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EARNINGS & DIVIDEND
RANKING SYSTEM

PORTFOLIO PERFORMANCE, RISK AND FUNDAMENTAL ANALYSIS

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EARNINGS & DIVIDEND RANKING SYSTEM

PORTFOLIO PERFORMANCE, RISK AND FUNDAMENTAL ANALYSIS

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ABOUT S&P CAPITAL IQ

S&P Capital IQ, a brand of the McGraw-Hill Companies (NYSE:MHP) is a leading provider of multi-asset class data, research and analytics to institutional investors, investment advisors and wealth managers around the world. We provide a broad suite of capabilities designed to help track performance, generate alpha, identify new trading and investment ideas, and perform risk analysis and mitigation strategies. Through leading desktop solutions such as Capital IQ, Global Credit Portal and MarketScope Advisor desktops; enterprise solutions such as S&P Securities Evaluations, Global Data Solutions, and Compustat; and research offerings including Leveraged Commentary & Data, Global Market Intelligence, and company and fund research, S&P Capital IQ sharpens financial intelligence into the wisdom today's investors need.

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EXECUTIVE SUMMARY

- S&P Capital IQ has provided Earnings and Dividend Rankings, commonly referred to as Quality Rankings, on common stocks since 1956. The Quality Ranking reflects the long-term growth and stability of a company's earnings and dividends.
- Historically, portfolios of high Quality Ranking stocks (A+, A, and A-) have underperformed portfolios of low Quality Ranking stocks (B, B-, C and D) in bull markets, but outperformed in bear markets, with the result that until recently high-quality stocks outperformed both low-quality stocks and the S&P 500 on a long-term (1985-2005) basis. However, in the 2007-2009 bear market, high-quality financial stocks severely underperformed, resulting in overall underperformance (1985-2010) of the high-quality portfolio versus the low-quality portfolio, and about equal performance versus the S&P 500. Nevertheless, we believe that high-quality stocks have a variety of characteristics that make them attractive for long-term investors.
- On a risk-adjusted basis, the performance of high- and low-quality portfolios is nearly identical, particularly on an equal-weighted basis.
- Our research shows that fundamental risk is lower in portfolios of stocks with high Quality Rankings. These portfolios exhibit stable and persistent earnings, high returns on equity, strong cash flows, stable and wide profit margins, and low debt levels.
- Companies with high Quality Rankings appear less likely to engage in accounting manipulation. Over the 1987-2010 time frame, these companies reported significantly lower non-recurring items. They also generate more cash income per dollar of accrual-accounting income.
- Our research shows that, historically, portfolios of stocks with high Quality Rankings have provided investors with downside protection. Over the 1987-2010 period, these portfolios significantly outperformed both the S&P 500 and portfolios of companies with low Quality Rankings in times of earnings deceleration, credit risk, and investor uncertainty.
- Earnings growth for companies with high Quality Rankings is not correlated with overall corporate earnings and credit cycles. Conversely, earnings growth for companies with low Quality Rankings is highly dependent on earnings and credit cycles.
- Stock selection strategies based on Quality Rankings can be executed with little market impact, as stocks with high Quality Rankings generally exhibit high liquidity, and portfolio turnover is low.

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I. INTRODUCTION

“A statement of actual earnings, over a period of years, with a reasonable expectation that these will be approximated in the future. The record must cover a number of years, first because a continued or repeated performance is always more impressive than a single occurrence, and secondly because the average of a fairly long period will tend to absorb and equalize, the distorting influence of the business cycle.”¹

S&P Capital IQ has provided Earnings and Dividend Rankings, also known as Quality Rankings, on common stocks since 1956. A primary intent of the Quality Rankings system is to capture Graham and Dodd’s definition of sustainable earnings power, and to provide investors with a benchmark for the “quality” of an investment in terms of its potential to produce returns, in the form of earnings and dividends, for shareholders.

Quality Rankings are used in portfolio management as a benchmark in choosing investments that satisfy a fiduciary responsibility to clients. A long history of Quality Rankings is available, and several academic and practitioner studies have examined their information content and reliability.²

This paper seeks to provide investors with the characteristics of the different Quality Ranking groups, in order to determine whether using Quality Rankings as a basis for investing is both prudent and wise. In particular, after briefly discussing the mechanics of Quality Rankings, we analyze the following questions: What are the risk and return characteristics of

portfolios based on Quality Rankings? How do higher-quality portfolios perform in times of distress? What are the fundamental characteristics of different Quality Ranking portfolios? And how do the fundamental characteristics of the different portfolios vary in different phases of the corporate profit and credit cycles?

We also look at the relationship between Quality Rankings and other measures of quality of earnings. We show that earnings growth of higher-quality firms, as defined by Quality Rankings, is more predictable than that of lower-quality firms.

Next, we briefly examine whether high-quality stocks are “glamour” stocks. Our analysis shows that high-quality stocks indeed have generally traded at higher multiples. However, our analysis of fundamentals shows that the premium in multiples for the higher-quality portfolio is justified by better fundamentals. Thus, our results show that higher-quality stocks command higher multiples and deliver higher returns. These results are different from the conventional wisdom established by previous studies on risk factors in the U.S. equity markets, and provide insight into the risk and return characteristics of U.S. stocks.

Finally, we present characteristics of current and historical Quality Ranking portfolios. Our results show that high-quality stocks generally have greater liquidity, higher average price per share, and larger market value. In addition, our results show the Quality Rankings themselves exhibit high stability over time. This implies that portfolio strategies based on Quality Rankings can be executed in practice

1 Graham and Dodd, *Securities Analysis* (1934), p. 429

2 Stevenson (1966), Haugen (1979), Muller, Fielitz and Green (1983, 1984), Muller and Fielitz (1987), Del Guercio (1995), Fernando, Gatchev and Spindt (2003).

II. S&P CAPITAL IQ EARNINGS AND DIVIDEND RANKING SYSTEM

The Quality Ranking system attempts to capture both the long-term growth and stability of a company's earnings and dividend record in a single system. In assessing Quality Rankings, S&P Capital IQ recognizes that a company's earnings performance and dividend distribution record are the end results of the interplay of a wide variety of factors. These factors include the market demand for a company's products or services; the company's product development, manufacturing, and marketing strategies; the acumen and skill of its executive leadership; its industry position and competitive advantage; its capital structure and capital investment policies; etc.

Over the long run, we believe a company's record of earnings performance and dividend distributions can tell investors a lot about the relative quality of a company as a potential equity investment. S&P Capital IQ, however, does not profess that the rankings reflect all of the factors, tangible or intangible, that bear on stock quality.

The rankings are generated by a computerized system and are based on per-share earnings and dividend records of the most recent 10 years – a period long enough to measure significant secular (long-term) growth, capture indications of changes in trend as they develop, encompass the full peak-to-peak range of the business cycle, and include a bull and a bear market. Basic scores are computed for earnings and dividends, and then adjusted as indicated by a set of predetermined modifiers for change in the rate of growth, stability within long-term trend, and cyclicity. Adjusted scores for earnings and dividends are then combined to yield a final ranking.

The ranking system makes allowance for the fact that corporate size generally imparts certain advantages from

an investment standpoint. Conversely, minimum size limits (in sales volume) are set for the various rankings. However, the system provides for making exceptions where the score reflects an outstanding earnings and dividend record. Table 1 shows the letter classifications and brief descriptions of Quality Rankings.

The ranking system grants some exceptions to the pure quantitative rank. Thus, if a company has not paid any dividend over the past 10 years, it is very unlikely that it will rank higher than A-. In addition, companies may receive a bonus score based on their sales volume (higher sales are viewed as better for stability). If a company omits a dividend on preferred stock, it will receive a rank of no better than C that year. If a company pays a dividend on the common stock it is highly unlikely that the rank will be below B-, even if it has incurred losses. In addition, if a company files for bankruptcy, the model's rank is automatically changed to D.

TABLE 1: QUALITY RANKING QUALIFICATION

LETTER	DESCRIPTION
A+	Highest
A	High
A-	Above Average
B+	Average
B	Below Average
B-	Low
C	Lowest
D	In Reorganization
LIQ	Liquidation

Source: S&P Capital IQ Equity Research

III. RISK AND RETURN ANALYSIS OF QUALITY RANKING PORTFOLIOS

In this section we present an analysis of the risk-return performance of different Quality Ranking portfolios. Our analysis provides significant insight into the value of using the rankings in a portfolio management context.

3.1 Methodology

Our sample includes all common stocks that are listed on NYSE/AMEX/NASDAQ that have Quality Ranking data available in the S&P Compustat Point in Time database. We calculate returns beginning in December 1985 (the same start date used in the October 2005 report), and rebalance the portfolios monthly.³ We believe a monthly rebalance best captures changes in rankings, which can occur at any time during the year. Section VI. provides a detailed description of sample size, number of companies, and sector composition of each of the Quality Ranking portfolios.

We construct seven portfolios based on Quality Ranks, ranging from A+ to D.⁴ We also construct two additional portfolios, the “All-A,” comprised of stocks with A+, A, or A- rankings, and the “B, B-, C & D” portfolios. The All-A portfolio represents the “high-quality” universe, and the “B, B-, C & D” portfolio represents the “low-quality” universe. We exclude the B+ group from these two portfolios since B+ is considered to be an “average” Quality Ranking, and thus serves as the point of demarcation between the high and low-quality groups.

The market-weighted portfolios methodology conforms to academic practice, but we also present equal-weighted returns for comparison. The market-weighted approach of calculating port

folio returns may be more pragmatic, as portfolio managers generally hold stocks in proportion to their market capitalizations.⁵ In addition, market weighting alleviates the potential bias that a few small, illiquid stocks with large returns have on portfolio returns.

3.2 Risk and Return Analysis⁶

Table 2 and Figure 1 show that although high-quality (A+, A & A-) and low-quality (B, B-, C & D) portfolio performance has been neck and neck over the past 25 years, more recently the low-quality performance has come out ahead. A review of the data indicate that much of the underperformance of the high-quality portfolio in recent years is due to the poor stock-market showing of financial issues in the recent recession, due to unprecedented turmoil in the credit markets.

In particular, we note that Bear Stearns, Lehman Brothers, Washington Mutual, and Merrill Lynch all had Quality Rankings of A going into the financial crisis; in addition, Countrywide Financial and Wachovia had Rankings of A-. None of these companies exist in their prior form today.

While these examples might be used as a criticism of the Quality Ranks, we believe that the performance of financial shares prior to and following the meltdown reflect an unusually long credit cycle (with interest rates in a downtrend over a period of decades) and a resultant belief among these companies that substantial increases in risk were justified by their past records of profitability.

3 Our analysis extends previous studies: Haugen (1979) analyzes risk characteristics of Quality Rankings for the period 1956-1971; Muller, Fielitz and Green (1987) study the risk and return characteristics of Quality Rankings for the period 1970-1984.

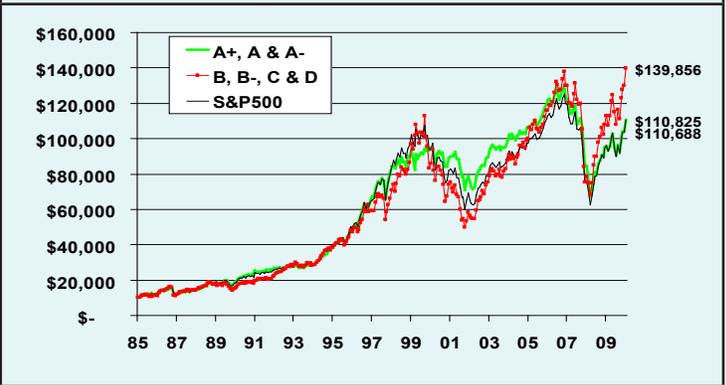
4 Since there are very few stocks of companies in bankruptcy (reorganization) at any given time, C and D-ranked stocks are combined into a single portfolio.

5 A number of studies over the last decade provide evidence that institutions tilt portfolios towards larger-capitalization stocks. The studies include Badrinath, Gay and Kale (1989), Del Guercio (1995), and Gompers and Metrick (2001).

