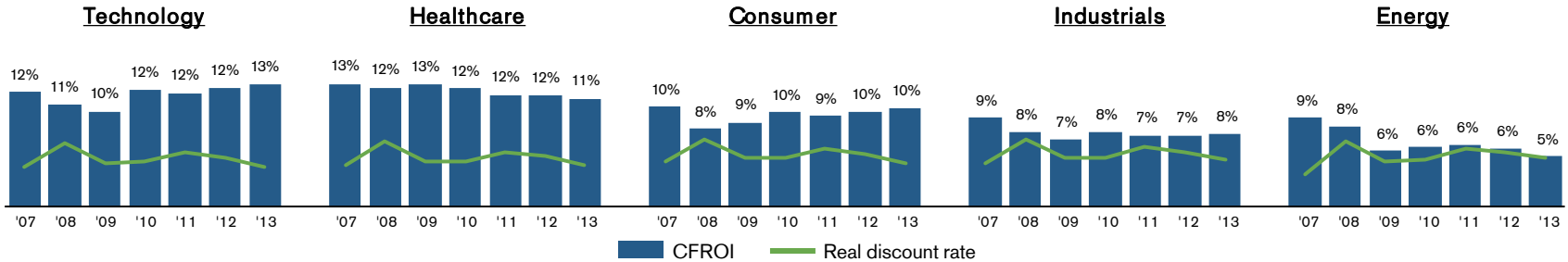
## 2-2. Application of HOLT valuation methodology

# Real economic returns (CFROI) by global sector

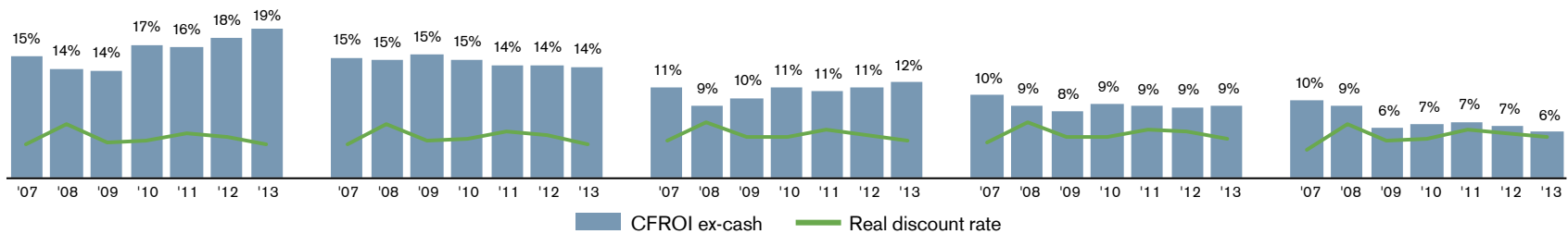
## *Measured with and without cash and goodwill/intangibles*

CFROI, CFROI ex-cash<sup>(1)</sup>, and CFROI with goodwill and intangibles<sup>(2)</sup>

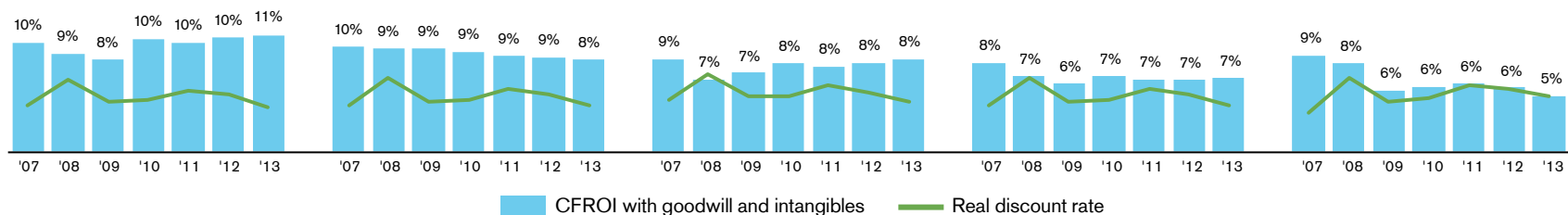
### CFROI



### CFROI ex-cash<sup>(1)</sup>



### CFROI with goodwill and intangibles<sup>(2)</sup>



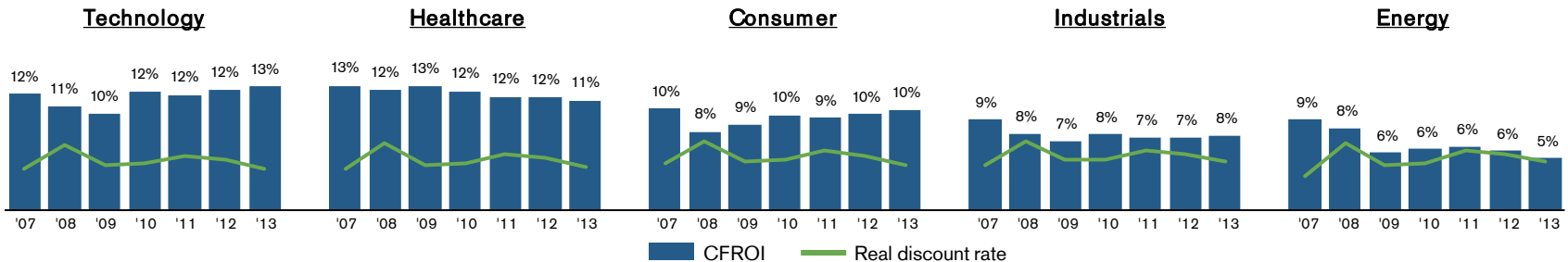
On a global aggregate basis, the Technology sector earns the highest real economic returns on capital (measured with or without excess cash and goodwill / intangibles)

# CFROI, asset growth, and economic profit by sector

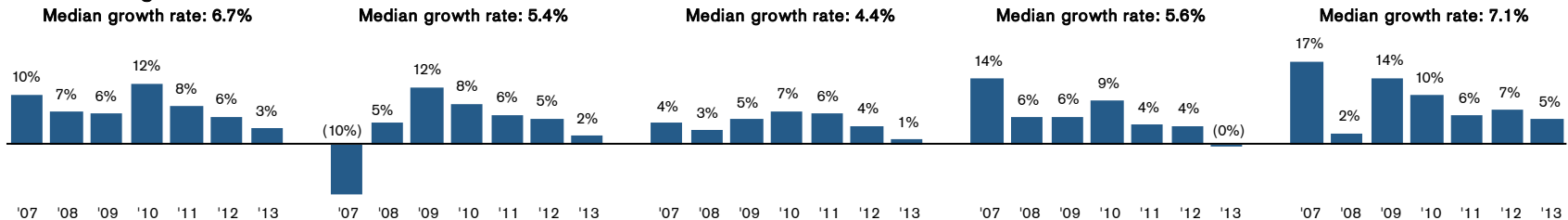
*Returns and growth drive shareholder value creation*

CFROI, real asset growth<sup>(1)</sup>, and economic profit<sup>(2)</sup> (in \$ billions)

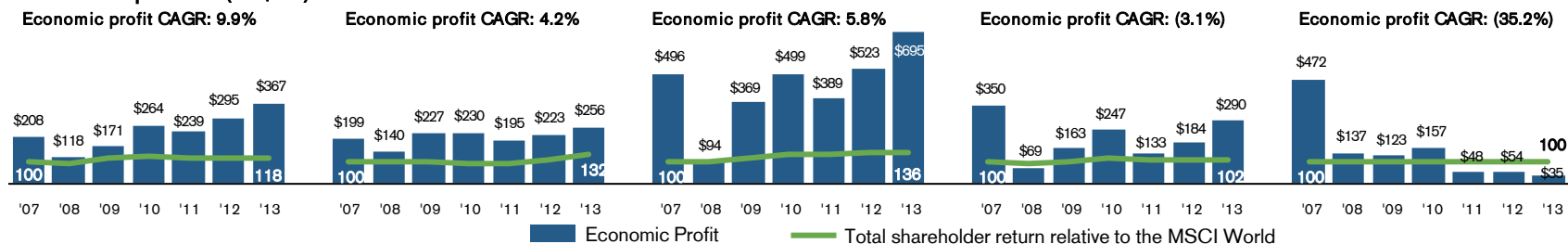
## CFROI



## Real asset growth rate<sup>(1)</sup>



## Economic profit<sup>(2)</sup> (in \$bn) and total shareholder returns



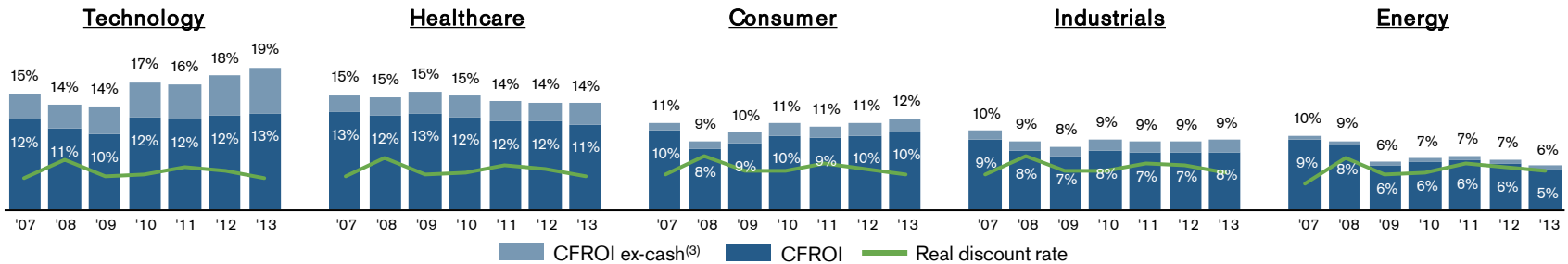
Strong and improving economic returns, combined with healthy growth, drive shareholder value creation

# CFROI and operating drivers by sector

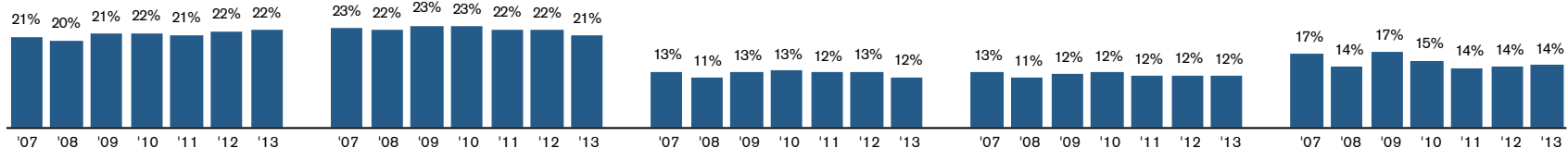
*Margins and asset turns drive economic returns (CFROI)*

## CFROI, gross cash flow margin<sup>(1)</sup>, and asset efficiency<sup>(2)</sup> over time

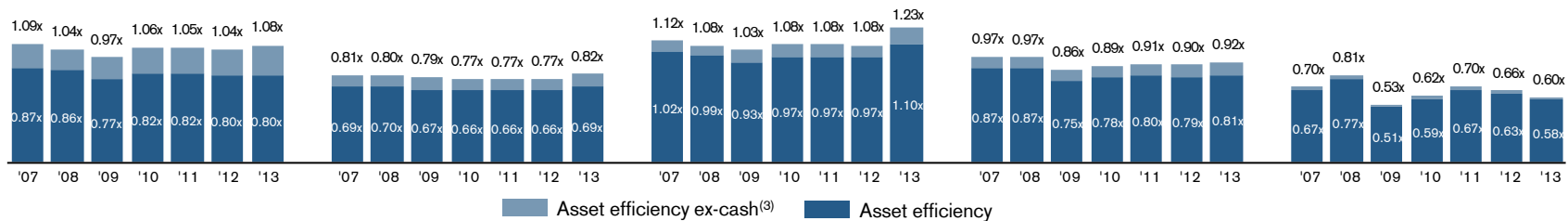
### CFROI



### Gross cash flow margins<sup>(1)</sup>



### Asset efficiency<sup>(2)</sup>



Real after-tax economic returns are driven by cash flow margins and capital efficiency; Technology and Healthcare firms earn the highest margins, while Technology and Consumer firms have the highest asset turns

# KT&G (033780)

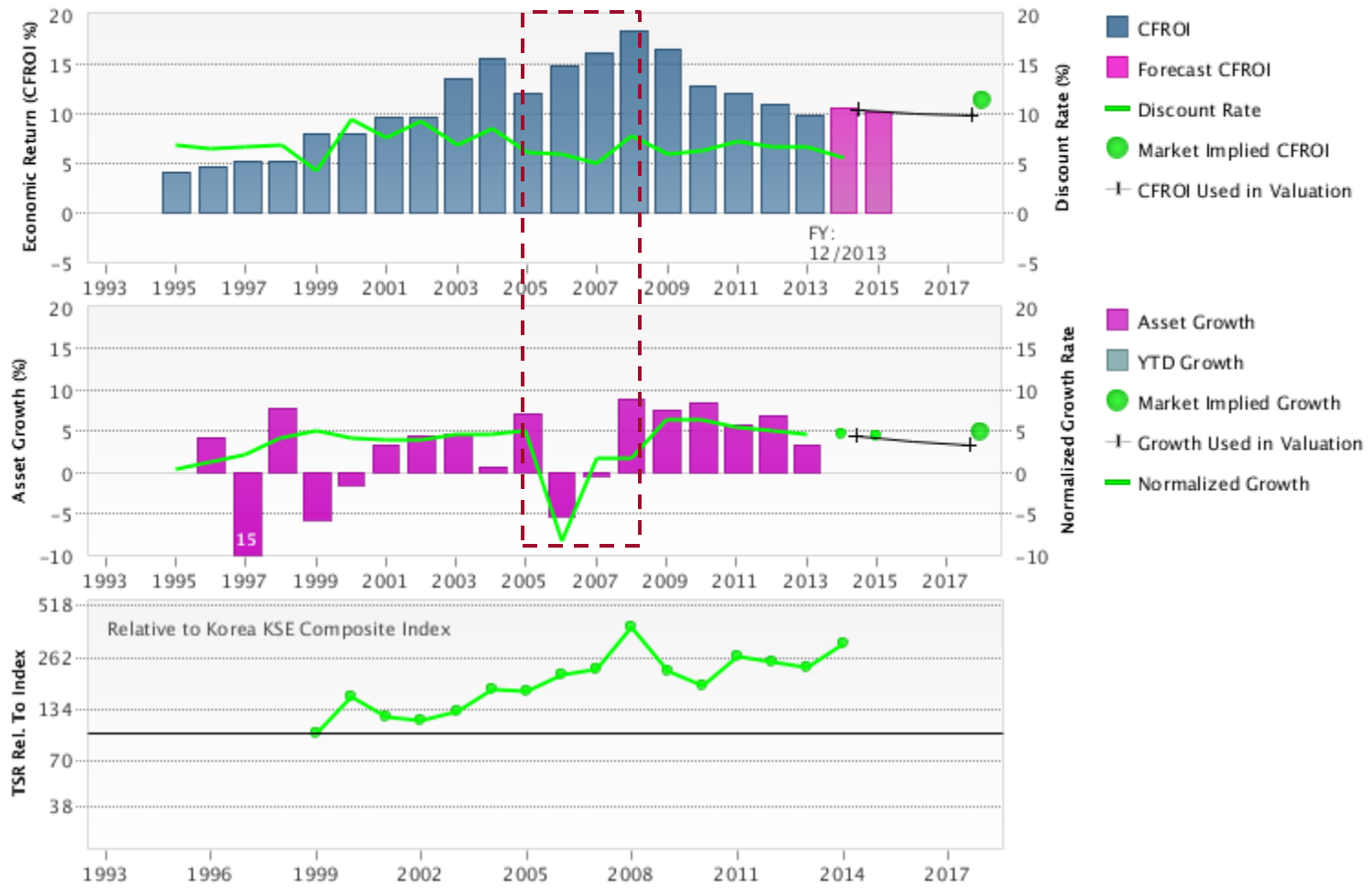
## Relative wealth chart

Tobacco

Market Cap: 11,960 KRW

Price: 95,000 (Oct 31, 2014)

