

15 August 2006
Americas/United States
Quantitative Analysis

**Equity Research** 

## Quantitative Research High Yield, Low Payout

research team

#### Pankaj N. Patel, CFA

Research Analyst 212 538 5239 pankaj.patel@credit-suisse.com

#### Souheang Yao

Research Analyst 212 538 3610 souheang.yao@credit-suisse.com

#### **Heath Barefoot**

Research Analyst 212 538 5772 heath barefoot@credit-suisse.com

#### • High Yield and Low Payout

What is the optimal combination of dividend yield and payout ratio for the investors? We tested companies within the S&P 1500 and found that investors should look for companies with a high yield and low payout ratio for their portfolios. The high dividend yield and low pay out ratio basket of stocks had the best performance in our backtest since 1990. (See Exhibit 1.)

#### Dividend Yield

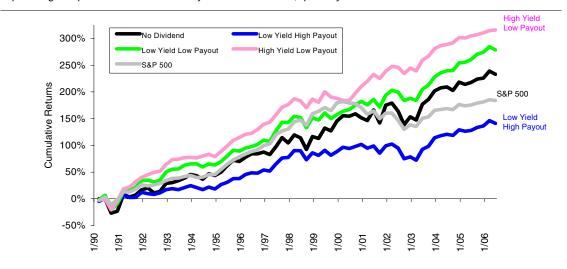
How has the plain dividend yield strategy worked over the years? Stocks with high yields generally outperform those with low yields. The highest-dividend-yielding stocks were not overall leaders. Stocks ranking in decile eight had the best performance. (See Exhibit 7.)

#### Return Contribution of Dividends

Dividend contribution to total returns was more than 40% from 1926 to 1990. The 2003 tax reduction on dividends has encouraged companies to increase their dividends; dividends' contribution to total return has risen and will continue to rise in coming years. (See Exhibit 9.)

**Exhibit 1: Dividend Yield and Payout Ratio** 

Equal-weighted performance from January 1990 to June 2006, quarterly rebalance



Source: Credit Suisse Quantitative Equity Research.

ANALYST CERTIFICATIONS AND INFORMATION ON TRADING ALERTS AND ANALYST MODEL PORTFOLIOS ARE IN THE DISCLOSURE APPENDIX. FOR OTHER IMPORTANT DISCLOSURES, visit www.credit-suisse.com/ researchdisclosures or call +1 (877) 291-2683 U.S. Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Customers of Credit Suisse in the United States can receive independent, third party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at www.credit-suisse.com/ir or call 1 877 291 2683 or email equity.research@credit-suisse.com to request a copy of this research.

## **Dividend Yield and Payout Ratio**

Payout ratio as an adjunct factor

We looked at the performance of companies with different levels of payout ratios within each dividend yield bucket. We define the dividend payout ratio as the ratio that we arrive at when we divide dividends by earnings.

Backtest methodology

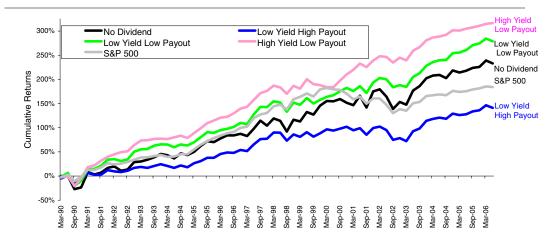
Specifically, we took a two-stage process of first creating three dividend yield baskets by yield, then within each of these three baskets, categorizing stocks by payout ratio: low, medium, and high. Equal-weighted portfolios of these baskets were created based on dividend yields and payout ratio as of each quarter end. We repeat the process each quarter. Our back test for this analysis is from January 1990 to June 2006. We use S&P indexes as our universe.<sup>1</sup>

Below, we show cumulative return obtained in our back test of each dividend yield and payout ratio portfolios. We find that companies with low payout ratios tended to perform better than companies with high or negative payout ratios. Portfolios of companies with high dividend yields and low payout ratios have the best returns.

Exhibit 2: Dividend Yield and Payout Ratio

Equal-weighted performance from January 1990 to June 2006, quarterly rebalance

High yields and low payout ratios have the best returns



Universe: S&P 500 from 1990, S&P 400 and S&P 500 from December 1991 and S&P 1500 from June 1994 to 2005.

## **Dividend Yield and Payout Ratio**

Here we show annual return on all nine buckets. Annualized returns for companies that did not pay dividends during this period were 14.1%, while the S&P 500 annualized returned was 11.16%. For a complete chart from 1995 to 2006, please see Appendix A.

The high yield and low payout portfolios generated an annualized return of 19.2% versus 11.16% for the S&P 500

Year to date, companies with low yields and

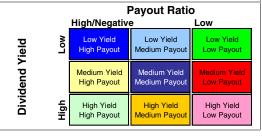
medium payout ratios have

had the best performance

Exhibit 3: Portfolio Buckets

Exhibit 4: Annualized Returns

From January 1990 to June 2006



Payout Ratio
High/Negative Low

8.6% 14.7% 16.9%

11.2% 13.1% 17.6%

High 11.0% 13.5% 19.2%

Source: Credit Suisse Quantitative Equity Research.

Source: Credit Suisse Quantitative Equity Research.

#### **Exhibit 5: Dividend Yield and Payout Ratio Strategy Rankings**

Equal-weighted performance from January 2001 to June 2006, quarterly rebalance

2001 2002 2003 2004 2005 2006 1990 - 2006 High Yield Medium Yield High Yield High Yield Low Yield Low Yield No Dividend Low Payout Low Payout Low Payout Low Payout Medium Payout Low Payout Low Yield Medium Yield High Yield Medium Yield Medium Yield No Dividend No Dividend High Payout Low Payout Low Payout Low Payout Low Payout Low Yield Low Yield Medium Yield High Yield Low Yield High Yield Medium Yield Low Payout Medium Payout Low Payout Low Payout Medium Payout Low Payout Low Payout High Yield High Yield Medium Yield Medium Yield High Yield Low Yield Medium Yield Low Payout Medium Payout Medium Payout Medium Payout Low Payout High Payout Medium Payout High Yield High Yield Low Yield Medium Yield Medium Yield High Yield No Dividend High Payout Low Payout Low Payout High Payout Medium Payout Low Payout Low Yield Low Yield Low Yield Low Yield Medium Yield High Yield No Dividend Low Payout Medium Payout Medium Payout Medium Payout Medium Payout **High Payout** High Yield Low Yield Low Yield Medium Yield Medium Yield Medium Yield No Dividend Medium Payout High Payout High Payout High Payout High Payout Medium Payout Low Yield Low Yield Low Yield Medium Yield High Yield High Yield Medium Yield Medium Payout High Payout Medium Payout Medium Payout Medium Payout Low Payout High Payout Medium Yield Low Yield High Yield Low Yield Medium Yield High Yield High Yield High Payout Medium Payout High Payout Medium Payout High Payout **High Payout High Payout** High Yield Medium Yield Low Yield Low Yield Medium Yield High Yield No Dividend

High Payout

High Payout

High Payout

best performance

In year 2003 companies

with no dividend had the

Avoid companies with low yield and high payout

Source: Credit Suisse Quantitative Equity Research.