6 This and the following sections focus on the market-weight portfolio results.

MARKET WEIGHTED RETURNS

Figure 1: Value of \$10,000 Invested in All-A and B, B-, C&D Portfolio - Market-Weighted Returns



Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

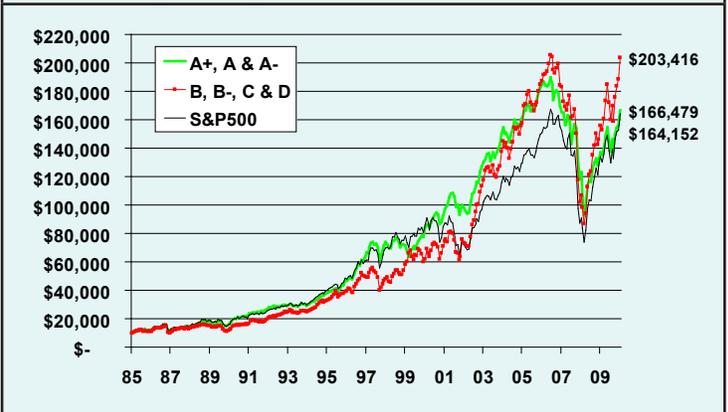
Table 2: Market-Weighted Annual Returns for Quality Ranking Portfolios

Year	A+	A	A-	B+	B	B-	C&D	All-A	B, C & D	S&P 500
1986	16.9%	22.7%	19.5%	19.1%	14.7%	3.3%	-8.4%	19.6%	9.7%	18.4%
1987	3.5%	3.0%	1.9%	1.3%	9.6%	10.5%	7.2%	2.9%	9.5%	5.4%
1988	15.5%	16.5%	18.9%	16.5%	20.4%	17.6%	30.4%	16.9%	20.7%	16.6%
1989	26.3%	33.3%	38.0%	22.5%	25.1%	23.2%	31.5%	32.5%	25.3%	31.0%
1990	6.3%	2.1%	-4.5%	-13.7%	-14.0%	-15.5%	-26.1%	0.8%	-15.2%	-3.3%
1991	49.8%	25.6%	23.6%	36.6%	25.2%	22.1%	37.5%	32.6%	24.9%	30.6%
1992	1.9%	7.2%	8.4%	10.1%	17.4%	17.7%	16.5%	5.6%	17.2%	7.7%
1993	-2.2%	2.1%	12.5%	11.2%	27.6%	27.0%	24.2%	3.7%	27.0%	10.1%
1994	3.5%	3.5%	-0.3%	-1.6%	-0.3%	0.1%	-3.8%	2.3%	-0.5%	1.5%
1995	42.6%	34.0%	35.5%	34.6%	37.6%	32.4%	30.0%	37.9%	34.9%	37.5%
1996	23.3%	22.4%	22.0%	23.6%	25.2%	23.0%	-0.1%	22.8%	23.2%	23.3%
1997	37.9%	41.9%	37.4%	29.4%	25.8%	24.3%	13.5%	39.1%	24.8%	33.1%
1998	33.1%	17.2%	22.9%	28.4%	23.5%	5.1%	57.1%	25.0%	20.3%	29.0%
1999	16.8%	0.4%	14.3%	29.4%	34.6%	28.4%	104.6%	10.7%	36.6%	21.4%
2000	5.6%	1.0%	-0.9%	-5.3%	-7.2%	-16.3%	-22.3%	2.0%	-11.5%	-8.0%
2001	-9.0%	-3.5%	-1.7%	-16.7%	-12.6%	-3.6%	-28.2%	-5.2%	-12.0%	-12.1%
2002	-20.3%	-19.1%	-8.0%	-18.3%	-21.6%	-23.8%	-46.4%	-16.5%	-25.5%	-21.5%
2003	19.4%	35.3%	23.6%	29.7%	34.9%	41.9%	58.1%	24.3%	40.2%	28.5%
2004	9.1%	2.9%	15.9%	11.8%	17.3%	17.1%	4.9%	9.5%	15.0%	11.1%
2005	1.7%	3.8%	6.9%	7.4%	10.6%	14.3%	2.5%	4.0%	10.3%	4.9%
2006	9.4%	13.1%	21.3%	18.0%	14.1%	20.0%	14.9%	14.2%	16.0%	15.6%
2007	-3.2%	4.8%	1.4%	9.5%	16.0%	8.2%	-3.5%	0.6%	12.2%	6.0%
2008	-23.5%	-39.0%	-33.0%	-37.1%	-38.5%	-39.6%	-51.2%	-30.9%	-39.6%	-36.4%
2009	8.1%	16.4%	17.8%	29.7%	42.1%	42.6%	59.5%	13.5%	43.6%	26.7%
2010	12.4%	16.0%	19.6%	11.8%	22.1%	27.2%	26.4%	15.6%	23.9%	15.0%
\$10,000 Invested	109,305	86,864	145,658	103,441	172,387	115,824	62,750	110,825	139,856	110,688
Compound Return	10.0%	9.0%	11.3%	9.8%	12.1%	10.3%	7.6%	10.1%	11.1%	10.1%
Standard Deviation	13.6%	10.3%	15.9%	11.1%	16.4%	10.2%	9.4%	12.8%	13.1%	12.2%
Return/Risk	0.74	0.88	0.71	0.88	0.73	1.01	0.81	0.79	0.85	0.83
Beta	0.87	0.91	0.87	1.04	1.08	1.14	1.38	0.88	1.12	1.00
Alpha	1.60%	1.08%	1.57%	-0.45%	-0.93%	-1.66%	-4.56%	1.47%	-1.44%	0.00%
Skewness	-0.43	-0.86	-0.78	-0.99	-0.93	-1.15	-0.23	-0.76	-0.99	-0.83

Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

EQUITY WEIGHTED RETURNS

Figure 2: Value of \$10,000 Invested in All-A and B, B-, C&D Portfolio - Equal-Weighted Returns



Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

Table 3: Equal-Weighted Annual Returns for Quality Ranking Portfolios

Year	A+	A	A-	B+	B	B-	C&D	All-A	B, C & D	S&P 500
1986	20.8%	18.1%	19.4%	11.9%	9.6%	7.9%	-0.3%	19.3%	8.1%	17.9%
1987	1.2%	-0.8%	-0.2%	-2.0%	-4.3%	-6.0%	-10.7%	-0.1%	-5.3%	5.6%
1988	19.6%	20.1%	25.6%	27.1%	33.0%	29.4%	22.5%	22.5%	28.4%	20.7%
1989	24.2%	23.8%	26.8%	15.6%	16.9%	9.5%	10.8%	25.2%	13.3%	25.8%
1990	-6.9%	-10.2%	-7.0%	-14.1%	-18.6%	-22.5%	-30.2%	-8.1%	-20.4%	-12.1%
1991	44.1%	39.1%	39.7%	41.2%	42.2%	40.4%	33.7%	40.4%	39.8%	35.6%
1992	12.2%	17.3%	19.9%	17.9%	20.8%	29.7%	22.7%	17.4%	23.0%	15.0%
1993	2.1%	5.8%	12.2%	16.2%	21.1%	21.9%	25.7%	8.0%	21.2%	14.8%
1994	1.8%	-1.6%	-1.9%	-0.5%	1.9%	3.0%	-2.2%	-1.1%	1.0%	1.1%
1995	34.0%	27.5%	29.9%	28.0%	33.7%	29.9%	33.7%	29.8%	31.2%	32.3%
1996	24.0%	21.2%	21.2%	19.9%	25.1%	21.2%	10.3%	21.7%	20.0%	19.8%
1997	42.8%	44.7%	42.0%	35.7%	29.8%	23.7%	10.8%	43.2%	25.8%	28.8%
1998	20.7%	9.7%	8.3%	3.5%	0.8%	-5.3%	-15.4%	10.9%	-3.6%	13.6%
1999	-1.9%	-7.9%	-1.8%	3.7%	13.6%	22.5%	60.8%	-3.9%	21.7%	11.9%
2000	21.4%	16.3%	17.8%	13.0%	10.9%	3.5%	-6.1%	17.9%	6.6%	10.3%
2001	7.0%	17.3%	16.4%	22.8%	23.1%	23.1%	11.2%	15.1%	20.7%	1.6%
2002	-5.0%	1.6%	3.3%	-1.3%	-5.5%	24.5%	-27.3%	1.4%	-1.4%	-17.5%
2003	29.2%	32.0%	34.6%	39.0%	47.4%	64.0%	88.6%	32.9%	59.7%	41.6%
2004	14.6%	19.5%	19.5%	20.0%	23.7%	28.1%	20.8%	18.8%	23.5%	17.5%
2005	0.8%	1.5%	6.0%	7.6%	9.7%	14.5%	2.2%	3.4%	8.8%	8.0%
2006	12.3%	12.9%	18.6%	17.1%	18.2%	23.2%	12.8%	15.3%	18.7%	16.3%
2007	-10.3%	-10.7%	-10.2%	-5.3%	0.5%	1.0%	-8.5%	-10.4%	-2.4%	0.8%
2008	-19.1%	-24.6%	-28.7%	-30.7%	-37.6%	-45.1%	-54.0%	-25.8%	-41.7%	-40.2%
2009	15.9%	10.9%	10.8%	26.1%	43.2%	49.2%	76.3%	11.4%	46.3%	47.5%
2010	21.0%	19.8%	23.0%	25.0%	27.5%	32.8%	36.0%	21.7%	30.6%	22.4%
\$10,000 Invested	167,633	134,286	193,334	177,304	243,838	297,248	76,257	166,479	203,416	164,152
Compound Return	11.9%	10.9%	12.6%	12.2%	13.6%	14.5%	8.5%	11.9%	12.8%	11.8%
Standard Deviation	17.9%	15.6%	23.0%	18.5%	24.4%	31.0%	7.4%	19.3%	20.7%	16.1%
Return/Risk	0.67	0.70	0.55	0.66	0.56	0.47	1.15	0.62	0.62	0.74
Beta	0.75	0.74	0.74	0.82	0.90	1.00	1.04	0.74	0.94	1.00
Alpha	3.01%	3.13%	3.15%	2.23%	1.17%	0.01%	-0.48%	3.10%	0.75%	0.00%
Skewness	-0.71	-1.05	-1.22	-1.24	-1.20	0.46	-0.46	-1.09	-0.94	-0.82

Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

3.3 Downside Risk Analysis

As an alternative view of the sensitivity of our results to different phases of the market, we analyze the performance of Quality Ranking portfolios in up and down markets. This analysis reveals some interesting results on downside protection that high-quality portfolios have historically provided.

Table 2 shows that S&P 500 performance was negative in 5 of the 25 years in our sample period. In each of these years, the all-A portfolio outperformed the S&P 500, by an average of 630 basis points. However, the all-B, C & D portfolio underperformed the S&P 500 in 4 years out of 5, and it underperformed by an average of 450 basis points.

S&P 500 performance was positive in 20 of the 25 years in our sample period. In these up years, the all-A portfolio outperformed the S&P 500 in 8 of the 20 years, while the B, B-, C & D portfolio outperformed the S&P 500 in 12 out of 20 years. Additionally, while the high-quality portfolio underperformed the 500 by an average of 380 basis points, the low-quality portfolio outperformed by an average of 310 basis points. It is clear to us that historically low-quality stocks have frequently outperformed high-quality stocks in up markets.

As may be surmised from the relative returns of the All-A portfolio and as we will further show below, much of the value and most of the historical alpha of the All-A portfolio has been generated in down markets. This is not surprising to us as the Quality Ranking is a measure of the persistence and stability of earnings and dividends; i.e., a measure of fundamental risk. In up markets, investors are less concerned with fundamental risk, and therefore have a bias toward more speculative, low-quality issues. In down markets, fundamental risk comes to the forefront, and investors exhibit a strong bias

toward high-quality issues.

Figure 3 shows the sensitivity, as measured by market beta based on monthly returns, of Quality Ranking portfolios in up and down markets.