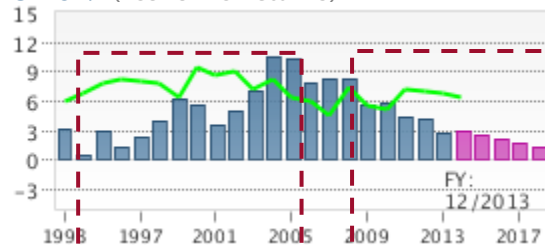
Warranted Price: 82,851 KRW (-13%)



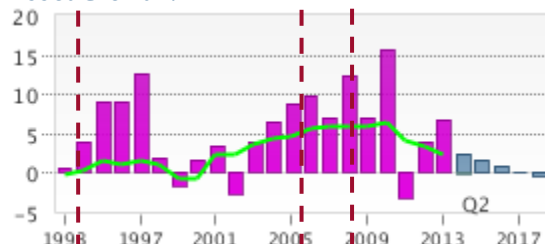


# POSCO (005490): CFROI falls for third consecutive year

CFROI % (Economic Returns)



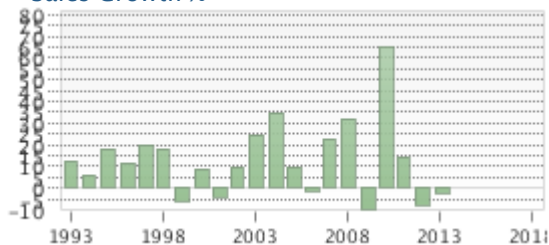
Asset Growth %



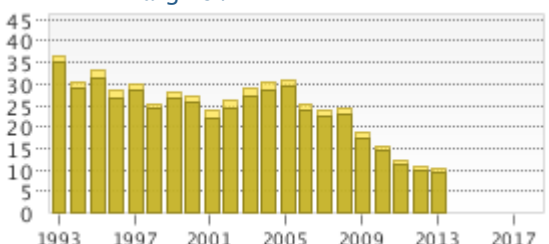
Total Shareholder Return



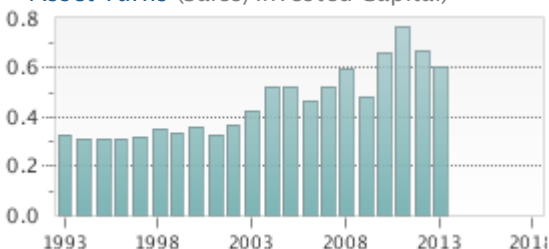
Sales Growth %



EBITDA Margins %



Asset Turns (Sales/Invested Capital)



## Market Implied Scenario

[Open In HOLT Lens™](#)

Metals & Mining, Korea

Price (Nov 7, 2014) 302,000 KRW

Market Cap (bil) 24,095 KRW

## Risk

Probability of Default 3%

Average Credit Rating BBB

Accounting Quality Below Average

Momentum	6m	3m	1m
CFROI Revisions	-0.20	-0.14	-0.02
Price Change %	-1.63	-5.62	-0.66

**Historical Operations.** Pos's CFROI has been falling since 2010. The firm has destroyed shareholder value by reinvesting in the firm for three years straight while its CFROI levels have been consistently below the cost of capital.

**Market Expectations.** Consensus-driven CFROI levels are forecasted to hover around 2.4% for 2014 and 2015, similar to the 2013 CFROI level, but the market expects it to decline to 1.3% through 2018.

**Risks To Consider.** The firm's overall accounting risk is identified as Below Average, and it has poor risks in the following areas: high levels of accounts receivable and increasing AR days; and payment sustainability (low coverage of fixed charges). Price momentum has been weaker than that of its peer group over the past month, and CFROI revisions have been similar.

Jungwoo Kim , HOLT Sector Specialist

Powered by : Narrative Science

# APPLE INC (AAPL)

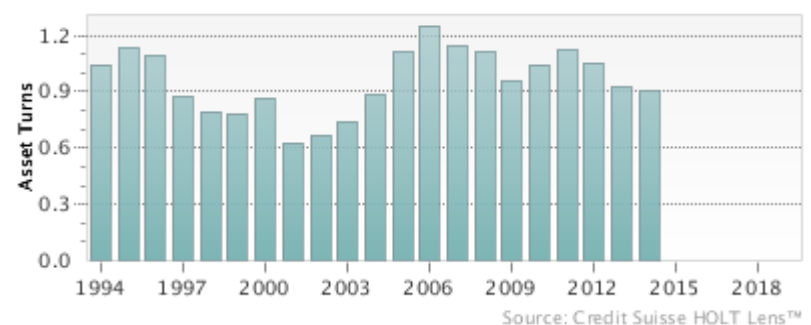
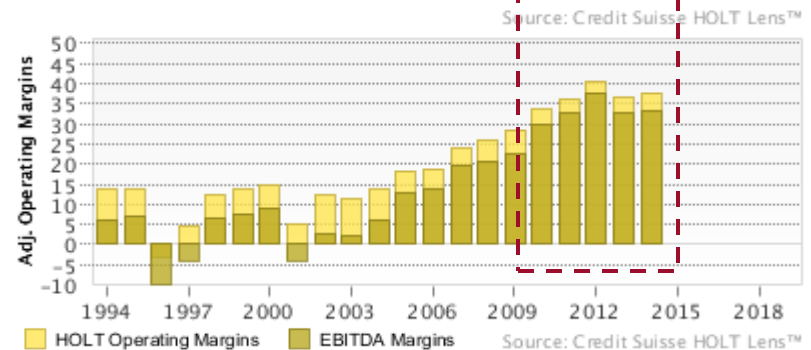
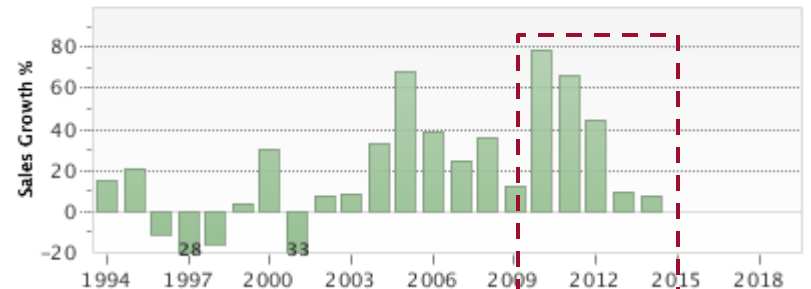
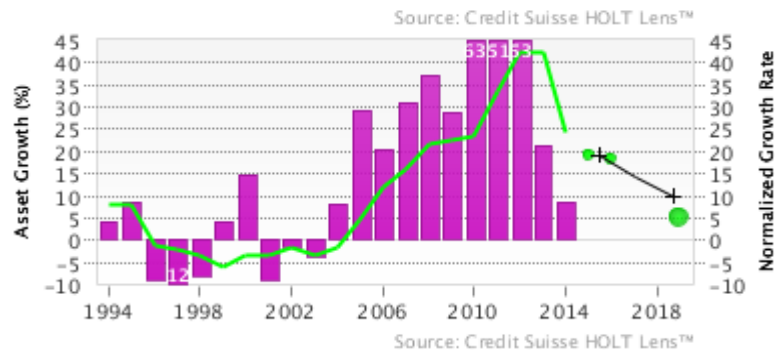
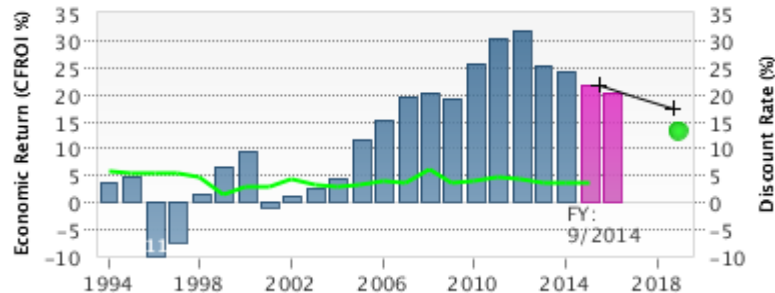
## Sales, margins & turns

Technology Hardware, Storage & Peripherals

Market Cap: 627.562 USD

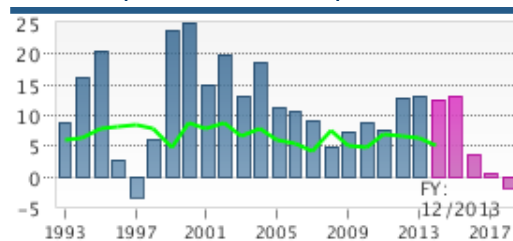
Price: 106.98 (Oct 30, 2014)

Warranted Price: 162.84 USD (+52%)

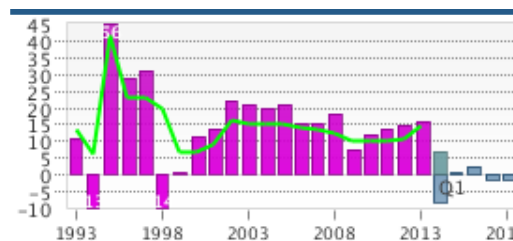


# SAMSUNG ELECTRONICS (005930): Unseen low margins are currently implied

CFROI % (Economic Returns)



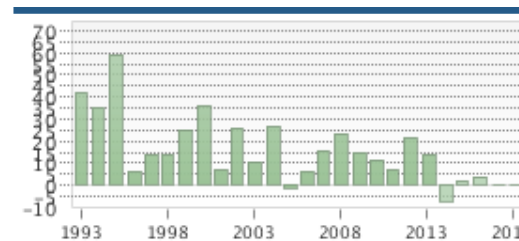
Asset Growth %



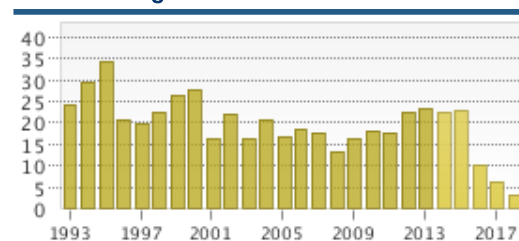
Total Shareholder Return



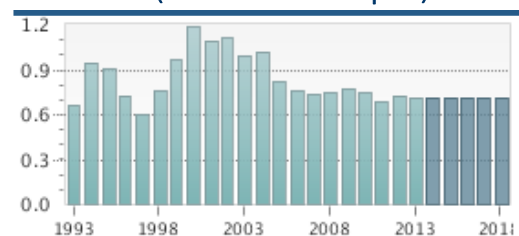
Sales Growth %



EBITDA Margins %



Asset Turns (Sales/Invested Capital)



Market Implied Scenario

[Open In HOLT Lens™](#)

Technology Hardware, Storage & Peripherals, Korea

Price (Oct 31, 2014) 1,244,000 KRW

Market Cap (bil) 187,586 KRW

Risk

Probability of Default 0%

Average Credit Rating A+

Accounting Quality Good

Momentum 6m 3m 1m

CFROI Revisions -3.55 -2.25 -0.85

Price Change % -7.58 -3.72 9.03

**Historical Operations.** Over 2012-13, Samsung Electronics enjoyed notable improvement of CFROI from 7.5% in 2011 to 13%, as margins expanded helped by its mobile business. While maintaining its sustainable (organic) growth rate stable at near 15%, the company could create significant shareholder wealth over the past two years. This year, however, the stock is suffering from negative downward cash flow revisions as expectation level on the growth outlook, in particular its mobile business, has been rapidly deteriorating.

**Market Expectations.** IBES consensus estimates forecast -7% sales growth in 2014, then to recover to only 3.8% by 2016. Margins are forecast to stay flat over the same period. However, **the current market price implies more pessimistic assumptions, with no sales growth and margins falling to only low single digit by 2018.** Given the name's margins forecast profile and stable asset turns, the current expectations look too conservative. **Even if CFROI could fall to 4.8%, close to what it achieved in 2008, with growth fading to zero, 70% upside potential is still warranted in HOLT DCF.**

**Risks To Consider.** Negative momentum presently continues, as consensus estimates continue to be revised down on lowered expectations for 3Q14 results.

Author: Jungwoo Kim, HOLT Sector Specialist

# SAMSUNG ELECTRONICS (005930)

## Summary

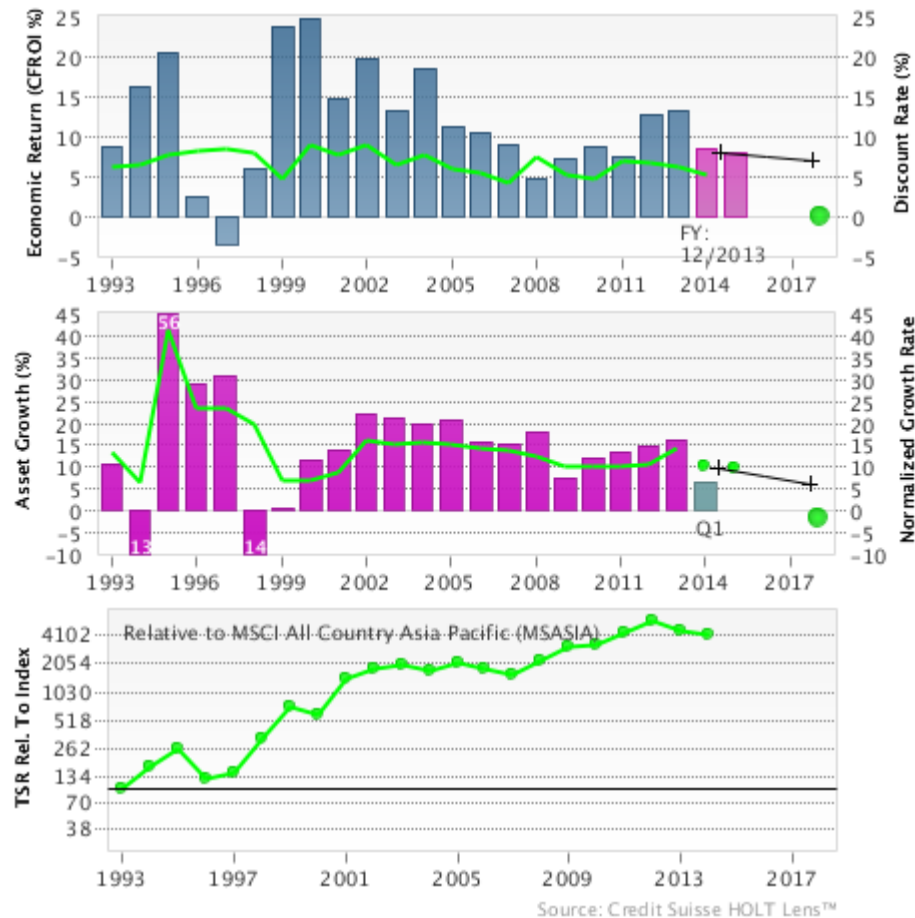
Technology Hardware, Storage & Peripherals