Medium Payout



High Payout

High Payout

## **High Yield and Low Payout**

High yield and low payout stocks from S&P 1500 universe (backtest screen)

**Exhibit 6: High Yield and Low Payout Bucket** 

Data as of August 11, 2006. Credit Suisse coverage within the S&P 1500, sorted by sector and dividend yield

	or riaguot 11, 2000. Crean Guiose			,		
Ticker	Company Name	Dividend Yield (%)	5 Yr Avg Dividend Yield (%)	Dividend Payout Ratio (%)	5 Yr Avg Dividend Payout Ratio (%)	Sector
FBN	Furniture Brands Intern. Inc.	3.5	1.0	43.0	17.9	Consumer Discretionary
VFC	VF Corp.	3.3	2.3	45.6	36.7	Consumer Discretionary
BLC	Belo Corp.	3.1	1.5	43.9	31.0	Consumer Discretionary
LEE	Lee Enterprises Inc.	3.0	1.8	44.7	41.1	Consumer Discretionary
MAT	Mattel Inc.	2.8	1.6	35.0	25.2	Consumer Discretionary
CCL	Carnival Corp.	2.7	1.4	37.7	25.7	Consumer Discretionary
SWK	Stanley Works	2.6	2.4	39.2	51.7	Consumer Discretionary
HAS	Hasbro Inc.	2.6	1.0	41.0	24.1	Consumer Discretionary
TRB	Tribune Co.	2.4	1.3	52.9	53.2	Consumer Discretionary
MEG	Media General Inc.	2.4	1.3	34.4	38.8	Consumer Discretionary
LTD	Limited Brands Inc.	2.3	3.2	34.1	47.0	Consumer Discretionary
GIS	General Mills Inc.	2.6	2.4	45.9	48.7	Consumer Staples
K	Kellogg Co.	2.4	2.7	46.7	57.1	Consumer Staples
CVX	Chevron Corp.	3.1	3.3	28.4	84.9	Energy
NCC	National City Corp.	4.4	4.0	53.4	41.8	Financials
С	Citigroup Inc.	4.1	2.5	47.3	34.5	Financials
CMA	Comerica Inc.	4.1	3.7	45.5	48.7	Financials
MCY	Mercury General Corp.	3.9	2.8	48.5	51.4	Financials
WFC	Wells Fargo & Co.	3.2	2.7	47.1	42.5	Financials
STI	SunTrust Banks Inc.	3.1	2.8	41.8	37.1	Financials
MRBK	Mercantile Bankshares Corp.	3.0	2.7	47.5	45.0	Financials
CINF	Cincinnati Financial Corp.	2.9	2.4	23.7	48.0	Financials
CBSS	Compass Bancshares Inc.	2.7	3.0	45.9	42.0	Financials
LNC	Lincoln National Corp.	2.6	3.1	29.6	77.8	Financials
BK	Bank of New York Co.	2.6	2.5	43.3	46.8	Financials
ALL	Allstate Corp.	2.5	2.2	41.7	36.5	Financials
MAS	Masco Corp.	3.3	2.2	43.6	53.5	Industrials
WMI	Waste Management Inc.	2.6	1.0	43.3	17.4	Industrials
DOW	Dow Chemical Co.	4.2	3.5	34.9	48.1	Materials
LYO	Lyondell Chemical Co.	3.9	5.1	37.0	176.0	Materials
EMN	Eastman Chemical Co.	3.5	4.0	35.2	92.7	Materials
PPG	PPG Industries Inc.	3.1	3.0	43.5	57.5	Materials
LPX	Louisiana-Pacific Corp.	3.1	1.1	15.8	6.2	Materials
ROH	Rohm & Haas Co.	3.0	2.3	41.6	57.9	Materials
BMS	Bemis Co. Inc.	2.5	2.2	45.2	39.3	Materials
AT	Alltel Corp.	0.9	2.6	14.5	43.3	Telecomm Services
ETR	Entergy Corp.	2.8	3.0	47.2	46.2	Utilities
CEG	Constellation Energy Group Inc.	2.6	2.6	46.7	46.2	Utilities
TXU	TXU Corp.	2.6	4.3	38.6	190.4	Utilities
EIX	Edison International	2.6	1.1	32.4	36.5	Utilities
SRE	Sempra Energy	2.6	3.4	30.5	32.2	Utilities
UNS	UniSource Energy Corp.	2.5	2.5	41.6	44.0	Utilities
EQT	Equitable Resources Inc.	2.5	2.1	44.9	31.8	Utilities
LQ1	Equitable nesources inc.	۵.5	۷.۱	44.9	31.0	Ountles



#### **Dividend Yield**

Dividends yield a useful factor, but do not bet on just highest dividend yield stocks

We believe investors should focus on dividend yields, as the reduction in taxes on dividends by The 2003 Act has created an historic opportunity to earn extra after-tax return. Along with tax advantages, dividend selection strategy helps investors to stay with high-earnings-quality companies, as companies that consistently grow dividends tend to signal sound financial health.<sup>2</sup> (See Appendix B: Earnings Persistence and Dividends.)

Has the dividend yield strategy worked over the years?

Highlights of our historical simulation

We ran a simulation of a dividend yield strategy. We restricted the universe to the S&P 500, and ran the simulation from January 1980 to June 2006. Equal-weighted decile baskets were created based on dividend yields as of each month-end.

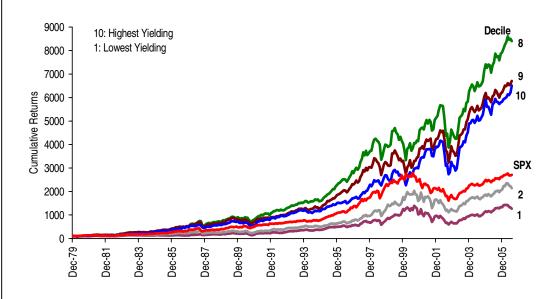
Based on this analysis, we arrived at the following conclusions:

- Stocks with higher dividend yields generally outperformed those with low dividend yields.
- The highest-yielding stocks were not the overall leaders. As Chart 7 indicates, deciles 8 and 9 outpaced decile 10 (the highest-yielding decile).

Dividend yield is not sufficient by itself Hence, while analyzing dividend yields is useful, we need additional information for the strategy to be stable.

Exhibit 7: Dividend Yield Strategy

Equal-weighted decile performance from January 1980 to July 2006 (universe: S&P 500)



John Campbell and Glen Taksler note that equity could be "viewed as junior debt, where a dividend is paid only when the firm does not default." For further details, please refer to a working paper entitled "Equity Volatility and Corporate Bond Yields" (May 2002) by these authors.



## **Stocks with Dividends**

Exhibit 8: Highest Dividend-Yielding Credit Suisse "Outperform" Rated Companies

Credit Suisse outperform rated companies with the highest current dividend yield, data as of August 11, 2006.