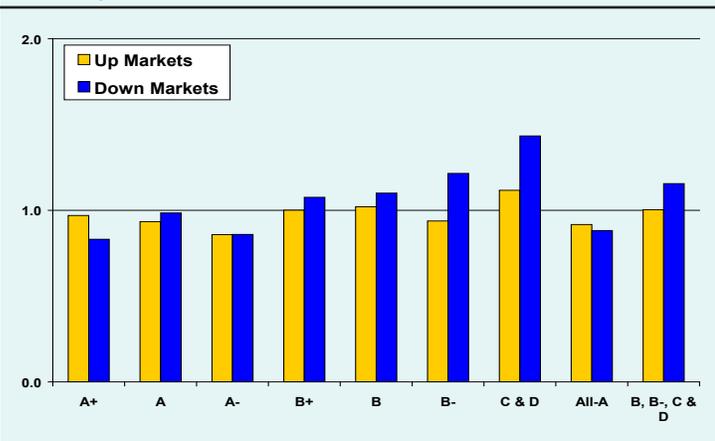
Figure 3 shows that the A+ portfolio is the only Quality portfolio with a higher systematic risk (beta) in up markets than in down markets. Higher systematic risk in up markets is positive as it implies that the A+ portfolio provides nearly full participation, versus the S&P 500, in the up movements. Equally important, in down markets, the A+ portfolio has a low beta. This implies that in down markets, the A+ portfolio does not go down as much as the market does.

This “switching beta” characteristic of A+ Quality portfolios is highly desirable from a risk perspective, in our view. Indeed, portfolio managers often attempt to reduce portfolio volatility in down markets and increase it in up markets. A market-capitalization weighted portfolio of A+ stocks delivers this desired changing exposure to the market without demanding a forecast of future returns. This asymmetric behavior of high-quality stocks during up and down markets is in sharp contrast to the behavior of low-quality stocks. In declining markets, low-quality stocks decline substantially more than the market, and in rising markets, their rise is about equal to the market’s rise.

Figure 4 provides further evidence that when the market declines, low-quality portfolios perform significantly worse than high-quality portfolios. For example, when the S&P 500 falls by more than 6% in a single month, the average decline for the B, B-, C&D portfolio is 10.5%, versus an average of 9.1% for the S&P 500 and just 7.6% for the All-A portfolio.

Conversely, when markets rise, high-quality portfolios underperform, to a certain extent. For example, when the S&P 500 rises by more than 6% in a single month, the average

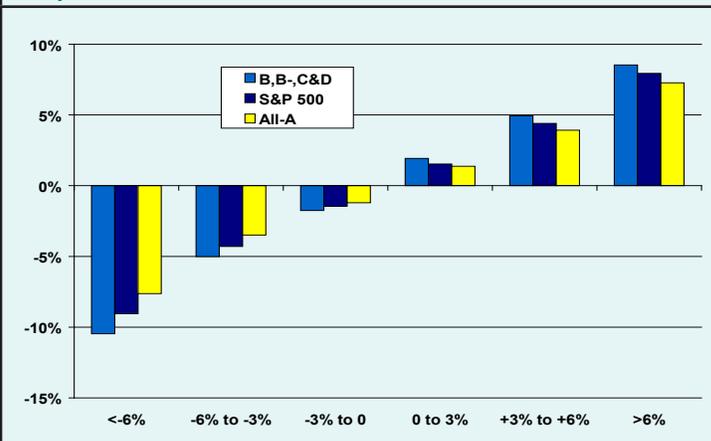
Figure 3: Market Betas of Quality Portfolios in Up and Down Markets, 1985-2011*



Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

* Using market-capitalization weighted returns. We calculate the Beta of each portfolio versus the market-cap weighted S&P 500 for up markets (all months in which the performance of the S&P 500 is positive) and down markets (all months in which it is negative).

Figure 4: Average Monthly Returns by Quality-Ranking Group in Up and Down Markets, 1985-2011*



Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

* Using market-capitalization weighted returns.

increase for the B, B-, C&D portfolio is 8.5%. This compares to an average of 7.9% for the S&P 500 and 7.3% for the All-A portfolio.

Note that the percentage of outperformance of the high-quality portfolio in declining markets is greater than the percentage underperformance of the high-quality portfolio during rising markets. For example, when the S&P 500 declines by more than 6%, the All-A portfolio outperforms the B, B-, C&D portfolio by 280 basis points. But when the S&P 500 rises by more than 6%, the All-A portfolio underperforms the B, B-, C&D portfolios by only 130 basis points.

The preceding risk-return analysis of Quality Ranking portfolios shows that, although high-quality stocks have underperformed low-quality stock over our 25-year test period, high-quality stocks have provided investors with strong returns, modestly outperforming the S&P 500 on both a market-cap weighted and equal-weighted basis. In addition, high-quality portfolios were shown to have lower betas than low-quality portfolios in down markets and as a result to offer downside protection versus both low-quality stocks and the S&P 500 when prices decline.

IV. FUNDAMENTAL ANALYSIS OF QUALITY RANKING PORTFOLIOS

4.0 Fundamental Analysis of Quality Ranking Portfolios

In this section, we examine the fundamental characteristics of high- and low-quality stocks, not only from an earnings and dividend perspective, but also from the standpoint of a variety of other income, balance sheet, and cash flow metrics.

As mentioned in Section II, S&P Capital IQ believes that the earnings performance and dividend record of a company are the results of an interplay of a variety of factors, including the company's products, markets, executive leadership, marketing, manufacturing, competitive advantage, capital structure, investment policies, etc. In combination, we think these diverse factors determine a company's earnings performance and dividend record, as well as a variety of other measures of profitability, growth, balance sheet strength, etc. Therefore, it should not be surprising that there is a strong correlation between earnings and dividend performance, as measured by the Quality Ranking, and a variety of other fundamental ratios for a company.

The three sections that follow look at a number of these fundamental characteristics of quality-ranking portfolios: size, profitability, and growth (4.1), cash flow generation and capital allocation (4.2), and financial and operational leverage (4.3).

4.1 Size, Profitability, and Growth

Table 4 presents statistics on the size and profitability of different Quality portfolios over three different periods. High-quality portfolios, on average, contain larger firms in terms of sales, total assets, and total capital.

Of particular note in Table 4 is the substantial increase in average sales for A+ companies over the past two decades. While sales for the other Quality groups have increased by a factor of 3 on average since 1990, the average sales volume of A+ companies has increased by a factor of 9.

Part of the reason for this can be found in the steady decline

in A+ ranked companies, which numbered 119 in 1990 and just 41 by December of 2010. Sales of the 40 non-financial A+ companies in the portfolio as of December 2010, grew by a factor of 5, still impressive (an 8% CAGR), but well below the factor of 9 implied by the table below. The declining number of smaller A+ companies and the strong sales growth of the remaining companies suggests to us that it is becoming increasingly difficult for mid-sized U.S. companies to compete with large multi-nationals.

Also note that, on average, high-quality portfolio have significantly higher profitability than low-quality portfolios. For example, A+ ranked companies had average return on equity (ROE) of about 23% over the 3 periods shown in Figure 4, while B ranked companies had average ROE of just 12% and B- ranked companies averaged 9%. Return on assets is similarly higher for high-quality versus low-quality companies.

Table 5 provides both the average values and the volatility of these values for different profit margin and growth metrics.

High-quality companies, on average, have had higher and more stable profit margins than low-quality companies. The average gross margin for high-quality (A+, A, A-) companies for the 1987-2010 period was 34.6%, versus an average gross margin of 26.7% for low-quality companies (B, B-, C & D). Similarly, high-quality companies had an average net profit margin of 7.3%, while low-quality companies had an average net margin that was negative (-1%).

Also, the average standard deviation of gross margin for high-quality companies was 3.3% versus a standard deviation of 4.0% for low-quality, and the standard deviation of net margin – the “bottom line” – for high-quality averaged 1.3% versus 5.0% for low quality. The latter figure was driven by a standard deviation of 10.9% for C& D ranked companies.

Steadier sales growth and higher and more stable profit margins results in higher returns on equity and capital for high-quality companies (cf. Table 4).

Table 4: Size and Profitability of Quality Ranking Portfolios at Different Points in Time

QUALITY RANKING	SALES* (\$MILLIONS)			NET TANGIBLE ASSETS* (\$MILLIONS)			RETURN ON ASSETS*			RETURN ON EQUITY*		
	1990	2000	2010	1990	2000	2010	1990	2000	2010	1990	2000	2010
A+	4,717	14,189	43,071	1,041	3,163	6,574	9.1%	11.3%	9.5%	22.9%	25.2%	21.5%
A	3,988	6,485	10,852	1,717	1,252	2,274	6.1%	9.9%	7.9%	14.2%	24.4%	21.1%
A-	3,613	7,133	12,127	1,524	2,307	2,929	4.5%	7.4%	6.3%	13.2%	19.3%	15.3%
B+	1,980	3,432	6,611	537	804	1,231	2.5%	6.1%	6.8%	8.8%	17.5%	15.7%
B	1,426	3,347	4,255	456	837	1,180	2.3%	3.8%	4.9%	7.8%	13.6%	13.2%
B-	758	1,214	1,590	215	341	349	2.4%	3.5%	3.9%	8.2%	8.9%	9.9%
C	279	345	970	57	31	112	-4.1%	-6.4%	1.1%	-13.1%	-19.0%	5.0%

* Excludes Financials and General Electric due to its large financial business

Source: S&P Capital IQ Equity Research, Compustat. Past performance does not guarantee future results.

Table 5: Mean Values and Volatility of Profitability and Growth Metrics for the Period 1987-2010

QUALITY RANKING	GROSS MARGIN*		OPERATING MARGIN*		NET MARGIN*		5-YR CAGR OF EARNINGS		5-YR CAGR OF DIVIDENDS PER SHARE	
	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV
A+	36.3%	3.4%	12.3%	1.1%	7.4%	0.5%	10.9%	2.9%	13.6%	2.2%
A	37.3%	3.8%	13.3%	1.9%	7.7%	1.6%	7.2%	4.5%	9.9%	1.5%
A-	30.1%	2.8%	12.1%	0.8%	6.7%	1.1%	2.6%	7.7%	6.1%	2.2%
B+	29.3%	3.2%	11.1%	1.6%	5.9%	1.7%	4.8%	6.1%	6.4%	3.4%
B	27.2%	4.1%	9.5%	1.7%	4.0%	2.0%	2.8%	21.4%	2.1%	8.2%
B-	26.2%	3.7%	7.4%	1.7%	2.1%	2.2%	6.7%	26.2%	-0.1%	6.0%
C	26.7%	4.2%	1.7%	2.2%	-7.8%	10.9%	-3.5%	12.9%	-17.8%	16.9%

* Excludes Financials and General Electric due to its large financial business

Source: S&P Capital IQ Equity Research, Compustat.

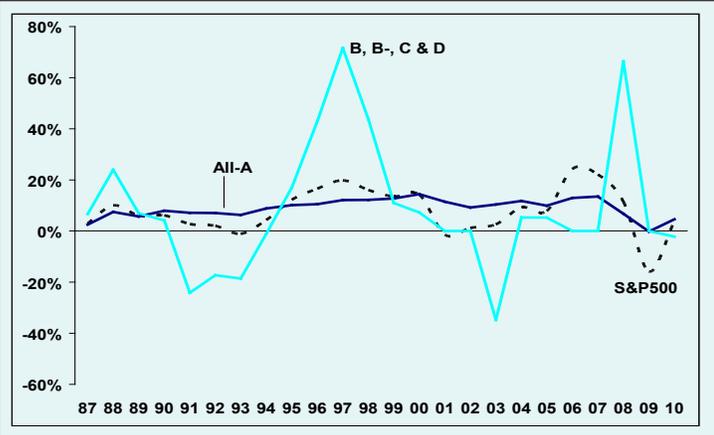
These higher and more stable levels of profitability bring about greater and more stable earnings and dividend growth for the higher-quality companies, in our view. The 5-year compound annual growth rate (CAGR) of earnings section of Table 5 shows that higher profitability, efficient use of capital, and stable earnings results in a much higher average compound annual rate of growth for high-quality companies.