Scorecard Percentile

52

Market Cap: 178,086 KRW

## Relative Wealth Chart



## Valuation

Price KRW 1,181,000

Warranted Price 2,554,712

upside

+116%

## Economic PE Ratio

5 year observed range

Current 8.7

Regional Industry 11.3

Low

6.7

Median

9.3

High

13.4

Technology Hardware, Storage & Peripherals, Asia Pacific Ex Japan

Dividend Yield

1.3%

## Risk

Probability of Default

0%

Average Credit Rating

A+

Accounting Quality

Good

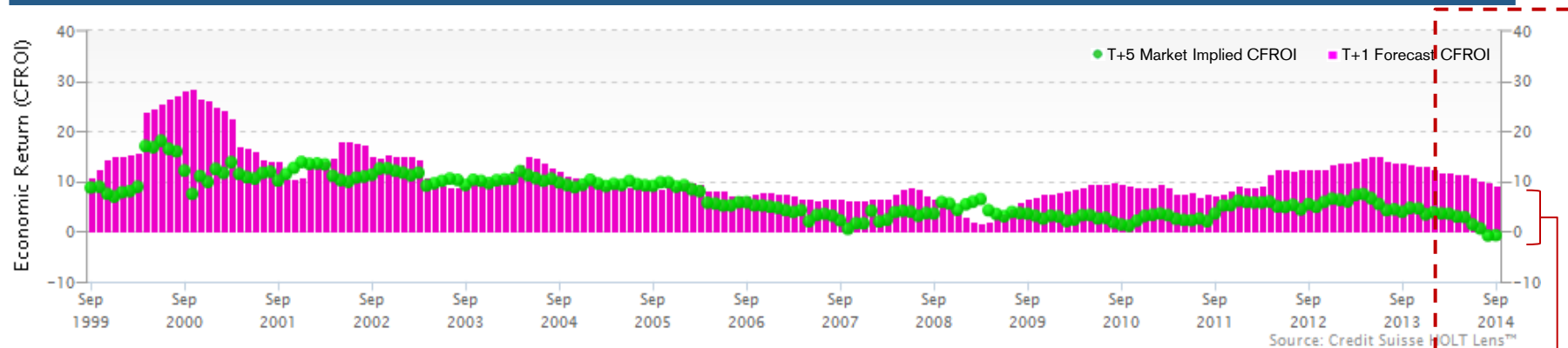
## Momentum

	6m	3m	1m
CFROI Revisions	-3.33	-2.05	-0.70
Price Change %	-20.51	-17.93	-6.16

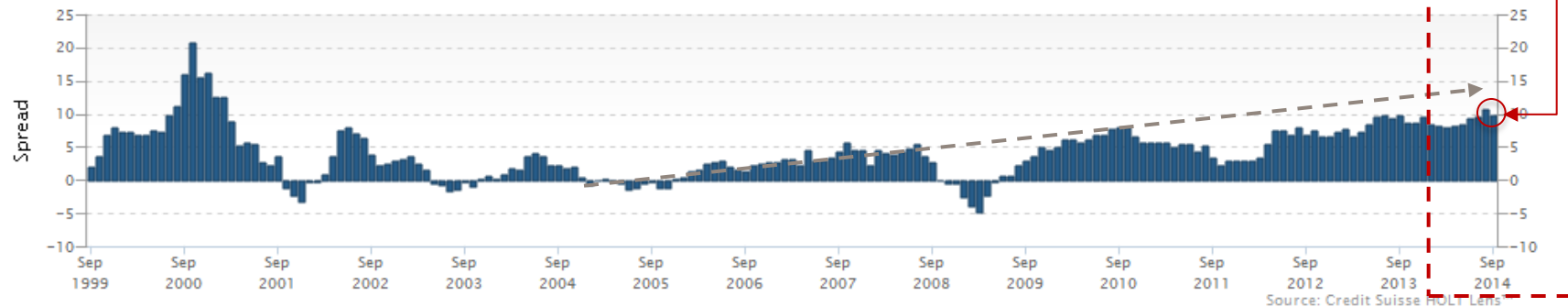
# Samsung Electronics (005930) –

Expectation level reached near all-time low with deteriorating anticipation on its business outlook, making forecast vs. implied CFROI gap near 10-year high

## Monthly change: Market's mid-term expectation vs. consensus forecast



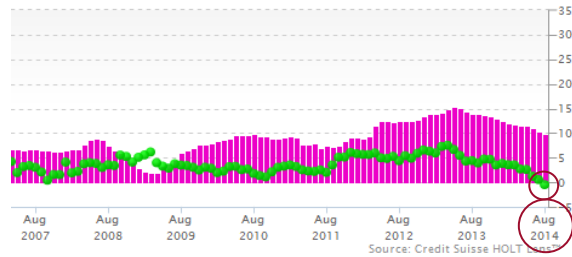
## Spread – T+1 Forecast CFROI less Market-Implied CFROI



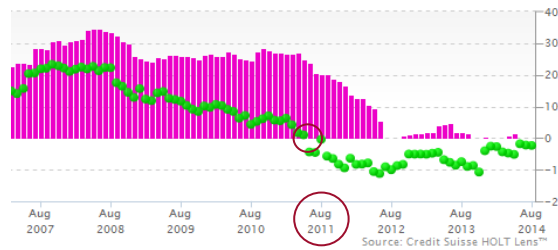
# Samsung Electronics (005930) –

Compared to the point when BlackBerry or Nokia's implied expectation fell to 0%, SEC's financial drivers, in particular asset turns, appear relatively more sound and stable

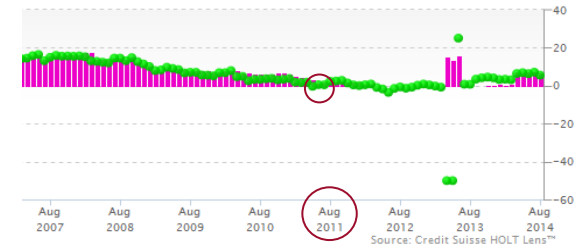
## Samsung Electronics



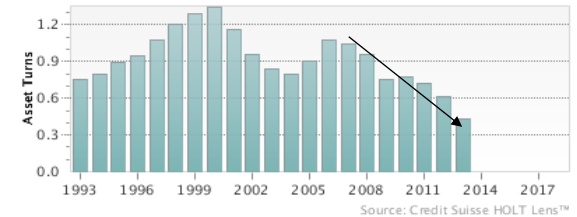
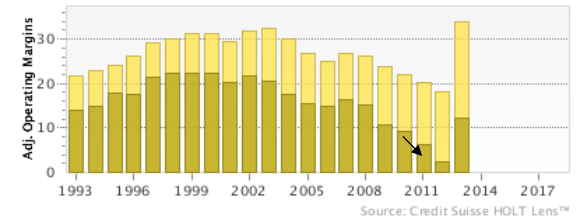
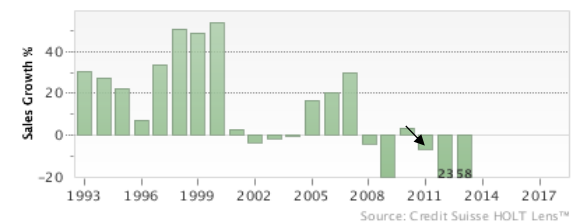
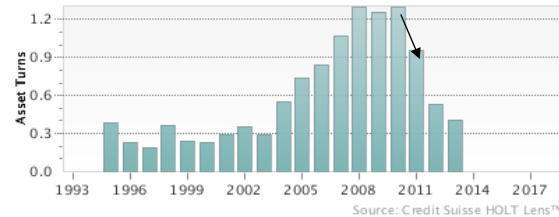
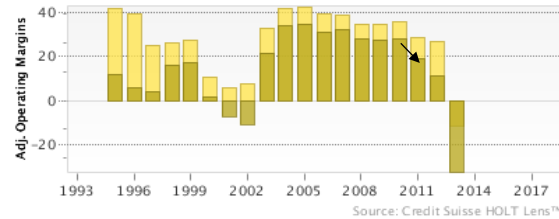
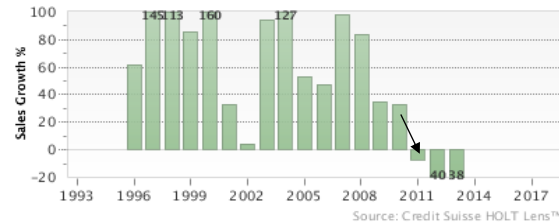
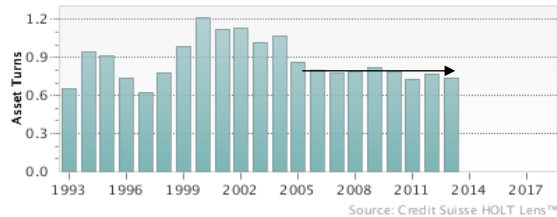
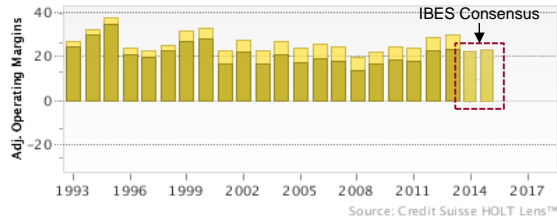
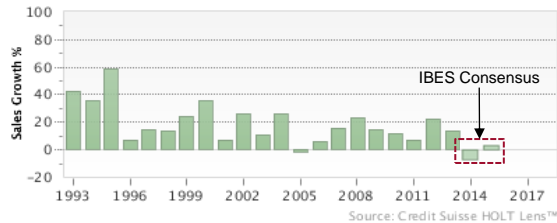
## Blackberry



## Nokia



## Financial drivers of CFROI and growth: Sales growth, margins and turns



# LG HOUSEHOLD & HEALTH CARE (051900)

## Expectations

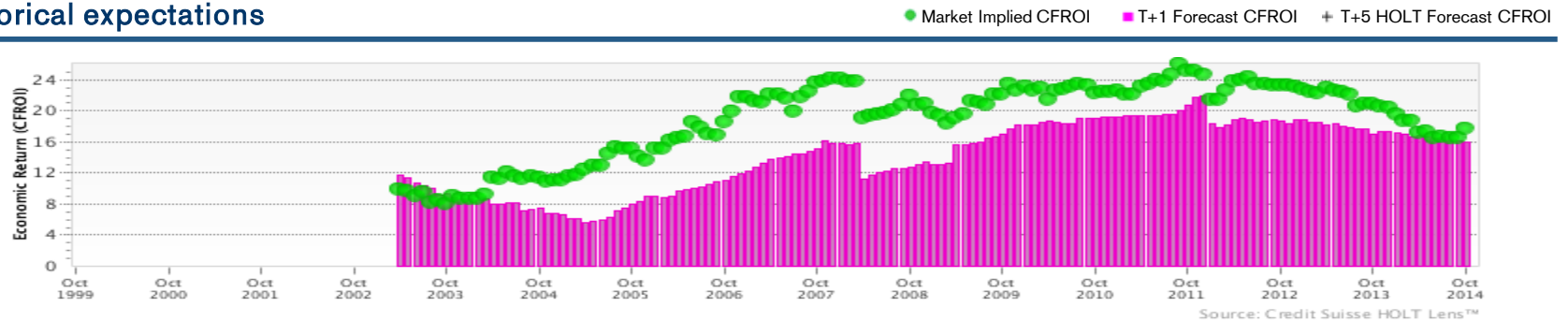
Household Products

Market Cap: 10,439 KRW

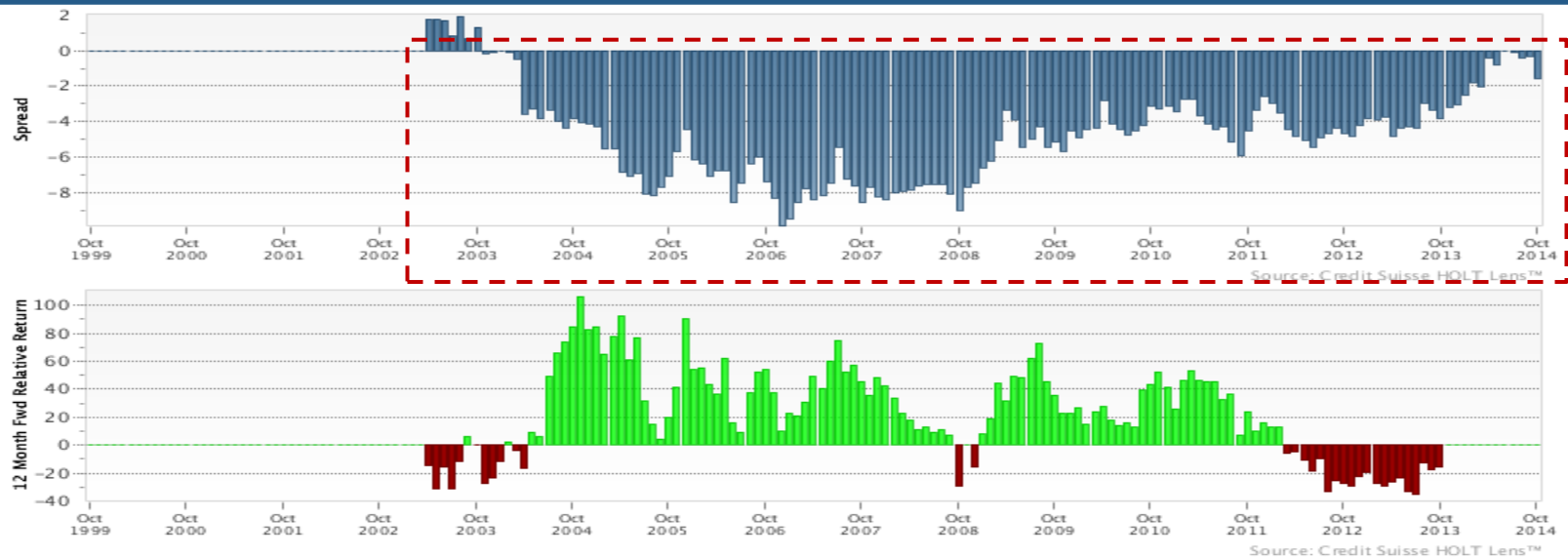
Price: 623,000 (Oct 31, 2014)

Warranted Price: 381,577 KRW (-39%)

## Historical expectations

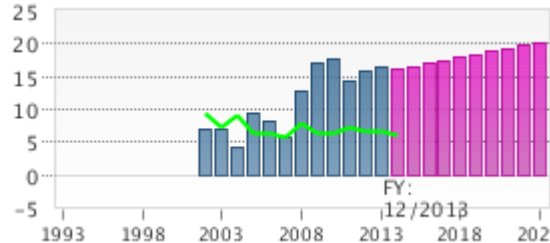


## Spread: Market implied CFROI vs. T+1 forecast CFROI

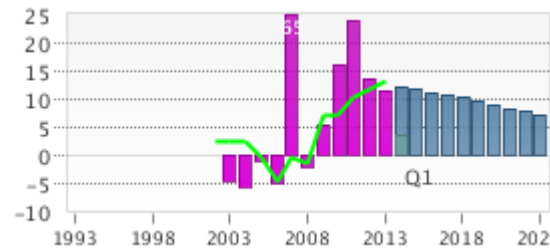


# LG HOUSEHOLD & HEALTH CARE (051900)

CFROI % (Economic Returns)