			5 Yr Avg	Dividend	5 Yr Avg	
Ticker	Company Name	Dividend Yield (%)	Dividend	Payout	Dividend Payout	Sector
		Tiola (70)	Yield (%)	Ratio (%)	Ratio (%)	
ETM	Entercom Communications Corp.	6.7	0.0	104.8	0.0	Consumer Discretionary
RGC	Regal Entertainment Group	6.4	15.7	222.2	414.5	Consumer Discretionary
AXL	American Axle & Manu. Holdings Inc.	3.8	0.9	57.1	13.6	Consumer Discretionary
DHI	D.R. Horton Inc.	2.9	0.9	12.3	6.3	Consumer Discretionary
DJ	Dow Jones & Co. Inc.	2.8	2.3	58.8	79.1	Consumer Discretionary
TRB	Tribune Co.	2.4	1.3	52.9	53.2	Consumer Discretionary
AVP	Avon Products Inc.	2.5	1.6	57.9	34.6	Consumer Staples
K	Kellogg Co.	2.4	2.7	46.7	57.1	Consumer Staples
DFR	Deerfield Triarc Capital Corp.	11.7	4.7	120.6	55.6	Financials
CSE	CapitalSource Inc.	8.7	3.7	134.2	61.3	Financials
MPG	Maguire Properties Inc.	4.5	3.6	179.8	432.4	Financials
BAC	Bank of America Corp.	4.4	3.7	54.1	45.0	Financials
С	Citigroup Inc.	4.1	2.5	47.3	34.5	Financials
DLR	Digital Realty Trust Inc.	3.8	2.8	530.0	398.5	Financials
REG	Regency Centers Corp.	3.8	5.1	250.5	131.8	Financials
WFC	Wells Fargo & Co.	3.2	2.7	47.1	42.5	Financials
JPM	JPMorgan Chase & Co.	3.1	4.0	40.4	102.0	Financials
ARE	Alexandria Real Estate Equities Inc.	3.0	4.1	125.0	116.3	Financials
CINF	Cincinnati Financial Corp.	2.9	2.4	23.7	48.0	Financials
LNC	Lincoln National Corp.	2.6	3.1	29.6	77.8	Financials
BK	Bank of New York Co.	2.6	2.5	43.3	46.8	Financials
WSH	Willis Group Holdings Ltd.	2.5	1.2	45.1	19.0	Financials
ALL	Allstate Corp.	2.5	2.2	41.7	36.5	Financials
STA	St. Paul Travelers Companies Inc.	2.4	2.2	32.3	38.0	Financials
BVF	Biovail Corp.	3.2	0.4	26.2	8.1	Health Care
LLY	Eli Lilly & Co.	2.9	2.1	54.8	63.3	Health Care
RAMS	Aries Maritime Transport Ltd.	10.0	4.0	189.1	81.3	Industrials
GE	General Electric Co.	3.1	2.4	54.3	49.4	Industrials
MMM	ЗМ Со.	2.7	1.9	40.6	47.1	Industrials
AVY	Avery Dennison Corp.	2.6	2.4	50.6	53.3	Industrials
WMI	Waste Management Inc.	2.6	1.0	43.3	17.4	Industrials
ETN	Eaton Corp.	2.4	1.9	26.9	40.1	Industrials
ADI	Analog Devices Inc.	2.4	0.3	51.6	8.3	Information Technology
PKG	Packaging Corp. of America	4.5	1.5	192.3	74.1	Materials
DOW	Dow Chemical Co.	4.2	3.5	34.9	48.1	Materials
LYO	Lyondell Chemical Co.	3.9	5.1	37.0	176.0	Materials
FOE	Ferro Corp.	3.6	2.4	120.8	80.2	Materials
ROH	Rohm & Haas Co.	3.0	2.3	41.6	57.9	Materials
T	AT&T Inc.	4.4	4.4	79.2	69.0	Telecomm Services
BLS	BellSouth Corp.	2.9	3.2	67.4	56.1	TelecommServices
TE	TECO Energy Inc.	4.9	6.0	59.8	69.1	Utilities
ATG	AGL Resources Inc.	4.1	3.9	54.6	55.7	Utilities
ETR	Entergy Corp.	2.8	3.0	47.2	46.2	Utilities
TXU	TXU Corp.	2.6	4.3	38.6	190.4	Utilities
EIX	Edison International	2.6	1.1	32.4	36.5	Utilities



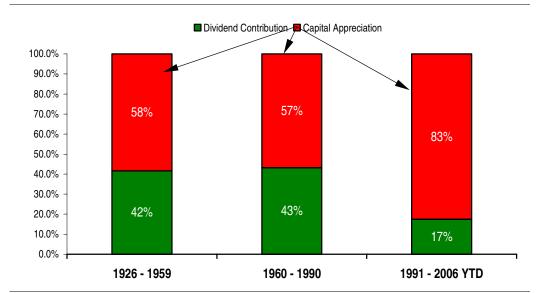
#### The Dividend Factor

In the next few pages we take a look at dividends from the following five angles: return contributions, relationship between earnings and dividends, trends in percentage of companies paying dividends, dividend yield and payout ratio, and dividend yield and long-term bond yield.

Dividend contribution to total returns was more than 40% from 1926 to 1990. Changes in the tax code in 1986 discouraged dividend payouts: contribution of dividends to total returns from 1991 to 2006 was a paltry 17%. Recent reductions in taxes on dividend income should encourage companies to increase dividends. We believe the contribution of dividend returns to total returns will rise in the coming years.

**Exhibit 9: Dividend Contribution to Total Return** 

Dividend contribution to total return declined in the 1990s





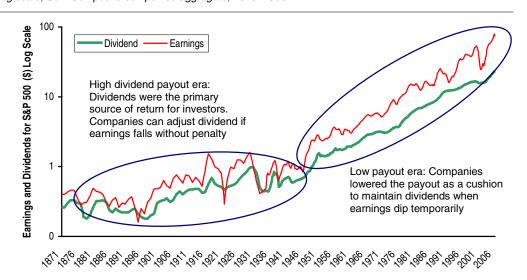
## **Earnings and Dividends**

We studied aggregate earnings and dividends from 1870 to the present. We observe two distinct periods: from 1871 to 1945, dividend policy was to focus on payout ratio; after 1945 companies started managing the amount of dividends paid and were slow to increase dividends as earnings increased, effectively reducing the payout ratio. The payout ratio dropped to a historical low in 2006. (See Exhibit 12.)

#### Dividend Yield and Payout Strategy for Investors

What is the optimal combination of dividend yield and payout ratio for the investors? We test S&P 1500 companies and find that investors should look for high yields and low payout ratios companies for their portfolio.

Exhibit 10: Dividends and Earnings
Log scale, S&P Composite companies aggregate, 1870–2006



Source: www.econ.yale.edu~shiller/data.htm, Credit Suisse Quantitative Equity Research.



## **Decline in the Dividend Payout Ratio**

A downward trend in the payout ratio over the past 50 years

The aggregate dividend payout ratio has declined from around 70% during the 1870-1945 period to roughly 50% in 1946-2005. (See Exhibit 12.) We believe that the reduction in the payout ratio is primarily due to the desire of corporate management to maintain dividend levels during cyclical downturns. Dividends variability has decreased dramatically from the high payout ratio era to the low payout ratio era. Meanwhile, earnings variability has fluctuated and remains relatively high.