With the exception of A- companies, which contained financial companies that suffered large earnings declines in 2008 and 2009, 5-year average CAGRs for high-quality companies were significantly stronger than those for low-quality companies. Over the 1987-2010 period, high-quality companies had an average 5-year CAGR of EPS of 6.9% versus just 2.0% for low-quality.

Because high QR companies generate stronger earnings growth, they can also deliver faster growth in dividends paid to stockholders. The average 5-year CAGR of dividends for high-quality companies was 10.0%. This compares to a negative dividend growth rate (i.e., declining dividends) for low-quality companies.

Figure 5 shows the rolling 5-year compound annual growth

Figure 5: 5-Year Compound Annual Growth of EPS by Quality Ranking, 1987-2010



Source: S&P Capital IQ Equity Research, Compustat

rate of earnings per share for high-quality and low-quality portfolios, and for the S&P 500 for the 1987-2010 period. Table 5 (previous page) showed that, on average, high-quality companies generated higher earnings growth rates than low-quality companies. Figure 5 shows why. Although at times, low-quality portfolios generate 5-year CAGRs far above those of high-quality portfolios, the earnings growth rate of low-quality portfolios is extremely volatile. For example, the 5-year CAGR of earnings for the low-quality universe reached 72% in December 1997. However, that rate had fallen to negative 35% by December of 2003. On the other hand, the high-quality portfolio generated 5-year CAGRs of EPS that were uniformly positive over the 1987 to 2010 period.⁷ Thus, high-quality companies, by definition, have both higher and more stable EPS growth than low-quality companies.

4.2 Cash Generation and Capital Allocation

Another important aspect of corporate “quality” is how much cash a company generates and what it does with this cash, which in financial terms we call corporate cash flow and capital allocation.

Table 6 presents statistics related to both cash flow and capital allocation for the different Quality Ranking portfolios.⁸

First, we note that high-quality companies tend to generate significant amounts of cash. The free cash flow-to-sales ratio for A+, A, and A- companies averaged 5.7% from 1987 to 2010, versus an average of 1.4% for B, B-, C & D ranked companies. (Free cash flow is defined as cash flow from operations minus capital spending needs.) Also, note that the annual standard deviation of cash flows at A+ companies is just 1.2%, indicating extremely stable cash flows.

7 The 5-year CAGR for the All-A portfolio touched 0% in December 2009, which we attribute in part to the extremely poor earnings results of high-quality financial companies during that period.

8 Note that we exclude financial companies and GE from the calculation of free cash flow to sales, annual change in debt, and annual change in capital expenditures per share, because financials use cash and debt as part of their businesses and capital expenditure data is not collected in our database for banks.

Table 6: Cash Flow & Capital Allocation Ratios by Quality Ranking, 1987-2010

QUALITY RANKING	FCF TO SALES*		ANNUAL CHANGE IN SHARES OUTSTANDING		ANNUAL CHANGE IN TOTAL DEBT*		ANNUAL CHANGE IN CAPEX PER SHARE*		ANNUAL CHANGE IN DIVIDENDS PER SHARE	
	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV	AVERAGE	ST. DEV
A+	5.2%	1.2%	0.0%	1.6%	8.2%	5.3%	7.1%	8.1%	12.9%	11.7%
A	6.4%	2.9%	0.4%	1.7%	7.8%	3.9%	6.4%	11.1%	11.1%	13.3%
A-	5.6%	2.0%	2.0%	2.2%	5.8%	4.3%	2.0%	9.9%	8.7%	12.6%
B+	4.9%	2.2%	1.1%	2.2%	7.7%	7.3%	3.5%	13.2%	6.8%	16.6%
B	3.3%	2.2%	2.3%	1.7%	7.0%	9.6%	14.0%	44.4%	2.7%	18.5%
B-	2.2%	2.0%	3.7%	1.4%	1.2%	7.5%	7.3%	34.6%	-5.2%	15.3%
C	-1.4%	2.4%	8.5%	2.6%	0.4%	10.1%	-8.3%	40.5%	-17.3%	45.5%

* Excludes Financials and General Electric due to its large financial business
Source: S&P Capital IQ Equity Research, Compustat.

Capital allocation policies also differ significantly between high and low Quality companies. For example, high-quality companies generally buy back significant amounts of shares, while low-quality companies tend to issue significant amounts of shares. High-quality companies recorded average annual changes in shares outstanding of just 0.8% over the 1987-2010 period⁹, while low-quality companies saw average annual share growth of 4.8%.

Table 6 shows that high-quality companies add more debt annually than low-quality companies. First, we should note that financial leverage ratios among high-quality companies are significantly lower than low-quality peers (see Section 4.3). Also, larger companies may use debt to adjust their balance sheets, for example by funding a share repurchase through debt issuance. However, investors should also understand that low-quality companies go through boom and bust cycles in which they alternately add large amounts of debt and then are forced to deleverage in an economic downturn.

The same boom and bust cycle can be seen, in a more pronounced fashion, with regard to changes in capital expenditures per share. While high-quality companies increased capex per share by an average 5.2% annually, over our test period, low-quality companies increased capex by an average of 4.3% (including the large declines in capex spending for C & D ranked companies). However, note the very high average standard deviations of annual capex growth for low-quality companies. As an example, B- ranked companies increased capex by over 100% in 2001, on average, and then cut capex by 25% in 2002.

Finally, for investors who have a fondness for dividend growth, we believe high-quality companies clearly hold the advantage. Table 6 shows that high-quality companies have increased dividends per share by an average of 11% annually, versus a net decrease in dividends for low-quality companies over our test period.

⁹ Note that shares outstanding grow significantly as a result of “share creep” – growth in shares due to stock option exercises, share issuance for acquisitions, etc. So, an 0.8% growth ratio means that, on average, the overall high-quality companies are repurchasing significant amounts of shares.

4.3 Financial and Operating Leverage

Profitability and growth (section 4.1) and cash flow and capital allocation (section 4.2) are functions not only of a company’s market position, competitive advantage, executive leadership skills, etc., but also of how a company structures its financial obligations and how capital intensive its business is. In this section, we look at the Quality Ranking groups from the standpoint of both financial leverage and capital intensity (operating leverage).

Table 7 shows that high-quality portfolios generally have lower debt to capital and debt to equity ratios than low-quality portfolios. For example, the average long-term debt to total capital ratio for high-quality (A+, A, and A-) companies was about 31% over the 1987-2010 period. However, the average long-term debt to total capital ratio for low-quality (B, B-, C&D) companies was almost 50%. That low-quality companies carry more debt, on average, means that they generally have higher interest payments, more cyclical earnings, and are more subject to financial risk when the economic or credit environments sour.

As a reflection of perceived financial risk, the average Standard & Poor’s Issuer Credit Rating for high-quality portfolios is A. A credit rating of ‘A’ signifies a strong capacity to meet financial commitments, but that the company is somewhat susceptible to adverse economic conditions and changes in circumstance.

On the other hand, the average S&P Issuer Credit Rating for low-quality portfolios is BB+. A ‘BB+’ rating from Standard & Poor’s signifies that the company’s debt is considered ‘speculative grade,’ and a BB credit rating (one notch below) means that a company faces major ongoing uncertainties and exposure to adverse business, financial, and economic conditions. Note that there is a very strong correlation among S&P Quality Rankings and S&P Issuer Credit Ratings. We believe this strong correlation is due both to high-quality companies carrying less debt and higher-quality companies being more profitable, producing stronger cash flows, and being therefore better able to make interest payments and meet debt maturities.

Table 7: Measures of Financial and Operating Leverage by Quality Ranking, 1987-2010

QUALITY RANKING	LONG-TERM DEBT TO TOTAL CAPITAL*		TOTAL DEBT TO EQUITY*		AVERAGE S&P IS-SUER CREDIT RATING	MEDIAN ANNUAL % CHANGE IN OPERATING MARGIN	
	AVERAGE	ST. DEV	AVERAGE	ST. DEV		AVERAGE	ST. DEV
A+	27.6%	2.6%	108.6%	28.8%	A+	2.6%	3.1%
A	31.5%	3.8%	65.5%	24.2%	A	3.6%	4.4%
A-	35.0%	3.7%	73.6%	16.5%	A-	3.8%	5.2%
B+	36.7%	5.4%	83.3%	25.3%	BBB+	3.8%	4.8%
B	44.8%	7.7%	105.0%	32.2%	BBB	4.4%	5.9%
B-	44.1%	7.5%	98.7%	36.6%	BB+	6.9%	9.3%
C	59.5%	10.4%	183.1%	124.2%	B+	23.5%	11.6%

* Excludes Financials and General Electric due to its large financial business
Source: S&P Capital IQ Equity Research, Compustat.

Finally, Table 7 shows the median annual percentage change in operating margin by Quality Ranking group, with the profit margin change always expressed as a positive number. The annual change in operating margin is a measure of operating leverage, or the degree to which revenue growth translates into earnings growth. Companies with high fixed costs (overhead costs, facility and equipment costs, etc.), tend to have high operating leverage, and companies with low fixed costs have low operating leverage.

Table 7 shows that high-quality portfolios have had annual changes in operating margins (our proxy for operating leverage) that average 3.3%. Low-quality portfolios, on the other hand, have had annual changes in operating margins that average 11.6%. Also, note the higher average standard deviation of operating margin changes for low-quality companies. This means that operating margins for low-quality companies swing up and down significantly more than those for high-quality companies, and that low-quality companies are in general more cyclical and more subject to business and economic risk.

4.4 Quality of Earnings

“While the problem of earnings management is not new, it has swelled in a market that is unforgiving of companies that miss their estimates. I believe that almost everyone in the financial community shares responsibility for fostering a climate in which earnings management is on the rise and the quality of financial reporting is on the decline.”

Arthur Levitt, speech on September 28, 1998

The term “quality of earnings” has been used with different interpretations in a variety of contexts. For example, in the bull market of the late 1990s, investors rewarded higher valuations to the companies that they thought provided high-quality earnings – companies that systematically, quarter after quarter, met or “beat” estimates. However, consistent and positive earnings surprises and earnings growth over a short time period may also reflect aggressive accounting, earnings management and poor quality of earnings.

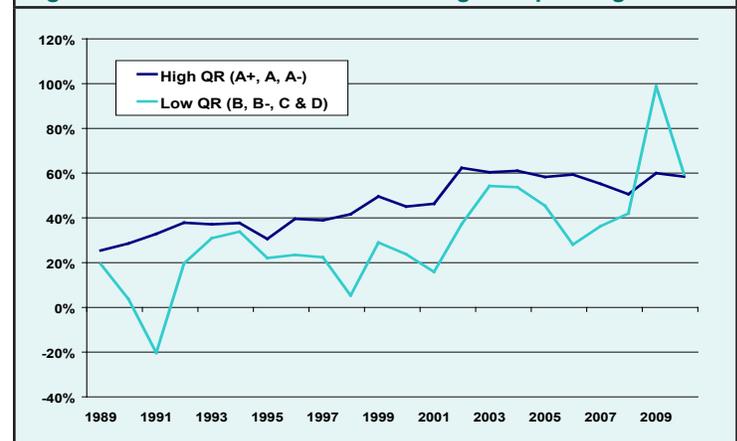
As earnings growth is an important factor in the determination of Quality Ranks, an examination of whether there is any cor-

respondence between Quality Ranks and quality of earnings is necessary. Our analysis confirms the prudence of the construction of the S&P Quality Rank system. The Quality Ranks reflect earnings and dividend growth over a long time period over which it may be difficult to sustain accounting manipulation. Our results show that companies with higher Quality Ranks generally have higher quality of earnings.

Academics and practitioners have used the term “quality of earnings” with varied meanings over time as earnings of a corporation can be manipulated in several ways. We look at the quality of earnings from three different perspectives: free cash flow to operating income, special and extraordinary items in relation to reported earnings, and the cross-sectional variation of analyst estimates across the Quality Ranking groups.

