

## Morgan Stanley (MS)

### Dangerous Risk/Reward Rating

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- MS has an Overall Risk/Reward Rating of Dangerous because the stock offers more downside risk than upside potential.
- Figure 1 summarizes the five factors that drive our Overall Risk/Reward Rating for MS. Each factor offers insights into the profitability and valuation of MS.
- Neutral EP means that economic EPS are negative but moving in the same direction as GAAP EPS.
- The biggest adjustment that lowers economic EPS and is not captured in Reported EPS is Reported Net Assets.
- The combination of Neutral economic EPS with a rich stock valuation drives a Risk/Reward Rating of Dangerous for MS.
- Our Risk/Reward Rating system identifies disconnects between the market's expectations for future cash flows and current cash flows.
- This report provides a detailed explanation of each diagnostic criterion and each rating for MS. Appendices highlight Red Flags and explain our Risk/Reward Rating system.

Figure 1: New Constructs' Risk/Reward Rating

Overall Risk/Reward Rating	Quality of Earnings		Valuation		
	Economic vs Reported EPS	Return on Invested Capital (ROIC)	FCF Yield	Price-to-EBV Ratio	Growth Appreciation Period (yrs)
Very Dangerous	Misleading Trend	Bottom Quintile	<-5%	> 3.5 or -1 > 0	> 50
Dangerous	False Positive	4th Quintile	-5%<-1%	2.4 > 3.5 or < -1	20 > 50
Neutral	Neutral EP	3rd Quintile	-1%<3%	1.6 > 2.4	10 > 20
Attractive	Positive EP	2nd Quintile	3%<10%	1.1 > 1.6	3 > 10
Very Attractive	Rising EP	Top Quintile	>10%	0 > 1.1	0 > 3
<b>Actual Values</b>	(\$3.47) vs. \$2.55	6.2%	(14.2%)	3.04	> 100 years
<b>S&amp;P 500</b>	\$0.80 vs. \$3.27	17.4%	3.3%	1.3	20 years
<b>Russell 2000</b>	-\$0.83 vs. \$0.89	5.8%	1.5%	1.3	56 years

Source: New Constructs, LLC

New Constructs rectifies accounting distortions in GAAP financial statements.

## Economic vs Reported Earnings

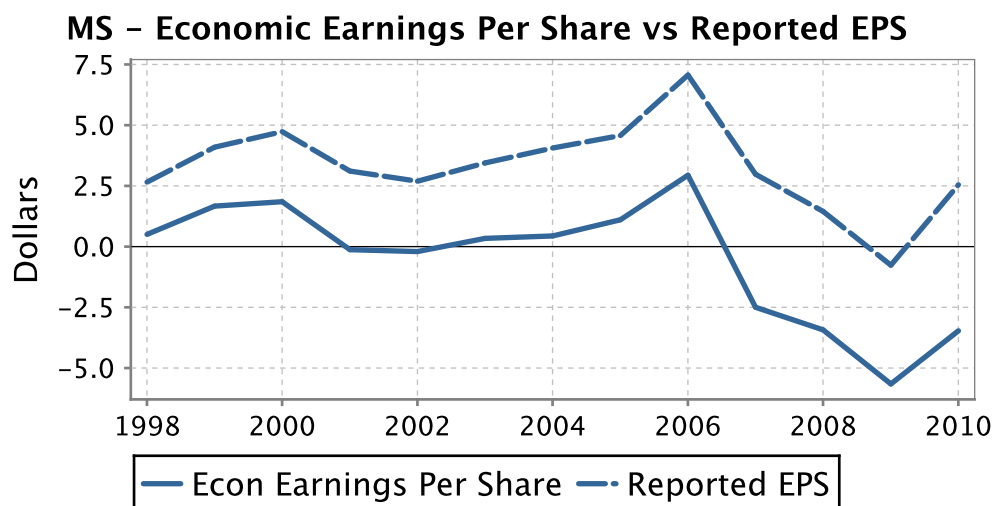
### Why Economic Earnings Matter

Economic earnings are almost always meaningfully different than GAAP earnings. We believe economic earnings provide a truer measure of profitability and shareholder value creation than offered by GAAP earnings. Investors should beware investing in companies that report profits meaningfully different than their economic earnings.

Figure 2 highlights the differences between the reported and economic earnings for MS. Note the Neutral EP score is caused by the company reporting negative GAAP profits and generating negative economic profits.

During the last Fiscal Year, the biggest driver of the difference between reported and economic EPS is Reported Net Assets.