Over the past 50 years, firms lowered rather than increased dividend payout ratios during periods of high earnings. Firms targeted their dividend level lower so that they would be able to keep their dividends constant even during periods of depressed earnings, as the market generally punished companies unable to maintain dividends.

Exhibit 11: During the Low Dividend Payout Era, Dividends and Earnings Variation Diverge Graphical representation highlighting earnings and dividends at aggregate level

Payout Focus

Dividends

Dividend Per Share Focus

Time Period:1870 - 1945

Time Period:Time 1946 - 2006

Dividends are no longer a reflection of earnings

Source: Credit Suisse Quantitative Equity Research.

Exhibit 12: Aggregate Payout Ratio



Dividend payout ratio at a historic low

Source: Credit Suisse Quantitative Equity Research, http://www.econ.yale.edu/~shiller/data.htm.

## **Earnings and Dividends**

To study the relationship between the earnings and dividends we focus on five distinct U.S. economic periods from 1871 to the present.

The Gilded Age, 1871–1900 During this period, the U.S. experienced rapid industrial expansion, as the output of factories and farms increased dramatically. Governing bodies such as the SEC did not exist; hence, company management signaled the quality of earnings through dividends by paying most of the earnings as dividends. The aggregate dividend payout ratio was roughly 75%. The annual variations in dividends and earnings were 15.5% and 22.4%.

Boom Times, 1901–1929 As the industrial expansion continued to accelerate after the end of World War I, the accompanying economic boom and excesses could not be sustained. The stock market crashed in 1929, triggering the Great Depression. High growth during this period resulted in a high degree of variation in corporate earnings. The dividend payout ratio at this time declined slightly to just over 64%.

The New Deal and World War II, 1930–1945

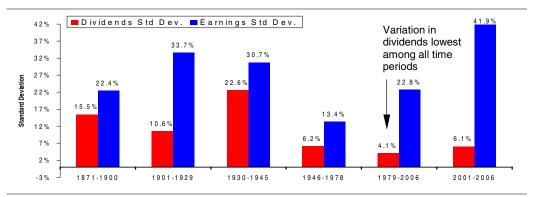
The Great Depression, the New Deal, and World War II marked this period. The New Deal created government agencies like the SEC, FDIC, and others to regulate the U.S. equity market. World War II boosted the economy, as factories were converted to production of war equipment. Corporate earnings volatility remained relatively high, while companies distributed more than 80% of earnings as dividends.

Height of the Cold War, 1946–1978 The beginning of the Cold War also marked the beginning of the low dividend payout era. The payout ratio dropped to about 50% as companies became increasingly conscious about cutting dividends during periods when earnings were temporarily depressed. The variation in dividends dropped considerably during this period, both in absolute terms and relative to the variation in earnings.

Past 26 years, 1979–2006

As the dividend payout ratio has hovered below 50% since 1979, the trend in the variation in earnings and dividends has diverged. Earnings variation increased, while dividend variation further decreased, as dividends became much stickier during this period. The dividend payout ratio dropped to a record low of 31% in 2006.

**Exhibit 13: Annual Variation in Dividends and Earnings** Standard Deviation ( $\sigma$ ) of annual changes



Source: Credit Suisse Quantitative Equity Research, www.econ.yale.edu~shiller/data.htm

## **Reversing Trends**

Percentage of companies paying dividends declining

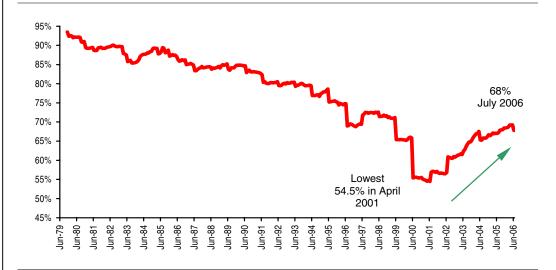
Reversing trend in

past five years

The number of companies in the Russell 1000 index paying dividends has been declining since the peak in 1985 when 89% paid dividends. In fact, there was a sudden drop in the percentage of companies paying dividends during the bubble period. For example, the percentage of companies paying dividends in 1999 and 2000 dropped by 5.2% and 10.2%, respectively.

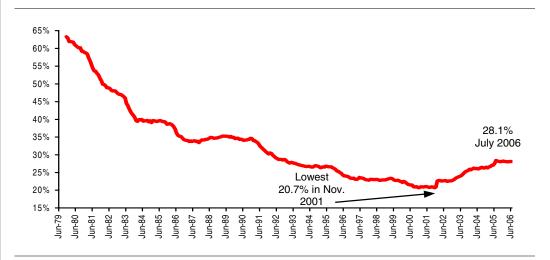
The trend is reversing slowly; for example, in 2006, the number of companies paying dividend has increased to 67.8%. We expect this trend to continue further, as dividend and capital gains are treated the same under the 2003 Tax Act.

Exhibit 14: Percent of Russell 1000 Companies Paying Dividends Russell 1000 Index, December 1979 to July 2006



Source: Credit Suisse Quantitative Equity Research, Frank Russell Co.

Exhibit 15: Percent of Nasdaq Companies Paying Dividends All Nasdaq traded companies, December 1979 to July 2006





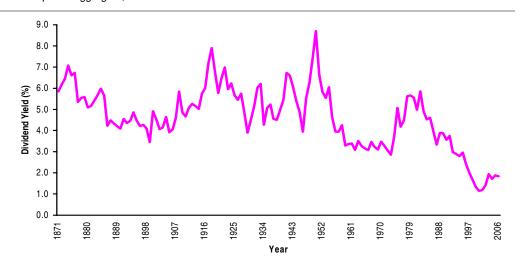
### **Dividend Yield and Bond Yield**

Almost 300 companies increased their dividends in the past 12 months

A record number of companies in the S&P 500 have introduced or hiked dividend this year. The dividend-paying companies are up about 4.3%, while the companies not paying dividends are down 3.9% in first seven months of the year. Dividend yield is steadily inching up and is stable after hitting its lowest level in the year 2000. We expect more and more companies to increase dividends and many more to initiate dividends in the coming months. In the past 12 months 299 S&P 500 companies have increased dividends while only 7 companies decreased dividends during same time period.

Exhibit 16: Annual Dividend Yield S&P Composite aggregate, 1870–2006

Dividend payers are up about 4.3% and non dividend payers are down about 3.9% in 7 months of 2006



Source: Credit Suisse Quantitative Equity Research, http://www.econ.yale.edu/~shiller/data.htm.

**Exhibit 17: Long-Term Bond Yield versus Dividend Yield** *S&P Composite aggregate, 1870–2006, long-term bond 10 year.* 

9.0 Long Term Bond Yield less Dividen Yield (%) 7.0 5.0 Long term bond yield lower 3.0 than dividend yield up to 1959 1.0 -1.0 -3.0 -5.0 -7.0 -9.0 1943 1871 Year

Long-term bond yield was lower than dividend yield until 1959

Source: Credit Suisse Quantitative Equity Research, http://www.econ.yale.edu/~shiller/data.htm



## **Companies with the Highest Dividends**

Below we list the top 31 Russell 1000 companies with the highest current annual indicated dividends. We calculate the estimated payout ratio using indicated dividends and IBES consensus fiscal year-one earnings estimates.