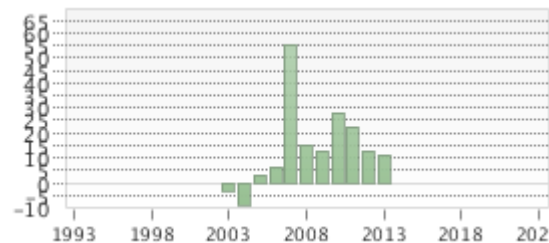
Asset Growth %



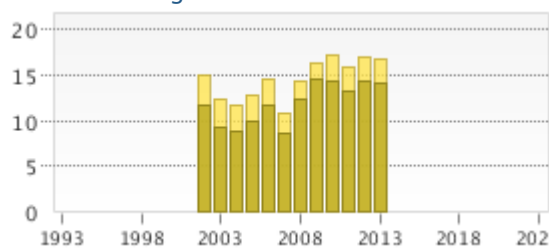
Total Shareholder Return



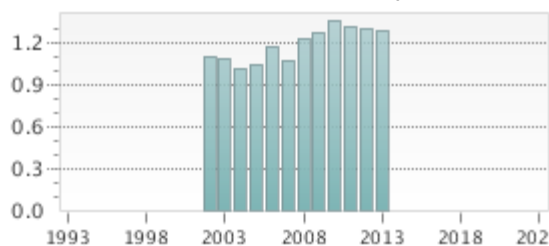
Sales Growth %



EBITDA Margins %



Asset Turns (Sales/Invested Capital)



## Market Implied Scenario

[Open In HOLT Lens™](#)

### Household Products, Korea

Price (Nov 7, 2014) 638,000 KRW

Market Cap (bil) 10,690 KRW

### Risk

Probability of Default 0%

Average Credit Rating NA

Accounting Quality Good

Momentum 6m 3m 1m

CFROI Revisions -0.50 -0.10

Price Change % 36.18 35.74

**Historical Operations.** Lg Household & Health Care's CFROI level has been improving since 2011 although asset turns and operating margin both deteriorated. The firm has consistently been creating shareholder value by achieving high CFROI levels above the cost of capital and reinvesting in the business for the past three years. The company ranks ahead of its peer Procter & Gamble for asset turns but lags Lauder for operating margin.

**Market Expectations.** The consensus-driven CFROI level of 16.0% for next year is below the 2013 level, but the market expects it to improve to 20.1% through 2023.

**Risks To Consider.** Over the past month, both its price momentum and CFROI revisions have been stronger than the average of its peers.

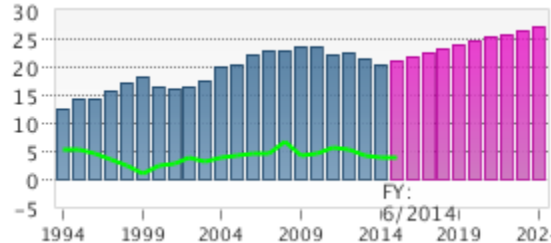
Jungwoo Kim , HOLT Sector Specialist

Powered by : Narrative Science

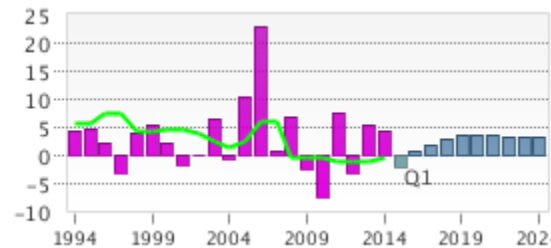


# PROCTER & GAMBLE CO (PG)

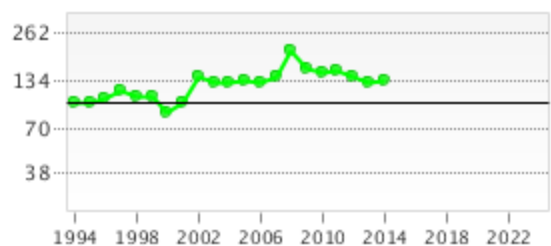
CFROI % (Economic Returns)



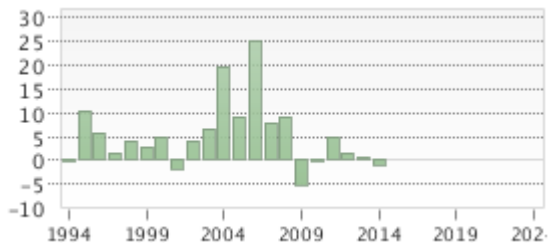
Asset Growth %



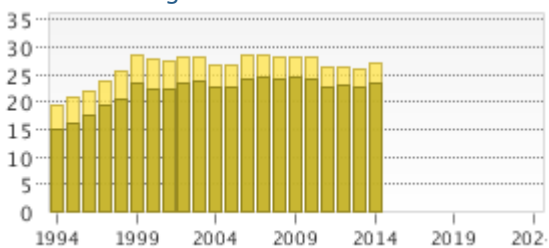
Total Shareholder Return



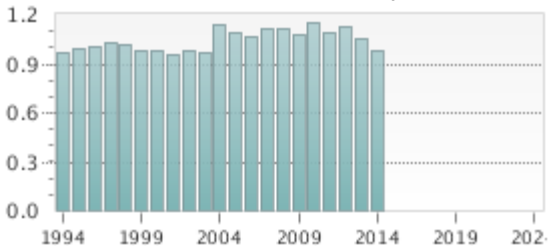
Sales Growth %



EBITDA Margins %



Asset Turns (Sales/Invested Capital)



Market Implied Scenario

[Open In HOLT Lens™](#)

Household Products, United States

Price (Nov 7, 2014) 89.13 USD

Market Cap (bil) 240.840 USD

Risk

Probability of Default 0%

Average Credit Rating AA-

Accounting Quality Good

Momentum 6m 3m 1m

CFROI Revisions -0.58 -0.27

Price Change % 8.18 10.11

**Historical Operations.** This Quality Trap firm has superior operational quality, but valuation is unattractive and the market sentiment is negative. Typically companies rotate into this style from the Operational quality-at-any-Price style after losing their market support. From 2012, PG's CFROI has been in decline although operating margin rose. PG ranks ahead of its peer L'oreal for operating margins but lags Reckitt Benckiser Group for asset turns. In the last decade, PG acquired Gillette in 2005, which had a CFROI of 19.6%.

**Market Expectations.** The consensus-driven CFROI level of 21.1% for next year is higher compared to its level in 2014, and the market expects it to continue to improve to 27.2% through 2024.

**Risks To Consider.** Despite an overall score of Good for accounting risk, the company is identified as having risks in the following areas: stock option expense that has a material effect on CFROI and dilution; and declining asset/equity quality. In the past month, both its price momentum and CFROI revisions have been weaker than its peer group average.

Bhumika Gashti , HOLT Sector Specialist

Powered by : Narrative Science

# PROCTER & GAMBLE CO (PG)

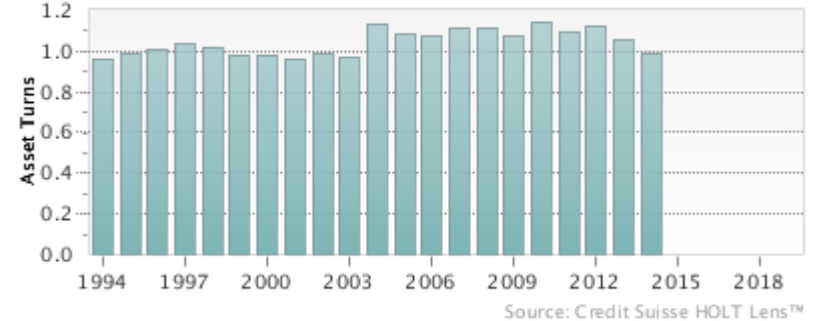
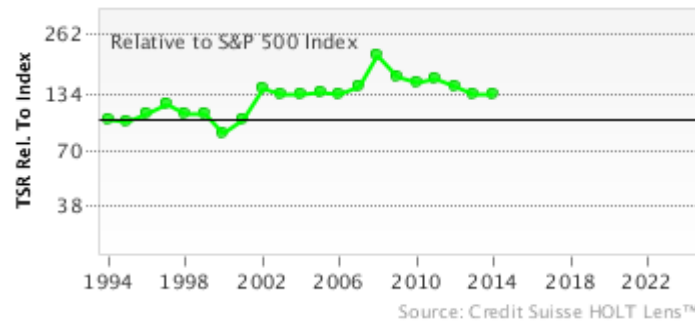
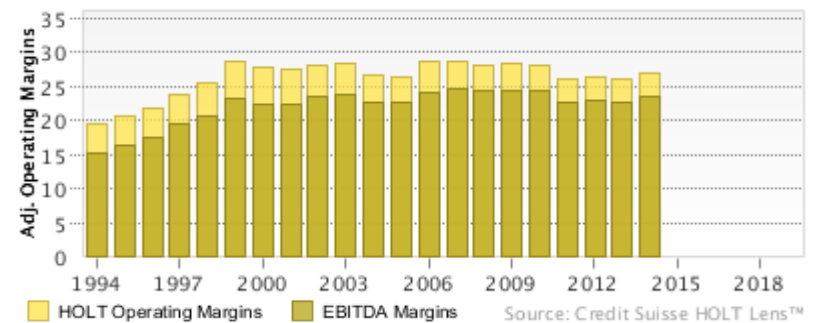
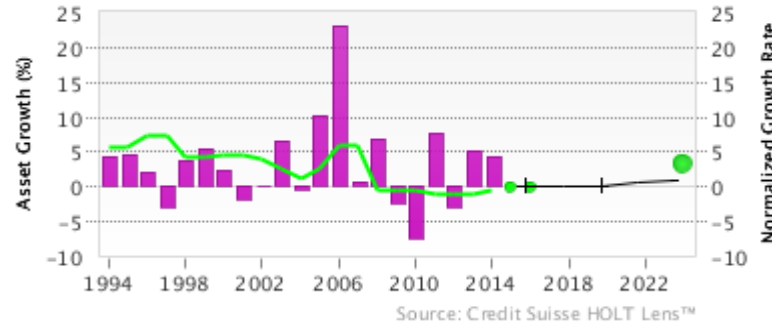
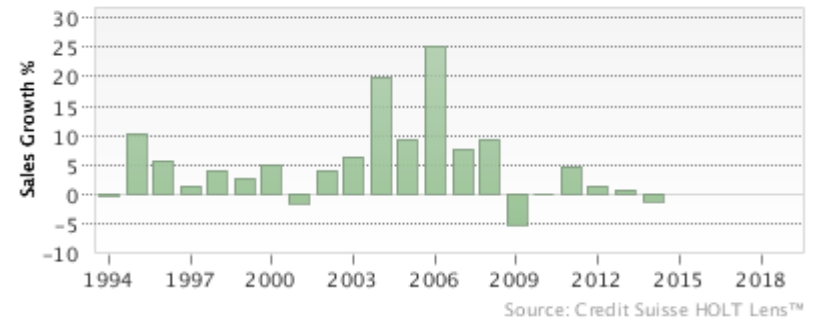
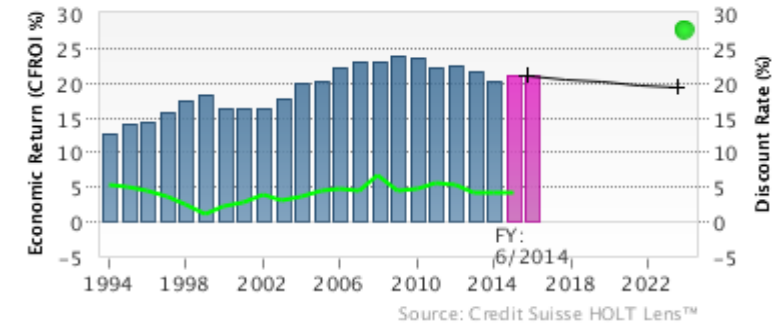
## Sales, margins & turns

Household Products

Market Cap: 235.677 USD

Price: 86.94 (Oct 30, 2014)

Warranted Price: 49.91 USD (-43%)



# PROCTER & GAMBLE CO (PG)

## Expectations

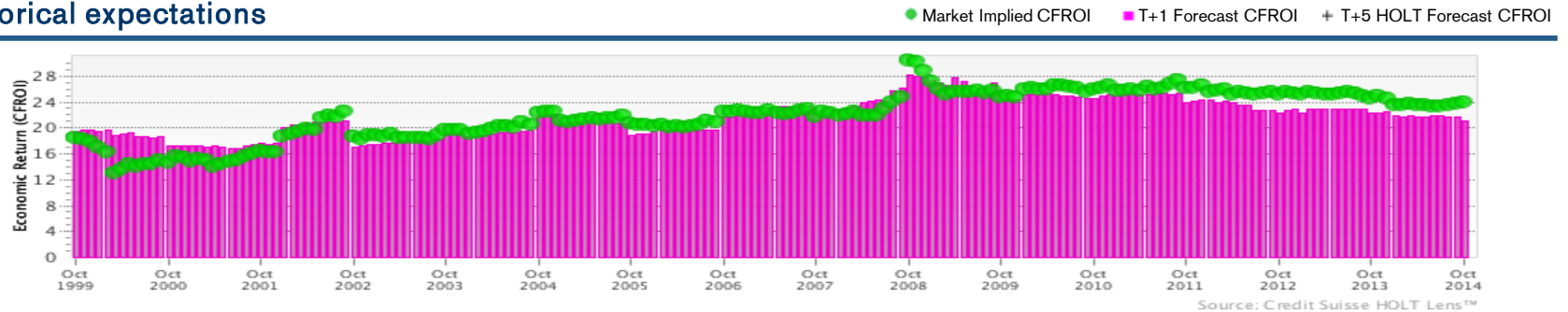
Household Products

Market Cap: 236.572 USD

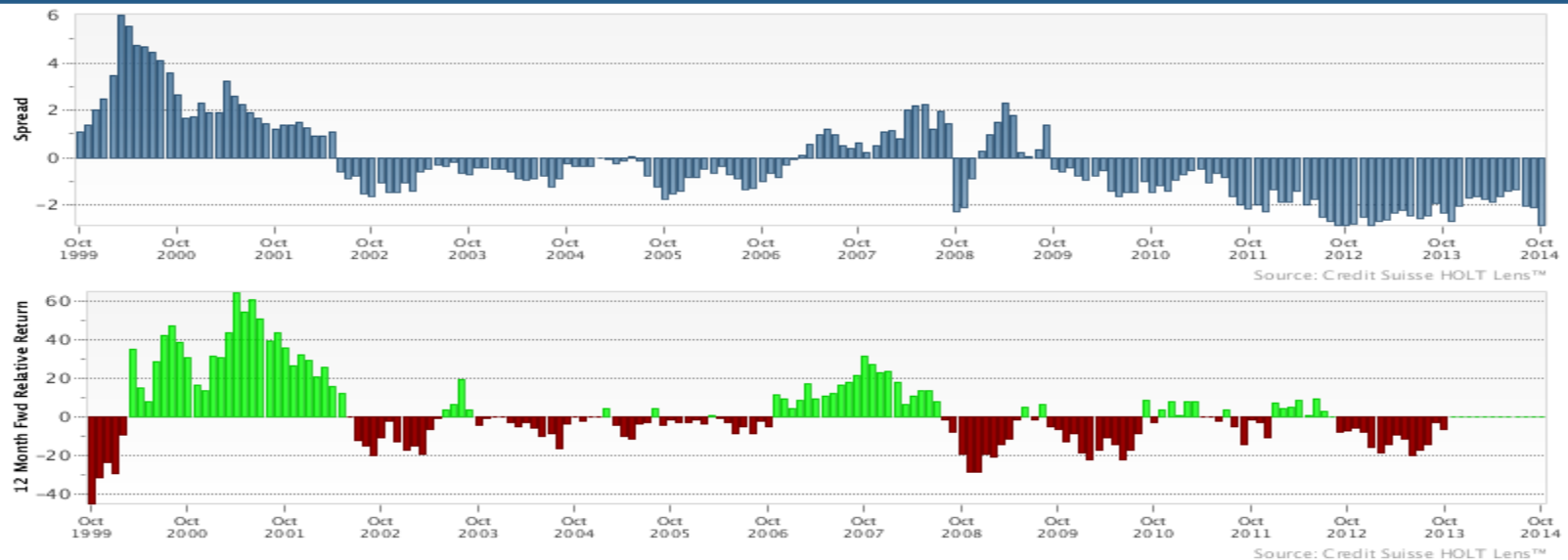
Price: 87.27 (Oct 31, 2014)