**Figure 2: Economic Earnings Per Share vs Reported EPS**



Source: New Constructs, LLC

Economic earnings and return on capital metrics are significantly more accurate when as-reported financial statements have been adjusted to reverse accounting distortions and Red Flags. The majority of the data required to reverse accounting distortions is available only in the Notes to the Financial Statements, which we analyze rigorously. Our core competency is gathering and analyzing all relevant financial data (from Financial Statements and the Notes) so that we can deliver earnings analyses that best represent the true profitability of businesses. See Figure 3 for a list of the Red Flag adjustments we make to a company's reported GAAP profits in order to reverse accounting distortions and arrive at a better measure of a firm's profits.

**Figure 3: Accounting Issues and Red Flags that Distort GAAP**

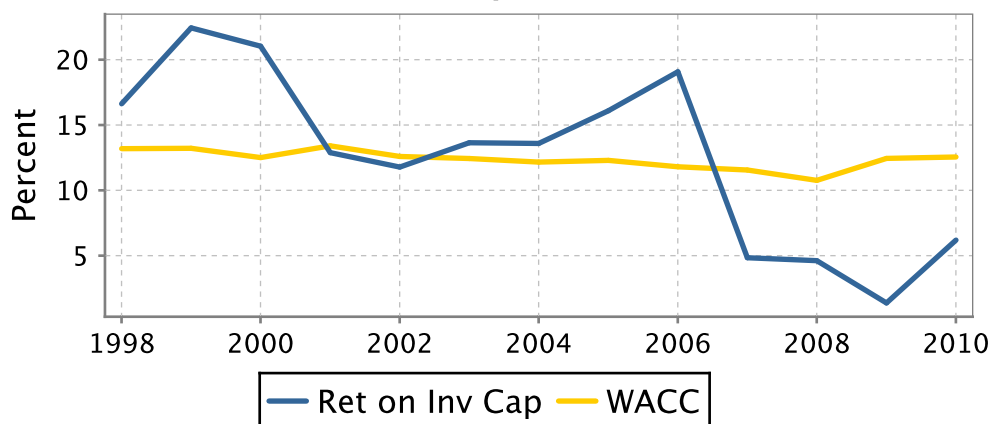
- Employee Stock Options
- Pension Over/Under Funding
- Excess Cash
- Restructuring charges
- Pooling Goodwill
- Minority Interests
- Off-Balance-Sheet Financing
- LIFO Reserve
- Unrealized Gains/Losses
- Goodwill Amortization
- Unconsolidated Subsidiaries
- Capitalized Expenses

Source: New Constructs, LLC

Figure 4 compares MS's Return on Invested Capital (ROIC) to its Weighted-Average Cost of Capital (WACC). This company's ROIC during its last fiscal year ranks in the 4th Quintile.

Figure 4: Return on Invested Capital vs Weighted Average Cost of Capital

**MS – Return on Invested Capital vs Weighted Average Cost of Capital**



Source: New Constructs, LLC

**How We Measure Economic Earnings**

The metrics we use to measure the economic performance of companies are Economic Earnings Margin and Economic Earnings. The Economic Earnings Margin for a company equals its Return on Invested Capital (ROIC) minus its Weighted-Average Cost of Capital (WACC). The Economic Earnings of a company equal its Economic Earnings Margin multiplied by its Invested Capital. Economic Earnings per Share equal Economic Earnings divided by Basic Shares Outstanding. ROIC equals Net Operating Profit After Tax (NOPAT) divided by Invested Capital.

We believe our measures of economic performance are substantially more accurate than accounting metrics because we make adjustments for all the issues listed in Figure 3.

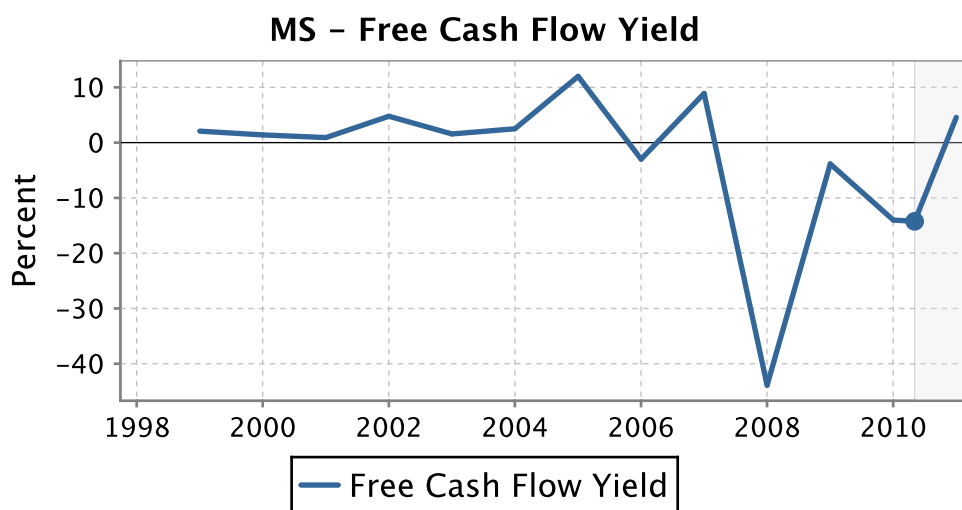
Appendix 3 provides a line item by line item reconciliation of Net Income to Economic Earnings.