Figure 6 shows the free cash flow to income ratio for both high-quality and low-quality portfolios. (Free cash flow is defined as cash flow from operations less capital expenditures.) The free cash flow to operating income ratio shows the amount of accrual-accounting earnings (operating income) that is actually realized as cash earnings (free cash flow). Since cash accounting is more difficult to manipulate than accrual accounting, the level of a company’s cash flow is often

Figure 6: Free Cash Flow as a Percentage of Operating Income*



* Excludes financials and General Electric, due to its large financial business
Source: S&P Capital IQ Equity Research, Compustat

used as an indicator of the quality of its earnings.

Figure 6 shows that, in general, high-quality companies have higher levels of free cash flow and significantly more stable cash flows than low-quality companies.

Several academic studies note that analysts focus on operating earnings and exclude special and extraordinary items when estimating a company's earnings power.¹⁰ However, special and extraordinary items have implications for previously reported and future earnings. If nonrecurring charges are actually prior-year expenses taken too late, or future expenses charged off early, then the practice of ignoring nonrecurring charges and focusing on recurring operating income results in an overestimation of a firm's earnings power. Furthermore, while special items are frequently associated with firms experiencing challenges in their operating environment, companies' managements may use both the timing and the magnitude of special items to engage in "earnings

smoothing." Even extraordinary items that are excluded from the calculation of reported (GAAP) earnings, such as charges related to discontinued operations, may impact sustainability of earnings and affect analysts' forecasting ability of corporate earnings per share.

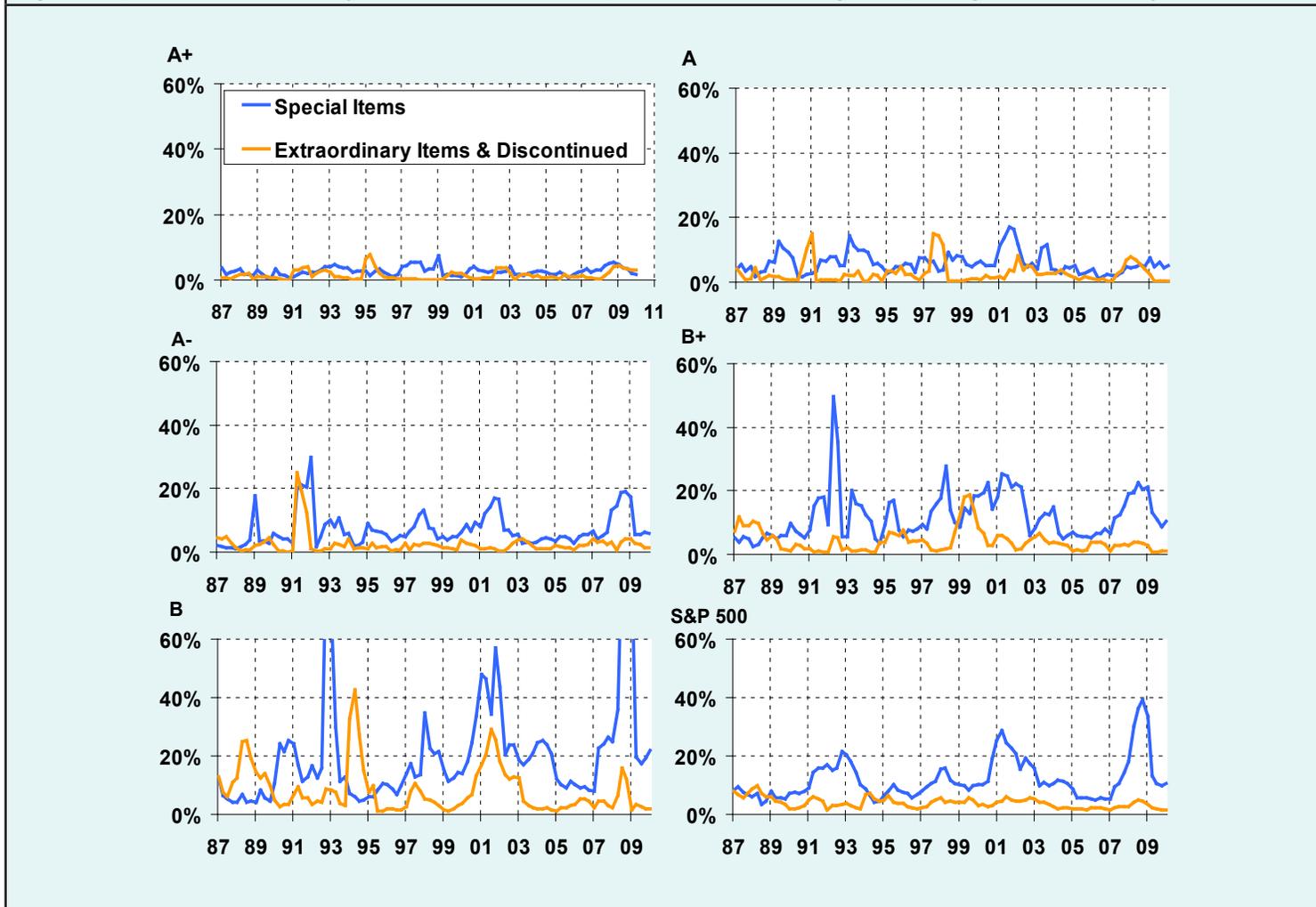
Figure 7 shows, for the 1987-2010 period, special and extraordinary items and discontinued operations as a percentage of operating income for the different Quality Ranking portfolios. We note that over the period under study, low-quality companies have reported a higher percentage of special and extraordinary items and discontinued operations.¹¹

The presence of special and extraordinary items complicates the task of forecasting earnings. The accuracy of earnings forecasts is of primary importance to market participants because earnings projections are a central input to investment decisions. In addition, investors demand higher risk premiums

10 White, Sondhi and Fried (1997), p. 64.

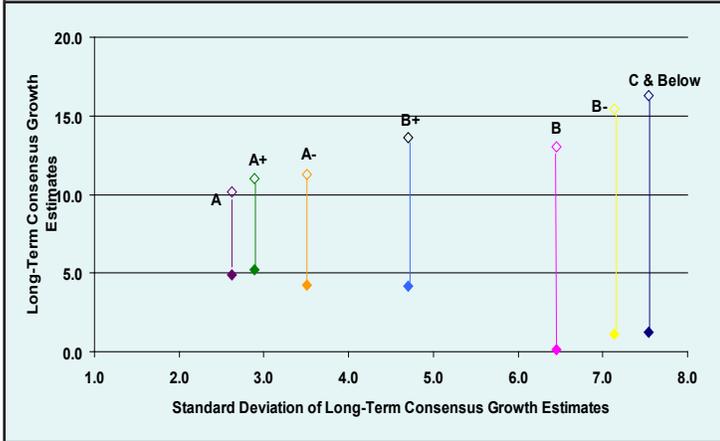
11 Note that graphs have the same scale to facilitate comparison among Quality Ranking groups.

Figure 7: Special and Extraordinary Items and Discontinued Operations as a Percentage of Operating Income for Quality Rank Portfolios



Source: S&P Capital IQ Equity Research, Compustat

Figure 8: Analysts' Growth Forecast Consensus and Dispersion by Quality Rank



Source: S&P Capital IQ Equity Research, Compustat

for investments in companies with higher uncertainty of future earnings.

Figure 8 illustrates the relationship between analysts' average long-term projected EPS growth rates¹² and the uncertainty surrounding those forecasts as measured by the average standard deviation of the estimates as of December 2010. High-quality companies are associated with a lower degree of future earnings growth than that of low-quality companies.

However, analysts' disagreement on future earnings growth for high-quality portfolios is low relative to analysts' disagreement on the higher growth forecasts for low-quality companies.

The hollow diamonds at the top of the chart show the average I/B/E/S consensus 5-year projected EPS growth rate for the different Quality Ranking groups. The solid diamonds at the bottom of the chart show the I/B/E/S projected growth rate minus two standard deviations, using the standard deviation of the analysts' estimates for each Quality Ranking portfolio. Therefore, the vertical lines between the hollow and the solid diamonds indicate the degree of dispersion – or disagreement – implied in the long-term growth rates for each Quality Ranking group.

To summarize, companies ranked highly by the Quality Ranking System have historically exhibited higher quality of earnings than companies ranked lower, as indicated by the percentage of cash flow backing each dollar of accounting earnings and by the low ratio of special and extraordinary items to reported earnings. Lower dispersion in analyst estimates also indicates higher quality, and more predictable earnings for high-quality companies. In our view, earnings quality and predictability is of primary importance to investment analysts and investors since earnings are a very important input to valuation models used to calculate the intrinsic value of a stock.

¹² We use I/B/E/S consensus 5-year EPS growth projections and the standard deviation of these projections.

V. THE QUALITY ROTATION CYCLE

5.0 The Quality Rotation Cycle

Careful analysis of the performance of different Quality Rankings groups reveals a phenomenon that we call the Quality Rotation cycle. Simply stated, the Quality Rotation cycle consists in extended periods of high-quality outperformance followed by extended periods of high-quality under-performance and vice versa.

Figure 9 shows that the market rotates between a preference for high Quality Ranking issues and a preference for low Quality Ranking issues. A rising dark blue line, such as occurred between 1985 and late 1990, indicates that high-quality issues were steadily outperforming. A declining dark blue line indicates that low-quality issues have been outperforming. Note that, with the exception of a brief period from June 2008 to December 2008, low-quality issues have been outperforming since late 2002.¹³

Figure 9: High / Low Quality Ranking Ratio and Large / Small Capitalization Ratio



Source: S&P Capital IQ Equity Research, Compustat. Past performance is not a guarantee of future results.

The light blue line in Figure 9 is the ratio between large cap stocks and small cap stocks. Note the strong correlation between the high QR / low QR ratio and the large cap / small cap ratio. They tend to move in tandem (the correlation coefficient between the two ratios is 0.64). Thus, our analysis shows a strong relationship between high-quality companies and large caps and low-quality companies and small caps.

S&P Capital IQ believes that the fundamental and risk-based characteristics of high-quality portfolios, outlined in Sections III and IV, make a focus on high-quality issues appealing to investors. However, we also recognize that low-quality

¹³ The observant reader will also notice that the ratio has turned up recently, and we think there are reasons to believe that we have again entered a period of high-quality outperformance as of this writing.

portfolios can produce strong returns during periods of sustained economic growth, and that investors may not want to ignore the returns available from low-quality stocks during such periods. Finally, we believe it is important that investors interested in high-quality securities understand the economic and market-based dynamics that make high-quality securities more attractive to the investing public at certain times and low-quality securities more attractive at others.

In this section, we'll take a look at the drivers of the Quality Rotation cycle. Experience has shown that there are three primary drivers of quality rotation: the corporate earnings cycle, the credit cycle, and changes in investor risk tolerance. We'll look at each of these three drivers in turn.

5.1 Quality Rankings and The Corporate Earnings Cycle

Figure 10 shows a graph of the trailing four-quarter earnings growth rate for the overall S&P 500 (left vertical axis). An increase in the height of the bars means that corporate earnings growth is accelerating. The right vertical axis shows the relative performance ratio of the high-quality versus low-quality portfolios. When the line rises, it means that A+, A, and A- stocks are outperforming B, B-, C & D issues. The up and down arrows outline the major trends in the Quality Rotation Cycle (up = high-quality outperformance and down = low-quality outperformance).

Note that high-quality outperformance – the peaks in the relative performance line / points of the up arrows – tends to peak at or slightly after troughs in earnings growth. Also note that low-quality outperformance tends to reach its “peak” – the troughs of the relative performance line / points of the down arrows – after earnings growth has peaked and when it is

Figure 10: Corporate Earnings Cycle and Performance of Quality Ranking Portfolios



Source: S&P Capital IQ Equity Research, Compustat. Past performance is not a guarantee of future results

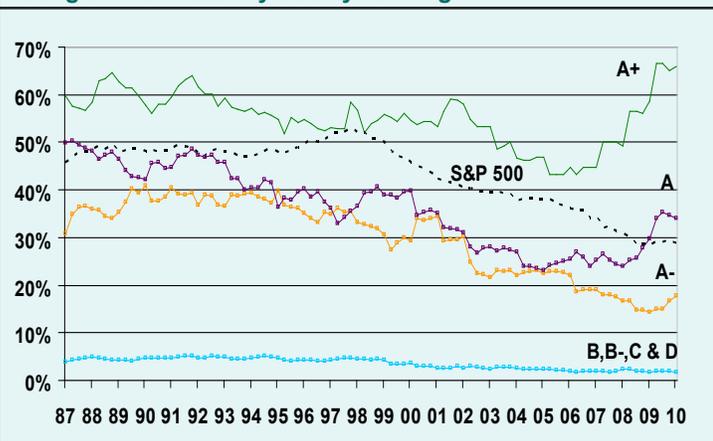
decelerating. The conclusion we can draw is that, in general, rising earnings growth favors stocks of low-quality companies and decelerating earnings growth or declining earnings favor stocks of high-quality companies.