Exhibit 18: Large-Cap Companies with the Highest Current Indicated Annual Dividend Data as of August 07, 2006; indicated dividend calculated as annualized latest dividend paid

Ticker	Company	Total Indicated Annual Dividend (\$mil)	Estimated Dividend Payout Ratio (%)	Sector
GE	General Electric Co.	10,323	50.4	Industrials
С	Citigroup Inc.	9,690	45.8	Financials
BAC	Bank of America Corp.	9,052	43.5	Financials
XOM	Exxon Mobil Corp.	7,610	20.1	Energy
PFE	Pfizer Inc.	7,034	48.0	Health Care
MO	Altria Group Inc.	6,699	60.2	Consumer Staples
Т	AT&T Inc.	5,166	59.8	Telecomm Services
JPM	JPMorgan Chase & Co.	4,721	37.9	Financials
VZ	Verizon Communications Inc.	4,696	63.3	Telecomm Services
CVX	Chevron Corp.	4,572	26.0	Energy
JNJ	Johnson & Johnson	4,388	40.7	Health Care
PG	Procter & Gamble Co.	4,069	41.3	Consumer Staples
WFC	Wells Fargo & Co.	3,771	45.1	Financials
MSFT	Microsoft Corp.	3,622	24.8	Information Technology
MRK	Merck & Co. Inc.	3,308	61.7	Health Care
WB	Wachovia Corp.	3,243	43.4	Financials
KO	Coca-Cola Co.	2,905	53.6	Consumer Staples
WMT	Wal-Mart Stores Inc.	2,792	22.9	Consumer Staples
COP	ConocoPhillips	2,373	13.9	Energy
USB	U.S. Bancorp	2,346	50.5	Financials
INTC	Intel Corp.	2,307	50.4	Information Technology
BMY	Bristol-Myers Company	2,203	94.7	Health Care
BLS	BellSouth Corp.	2,106	50.2	Telecomm Services
WM	Washington Mutual Inc.	1,990	54.3	Financials
PEP	PepsiCo Inc.	1,978	40.2	Consumer Staples
IBM	International Business Machines Corp.	1,826	20.5	Information Technology
LLY	Eli Lilly & Co.	1,809	51.0	Health Care
ABT	Abbott Laboratories	1,803	47.0	Health Care
AIG	American International Group Inc.	1,559	10.7	Financials
DOW	Dow Chemical Co.	1,439	35.7	Materials
MMM	3M Co.	1,386	41.1	Industrials

These 31 companies will pay 50% of total dividends paid by all companies in Russell 1000 index

Source: Credit Suisse Quantitative Equity Research, Compustat, IBES.

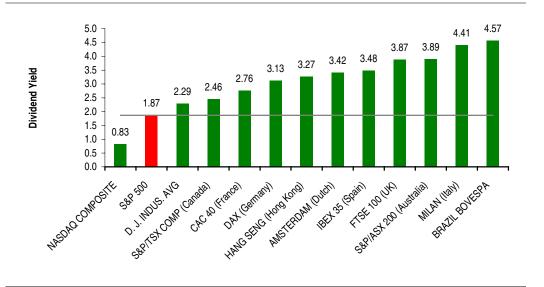


## **Dividends in Developed Markets**

We compare equity dividend yields among major international markets. Yield in the North America (United States and Canada) is lowest among major equity markets. The reduction in taxes on dividends by The 2003 Act has narrowed the gap between the United States and other developed markets. In most of the developed markets, dividends are taxed at a lower rate than regular income by providing tax relief or tax credits.

Exhibit 19: Dividend Yields in Major International Equities Markets

As of August 11,2006





# CREDIT SUISSE

## **Appendix A: Dividend Yield and Payout Ratios**

#### Exhibit 20: Dividend Yield and Payout Ratio Strategy Backtest

Equal-weighted performance from January 1995 to June 2006, quarterly rebalance, universe S&P Indices

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High Yield Low Payout	Medium Yield Low Payout	Medium Yield Low Payout	Low Yield Medium Payout	No Dividend	Low Yield Low Payout	High Yield Low Payout	High Yield Low Payout	No Dividend	Medium Yield Low Payout	Low Yield Low Payout	Low Yield Medium Payout
Medium Yield Low Payout	High Yield Low Payout	High Yield Low Payout	No Dividend	Low Yield Low Payout	High Yield Medium Payout	No Dividend	Medium Yield Low Payout	High Yield High Payout	Low Yield Low Payout	Medium Yield Low Payout	No Dividend
High Yield	Medium Yield	High Yield	High Yield	Medium Yield	High Yield	Medium Yield	High Yield	Low Yield	High Yield	Low Yield	Medium Yield
Medium Payout	Medium Payout	Medium Payout	Low Payout	Low Payout	Low Payout	Low Payout	Medium Payout	Low Payout	Low Payout	Medium Payout	Low Payout
No Dividend	Low Yield	Low Yield	Medium Yield	Medium Yield	Medium Yield	High Yield	Medium Yield	Medium Yield	Medium Yield	High Yield	High Yield
	Low Payout	Low Payout	Medium Payout	High Payout	Medium Payout	Medium Payout	Medium Payout	Low Payout	Medium Payout	Low Payout	High Payout
Medium Yield	Low Yield	Medium Yield	Low Yield	Low Yield	Low Yield	High Yield	Low Yield	High Yield	Medium Yield	Medium Yield	High Yield
High Payout	Medium Payout	Medium Payout	Low Payout	Medium Payout	Medium Payout	High Payout	Low Payout	Low Payout	High Payout	Medium Payout	Low Payout
Low Yield	Medium Yield	Low Yield	Low Yield	Low Yield	Medium Yield	Low Yield	Low Yield	Low Yield	Low Yield	No Dividend	Medium Yield
Low Payout	High Payout	Medium Payout	High Payout	High Payout	High Payout	Low Payout	Medium Payout	High Payout	Medium Payout		Medium Payout
Medium Yield Medium Payout	No Dividend	Medium Yield High Payout	High Yield Medium Payout	High Yield High Payout	Low Yield High Payout	Medium Yield Medium Payout	High Yield High Payout	Medium Yield High Payout	No Dividend	Low Yield High Payout	Low Yield High Payout
Low Yield	Low Yield	High Yield	Medium Yield	High Yield	Medium Yield	Low Yield	Medium Yield	Low Yield	High Yield	High Yield	Low Yield
Medium Payout	High Payout	High Payout	Low Payout	Low Payout	Low Payout	Medium Payout	High Payout	Medium Payout	Medium Payout	Medium Payout	Low Payout
Low Yield	High Yield	Low Yield	High Yield	Medium Yield	High Yield	Medium Yield	Low Yield	High Yield	Low Yield	Medium Yield	High Yield
High Payout	Medium Payout	High Payout	High Payout	Medium Payout	High Payout	High Payout	High Payout	Medium Payout	High Payout	High Payout	Medium Payout
High Yield High Payout	High Yield High Payout	No Dividend	Medium Yield High Payout	High Yield Medium Payout	No Dividend	Low Yield High Payout	No Dividend	Medium Yield Medium Payout	High Yield High Payout	High Yield High Payout	Medium Yield High Payout

## **Appendix: B**

## **Earnings Persistence and Dividends**

Strong relationship between earnings and dividends We ran a cross-sectional regression as shown in Exhibit 5 to explore the relationship between earnings and dividends at the firm level. If dividend-paying companies have high earnings persistence, we would expect  $a_2$  and  $a_3$  to be positive and statistically significant.