### Free Cash Flow Yield

Rigorous back-testing shows that stocks with a Free Cash Flow Yield of at least 10% significantly out-performed both the S&P 500 and a survivor-bias-adjusted index. For more detail on Free Cash Flow Yield and our backtesting, see our report "Cash Is King," which was published November 30th, 2004.

Using Free-Cash-Flow Yields to pick stocks is not a new strategy. However, our strategy yields superior results because we use a better measure of Free Cash Flow (FCF), in our opinion. In the same way our economic EPS are better measures of profitability than reported EPS, our measure of FCF is better than traditional accounting-based FCF. We measure Free Cash Flow by subtracting the change in Invested Capital from NOPAT.

Figure 5: Free Cash Flow Yield



Source: New Constructs, LLC. Note: Dot on the line(s) in the chart marks the current value(s).

Figure 5 shows MS's FCF Yield over the past several years. MS's current FCF Yield is (14.2%).

Free Cash Flow Yield equals unlevered FCF divided by enterprise value. The level of FCF does not always reflect the health of a business or its prospects. For example, a large amount of FCF can be a sign that a company has limited investment opportunities and, hence, limited growth prospects. On the other hand, negative FCF can be an attractive indication that a company has more investment opportunities than it can fund with cash from operations. Zero FCF could mean that the company generates just enough cash to internally fund its growth opportunities.

### Price-to-EBV Per Share

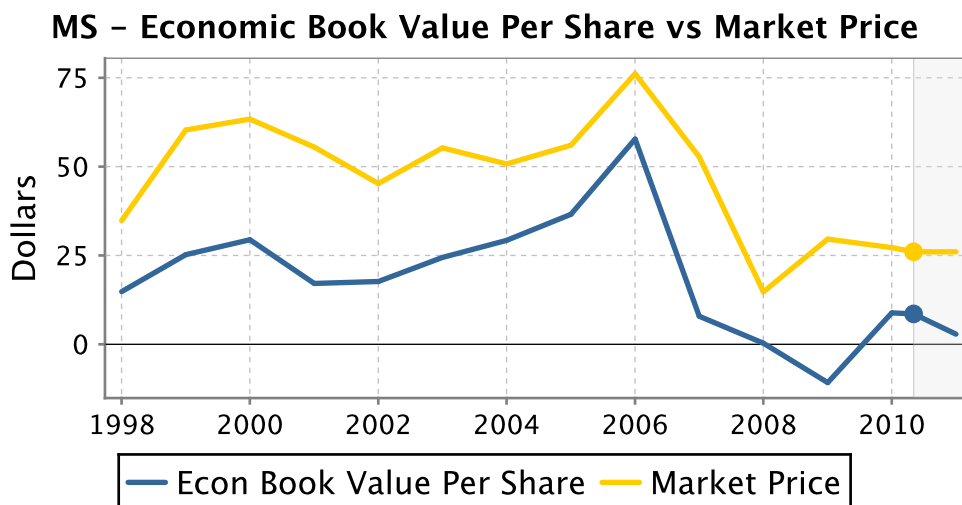
Figure 6 shows the differences between the stock market price and Economic Book Value (EBV) per share of MS. These differences reflect the portion of the stock price that is entirely dependent on future cash flow growth.

The lower the stock price is versus EBV, the lower the potential risk of investing in the stock.

The higher the stock price is versus EBV, the greater the potential risk of investing in the stock.

When stock prices are much higher than EBVs, the market predicts the economic profitability (as distinct from accounting profitability) of the company will meaningfully increase. When stock prices are much lower than EBVs, the market predicts the economic profitability of the company will meaningfully decrease. If the stock price equals the EBV, the market predicts the company's economic profitability will not change.

Figure 6: Economic Book Value Per Share vs Market Price



Source: New Constructs, LLC. Note: Dot on the line(s) in the chart marks the current value(s).