These conclusions are not surprising to us in light of our fundamental analysis of high-quality stocks, which showed that they tend to produce stable earnings growth over time and are less susceptible to fluctuations in general economic activity (Section 4.1, Figure 5). Our analysis also shows that higher-quality companies' earnings growth has a low correlation to overall corporate earnings growth as represented by the S&P 500.

5.2 Quality Rankings and the Credit Cycle

The explanation for the difference in the stock performances of low- and high-quality companies through the earnings and credit cycles calls for an examination of credit markets' impact on companies' operations. Changing credit market conditions have very different effects on low- and high-quality companies' business and financial risks, and profitability. Our analysis in Section 4.3 shows that low-quality companies are generally more leveraged, as indicated by debt to capital and debt to equity ratios. In addition, our analysis in Section 4.3 indicates that lower-quality companies are more susceptible to credit risk, as measured by their relatively low S&P Credit Ratings.

Figure 11: Percentage of Companies with S&P Issuer Credit Rating of A- or Better by Quality Ranking

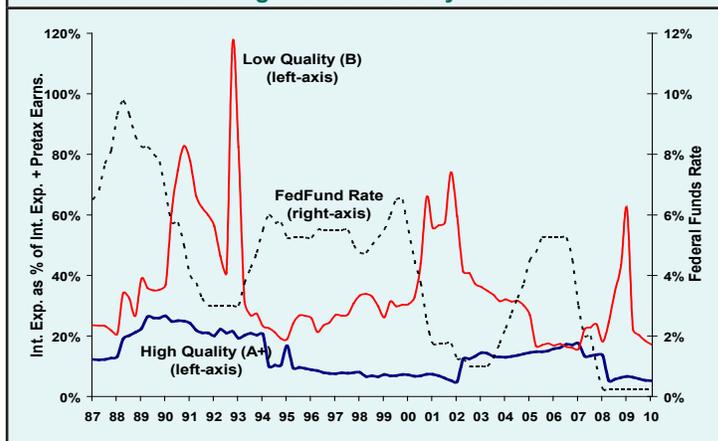


Source: S&P Capital IQ Equity Research, Compustat.

Figure 11 shows the percentage of companies with a Standard & Poor's Credit Rating of A- or better with regard to its overall creditworthiness.¹⁴ As one would expect, companies

14 The Standard & Poor's Credit Rating represents an opinion of an issuer's overall creditworthiness, apart from its ability to repay individual obligations. This opinion focuses on the obligor's capacity and willingness to meet its long-term financial commitments as they come due. A credit rating of A- to AAA indicates strong capacity to meet financial commitments.

Figure 12: Interest Expense as Percentage of Income vs. Federal Funds Rate for High vs. Low Quality Portfolios



Source: S&P Capital IQ Equity Research, Compustat.

with high quality of earnings tend to also have high credit quality. Thus, we believe low fundamental risk is consistent with a higher relative credit rating. However, we note that even among high-quality companies there has been a decline in credit quality over the past two decades. Changes in financial policy and in the business environment have been identified as the most significant drivers of the declining credit quality of the U.S. corporations.¹⁵

To analyze the interaction between creditworthiness and profit cycles, Figure 12 graphs the ratio between interest expense and the sum of pretax income and interest expense for high- and low-quality portfolios.¹⁶ A rising line indicates that interest cost is becoming a higher percentage of after-tax earnings. For bondholders, the interest coverage ratio is a sort of safety gauge, since it provides a sense of how far a company's earnings can fall before it will start defaulting on its bond payments. For stockholders, the ratio is an indicator of how much of a company's income (before payment of taxes) is allocated to bondholders.

Note that as we move from high- to low-quality companies, the level and volatility of the ratio increase. Changes in interest rates imply a larger impact on the interest expense burden of low-quality companies, which in turn implies a larger negative impact on their future earnings and cash flows. Low-quality companies tend to have more limited access to capital markets and tend to use more bank loans. Low-quality firms generally do not have the same ability to raise external funds as high-quality companies and, as a consequence, are more adversely affected by lower liquidity and higher short-term interest rates. Thus, during periods of increasing interest rates, low-quality companies' balance sheets tend to weaken as net

15 See the report "The Decline and Fall of the 'AAA' Rated Company," CreditWeek, March 16, 2005.

16 We plot the inverse of the interest coverage ratio for ease of understanding. The interest coverage ratio measures the immediate effect of increasing interest costs on profitability.

worth declines and higher interest costs reduce operating cash flows.

Figure 12 shows that following a sharp rise in the Fed Funds rate, interest expense as a percentage of pre-tax income (excluding interest expense) spikes for low-quality companies.¹⁷ Conversely, following a sharp drop in interest rates, interest as a percent of income for low-quality companies drops significantly. This is partly due to the contraction in profits that occurs following sharp rises in interest rates. However, it is also due to the significantly higher debt burdens carried by low-quality companies and their relative difficulty in obtaining short-term funding to provide cash during periods of distress (resulting, for example, in inventory “fire sales” and production constraints).

High-quality companies, represented in Figure 12 by the A+ portfolio, have relatively low and steady interest expense relative to income. Thus, the credit cycle is a key driver of stock performance for both high-quality and low-quality companies, in our opinion. When interest rates are low and credit is readily available, stocks of low-quality companies tend to outperform. Vice versa, when interest rates are high and credit is hard to obtain, stocks of high-quality companies tend to outperform.

5.3 Quality Rankings and Risk Tolerance

Sections 5.1 and 5.2 showed how overall economic growth and the rise and fall of interest rates and credit availability are key drivers of earnings for low-quality companies, and that in turn these cycles drive investor rotation between high- and low-quality issues. However, this section wouldn't be complete without a discussion of the role of investor confidence in the Quality Rotation cycle.

Anyone familiar with stock investing knows that investors periodically alternate between the extremes of “boundless optimism” and “despair and depression” when it comes to both individual stocks and the equities market in general. When investors, as a whole, are optimistic they seek riskier

Figure 13: CBOE Market Volatility Index and Performance of Quality Ranking Portfolios



Source: S&P Capital IQ Equity Research, Compustat. Past performance is not a guarantee of future results.

assets that will help them boost their returns. When investors are fearful, they seek to protect capital and dump risky assets in a wholesale manner.

The CBOE Market Volatility Index (or VIX) is a measure of investor sentiment and expected market volatility based on the implied volatility of a wide range of S&P 500 index options. The VIX is a widely used measure of “investor insecurity” regarding the near-term outlook for the stock market. A rise in the VIX suggests increased investor worry, and a decline in the VIX suggests decreased investor worry.

Figure 13 presents the CBOE Market Volatility Index (dark blue line) and the relative performance of the high-quality versus low-quality portfolios (light blue line). Note that sharp upward spikes in the VIX index are almost always accompanied by upward moves in the relative performance line. That is, as investors become more fearful, high-quality stocks begin to outperform low-quality stocks.

Thus, we believe that high-quality stocks, to a significant extent, serve as safe havens during periods of investor uncertainty about the future direction of the markets.

¹⁷ We use B stocks here for purposes of illustration, since B- and C issues often report large losses during economic downturns, which would result in a negative ratio of interest expense to income.

VI. PORTFOLIO CHARACTERISTICS OF RECENT AND HISTORICAL QUALITY RANKING PORTFOLIOS

6.1 Quality Ranking Portfolio Characteristics and Composition

Table 8 illustrates the distribution of the Quality Rankings at different points in time. As of November 2011, S&P Capital IQ ranked over 3,300 U.S. companies.¹⁸ The quantitative model that generates the rankings is based on an absolute score, and not on a relative score versus the universe. There is no

companies has been increasing and the proportion of higher-quality companies has been declining, resulting in a falling high-to-low quality ratio (Figure 14). A plausible explanation for the decline in the number of high-quality companies, in our view, is that the business environment has become increasingly competitive due to intense global competition (this theory is supported, in part, by the large increase in size among the A+ portfolio, signifying that only the mega-cap companies

Table 8: Quality Rankings: Number and Percent of Total Ranked Stocks

QUALITY RANKING	1985		1990		2000		2010	
	NUMBER OF COMPANIES	PERCENT OF TOTAL						
A+	176	6.3%	116	4.4%	75	2.3%	41	1.1%
A	286	10.2%	207	7.9%	167	5.2%	102	2.8%
A-	389	13.9%	253	9.7%	221	6.9%	168	4.6%
B+	626	22.4%	420	16.0%	543	16.8%	490	13.4%
B	489	17.5%	490	18.7%	668	20.7%	622	17.0%
B-	450	16.1%	611	23.3%	712	22.1%	826	22.6%
C&D	376	13.5%	520	19.9%	838	26.0%	1413	38.6%

Source: S&P Capital IQ Equity Research, Compustat.

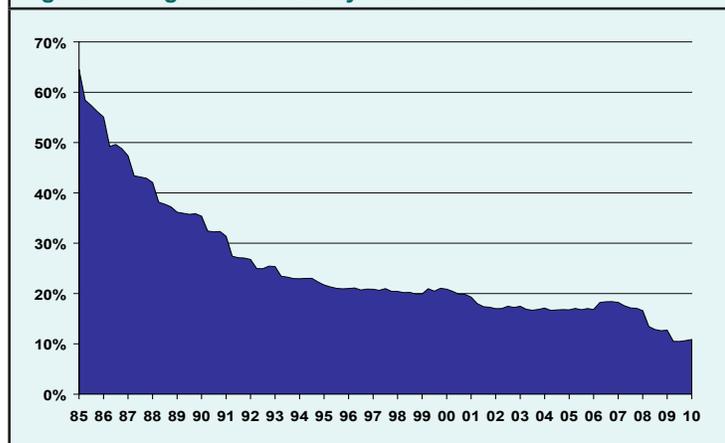
adjustment made to force a certain percentage of companies into each quality bracket; as a result, the rankings are not uniformly distributed. Currently, approximately only 9% of all the ranked stocks have ranks of A- or better; the majority of ranked stocks fall in the lower-quality segment.

Table 8 shows that, over time, the proportion of lower-quality

are able to compete effectively). It may also reflect factors such as U.S. trade policy, increased corporate regulation, and investor focus on short-term profitability. Whatever the cause, the fact remains that companies able to achieve long-term stable earnings growth are becoming increasingly scarce. In addition, the percentage of companies paying a dividend has been steadily declining since 1985. (The reader will recall that companies that have not paid a dividend in the past ten years generally cannot receive a Quality Ranking higher than A-).

Table 9 presents statistics on price per share, market value, and trading volume by Quality Ranking portfolio. On average, higher-quality companies have higher market values and higher prices per share. In addition, trading volume is

Figure 14: High-to-Low Quality Ratio Over Time



Source: S&P Capital IQ Equity Research, Compustat

¹⁸ The present study refers to the Quality Rankings System on U.S. companies that qualify under the 10 years of information required by the Quality Rankings model. Standard & Poor's also ranks stocks internationally.

Table 9: Price, Market Value and Turnover by Quality Ranking, December 2010

QUALITY RANKS	MEDIAN PRICE PER SHARE	MEDIAN MARKET VALUE (\$MIL)	AVG. MONTHLY VOLUME (\$MIL)
A+	55	21,325.3	4,444
A	38	3,545.9	1,471
A-	33	2,151.9	1,447
B+	33	1,825.3	1,192
B	21	934.5	982
B-	12	295.0	427
C&D	2	23.4	107

Source: S&P Capital IQ Equity Research, Compustat.