Warranted Price: 50.57 USD (-42%)

## Historical expectations

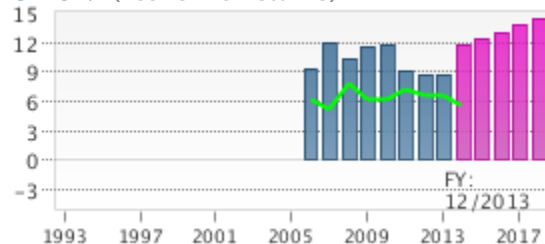


## Spread: Market implied CFROI vs. T+1 forecast CFROI

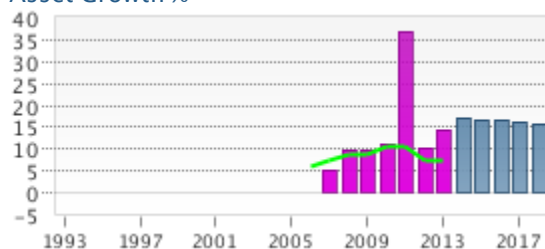


# AMOREPACIFIC (090430)

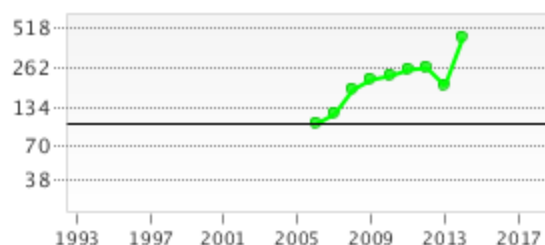
CFROI % (Economic Returns)



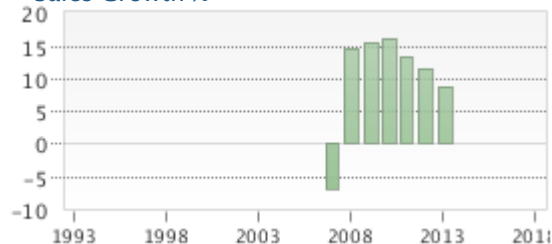
Asset Growth %



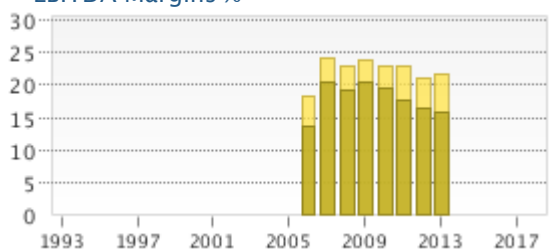
Total Shareholder Return



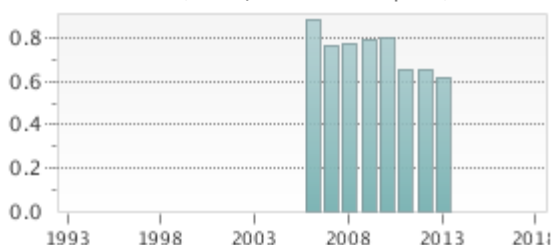
Sales Growth %



EBITDA Margins %



Asset Turns (Sales/Invested Capital)



Market Implied Scenario

[Open In HOLT Lens™](#)

Personal Products, Korea

Price (Nov 7, 2014) 2,274,000 KRW

Market Cap (bil) 15,685 KRW

Risk

Probability of Default 0%

Average Credit Rating NA

Accounting Quality Above Average

Momentum 6m 3m 1m

CFROI Revisions 2.00 1.16 0.58

Price Change % 61.28 21.22 -2.82

**Historical Operations.** Amorepacific qualifies as a Momentum Trap as it is among the top 40% of peers in momentum, but its operational quality and valuation is below peers. From 2010, the firm's CFROI has been worsening although operating margin was higher. The company ranks ahead of its peer Lg Household & Health Care for operating margins but lags Lauder for asset turns.

**Market Expectations.** The consensus-driven CFROI level of 11.7% for next year is higher compared to its level in 2013, and the market expects it to continue to improve to 14.3% through 2018.

**Risks To Consider.** Price momentum has been weaker than that of its peers over the past month, but CFROI revisions have been stronger.

Jungwoo Kim , HOLT Sector Specialist

Powered by : Narrative Science

# AMOREPACIFIC (090430)

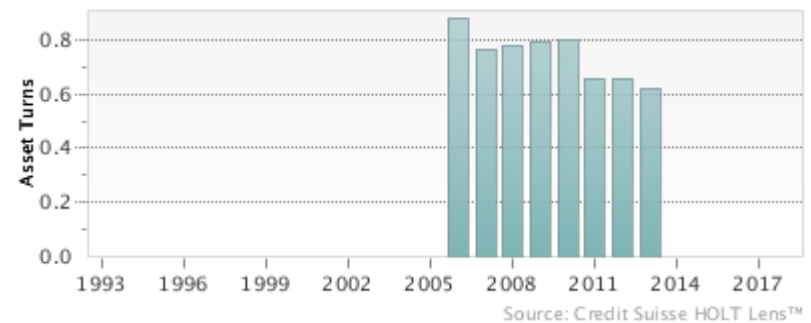
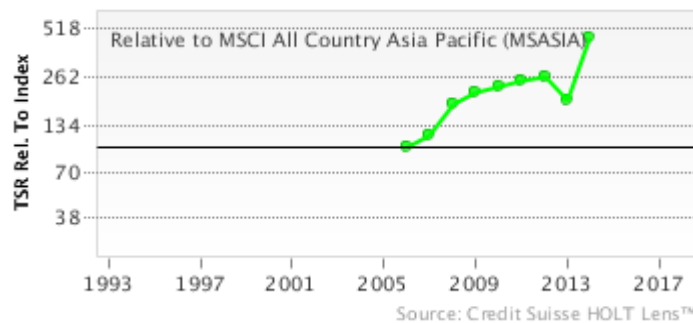
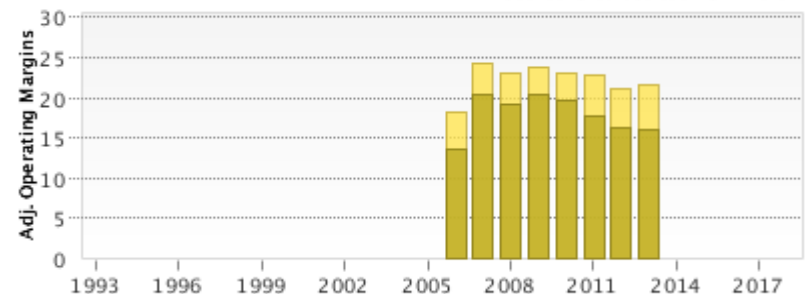
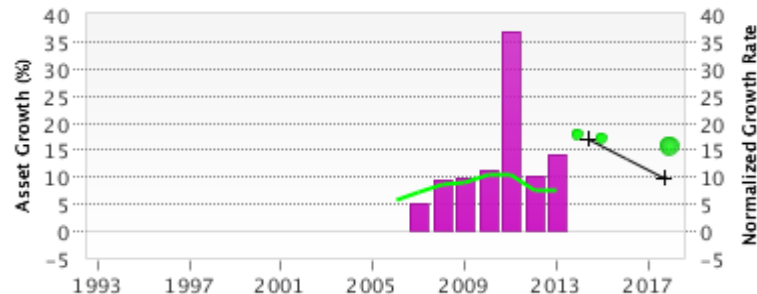
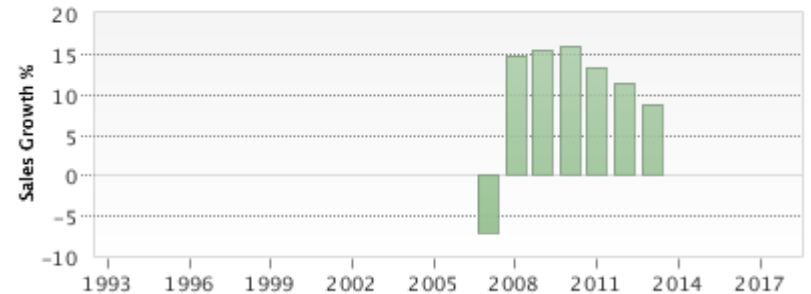
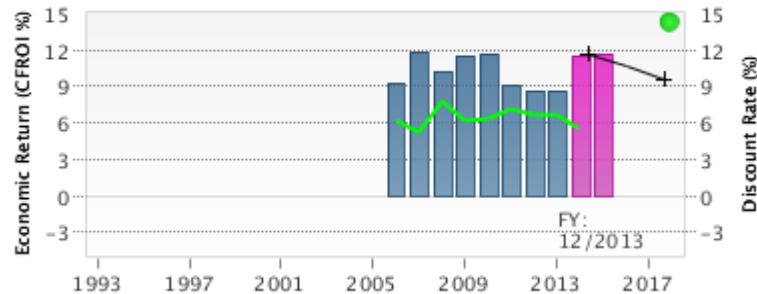
## Sales, margins & turns

Personal Products

Market Cap: 15,865 KRW

Price: 2,300,000 (Oct 31, 2014)

Warranted Price: 1,237,235 KRW (-46%)



# AMOREPACIFIC (090430)

## Expectations

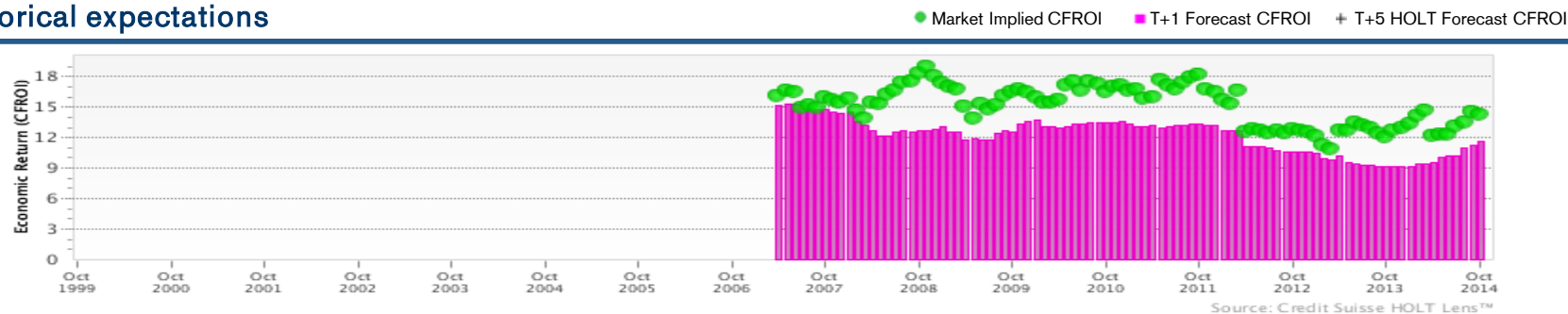
Personal Products

Market Cap: 15,865 KRW

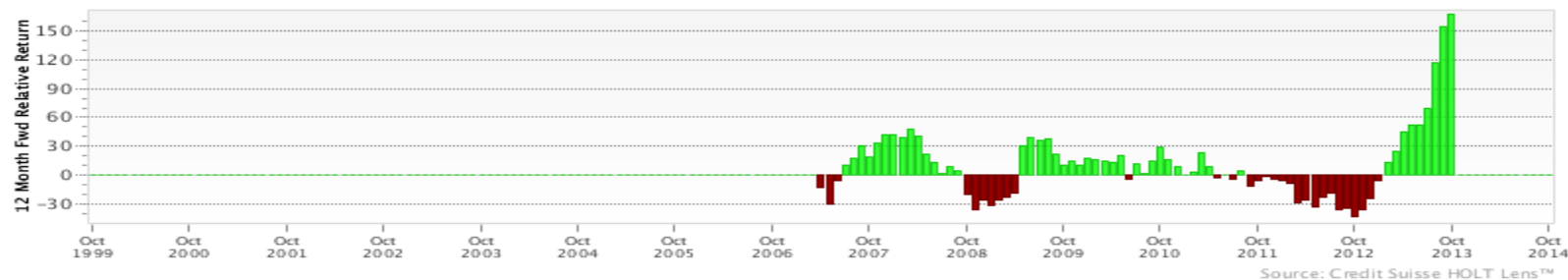
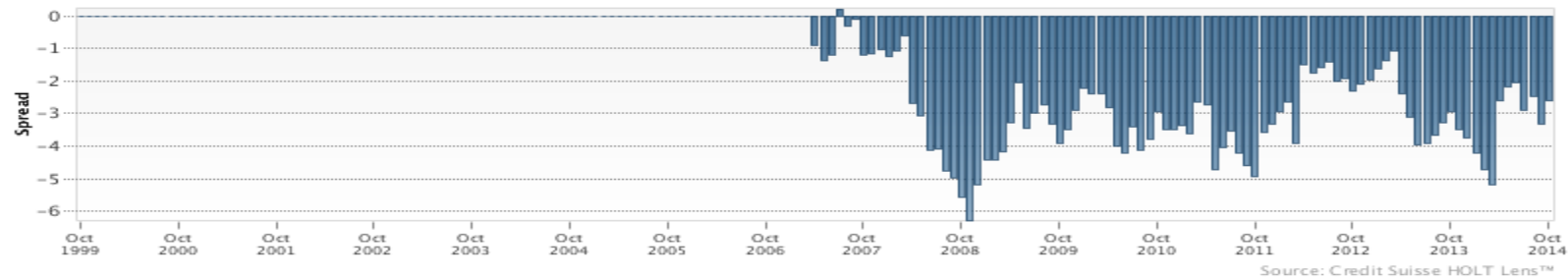
Price: 2,300,000 (Oct 31, 2014)

Warranted Price: 1,237,235 KRW (-46%)