EBV measures the no-growth value of the company based on the current economic cash flows generated by the business. It is also known as the "pre-strategy value" of the company because it ignores the value attributable to future cash flows, which are, in theory, what business strategies should aim to improve.

The Formula for EBV is:  $(NOPAT / WACC) + \text{Excess Cash} + \text{Unconsolidated Subsidiary Assets} + \text{Net Assets from Discontinued Operations} - \text{Debt (incl. Operating Leases)} - \text{Value of Outstanding Stock Options} - \text{Preferred Capital} - \text{Minority Interests}$ . EBV per share equals EBV divided by shares outstanding.

Stock prices reflect the market's expectations for the present value of future cash promised to the owner.

Comparing the required future performance to historical performance positions investors to assess the feasibility of market expectations and valuations.

See Appendix 8 for the specific estimates used in this company's valuation model.

Appendix 2 details each Adjustment made to this company's reported financial results.

## Quantifying Market Expectations

We believe this stock has a Dangerous Risk/Reward Rating because there is a relatively large difference between the expected financial performance implied by its market price and the company's historical performance.

Figure 7 compares the future performance required to justify the company's stock market price to its historical performance. Specifically, Figure 7 shows: to justify the current stock price of \$26.03, MS must grow revenues at 6.4% and maintain a 11.4% Economic Earnings Margin for > 100 years.

Figure 7: Future Performance Required to Justify Valuation

Performance Hurdles	Historical Performance			Market Expectations
	5 Yr	3Yr	Last FY	Default <small>based on current price</small>
Stock Price	\$76.16	\$14.75	\$27.21	<b>\$26.03</b>
Revenue CAGR	(2.2%)	13.1%	35.4%	<b>6.4%</b>
Avg Economic Earnings Margin	(4.6%)	(7.9%)	(6.4%)	<b>11.4%</b>
Growth Appreciation Period	-	-	-	<b>&gt; 100 years</b>

Source: New Constructs, LLC

Note: The Default Scenario is Based on the forecast set by the New Constructs analytical team, this scenario represents a likely financial performance path the company may follow to justify the current market price. Subscribers to our services may create alternate forecast scenarios based on their own estimates.

Historically, MS has generated a Revenue CAGR of (2.2%), 13.1%, and 35.4% and Economic Earnings Margins of (4.6%), (7.9%), and (6.4%) over the past 5, 3 and 1 year(s).

The market expects MS to achieve a Revenue CAGR of 6.4% and Economic Earnings Margins of 11.4% for > 100 years.

GAP measures the number of years implied by the stock price over which the company must maintain an edge over its current and future competitors. Specifically, GAP measures the number of years a company will earn returns on invested capital greater than its cost of capital on new investments. The law of competition dictates that a company can only grow its economic earnings for the finite period over which it can maintain a competitive advantage.

**The Market-implied GAP of the S&P 500 is 20 years. For the Russell 1000, it is 23 years. MS has a GAP of > 100 years, which is much greater than the indices. Based on this criterion, MS has a much lesser chance of seeing price appreciation versus versus the indices.**

**Our Overall Rating is Dangerous. Other criteria (per pages above) in our rating system also indicate that MS is not an Attractive investment.**

GAP analysis comes from our dynamic discounted cash flow model, a multi-stage DCF model that values companies across multiple forecast horizons. Each forecast horizon (i.e., Growth AppreciationPeriod - GAP), assumes the company cannot grow profits beyond the GAP period. Our model exclusively uses no-growth terminal value assumptions for calculating the value of the stock for each GAP.

The forecast drivers for our DCF model are: (1) Revenue Growth; (2) NOPBT Margin, (i.e. EBIT Margin with Adjustments\*), (3) Cash Tax Rate, (4) Incremental Net Working and Fixed Capital needs. See Appendix 8 for the forecasts that drive our DCF model for this company.

Our Company Models value stocks based on the present value of expected free cash flows, with that free cash flow measured according to our economic (as distinct from conventional accounting) methodology. Website subscribers forecast economic free cash flow by assigning estimates to three value drivers:

**1. Revenue Growth**

Compounded over the indicated time frame.

**2. Economic Earnings Margin**

The Return On Invested Capital minus the weighted-average cost of capital.

**3. Growth Appreciation Period**

Number of years the company can earn a positive Economic Earnings Margin on incremental investments, i.e. the number of years it can create economic value.

An alternative way to conceptualize the three value drivers is:

1. "How fast will the company grow?"
2. "How profitable will the company be?"
3. "For how many years will the company grow economic earnings or create incremental value?"