Table 10: Transitional Probabilities Matrix for Quality Rankings

		NEXT YEAR'S RANK							Lapsed Ranking	Number of Observations	
		A+	A	A-	B+	B	B-	C			D
CURRENT YEAR RANK	A+	83.12	13.27	0.45	0.15	0.10	0.00	0.00	0.05	2.87	2,020
	A	5.30	73.50	16.32	0.84	0.02	0.00	0.07	0.17	3.77	4,056
	A-	0.00	10.32	67.16	17.51	0.64	0.06	0.19	0.06	4.06	5,299
	B+	0.00	0.17	6.49	74.57	13.01	0.53	0.31	0.13	4.80	11,672
	B	0.00	0.00	0.01	8.83	71.63	11.69	1.52	0.33	5.99	14,077
	B-	0.00	0.00	0.00	0.02	8.21	72.29	11.94	0.49	7.05	17,801
	C	0.00	0.00	0.00	0.00	0.01	11.44	78.29	1.38	8.88	17,554
	D	0.00	0.00	0.00	0.00	0.00	0.10	0.29	60.95	38.67	2,087

Source: S&P Capital IQ Equity Research, Compustat.

significantly higher for the higher-quality portfolios. Liquidity is a significant factor that institutional money managers evaluate before buying a stock, as they prefer to invest in very liquid issues that can be bought and sold without impacting the market price.

Stocks of high-quality companies are ideally employed in portfolio strategies that try to maintain low portfolio turnover, in our view. In effect, besides their greater liquidity, average prices per share and market size, high-quality companies' rankings tend to be quite stable over time. This is intuitive, as the model is mainly based on stability of earnings and dividends over 10 years. Table 10 is a transitional probabilities matrix for the rankings. It shows the percentage of occasions in which a company with a certain rank in the current year maintained that rank in the next year.

Thus, for example, based on past data, the probability that a company ranked A+ in the current year will maintain the same ranking in the next year is 83%. We notice that high-quality companies are significantly more likely to maintain their high-quality rank over time, making their current rankings a significant predictor of their future rankings.

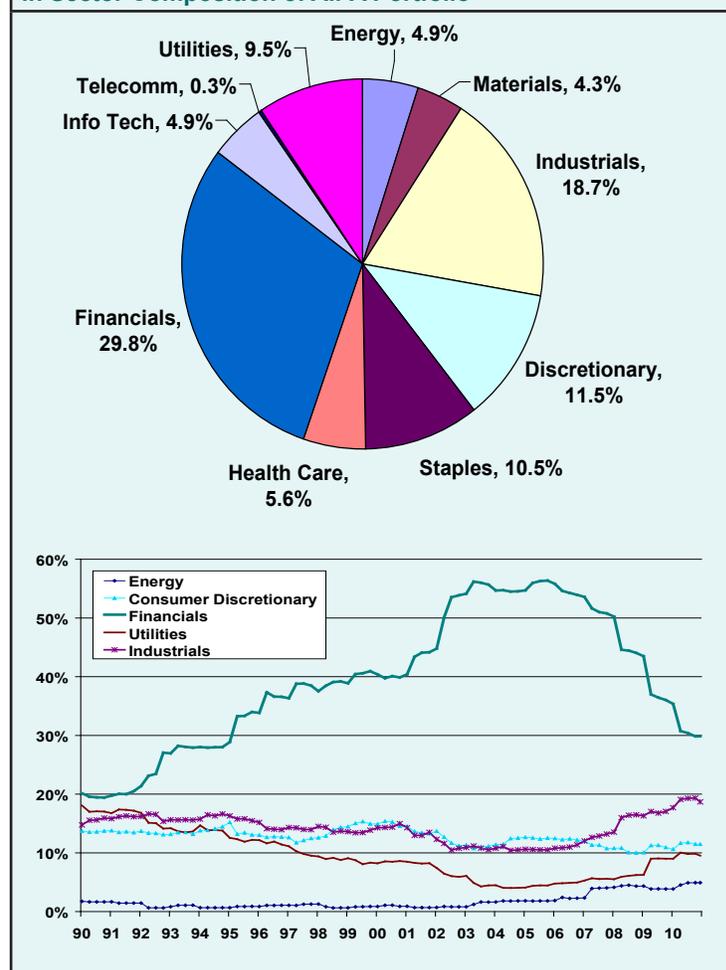
6.2 Quality Ranking Sector Makeup

Figure 15 shows the sector share of higher-quality companies (A- or better).¹⁹ Financials continue to dominate the all-A portfolio, with an approximate 30% share. However, note that industrials, consumer discretionary, consumer staples, utilities, health care, energy, and materials all have a significant number of high-quality companies. (As of November 2011, the high-quality portfolio contained 305 stocks.)

An analysis of the high-quality sector composition over time shows that, while financial stocks have dominated the high-quality list over the past twelve years, the sector composition is by no means static. The financial sector saw a tremendous surge in its share of the high-quality portfolio from 1990 to 2004, only to see its share of the portfolio plummet from

2006 to the present. Consumer discretionary companies have continued to decline as a percentage of the high-quality portfolio, perhaps reflecting overcapacity and intense competition in that sector. However, industrials have begun to surge, moving from just 13.5% of the all-A portfolio in 2000 to about

Figure 15. November 2011 Breakdown of and Historical Trend in Sector Composition of All-A Portfolio



Source: S&P Capital IQ Equity Research, Compustat

¹⁹ High Quality Ranking stocks as a percentage of total for the quality-ranking universe in the U.S.

19% of the portfolio today. We believe this increase reflects emerging market demand for heavy industrial equipment, as these countries build out their infrastructures. Also utilities and energy-sector companies have seen their percentage of the all-A portfolio grow in recent years. We note that, contrary to general perception, the technology sector has always represented a small fraction of the high-quality universe. We attribute this to intense competition and technology's inherent cyclical nature caused by the incessant introduction of new technologies that result in increasingly shorter product life cycles, and volatile profit margins and earnings.

The relatively low percentage of health care companies among the high-quality universe may also be surprising, since many investors generally view the health care sector as a defensive one capable of generating revenue and earnings growth in both good and bad times. However, the reality is that the health care sector is made up of diverse sub-industries, such as medical devices, managed health care, biotechnology, and pharmaceuticals, all driven by different factors. For example, pharmaceutical companies have faced challenges over the past decades relating to prescription drug pricing, generic-drug competition, weak R&D pipelines, and government regulation. Pfizer, Merck, and Eli Lilly, more or less pure-play pharmaceutical companies that once carried A+ Quality Rankings, have now fallen into the B category. However, a company like Johnson & Johnson, which has grown increasingly diversified over the years (pharmaceuticals accounted for 36% of sales in 2010), has been able to retain an A+ Quality Ranking for the past 19 years.

The financials sector grew in dominance within the high-quality universe over the past two decades. In December 1985, the sector represented 22% of the all-A portfolio. However, with steadily falling interest rates, industry consolidation, diversification into new lines of business, and a mortgage-driven housing boom, the financials sector ballooned to 56% of the all-A portfolio by December 2006. In terms of number of companies, financials companies ranked A- or higher reached a low of 103 in December 1992, but climbed to a high of 269 by December of 2004, an increase of 160% in 12 years. However, the housing bust – and the ensuing severe financial crisis – resulted in a decline in the percentage of high-quality financials companies as a percent of the high-quality universe to 30% by November 2011 and a decline in the number of financials companies ranked A- or higher to just 91.

Three other sectors worthy of discussion are energy, industrials, and utilities. In December 1985, the energy sector represented 3.3% of the high-quality universe. This ratio fell to just 1% (4 companies) in December 1993, as oil prices bottomed out. However, with a steady rise in oil prices this sector represented 5% of the high-quality portfolio as of November 2011 (15 companies). The industrials sector made up 14% of the high-quality universe in December 1985 (116 companies). Following the 2001-2002 recession, this ratio fell to 11% in December 2003 (54 companies). However, emerging-market

demand for industrial products has helped stabilize this sector, and despite a severe financial downturn in 2008-2009, the sector has recovered to 19% of the all-A universe by November 2011 (57 companies). The utilities sector underwent deregulation in 1992, resulting in a drop in utilities as a percentage of the high-quality universe from 18% in December 1985 (151 companies) to 4% in December 2005 (20 companies). However, since then industry profits have benefitted from consolidation and companies have increased dividends, resulting in an increase in the all-A ratio to 10% as of November 2011 (29 companies).

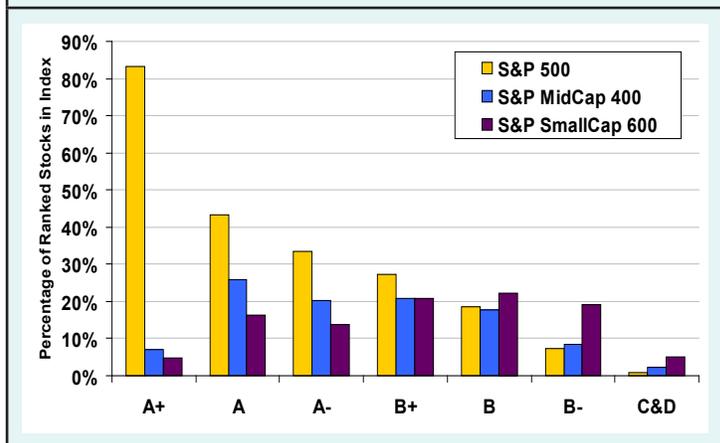
6.3 Quality Ranking, Capitalization, and Growth-Value Split Analysis

This section covers the distribution of Quality Rankings and their sensitivity to growth and value factors for the three different capitalization universes: large-caps (S&P 500), mid-caps (S&P MidCap 400), and small-caps (S&P SmallCap 600).

Figure 16 shows that, as of November 2011, a large percentage of high-quality companies are within the S&P 500 universe (about 44% of the high-quality universe exists within the S&P 500). Of the 42 companies ranked A+, 35 are in the S&P 500, 4 are in the S&P MidCap 400, and just 1 is in the S&P 600 (two are not in an S&P index). This concentration within the 500 reflects that the S&P 500 index generally contains large-cap companies with extended operating histories and above-average operating results.

Conversely, the MidCap and SmallCap indices tend to be dominated by low-quality issues, reflecting the shorter operating histories, lower dividends, and more volatile operating results of smaller cap companies. Considering both the S&P 400 and S&P 600, 64% of all companies in both indexes with Quality Rankings are in the low-quality (B or below) category. Only 12% fall into the high-quality category. By comparison, 30% of S&P 500 companies with Quality Rankings are high-quality and just 40% are low-quality (we believe this is

Figure 16. Quality Ranking Distribution by Index as of November 2011



Source: S&P Capital IQ Equity Research, Compustat

Table 11 Growth-Value Split of High Quality (A+, A and A-) as of November 2011

UNIVERSE	MKT VALUE (\$MIL) OF UNIVERSE	MKT VAL OF UNIVERSE (% OF TOT INDEX MKT CAP)	GRWTH %	VALUE %
All-A in S&P 500	5,059,803.5	43.21%	58.45%	41.55%
All-A in S&P MidCap 400	200,678.9	18.11%	51.65%	48.35%
All-A in S&P SmallCap 600	50,914.3	10.33%	58.34%	41.66%

Source: S&P Capital IQ Equity Research, Compustat.

especially impressive given the small number of high-quality companies and the large number of low-quality companies in general).

Table 11 shows the growth-value split, by price-to-book value, for the three stock universes as of November 2011. Note that high-quality companies (A+, A and A-) do not fall exclusively in either the value or growth category. Rather, we see a quite balanced split between growth and value for all three stock universes.