#### **Exhibit 21: Earnings Persistence Test Regression**

 $ROA_{(T+1)} = a_0 + a_1DP_T + a_2ROA_T + a_3DP*ROA_T + e_T$ 

Where:

 $ROA_{(T+1)}$  = Return on Assets at time t+1.

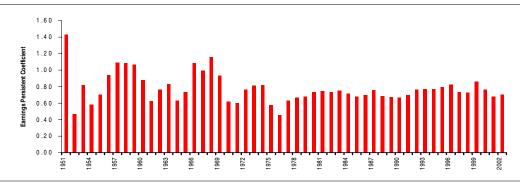
DP = dummy variable for dividends payment;;1 = dividend paying company; 0 = no dividend ROA = Earnings Before Extraordinary Items (adjusted for interest Income/expense)/Total Assets  $a_2$  = Earnings Persistence Coefficient

Source: Credit Suisse Quantitative Equity Research.

Dividend paying companies have high earnings persistence

Exhibit 22: Earnings Persistence Coefficient a<sub>2</sub>, 1951–2002 Cross-sectional regressions

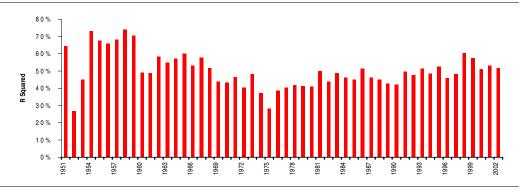
For 1951 through 2002, we find that a<sub>2</sub> and a<sub>3</sub> are statistically significant with average values of 0.77 and 0.17. This indicates that for dividend-paying companies, earnings have been highly persistent since the 1950s.



Source: Credit Suisse Quantitative Equity Research, Compustat.

Exhibit 23: R-Squared Values (Average Value 50.6%), 1951–2002

Cross-sectional regressions



Dividends explains more than 50% of future earnings

## **Appendix C:**

## **Earnings Persistence and Dividends**

(continued)

Results of the earnings persistence cross-sectional regressions from 1951 to 2002 follow.

#### **Exhibit 24: Earnings Persistence Test Regression**

 $ROA_{(T+1)} = a_0 + a_1DP_T + a_2ROA_T + a_3DP*ROA_T + e_T$ 

Where:

 $ROA_{(T+1)}$  = Return on Assets at time t+1.

DP = dummy variable for dividends payment;;1 = dividend paying company; 0 = no dividend ROA = EBEX (adjusted for interest Income/expense)/Total Assets, capped =+/-100%.  $a_2$  = Earnings Persistence Coefficient

\_\_\_\_

Source: Credit Suisse Quantitative Equity Research.

**Exhibit 25: Earnings Persistence Test** 

		Mean	t Statistics
Intercept	A <sub>0</sub>	0.0116	-0.41
Dividend	a <sub>1</sub>	-0.0018	24.96
Return On Assets	$a_2$	0.7753	31.72
Dividend and Return on Assets	$a_3$	0.1740	6.04
R-Squared Average	0.5059		



Quantitative Research

## References

Professor Robert J. Shiller's Web site: http://www.econ.yale.edu/~shiller/data.htm. (Aggregate data used in this report were from Professor Shiller's Web site.)

Credit Suisse Quantitative Equity Research Studies

Quantitative Research: Dividends and Earnings, July 29, 2005

Quantitative Research: Earnings Quality and Dividends, May 18, 2004

Quantitative Research: Sizing UP S&P 500 Dividend Payers, March 25, 2004

Quantitative Research: Myth Dividends Are Disappearing, March 31, 2004

Quantitative Research: Dividend Foiled? (For Now), October 30, 2003

Quantitative Strategy: Wrinkle in the Yield Strategy, September 5, 2002

Quantitative Strategy: Analyze Those Dividends, December 17, 2002.



#### Companies Mentioned (Price as of 14 Aug 06) 3M (MMM, \$68.62, OUTPERFORM, TP \$88.00, MARKET WEIGHT) Abbott Laboratories (ABT, \$47.96, NEUTRAL, TP \$50.00, MARKET WEIGHT) AGL Resources Inc. (ATG, \$35.65, OUTPERFORM, TP \$41.00, MARKET WEIGHT) Alexandria Real Estate Equities, Inc. (ARE, \$93.95, OUTPERFORM, TP \$100.00, MARKET Allstate Corporation (ALL, \$56.42, OUTPERFORM, TP \$65.00, MARKET WEIGHT) Alltel Corp. (AT, \$55.15, NEUTRAL, TP \$53.00, OVERWEIGHT) Altria Group, Inc. (MO, \$80.56) American Axle & Manufacturing Holdings Inc. (AXL, \$15.76, OUTPERFORM, TP \$17.00, OVERWEIGHT) American International Group Inc. (AIG, \$61.70, OUTPERFORM, TP \$75.00, MARKET WEIGHT) Analog Devices Inc. (ADI, \$27.59, OUTPERFORM, TP \$38.00, MARKET WEIGHT) Aries Maritime Transport Limited (RAMS, \$11.60, NEUTRAL, TP \$12.00, MARKET WEIGHT) AT&T Inc. (T, \$29.99, OUTPERFORM, TP \$34.00, OVERWEIGHT) Avery Dennison Corp. (AVY, \$59.17, OUTPERFORM, TP \$67.00, MARKET WEIGHT) Avon Products, Inc. (AVP, \$28.09, OUTPERFORM, TP \$32.00, MARKET WEIGHT) Bank of America Corp. (BAC, \$51.13, OUTPERFORM, TP \$57.00, UNDERWEIGHT) BellSouth Corporation (BLS, \$39.16, OUTPERFORM, TP \$45.00, OVERWEIGHT) Belo Corp. (BLC, \$16.02, NEUTRAL, TP \$20.00, MARKET WEIGHT) Bemis Company, Inc. (BMS, \$30.42, NEUTRAL, TP \$33.00, MARKET WEIGHT) Biovail Corporation (BVF, \$15.59, OUTPERFORM, TP \$20.00, OVERWEIGHT) Bristol-Myers Squibb (BMY, \$20.41, NEUTRAL, TP \$20.00, MARKET WEIGHT) CapitalSource Inc. (CSE, \$22.47, OUTPERFORM, TP \$27.00, MARKET WEIGHT) Carnival Corp. (CCL, \$36.74, NEUTRAL, TP \$37.00, MARKET WEIGHT) Chevron Corp. (CVX, \$67.05, NEUTRAL, TP \$73.00, OVERWEIGHT) Cincinnati Financial Corporation (CINF, \$46.47, OUTPERFORM, TP \$52.00, MARKET WEIGHT) Citigroup (C, \$47.72, OUTPERFORM, TP \$55.00, MARKET WEIGHT) Coca-Cola Company (KO, \$43.99) Comerica (CMA, \$57.31, RESTRICTED, UNDERWEIGHT) Compass Bancshares (CBSS, \$57.72, NEUTRAL, TP \$59.00, UNDERWEIGHT) ConocoPhillips (COP, \$66.82, NEUTRAL, TP \$81.00, OVERWEIGHT) Constellation Energy Group Inc. (CEG, \$58.25, RESTRICTED, UNDERWEIGHT) Deerfield Triarc (DFR, \$13.07, OUTPERFORM, TP \$15.00, MARKET WEIGHT)