## Historical expectations



## Spread: Market implied CFROI vs. T+1 forecast CFROI

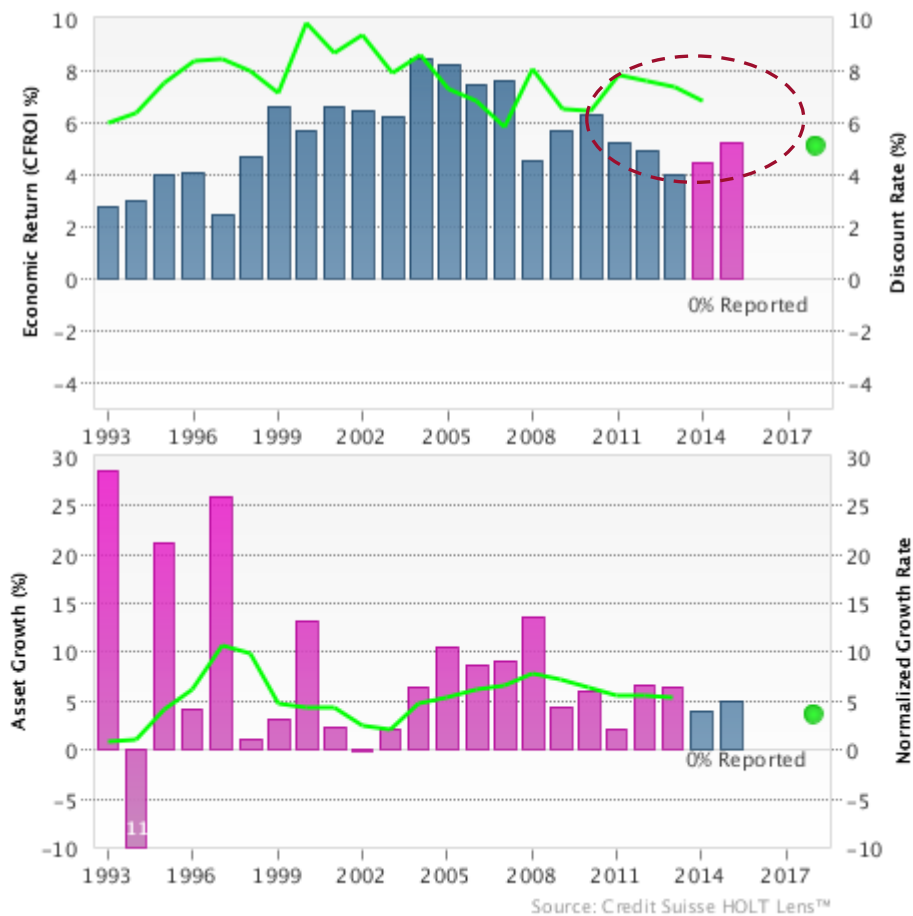


# All Korea excluding SEC and HMC

## Weighted

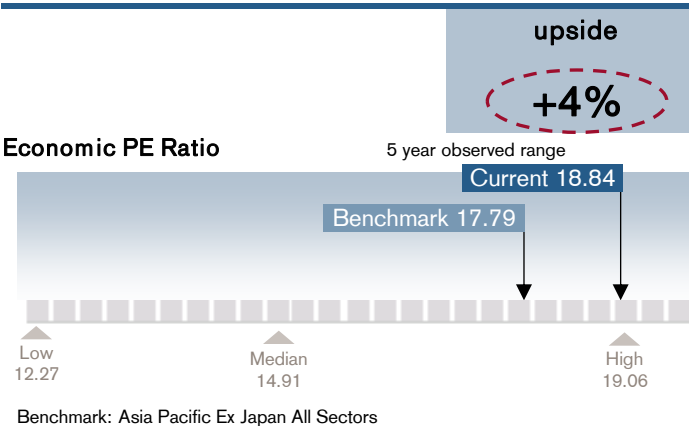
### Summary

#### Relative Wealth Chart



#### Valuation

##### Economic PE Ratio



#### Momentum

	6m	3m	1m
CFROI Revisions	-0.54	-0.19	-0.09
Price Change %	9.66	1.53	3.71

# Korean stocks with market cap of +US\$2bn

## Investment styles

Good operational quality				Poor operational quality				
Strong momentum		Weak momentum		Strong momentum		Weak momentum		
Cheap	Best in class	1	Contrarian	2	Restructuring	7	Value trap	16
	HALLA VISTEON CLIMATE CON		CELLTRION, INC.		KT&G		BS FINANCIAL GROUP INCORP	
			LG CHEM		KEPCO		LG ELECTRONICS INC.	
					WOORI FINANCE HOLDINGS		POSCO	
					INDUSTRIAL BANK OF KOREA		LOTTE CHEMICAL	
					LG		LG UPLUS	
					KT		SAMSUNG SDI	
					LG DISPLAY		KB FINANCIAL GROUP INCORP	
Expensive	Quality at any price	4	Quality trap	3	Momentum trap	12	Worst in class	9
	COWAY		DOOSAN		AMOREPACIFIC		DOOSAN HEAVY INDUSTRIES A	
	HYUNDAI GLOVIS		KEPCO PLANT SERVICE & ENG		SAMSUNG CARD		ORION	
	HANSSEM		GRAND KOREA LEISURE(N)		AMOREG		SK INNOVATION	
	YOUNGONE				HYUNDAI DEVELOPMENT COMPA		DAEWOO ENGINEERING & CONS	
					SK NETWORKS		OCI	
					KOREAN AIR LINES		DAEWOO SHIPBUILDING & MAR	
					HOTEL SHILLA		KOREA GAS	

UNIVERSE : Korea

CRITERIA :

Market Capitalization (bil) >= 2.0 USD



# Korean stocks with market cap of +US\$2bn

## Investment styles

Investment theme	Operational quality	Momentum	Valuation
Best In Class	Good	Strong	Cheap
Restructuring	Poor	Strong	Cheap
Contrarian	Good	Weak	Cheap
Quality At Any Price	Good	Strong	Expensive
Value Trap	Poor	Weak	Cheap
Momentum Trap	Poor	Strong	Expensive
Quality Trap	Good	Weak	Expensive
Worst in Class	Poor	Weak	Expensive

# Definition of investment styles

## Best in Class

- A Best in Class stock ranks among the top 40% of its peers in Quality, Momentum, and Valuation
- A Best in Class stock is likely to show strong performance throughout all stages of the economic cycle. Its strong cash flows and balance sheet mitigate risks posed by economic weakness while their strong momentum and cheap valuation provide the potential for stock price appreciation

## Contrarian

- A Contrarian stock ranks among the top 40% of its peers in Quality and Valuation and among the bottom 40% in Momentum
- Contrarian stocks have strong track records of generating shareholder wealth and have attractive valuations. If investors believe these companies will beat declining expectations, these stocks can provide buying opportunities

## Restructuring

- A Restructuring stock ranks among the top 40% of its peers in Momentum and Valuation and among the bottom 40% in Quality
- Despite having low CFROI levels and poor wealth creation (or low quality balance sheet for banks and real estate firms), a Restructuring stock can provide buying opportunities if the business has changed its operations and/or organizational structure to improve returns going forward

## Value Trap

- A Value Trap stock ranks among the top 40% of its peers in Valuation and among the bottom 40% in Quality and Momentum
- Value Trap stocks shows upside in the HOLT model while having relatively poor momentum and operational quality. Companies that can improve return can provide significant upside

## Quality at Any Price

- A Quality at any Price stock ranks among the top 40% of its peers in Quality and Momentum and among the bottom 40% in Valuation
- Quality at any Price stocks have shown strong momentum despite expensive valuations and can continue to run as long as market fear for stretched valuations remains low

## Quality Trap

- A Quality Trap stock scores among the top 40% of its peers in Quality, and among the bottom 40% in Valuation and Momentum
- While Quality Trap stocks have shown a strong track record in generating share holder wealth (or high quality balance sheets for banks and real estate firms), they currently are overvalued and have relatively poor market sentiment. As a result, this style has underperformed over time

## Momentum Trap

- A Momentum Trap stock ranks among the top 40% of its peers in Momentum and among the bottom 40% in Quality and Valuation.
- Momentum Trap stocks on balance have had relatively strong momentum from both the sell and buy sides while being over valued with poor operational quality compared to their peers

## Worst in Class

- A Worst in Class stock ranks among the bottom 40% of its peers in Quality, Momentum, and Valuation
- Worst in Class stocks have a weak record at creating wealth and are forecasted to have declining returns. Combined with an expensive valuation, this has led Worst in Class names to underperform the market

### **3. Shareholder activism**

# Who are the key activist players?

Activist <sup>(1)</sup>	Est. AUM <sup>(2)</sup>	Location	Pre-2009	2009	2010	2011	2012	2013	2014
Elliott	\$39.5	New York	Shutterstock, ENDX LOGX, PACKETEER, MCI EPICOR		Novell	IRON MOUNTAIN, ACTELION	bmc software, Compaware, BROCADE	HESS	riverbed, JUNIPER
Southeastern	\$35.1	Memphis	JACUZZI BRANDS, Sun, PIONEER NATURAL RESOURCES	txi			Chesapeake, MARTIN MARIETTA	DELL	
Carl Icahn	\$29.4 <sup>(3)</sup>	New York	YAI OOI, AMFIB, MOTOROLA, MOTOROLA MOBILITY	T2 TAKE TWO INTERACTIVE	genzyme, LIONSGATE, DYNEGY	FLOROX, A&P, MOTOROLA MOBILITY	NETFLIX, Chesapeake, OSHKOSH, NAVISTAR	DELL, Transocean, HERBALIFE, Apple	ebay, FAMILY DOLLAR
Third Point	\$18.0	New York	Martin Marietta Materials, CYPRESS	TXCO RESOURCES		YAHOO!	MURPHY OIL CORPORATION, [e]enphase ENERGY	SONY, CFl dustries, Sotheby's	Dow, Sotheby's
ValueAct	\$15.7	San Francisco	SEITEL, AMO, CHIMERA, VALEANT		IMMUCOR, BEARD, MANDALAY	Adobe, FIDELITY	Gardner Denver, MSCl	Microsoft	DRESSER-RAND
Pershing Square	\$15.2	New York	BORDERS, Long's, McDonald's, CERIDIAN	TARGET	FORTUNE BRANDS, Kraft foods, jcpenny	AB, GENERAL GROWTH PROPERTIES, CANADIAN PACIFIC RAILWAY	P&G	HERBALIFE, AIR PRODUCTS	FannieMae, Freddie Mac, ALLERGAN
JANA Partners	\$11.4	New York	THE HOUSTON CORPORATION, ALCOA, CONVEY'S, KerrMcGee	PRGX	charles river	TNT, The McGraw-Hill Companies	Agrium	ASHLAND, SAFEWAY, OIL STATES, Outers all	Walgreens, JUNIPER, URS
Triam	\$8.6	New York	Clifford Schwegler, Wynn Resorts, TIFFANY & CO., Heinz, KRAFT	DR PEPPER SNAPPLE, LEGG MASON	FAMILY DOLLAR	STATE STREET	IR, DANONE, LAZARD	PEPSICO, Mondelez	PEPSICO
Corvex	\$8.2	New York				AboveNet	ADT, ECA, Ralcorp	tw telecom	Williams
Relational	\$6.4	San Diego	SPX, Sprint, INNOVATIVE	intuit, genzyme	oxy, genzyme	EA ITW, PRR PHARMACEUTICAL COMPANIES	PMC TIMKEN, FLOWSERVE, PEPSICO	HESS, SPX	CleanHarbors
Starboard	\$2.6	New York	EGD, Actel, Luby's, Datascoper	tollgrade, ORTHOFIX	Cypress	REGIS, wausau PAPER	PROGRESS SOFTWARE, Office DEPOT, TESSERA	IDT, Calgon Carbon, TriQuint SEMICONDUCTOR, Smithfield	DARDEN, wausau PAPER

Source: FactSet and news sources.

(1) Sorted by AUM.

(2) In billions, per investor's most recent Form ADV, unless otherwise noted. Not all AUM necessarily dedicated to an activism investment strategy.

(3) Per Icahn Enterprises' investor presentation filed May 14, 2014.

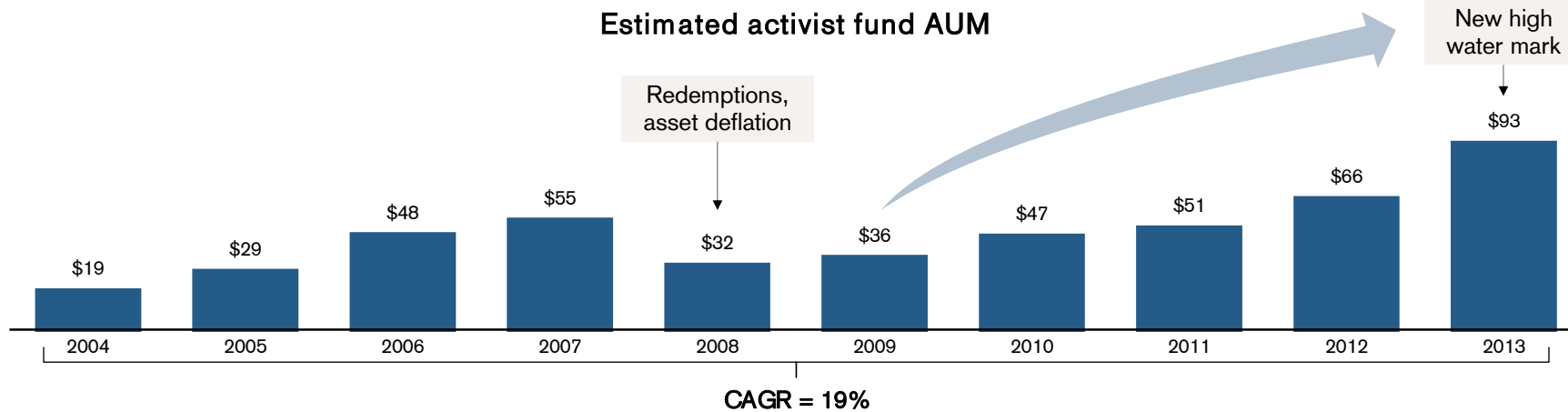
# Activist hedge funds: Rogues or change agents?

## Notable US focused activists<sup>(1)</sup>

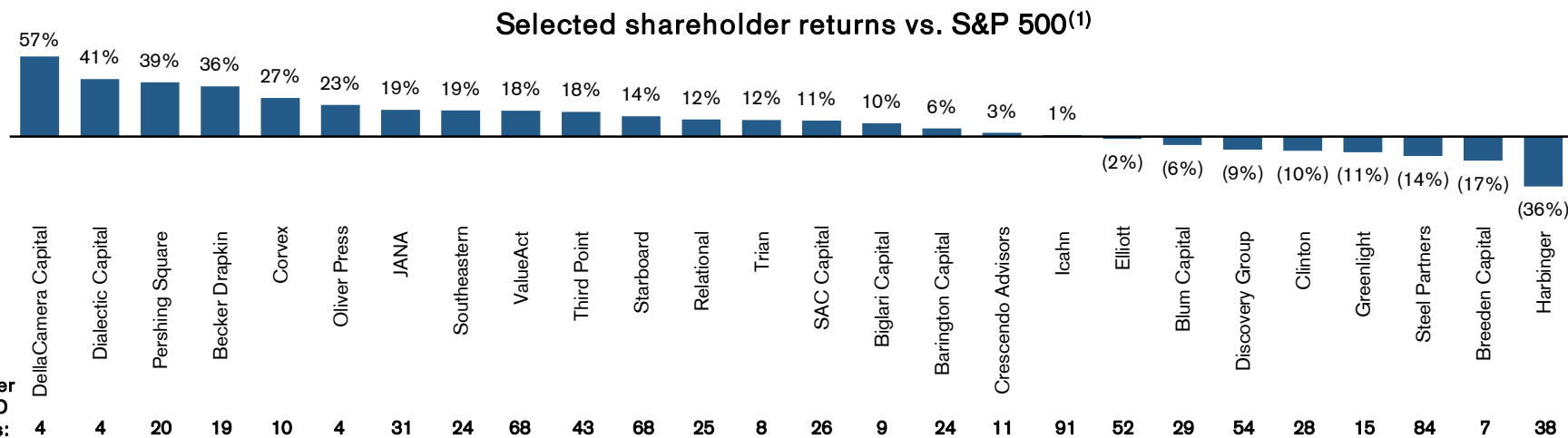
	<b>Carl Icahn</b> AUM: ~\$29.4 billion <sup>(2)</sup>		<b>Bill Ackman</b> AUM: ~\$15.2 billion		<b>Nelson Peltz</b> AUM: ~\$8.6 billion		<b>Daniel Loeb</b> AUM: ~\$18.0 billion
	<b>Paul Singer</b> AUM: ~\$39.5 billion		<b>Ralph Whitworth</b>  <b>RELATIONAL INVESTORS</b> AUM: ~\$6.4 billion		<b>Jeff Ubben</b>  AUM: ~\$15.7 billion		
	<b>Barry Rosenstein</b> AUM: ~\$11.4 billion		<b>Jeff Smith</b> AUM: ~\$2.6 billion		<b>Keith Meister</b>  AUM: ~\$8.2 billion		

# Activism is gaining momentum

Capital allocated to activism is increasing...