6.4 Valuation Multiples Analysis

On an equal-weighted basis, high-quality stock portfolios

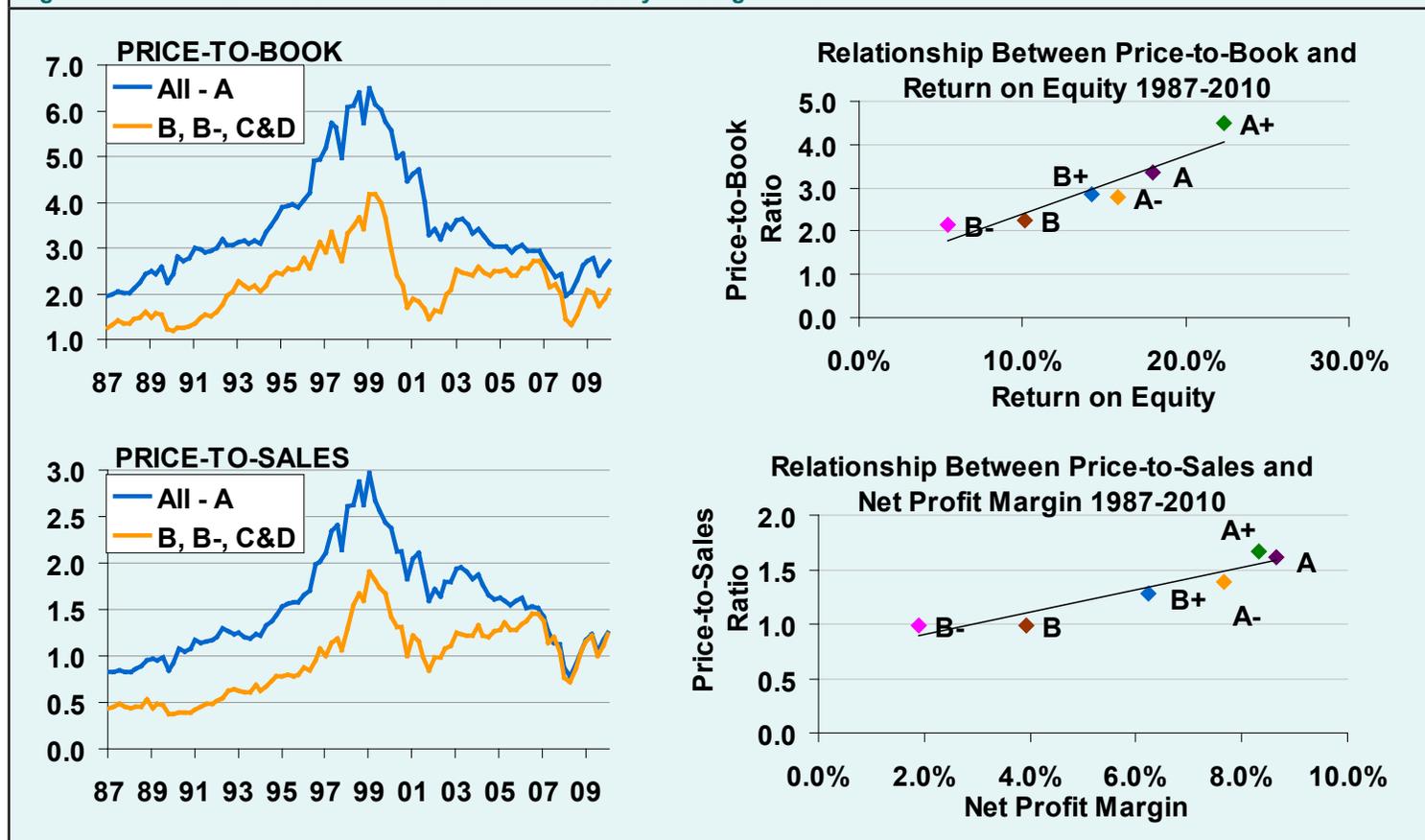
provide equivalent risk-adjusted returns to low-quality stock portfolios. But the question remains: Does the risk protection associated with stocks of high-quality companies come at a cost? In other words, is the high-quality portfolio's greater profitability reflected in higher market valuation multiples?

In order to answer this question, we examined various valuation multiples. The left-hand side of Figure 17 shows the average price-to-book and price-to-sales ratios for the different Quality Ranking portfolios. These graphs show clearly that stocks of high-quality companies carry a valuation premium, on both price-to-book and price-to-sales bases, to stocks of low-quality companies.

However, we believe that valuations must be considered relative to their fundamental drivers. Valuation is not just a question of what price someone is paying for an asset, but also of how much value – in terms of income or profitability – the asset can generate. The right-hand side of Figure 17 shows two matrices that relate the valuations of the different Quality Ranking portfolios to the fundamental drivers of those valuations.

The top-right graph shows the relationship between price to book value and return on equity. Since the price-to-book

Figure 17: Price-to-Book and Price-to-Sales Ratios for Quality Ranking Portfolios



Source: S&P Capital IQ Equity Research, Compustat

value ratio evaluates the worth of a company's equity, we believe it is reasonable to ask how much value – in terms of profitability – each dollar of equity is capable of generating. The price to book value / return on equity matrix shows an almost perfect correlation among the valuation “assigned” to the different Quality groups and the profitability they are able to generate. For example, the B- quality-ranking portfolio has had an average price-to-book ratio of just 2.1X from 1987 to 2010; however, the B- group has also generated the lowest return on equity, with an average ROE over the period of 5.4%. Conversely, the A+ group carries a strong price-to-book premium, with an average ratio of 4.5; but this premium reflects the A+ group's ability to generate profits on a given amount of equity, with an average ROE of over 22%. Based on our analysis, this means that an investor can expect cash reinvested in the business to generate an average 22% return for A+ ranked companies versus a return of just over 5% B-ranked companies.

The price-to-sales ratio and net profit margin matrix presents a similar picture. While the correlation between price-to-sales ratio and net profit margin is not perfect, generally speaking higher-quality portfolios carry both higher price-to-sales ratios and generate higher profitability on each dollar of sales, as measured by a higher net profit margin. For example, the A+ portfolio carried an average price-to-sales ratio of 1.7X from 1987 to 2010, with an average net profit margin of 8.3%. Conversely, the B- Quality Ranking group had an average price-to-sales ratio of 1.0X, and a correspondingly low net profit margin of 1.9%. All other things equal, we believe an investor should be willing to pay more for a company capable of generating 8% profit margins on sales than a company capable of only generating 2% margins. In addition, the reader will recall that the stability of profit margins is generally much better for higher-quality companies than for lower-quality issues.

VII. CONCLUSION

S&P Capital IQ Quality Rankings provide a simple yet very useful summary measure of the quality of a company's stock. The Quality Rankings System captures the growth and stability of the earnings and dividend record of a company over the most recent 10-year period in a single symbol. The assessment of fundamentals over this long period ensures that the Quality Rankings are not unduly influenced by short-term factors and possible accounting manipulations.

Quality Rankings are not designed to be a comprehensive measure of the quality of a company's accounting practices or a tool to provide investment advice. Analytical products such as S&P Capital IQ's STARS (STock Appreciation Ranking System) provide more detailed analysis of a company's accounting practices and in-depth investment analysis.

Our research shows, however, that despite their simplicity and compactness, Quality Rankings are historically correlated with several measures of quality of earnings and with a wide variety of fundamental characteristics. Our analysis also

shows that portfolios of high-quality companies can provide the investors with downside protection and the opportunity to outperform during certain phases of the market cycle. We believe the risk characteristics of high-quality portfolios are attractive, as they have historically provided good participation in up markets and mitigated down movements of the market.

We further characterize the factors that contribute to the better performance of high-quality companies when the market is declining. Our analysis shows that high-quality companies perform better – in terms of profitability and portfolio returns, when aggregate earnings are declining and the credit cycle is tightening because of their steadiness of sales growth, level and stability of profitability, size, and lower leverage.

We view high-quality companies as appealing investments because of their overall better risk-return characteristics, higher liquidity and larger size.

VIII. REFERENCES

- Badrinath, S., G. Gay, and J. Kale. "Patterns of Institutional Investment, Prudence, and the Managerial 'Safety-Net' Hypothesis." *Journal of Risk and Insurance* 56, 1989, pp.605-629.
- Ball, R., and L. Shivakumar, "Earnings Quality in U.K. Private Firms", University of Chicago and London Business School, October, 2002
- Bernanke, B., and M. Gertler. "Agency Costs, Collateral, and Business Fluctuations." NBER Working Paper 2015, 1986.
- Bernstein, R. *Style Investing*. John Wiley & Sons, 1995.
- Blitzer, D. M., R. E. Friedman, and H. Silverblatt. "Measures of Corporate Earnings." *Standard & Poor's White Paper*, May, 2002.
- Bos, R. "An Overview of Standard & Poor's Earnings and Dividend Quality Rank Model." *Standard & Poor's White Paper*, July 2000.
- Calomiris, C., C. P. Himmelberg, and P. Wachtel. "Commercial Paper, Corporate Finance, and The Business Cycle: A Microeconomic Perspective." *Carnegie-Rochester Conference Series on Public Policy* 42, 1995, pp. 203-250.
- Chung H. K. "Marketing of Stocks by Brokerage Firms: The Role of Financial Analysts." *Financial Management*, Summer 2000.
- Cooley, T., and V. Quadrini. "Monetary Policy and The Financial Decisions of Firms." Mimeo, University of Rochester, 1997.
- Del Guercio, D. "The Distorting Effects of the Prudent-man Laws on Institutional Equity Investments." *Journal of Financial Economics* 40, 1995, pp. 31-62.
- Doyle, J. T., R. J. Lundholm, and M. Soliman. "The Predictive Value of Expenses Excluded from Pro Forma Earnings." Working Paper, University of Michigan Business School, 2002.
- Fernando, C. S., V. Gatchev, and P. A. Spindt. "Price versus Quality: The Uncommon Case of Common Stocks." Working Paper, 2003.
- Gertler, M., and C. S. Lown. "The Information in The High Yield Bond Spread For The Business Cycle: Evidence and Some Implications." NBER Working Paper 7549, 2000.
- Gompers, P., and A. Metrick, "Institutional Investors and Equity Prices." *The Quarterly Journal of Economics* 116(1), February 2001, pp 229-259.
- Graham, B., and D. Dodd. *Security Analysis*. New York: McGraw Hill, 1934.
- Haugen, R. "Do Common Stock Quality Ratings Predict Risk?" *Financial Analysts Journal* 35, March-April 1979, pp. 68-71.
- Levitt, A., "The Numbers Game." Remarks delivered by SEC chairman Arthur Levitt Delivered at the New York University Center for Law and Business, September 28, 1998. <http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt>.
- Muller, F., and B. Fielitz. "Standard & Poor's Quality Ranking Revisited." *Journal of Portfolio Management* 13, Spring 1987, pp. 64-68.
- Muller, F., B. Fielitz, and M. Greene. "S&P Quality Rankings: Risk and Return." *Journal of Portfolio Management* 9, Summer 1983, pp.39-42.
- Muller, F., B. Fielitz, and M. Greene. "Portfolio Performance in Relation to Quality, Earnings, Dividends, Firm Size, Leverage, and Return on Equity." *Journal of Financial Research* 7, Spring 1984, pp.17-26.
- Opler T., L. Pinkowitz, R. Stulz, and R. Williamson. "The Determinants and Implications of Corporate Cash Holdings." NBER Working Paper 6234, 1997.
- Penman H. S. and Xiao. J. Zhang, "Accounting Conservatism, the Quality of Earnings, and Stock Returns". *The Accounting Review*, Volume 77, Number 2, 2002.
- Perez-Quiroz, G., and A. Timmermann. "Firm Size and Cyclical Variations in Stocks." *Journal of Finance*, 55 (3), pp. 1229-62, 2000.
- Rappaport, A. *Creating Shareholder Value*. The Free Press, 1986.
- Ramezani, A., L. Soenen, and M. Jung. "Growth, Corporate Profitability, and Value Creation." *Financial Analysts Journal*, pp. 56-67, November-December 2002.
- Stevenson, R. "The Variability of Common Stock Quality Ratings." *Financial Analysts Journal* 22, pp. 97-101, November-December 1966.
- Stewart, B. *The Quest For Value*. HarperBusiness, 1991.
- White, G. I., A. C. Sondhi, and D. Fried. *The Analysis and Use of Financial Statements*. John Wiley & Sons, 1997.

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