Eli Lilly (LLY, \$54.42, OUTPERFORM, TP \$64.00, MARKET WEIGHT) Entercom Communications (ETM, \$22.95, OUTPERFORM, TP \$28.00, UNDERWEIGHT) Entergy Corporation (ETR, \$78.05, OUTPERFORM, TP \$83.00, UNDERWEIGHT) Equitable Resources (EQT, \$35.27, NEUTRAL, TP \$40.00, MARKET WEIGHT) ExxonMobil Corporation (XOM, \$69.25, NEUTRAL, TP \$78.00, OVERWEIGHT) Ferro (FOE, \$16.27, OUTPERFORM, TP \$26.00, MARKET WEIGHT) Furniture Brands International (FBN, \$18.67, NEUTRAL, TP \$19.50, UNDERWEIGHT)

General Electric (GE, \$32.82, OUTPERFORM, TP \$39.00, MARKET WEIGHT)

Digital Realty Trust (DLR, \$28.11, OUTPERFORM, TP \$30.00, MARKET WEIGHT) Dow Chemical Company (DOW, \$36.28, OUTPERFORM, TP \$49.00, OVERWEIGHT) Dow Jones and Company (DJ, \$35.80, OUTPERFORM, TP \$45.00, MARKET WEIGHT)

DR Horton (DHI, \$20.00, OUTPERFORM, TP \$25.00, MARKET WEIGHT) Eastman Chemical (EMN, \$50.35, NEUTRAL, TP \$53.00, OVERWEIGHT) Eaton Corporation (ETN, \$63.00, OUTPERFORM, TP \$83.00, OVERWEIGHT) Edison International (EIX, \$42.32, OUTPERFORM, TP \$49.00, UNDERWEIGHT)

General Mills (GIS, \$53.35, NEUTRAL, TP \$52.00, MARKET WEIGHT) Hasbro, Inc. (HAS, \$18.70, NEUTRAL, TP \$20.00, MARKET WEIGHT)

Intel Corporation (INTC, \$17.87, RESTRICTED [V], MARKET WEIGHT)

International Business Machines (IBM, \$76.68, OUTPERFORM, TP \$90.00, MARKET WEIGHT) Johnson & Johnson (JNJ, \$63.91, UNDERPERFORM, TP \$58.00, MARKET WEIGHT)

JPMorgan Chase & Co. (JPM, \$43.89, OUTPERFORM, TP \$50.00, MARKET WEIGHT)

Kellogg Company (K. \$49.60, OUTPERFORM, TP \$49.00, MARKET WEIGHT) Lee Enterprises (LEE, \$24.18, UNDERPERFORM, TP \$30.00, MARKET WEIGHT)

Limited Brands, Inc. (LTD, \$26.21, NEUTRAL, TP \$23.00, MARKET WEIGHT) Lincoln Natl (LNC, \$57.11, OUTPERFORM, TP \$64.00, MARKET WEIGHT)

Louisiana-Pacific Corporation (LPX, \$19.46, UNDERPERFORM, TP \$19.00, MARKET WEIGHT)

Lyondell Chemical Company (LYO, \$23.29, OUTPERFORM, TP \$28.50, OVERWEIGHT)

> Maguire Properties (MPG, \$36.40, OUTPERFORM, TP \$39.00, MARKET WEIGHT) Masco (MAS, \$26.20, NEUTRAL, TP \$29.00, MARKET WEIGHT) Mattel, Inc. (MAT, \$17.74, NEUTRAL, TP \$19.00, MARKET WEIGHT) Media General, Inc. (MEG, \$36.98, NEUTRAL, TP \$44.00, MARKET WEIGHT) Mercantile Bankshares Corp (MRBK, \$36.87, NEUTRAL, TP \$34.00, UNDERWEIGHT) Merck & Co. (MRK, \$40.88, NEUTRAL, TP \$30.00, MARKET WEIGHT) Mercury General (MCY, \$49.27, NEUTRAL, TP \$58.00, MARKET WEIGHT)

Microsoft Corporation (MSFT, \$24.53, NEUTRAL, TP \$24.00, OVERWEIGHT)

National City (NCC, \$35.43, NEUTRAL, TP \$35.00, UNDERWEIGHT)

Packaging Corp. of America (PKG, \$22.29, OUTPERFORM, TP \$25.00, MARKET WEIGHT) PepsiCo, Inc. (PEP, \$63.95)

Pfizer (PFE, \$26.08, NEUTRAL, TP \$26.00, MARKET WEIGHT)

PPG Industries, Inc. (PPG, \$61.93, NEUTRAL, TP \$68.00, OVERWEIGHT)

Procter & Gamble Co. (PG, \$59.76)

Regal Entertainment Group (RGC, \$18.68, OUTPERFORM, TP \$25.00, MARKET WEIGHT) Regency Centers Corporation (REG, \$63.05, OUTPERFORM, TP \$65.00, UNDERWEIGHT)

Rohm and Haas Company (ROH, \$44.00, OUTPERFORM, TP \$61.00, OVERWEIGHT)

Sempra Energy (SRE, \$46.93, NEUTRAL, TP \$47.00, UNDERWEIGHT)

St. Paul Travelers Companies Inc (STA, \$43.09, OUTPERFORM, TP \$52.00, MARKET WEIGHT)

Stanley Works (SWK, \$45.60, NEUTRAL, TP \$50.00, MARKET WEIGHT)

SunTrust Banks Inc. (STI, \$76.55, NEUTRAL, TP \$74.00, UNDERWEIGHT)

TECO Energy (TE, \$15.58, OUTPERFORM, TP \$17.00, UNDERWEIGHT)

The Bank of New York Company, Inc. (BK, \$33.75, OUTPERFORM, TP \$38.00, MARKET

Tribune Company (TRB, \$29.78, OUTPERFORM, TP \$40.00, MARKET WEIGHT) TXU Corporation (TXU, \$64.72, OUTPERFORM, TP \$69.00, UNDERWEIGHT) U.S. Bancorp (USB, \$31.99, NEUTRAL, TP \$32.00, UNDERWEIGHT) Unisource Energy Corp (UNS, \$33.81, NEUTRAL, TP \$36.00, UNDERWEIGHT) Verizon Communication (VZ, \$33.92, NEUTRAL, TP \$37.00, OVERWEIGHT) VF Corporation (VFC, \$67.86, NEUTRAL, TP \$70.00, OVERWEIGHT)

Wachovia (WB, \$54.16, NEUTRAL, TP \$61.00, UNDERWEIGHT)

Wal-Mart Stores, Inc. (WMT, \$45.00, OUTPERFORM, TP \$55.00, MARKET WEIGHT)

Washington Mutual Inc. (WM, \$42.66, NEUTRAL, TP \$45.00, MARKET WEIGHT)

Waste Management (WMI, \$34.10, OUTPERFORM, TP \$44.00, OVERWEIGHT)

Wells Fargo & Company (WFC, \$34.65, OUTPERFORM, TP \$38.00, UNDERWEIGHT) Willis Group Holdings Ltd (WSH, \$36.12, OUTPERFORM, TP \$41.00, MARKET WEIGHT)

#### Disclosure Appendix

#### **Important Global Disclosures**

Pankaj N. Patel, CFA, Heath Barefoot & Souheang Yao each certify, with respect to the companies or securities that he or she analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities.