...because activism has created alpha



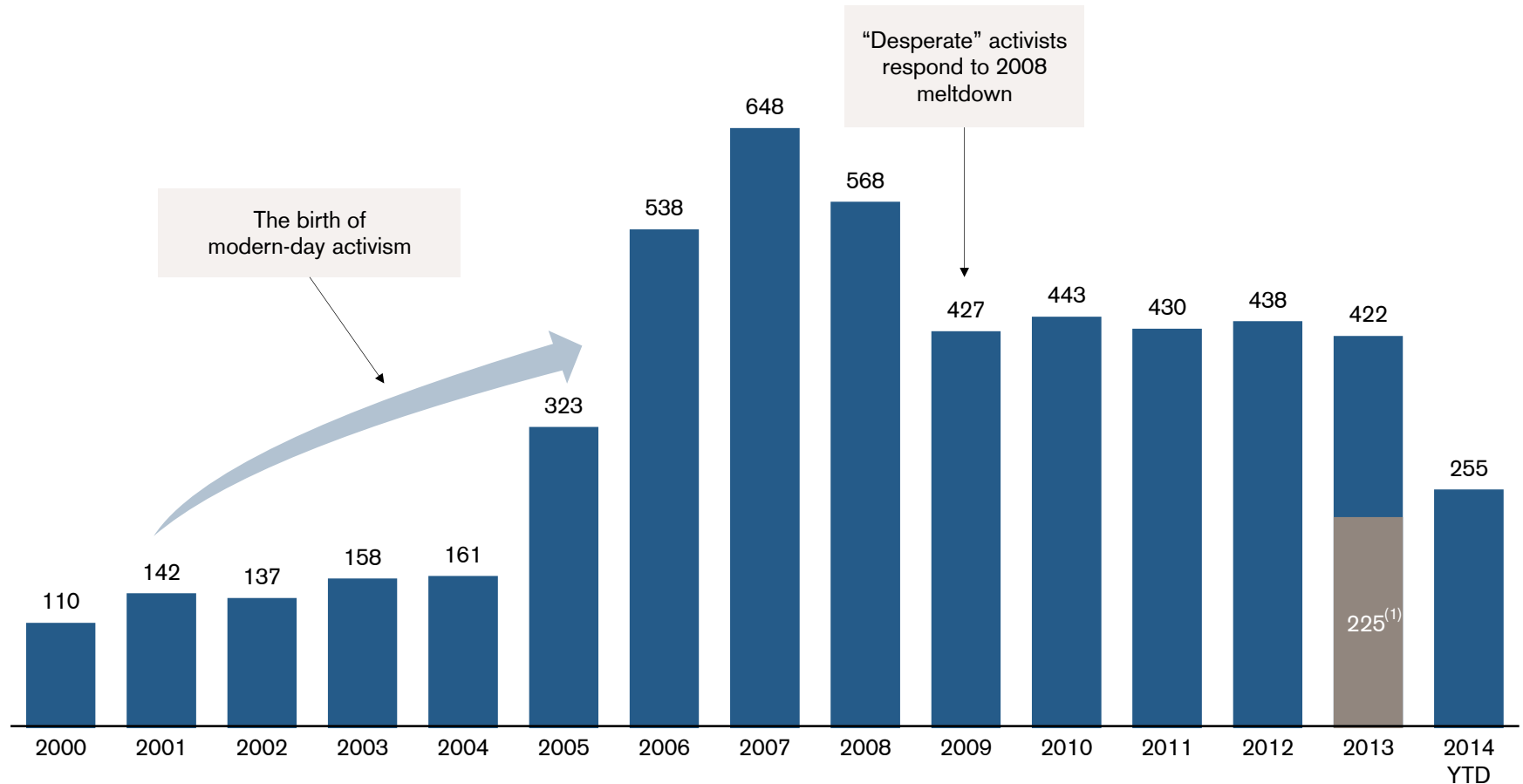
Source: HFR Global Hedge Fund Industry Report and 13D Monitor.

Note: Alphas based on snapshot of median returns as of July 16, 2014. Results based on all live and exited 13D filings.

(1) Included period of time until activist exited position.

# The number of activist campaigns has increased

## Activist campaigns (2000 – 2014 YTD)



Data undercounts campaigns because does not track increasingly common, private campaigns

# Shareholders believe activism can create value in the aggregate

## Activism is here to stay

### Dedicated activist funds continue to attract new investments

- Activist funds have the money and the mandate
- Activists deploying more PE-like structures
- CalPERS has invested more than \$4 billion in 10+ activist funds
- New funds being formed (Corvex, Casablanca, etc.)

### Activism can thrive in all market environments

- Two popular tools in the activist tool box (M&A and balance sheet activism) rely on accommodating markets
- But weaker markets provide more activist targets, as investors search for alpha

### Activism has gone global

- European activism: TNT, National Express, Cookson, Implenia, Actelion, Danisco, ABN Amro, Generali
- Asian activism is not as prevalent, but is starting to emerge (e.g. Sony)

### Shareholders take a balanced view

- The agency problem: directors may rent seek, or fail to move quickly
- The collective action problem: dispersed shareholder base
- Short termism: seek to encourage long-term investment and prudent risk taking



# Many mainstream investors buy into the “what’s the harm?” argument

## The support of mainstream investors takes various forms

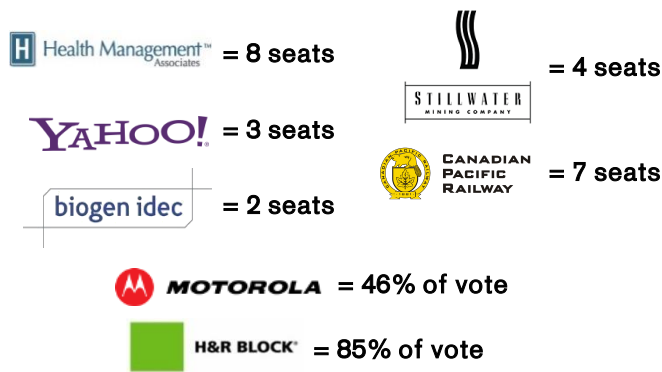
Lead activist role (still rare)



Public support (less rare)



Private support at ballot box (very common)



## Factors influencing mainstream investor support

- Underperformance vs. peers over the long-term
- Industry analyst criticism of target's strategy
- Lack of accountability to shareholders (e.g., ignored shareholder proposal)
- Lax oversight of management (e.g., no P4P, an imperial CEO)
- Collective action problem due to dispersed ownership
- Outsourcing costs of activism (more concentrated activist portfolio provides economic incentives)
- Use activists to avoid culture concerns
- Activists nominating better dissident slates
- Activists sharing due diligence (e.g., white papers)

# Mainstream investors have supported hedge fund activists, putting pressure on target Boards to settle

- Large cap targets require the support of “vanilla” investors
- Mainstream investors are often quiescent unless and until they are offered a free option (e.g., a premium offer, an activist alternative plan, etc.)
- To many institutions, activism appears to create alpha uncorrelated to the market
  - Mainstream investors have been willing to support activists with successful track records
  - Mainstream investors volunteering their views to activists behind the scenes
- Activists are playing to their “mainstream investor” audience
  - “Taking the high road” and avoiding personal attacks, “poison pen” letters
  - Invoking corporate governance “best practices” in their campaigns
  - Positioning campaigns as promoting long-term value vs. short-term financial engineering
  - Running more impressive director slates





Many investors buy into the “what’s the harm?” of a “shareholder watchdog” argument

# Criteria for likely activist targets

<b>Stock price performance</b>	Low returns to shareholders and/or trading multiples compared to peers and industry indices
<b>Profitability</b>	Poor operational performance and profitability metrics relative to company subsector
<b>Valuation</b>	Low valuation metrics and trading multiples relative to peers or compared to historical levels
<b>Trading vs. SOTP</b>	Substantially higher sum of the parts valuation vs. trading valuation (and/or higher NAV vs. trading valuation for E&P companies)
<b>Asset mix</b>	Diverse set of assets, but strategic fit can be challenged
<b>Capital structure / allocation</b>	Low leverage, but substantial debt capacity; capital allocated to underperforming acquisitions / initiatives
<b>Shareholder distributions</b>	Steady cash flow, but lower shareholder distributions
<b>Tax advantaged structure</b>	Tax structure not optimized to minimize tax burden (e.g. MLPs, REITs, etc.)
<b>Ownership</b>	High hedge fund ownership, low insider ownership
<b>Governance</b>	Poor governance track record with ISS
<b>Size</b>	Small to midsize companies have historically been easier targets

Source: Wall street research, Journal of Finance.

# Activists often make multiple demands

	Activist campaign menu	Selected campaigns
M&A activism	<p>The easiest activist strategy – quick capture of a takeover premium provides attractive returns over a short term using leverage</p> <ul style="list-style-type: none"> <li>■ Kick start a process to sell the company</li> <li>■ Break-up companies to unlock “hidden” value <ul style="list-style-type: none"> <li>– Elimination of the “conglomerate discount”</li> <li>– Focus on “core” business; divest “non-core”</li> <li>– Doesn’t require a buyer</li> </ul> </li> <li>■ Hold up transactions for sweeteners (“bumpitragage”)</li> </ul>	
Balance sheet activism	<p>An easy strategy – run a simple screen to identify cash-rich targets</p> <ul style="list-style-type: none"> <li>■ Return capital to shareholders (share buyback, special dividend)</li> <li>■ Record high cash on balance sheets, but subject to repatriation tax leakage</li> </ul>	
Operational activism	<p>The hardest and rarest strategy – requires industry experience and patience</p> <ul style="list-style-type: none"> <li>■ “Private equity disintermediation”</li> <li>■ Focus on income statement</li> <li>■ Rationalize cost structure (SG&amp;A, R&amp;D) and maximize ROIC</li> <li>■ Change management, including direct attacks on CEO (“alpha by decapitation”)</li> </ul>	
Governance activism	<p>A means to an end, not an end in itself</p> <ul style="list-style-type: none"> <li>■ Replace directors via a proxy fight or public or private pressure</li> <li>■ Push for governance “best practices”</li> </ul>	

The more actionable value levers, the more attractive the target

# Global shareholder activism – Overview

- Although historically a US phenomenon, shareholder activism is spreading and taking root in other jurisdictions with developed market economies, including Canada, Europe and Japan
- Globally, activism is still very much in its infancy and the mature form it is likely to take in each jurisdiction will be determined by the country's / region's:
  - Investor attitudes and risk appetite
  - Corporate governance regimes, rights and relative focus on shareholder value
  - Legal and regulatory environment
  - Structure of share registries, including concentration of registry, levels of insider and institutional ownership as well as cross shareholdings
  - Corporate culture
  - Political considerations, such as protectionism and nationalism
- Rate and direction of global spread is also likely to be impacted by macroeconomic factors, with activism being more prevalent in subdued conditions

## Europe

- Uncertainty whether US style activism will take root in Europe
  - However, companies with a significant "Anglo" shareholder base are vulnerable
  - The regulatory framework and concentrated shareholder bases make it easier to push for change "behind closed doors" at many companies
- Mainstream investors are increasingly seeking to act as responsible "stewards" of capital

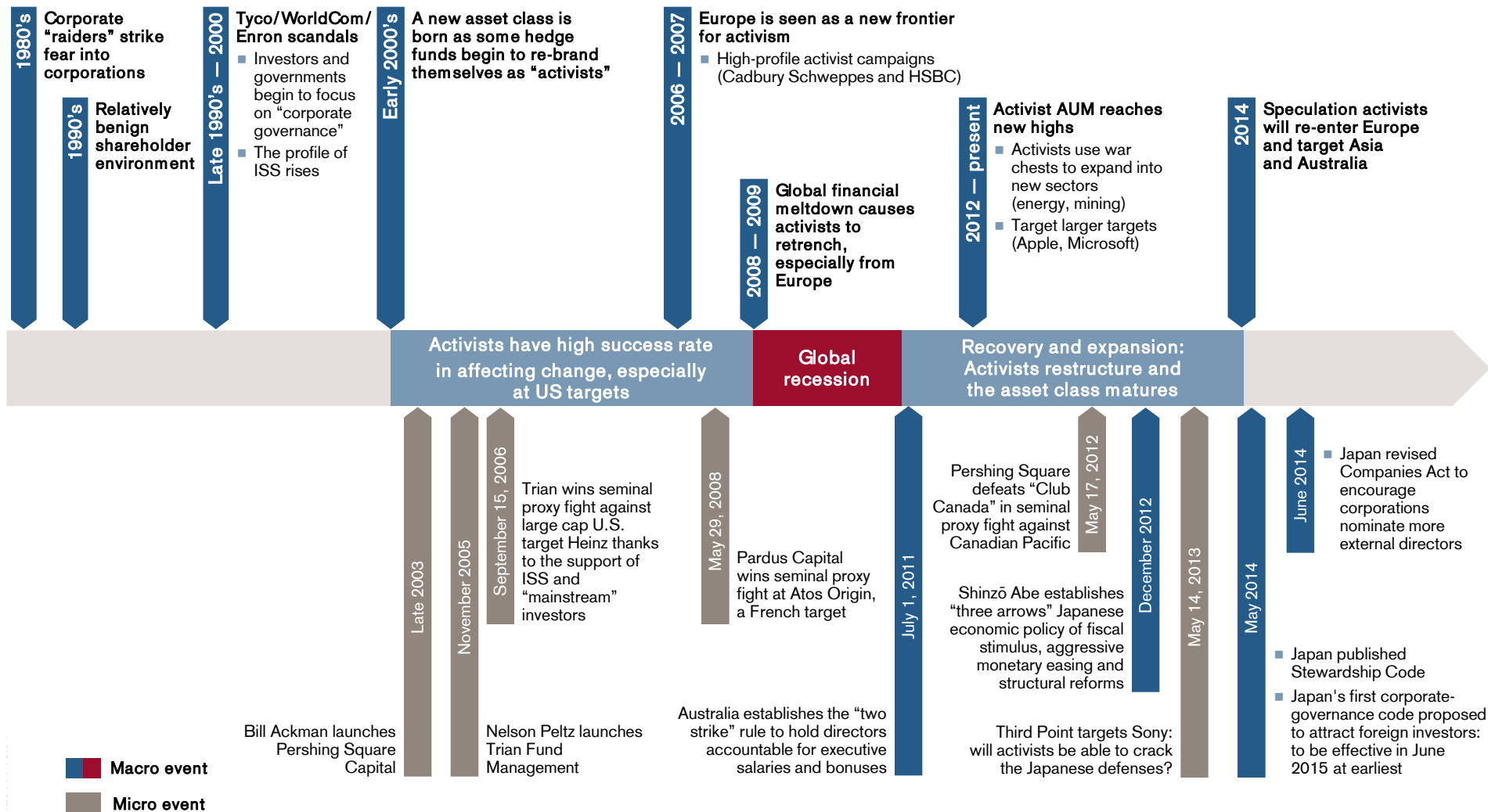
## Canada

- Although not new to Canada, US style shareholder activism is steadily growing
- Campaigns cover the full spectrum of demands, including M&A / spin-offs, balance sheet, governance and board control
- Institutional shareholders are increasingly supportive of campaigns by, often foreign, shareholder activists
- Similar, relatively shareholder friendly, legal environment to Australia