#### Analysts' stock ratings are defined as follows\*\*\*:

Outperform: The stock's total return is expected to exceed the industry average\* by at least 10-15% (or more, depending on perceived risk) over the next 12 months.

Neutral: The stock's total return is expected to be in line with the industry average\* (range of ±10%) over the next 12 months.

Underperform\*\*: The stock's total return is expected to underperform the industry average\* by 10-15% or more over the next 12 months.

\*The industry average refers to the average total return of the analyst's industry coverage universe (except with respect to Asia/Pacific, Latin America and Emerging Markets, where stock ratings are

relative to the relevant country index, and Credit Suisse Small and Mid-Cap Advisor stocks, where stock ratings are relative to the regional Credit Suisse Small and Mid-Cap Advisor investment universe.

\*\*In an effort to achieve a more balanced distribution of stock ratings, the Firm has requested that analysts maintain at least 15% of their rated coverage universe as Underperform. This guideline is subject to change depending on several factors, including general market conditions.

\*\*\*For Australian and New Zealand stocks a 7.5% threshold replaces the 10% level in all three rating definitions.

**Restricted:** In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

**Volatility Indicator [V]:** A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward. All Credit Suisse Small and Mid-Cap Advisor stocks are automatically rated volatile. All IPO stocks are automatically rated volatile within the first 12 months of trading.

## Analysts' coverage universe weightings\* are distinct from analysts' stock ratings and are based on the expected performance of an analyst's coverage universe\*\* versus the relevant broad market benchmark\*\*\*:

Overweight: Industry expected to outperform the relevant broad market benchmark over the next 12 months.

**Market Weight:** Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.

**Underweight:** Industry expected to underperform the relevant broad market benchmark over the next 12 months.

\*Credit Suisse Small and Mid-Cap Advisor stocks do not have coverage universe weightings.

\*\*An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.

\*\*\*The broad market benchmark is based on the expected return of the local market index (e.g., the S&P 500 in the U.S.) over the next 12 months.

## Credit Suisse's distribution of stock ratings (and banking clients) is: Global Ratings Distribution

Outperform/Buy*	40%	(60% banking clients)
Neutral/Hold*	42%	(57% banking clients)
Underperform/Sell*	14%	(49% banking clients)
Restricted	3%	

\*For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: http://www.csfb.com/research-and-analytics/disclaimer/managing conflicts disclaimer.html

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

#### **Important Regional Disclosures**

Restrictions on certain Canadian securities are indicated by the following abbreviations: NVS--Non-Voting shares; RVS--Restricted Voting Shares; SVS--Subordinate Voting Shares.

Individuals receiving this report from a Canadian investment dealer that is not affiliated with Credit Suisse should be advised that this report may not contain regulatory disclosures the non-affiliated Canadian investment dealer would be required to make if this were its own report.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit http://www.csfb.com/legal\_terms/canada\_research\_policy.shtml.

Credit Suisse Securities (Europe) Limited acts as broker to MMM.



The following disclosed European company/ies have estimates that comply with IFRS: BMY, MMM, XOM.

As of the date of this report, Credit Suisse acts as a market maker or liquidity provider in the equities securities that are the subject of this report.

CS may have issued a Trade Alert regarding this security. Trade Alerts are short term trading opportunities identified by an analyst on the basis of market events and catalysts, while stock ratings reflect an analyst's investment recommendations based on expected total return over a 12-month period relative to the relevant coverage universe. Because Trade Alerts and stock ratings reflect different assumptions and analytical methods, Trade Alerts may differ directionally from the analyst's stock rating.

The author(s) of this report maintains a CS Model Portfolio that he/she regularly adjusts. The security or securities discussed in this report may be a component of the CS Model Portfolio and subject to such adjustments (which, given the composition of the CS Model Portfolio as a whole, may differ from the recommendation in this report, as well as opportunities or strategies identified in Trading Alerts concerning the same security). The CS Model Portfolio and important disclosures about it are available at www.creditsuisse.com/ti.

For disclosure information on other companies mentioned in this report, please visit the website at www.credit-suisse.com/researchdisclosures or call +1 (877) 291-2683. Disclaimers continue on next page.





#### **Disclaimers**

References in this report to Credit Suisse or CS include all of the subsidiaries and affiliates of Credit Suisse, a Swiss bank, operating under its investment banking division. For more information on our structure, please follow the below link: http://www.credit-suisse.com/who\_we\_are/en/structure.html.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse, the Swiss bank, or its subsidiaries or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates.

The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients as its customers by virtue of their receiving the report. The investments or services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice or a representation that any investment or strategy is suitable or appropriate to your individual circumstances or otherwise constitutes a personal recommendation to you. CS does not offer advice on the tax consequences of investment and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change.

CS believes the information and opinions in the Disclosure Appendix of this report are accurate and complete. Information and opinions presented in the other sections of the report were obtained or derived from sources CS believes are reliable, but CS makes no representations as to their accuracy or completeness. Additional information is available upon request. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, a trading call regarding this security. Trading calls are short term trading opportunities based on market events and catalysts, while stock ratings reflect investment recommendations based on expected total return over a 12-month period relative to the relevant coverage universe. Because trading calls and stock ratings reflect different assumptions and analytical methods, trading calls may differ directionally from the stock rating. In addition, CS may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other reports are brought to the attention of any recipient of this report. CS is involved in many businesses that relate to companies mentioned in this report. These businesses include specialized trading, risk arbitrage, market making, and other proprietary trading.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this re

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase.

Some investments discussed in this report have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment, in such circumstances you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed.

This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed the linked site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk.

This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is regulated in the United Kingdom by The Financial Services Authority ("FSA"). This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse; in Canada by Credit Suisse Securities (Canada), Inc..; in Brazil by Banco de Investimentos Credit Suisse (Brazil) S.A.; in Japan by Credit Suisse Securities (Japan) Limited; elsewhere in Asia/Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse Singapore Branch and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse Taipei Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn. Bhd., to whom they should direct any queries on +603 2723 2020.

In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S.

Please note that this report was originally prepared and issued by CS for distribution to their market professional and institutional investor customers. Recipients who are not market professional or institutional investor customers of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA or in respect of which the protections of the FSA for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report.

Any Nielsen Media Research material contained in this report represents Nielsen Media Research's estimates and does not represent facts. NMR has neither reviewed nor approved this report and/or any of the statements made herein.

Copyright 2006 CREDIT SUISSE and/or its affiliates. All rights reserved.

ASIA/PACIFIC: +852 2101-6000 EUROPE: +44 (20) 7888-8888 UNITED STATES OF AMERICA: +1 (212) 325-2000