## Japan

- A new mindset is on the rise with a combination of a legislative reform meaning that Japan is slowly turning activist friendly
- Activist demands are often viewed as too drastic by Japanese companies
- Cross-shareholding has been decreasing and institutional investors increasing % of stakes
  - Such investors tend to vote with activists, as they focus on improving the performance of fund's portfolios

# Global spread of activism



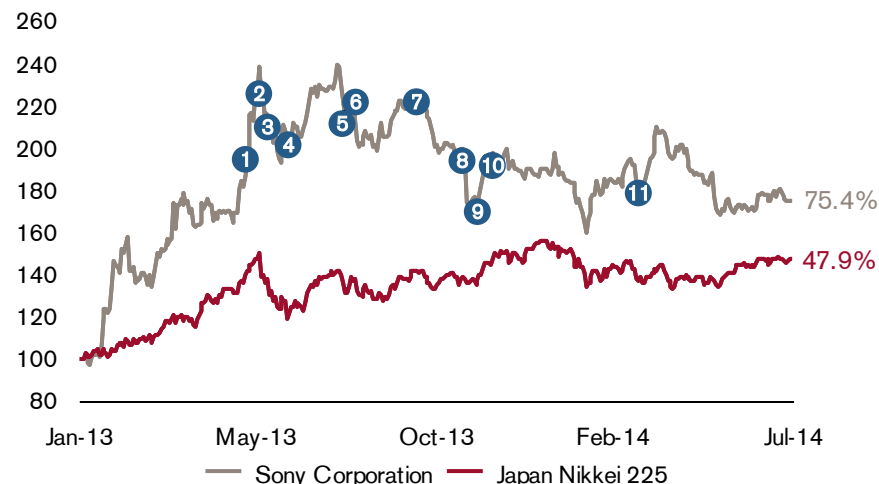
Source: FactSet and news articles.

# Third Point's campaign at Sony

## Campaign summary

- 1 On May 14, 2013, Third Point, a 6.4% holder, sent a letter to Sony President and CEO Kazuo Hirai and urged the company to take 15-20% of Sony public and offer subscription rights to existing shareholders, and focus on industry-leading businesses to revitalize the struggling Electronics business
  - Loeb estimated Third Point's plan could boost the share price by 60%
  - Loeb also indicated Third Point would gladly accept a seat on the Board
- 2 On May 21, 2013, Hirai announced the Board was evaluating the proposals
- 3 On May 30, 2013, Bloomberg reported Morgan Stanley and Citigroup had been hired to advise Sony on Third Point's proposals
- 4 On June 17, 2013, Third Point, now a 7.0% holder, sent another letter to Sony to reiterate the main points from its first letter
- 5 On July 29, 2013, CNBC reported in a letter to investors, Third Point called the Entertainment division poorly managed and criticized box office failures
- 6a On August 5, 2013, Sony announced the Board had unanimously voted to reject Third Point's proposals, saying that continuing to own 100% of the entertainment business is fundamental to Sony's success
- 6b On August 6, 2013, Bloomberg reported that Third Point wanted Sony to set targets for improving its entertainment business, but that Third Point did not have immediate plans to wage a proxy fight or call a special meeting
- 6c On August 7, 2013, in an interview with Variety, Loeb indicated he was pleased with the results of his agitation and announced plans to monitor Sony's progress and reassess the situation prior to the next annual meeting
- 7 On September 23, 2013, the Nikkei reported Third Point was re-registering its stake under its own name in order to have the option of exercising its shareholder rights (~3% stake previously reflected under different names)
- 8 On October 31, 2013, the company announced a loss in the last quarter as its entertainment unit contributed to a net loss of 19.3 billion yen
- 9 On November 11, 2013, Third Point disclosed a 1.64% stake in Sony under its own name at the end of September in a regulatory filing
- 10 On November 18, 2013, the NYT reported that Sony Entertainment hired Bain & Company to help identify \$100 million or more in cost cuts
- 11 On March 17 2014, Sony Entertainment announced layoffs across divisions
  - Earlier in 2014, Sony announced its operating income at its Pictures unit declined by 4.2%

## Sony's share price performance



## Demands and results

### Activist demands

- Spin off Entertainment business
- Focus on revitalizing the Electronics business

### Status

- The Board rejected Third Point's proposals
- Third Point announced it would continue to monitor the company's progress and re-evaluate the situation prior to the next AGM
- Third Point re-registered its shares under its own name to have the option of exercising its shareholder rights

Source: FactSet, press releases & news runs as of July 16, 2014.  
Performance indexed on an annual basis from January 1, 2013.

# Advance preparation for activists

- **Stay one step ahead**
  - Core hedge fund strategy is to create a wedge between the company and its shareholders through embarrassment or suggestion of ideas that management supposedly missed
- **Analyze your business the way a short-term financial investor would**
  - Review potential vulnerabilities with appointed defense advisor and develop attack arguments and refutations
- **Maintain active engagement and credibility with shareholders and analysts before activists surface**
- **Be alert to early warning signs, such as:**
  - Extremely pointed questions during Q&A
  - Continued analyst reports suggesting structural changes
  - Changes in shareholder base
- **It is rare for an activist to merely show up in the register without taking a small position, requesting a meeting with management and then working to influence outcome**
  - Only when management is not responsive do they tend to escalate (via a call, letter or filing)
  - Each of these situations develops differently and there is no one size fits all strategy
- **Be ready for the first phone call**
  - Company can spend years recovering from mistake made in the first conversation
  - Establish internal and external teams, including advisors

Advanced preparation is essential to reduce the chances that the situation will escalate



# Summary action plan

- Companies which have been successful against activists or hostile bidders have prepared in advance
- The best defense is taking preemptive steps to shore up the “true believer” shareholder base

## Proactive:

*Before an activist arrives on the scene or escalates*

- 1 Establish a response team
- 2 Monitor shareholder base
- 3 Conduct investor “Listening Tour”
- 4 Enhanced review of current plan and strategic alternatives
- 5 Prepare Company response “Manifesto”
- 6 Prepare and align the Board

## Reactive:

*If an activist arrives on the scene or escalates*

- 7 Prepare for dialogue with activist
  - 8 Intensified shareholder outreach
  - 9 Analyze and prepare for ISS dialogue
- Advanced preparation allows you to:
    - control your own destiny
    - create long-term sustainable value
    - avoid being compelled to enact sub-optimal changes at a pace inconsistent with long-term objectives

## Global Market Commentary Disclaimer

References to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse AG operating under its investment banking division. For more information on our structure, please follow the attached link: [https://www.credit-suisse.com/who\\_we\\_are/en/what\\_we\\_do.jsp](https://www.credit-suisse.com/who_we_are/en/what_we_do.jsp)

This material has been prepared by individual traders or sales personnel of Credit Suisse and not by Credit Suisse's research department. It is intended only to provide observations and views of these traders or sales personnel, which may be different from, or inconsistent with, the observations and views of Credit Suisse research department analysts, other Credit Suisse traders or sales personnel, or the proprietary positions of Credit Suisse. Observations and views expressed herein may be changed by the trader or sales personnel at any time without notice. Credit Suisse accepts no liability for loss arising from the use of this material.

This material does not purport to contain all of the information that an interested party may desire and, in fact, provides only a limited view of a particular market. It is not investment research, or a research recommendation, as it does not constitute substantive research or analysis. The information provided is not intended to provide a sufficient basis on which to make an investment decision and is not a personal recommendation. While it has been obtained from or based upon sources believed by the trader or sales personnel to be reliable, each of the trader or sales personnel and Credit Suisse does not represent or warrant its accuracy or completeness and is not responsible for losses or damages arising out of errors, omissions or changes in market factors.

This material is provided for informational purposes and does not constitute an invitation or offer to subscribe for or purchase any of the products or services mentioned. It is directed exclusively at Credit Suisse's market professional and institutional investor clients (e.g. QIBs) as defined by the rules of the relevant regulatory authority, and must not be forwarded or shared with retail customers or the public. It is not intended for private customers and such persons should not rely on this material. Moreover, any investment or service to which this material may relate will not be made available by Credit Suisse to such private customers.

This material may have previously been communicated to the Credit Suisse trading desk or other Credit Suisse clients. You should assume that the trading desk makes markets and/or currently maintains positions in any of the securities mentioned above. Credit Suisse may, from time to time, participate or invest in transactions with issuers of securities that participate in the markets referred to herein, perform services for or solicit business from such issuers, and/or have a position or effect transactions in the securities or derivatives thereof. Information provided on any trades executed with Credit Suisse will not constitute an official confirmation of the trade details, and all preliminary trade report information is subject to our formal written confirmation.

**FOR IMPORTANT DISCLOSURES** on companies covered in Credit Suisse Investment Banking Division research reports, please see [www.credit-suisse.com/researchdisclosures](http://www.credit-suisse.com/researchdisclosures). To obtain a copy of the most recent Credit Suisse research on any company mentioned please contact your sales representative or go to <http://www.credit-suisse.com/researchandanalytics>.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, expressed or implied is made regarding future performance. Backtested, hypothetical or simulated performance results have inherent limitations. Simulated results are achieved by the retroactive application of a backtested model itself designed with the benefit of hindsight. The backtesting of performance differs from the actual account performance because the investment strategy may be adjusted at any time, for any reason and can continue to be changed until desired or better performance results are achieved. Alternative modeling techniques or assumptions might produce significantly different results and prove to be more appropriate. Past hypothetical backtest results are neither an indicator nor a guarantee of future returns. Actual results will vary from the analysis.

Investment principal on securities can be eroded depending on sale price or market price. In addition, there are securities on which investment principal may be eroded due to changes in redemption amounts. Care is required when investing in such instruments.

## HOLT Disclaimer

The HOLT methodology does not assign ratings or a target price to a security. It is an analytical tool that involves use of a set of proprietary quantitative algorithms and warranted value calculations, collectively called the HOLT valuation model, that are consistently applied to all the companies included in its database. Third-party data (including consensus earnings estimates) are systematically translated into a number of default variables and incorporated into the algorithms available in the HOLT valuation model. The source financial statement, pricing, and earnings data provided by outside data vendors are subject to quality control and may also be adjusted to more closely measure the underlying economics of firm performance. These adjustments provide consistency when analyzing a single company across time, or analyzing multiple companies across industries or national borders. The default scenario that is produced by the HOLT valuation model establishes a warranted price for a security, and as the third-party data are updated, the warranted price may also change. The default variables may also be adjusted to produce alternative warranted prices, any of which could occur. The warranted price is an algorithmic output applied systematically across all companies based on historical levels and volatility of returns. Additional information about the HOLT methodology is available on request.

CFROI, CFROE, HOLT, HOLT Lens, HOLTfolio, HOLTSelect, HS60, HS40, ValueSearch, AggreGator, Signal Flag, Forecaster, "Clarity is Confidence" and "Powered by HOLT" are trademarks or registered trademarks of Credit Suisse Group AG or its affiliates in the United States and other countries.

HOLT is a corporate performance and valuation advisory service of Credit Suisse.

© 2014 Credit Suisse Group AG and its subsidiaries and affiliates. All rights reserved.

For region specific disclosures, including information about applicable registrations and certain regulatory disclosures, please follow the links below:

Americas: [https://www.credit-suisse.com/legal/en/ib/market\\_commentary.jsp](https://www.credit-suisse.com/legal/en/ib/market_commentary.jsp) Europe: <https://www.credit-suisse.com/legal/en/ib/europe.jsp> (Credit Suisse Securities (Europe) Limited is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority in the United Kingdom)

Asia: [https://www.credit-suisse.com/legal/en/ib/market\\_commentary\\_disclaimer\\_asia.jsp](https://www.credit-suisse.com/legal/en/ib/market_commentary_disclaimer_asia.jsp)

**General investors in Japan should open the following link and read it:**

[https://www.credit-suisse.com/jp/investment\\_banking/ja/disclaimer/](https://www.credit-suisse.com/jp/investment_banking/ja/disclaimer/)

Please note that this is market commentary and not a research publication.

Credit Suisse does not provide any tax advice. Any tax statement herein regarding any U.S. federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purpose of avoiding any penalties. Any such statement herein was written to support the marketing or promotion of the transaction(s) or matter(s) to which the statement relates. Each taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

These materials have been provided to you by Credit Suisse in connection with an actual or potential mandate or engagement and may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with Credit Suisse. In addition, these materials may not be disclosed, in whole or in part, or summarized or otherwise referred to except as agreed in writing by Credit Suisse. The information used in preparing these materials was obtained from or through you or your representatives or from public sources. Credit Suisse assumes no responsibility for independent verification of such information and has relied on such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance (including estimates of potential cost savings and synergies) prepared by or reviewed or discussed with the managements of your company and/or other potential transaction participants or obtained from public sources, we have assumed that such estimates and forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgments of such managements (or, with respect to estimates and forecasts obtained from public sources, represent reasonable estimates). These materials were designed for use by specific persons familiar with the business and the affairs of your company and Credit Suisse assumes no obligation to update or otherwise revise these materials. Nothing contained herein should be construed as tax, accounting or legal advice. You (and each of your employees, representatives or other agents) may disclose to any and all persons, without limitation of any kind, the tax treatment and tax structure of the transactions contemplated by these materials and all materials of any kind (including opinions or other tax analyses) that are provided to you relating to such tax treatment and structure. For this purpose, the tax treatment of a transaction is the purported or claimed U.S. federal income tax treatment of the transaction and the tax structure of a transaction is any fact that may be relevant to understanding the purported or claimed U.S. federal income tax treatment of the transaction.

These materials have been prepared by Credit Suisse ("CS") and its affiliates for use by CS. Accordingly, any information reflected or incorporated herein, or in related materials or in ensuing transactions, may be shared in good faith by CS and its affiliates with employees of CS, its affiliates and agents in any location.

Credit Suisse has adopted policies and guidelines designed to preserve the independence of its research analysts. Credit Suisse's policies prohibit employees from directly or indirectly offering a favorable research rating or specific price target, or offering to change a research rating or price target, as consideration for or an inducement to obtain business or other compensation. Credit Suisse's policies prohibit research analysts from being compensated for their involvement in investment banking transactions.