## Appendix 1: Explanation of New Constructs' Stock Ratings Scale

Our Risk/Reward Rating (Figure 1) system grades every stock under our coverage according to what we believe are the 5 most important criteria for assessing the risk versus reward of a stock. Each grade reflects the balance of potential risk and reward of buying that stock. Our Risk/Reward analysis results in the 5 ratings described below. Most Attractive corresponds to a "Buy" rating, Most Dangerous corresponds to a "Sell" rating, and everything in-between corresponds to a "Hold" rating.

### Overall Risk/Reward Rating

The Overall Risk/Reward Rating provides a final rating based on the equal-weighted average rating of each criterion.

Very Dangerous	All criteria are equal-weighted in the average calculation except 2yr FCF Yield is excluded.
Dangerous	All criteria are equal-weighted in the average calculation except 2yr FCF Yield is excluded.
Neutral	All criteria are equal-weighted in the average calculation.
Attractive	All criteria are equal-weighted in the average calculation.
Very Attractive	All criteria are equal-weighted in the average calculation.

### Economic vs Reported EPS

Ranks stocks based on how their Economic Earnings compare their Reported Earnings. Values based on Latest Fiscal Year.

Misleading Trend	Very Dangerous = negative and declining Economic Earnings despite positive and rising Reported Earnings
False Positive	Dangerous = same as above except Reported EPS are not positive or are not rising
Neutral EP	Neutral = Negative Economic and Reported Earnings
Positive EP	Attractive = Economic Earnings are positive
Rising EP	Very Attractive = Economic Earnings are positive and rising

### Return on Invested Capital (ROIC)

Ranks stocks based on their ROIC. Values based on Latest Fiscal Year.

Bottom Quintile	Very Dangerous = in the bottom 20% of all companies
4th Quintile	Dangerous = in the bottom 40% of all companies
3rd Quintile	Neutral = in the middle 20% of all companies
2nd Quintile	Attractive = in the top 40% of all companies
Top Quintile	Very Attractive = in the top 20% of all companies

### FCF Yield

Ranks stocks based on their Free Cash Flow Yield. Values based on Latest Closing Stock price and Latest Fiscal Year.

< -5%	Very Dangerous = less than or equal to -5%
-5% < -1%	Dangerous = more than -5% but less than or equal to -1%
-1% < 3%	Neutral = more than -1% but less than or equal to +3%
3% < 10%	Attractive = more than +3% but less than or equal to +10%
> 10%	Very Attractive = more than +10%

### Price-to-EBV Ratio

Ranks stocks based on their Price-to-Economic Book Value Ratio. Values based on Latest Closing Stock price and Latest Fiscal Year.

> 3.5 or -1 > 0	Very Dangerous = greater than or equal to 3.5 or less than 0 but greater than -1
2.4 > 3.5 or < -1	Dangerous = greater than or equal to 2.4 but less than 3.5 and less than or equal to -1
1.6 > 2.4	Neutral = greater than or equal to 1.6 but less than 2.4
1.1 > 1.6	Attractive = greater than or equal to 1.1 but less than 1.6
0 > 1.1	Very Attractive = greater than or equal to 0 but less than 1.1

### Growth Appreciation Period (yrs)

Ranks stocks based on their Market-Implied Growth Appreciation Period. Values based on Latest Closing Stock price and Default Forecast Scenario.

> 50	Very Dangerous = greater than or equal to 50 years
20 > 50	Dangerous = greater than or equal to 20 years but less than 50
10 > 20	Neutral = greater than or equal to 10 years but less than 20
3 > 10	Attractive = greater than or equal to 3 years but less than 10
0 > 3	Very Attractive = greater than or equal to 0 years but less than 3



## Appendix 2: Red Flag and Economic Adjustments Summary

Values in millions except per share amounts

	2006	2007	2008	2009	2010
<b><i>NOPAT Adjustments - Impact Analysis</i></b>					
GAAP Net Income	\$7,453.00	\$3,141.00	\$1,588.00	(\$907.00)	\$3,594.00
Net Non-Operating Expense	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Change in Total Reserves	(\$7.00)	(\$831.00)	\$0.00	\$0.00	(\$76.00)
Goodwill Amortization	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ESO Expense (Employee Stock Options)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Implied Interest for PV of Operating Leases	\$156.12	\$202.53	\$177.05	\$175.75	\$169.11
Non-Operating Taxes	\$128.79	(\$129.86)	(\$342.51)	(\$558.94)	(\$440.66)
After-tax Charge, net	\$61.00	(\$578.00)	\$219.00	\$2,100.00	\$1,869.00
<b>NOPAT (Net Operating Profit After Tax)</b>	<b>\$7,791.91</b>	<b>\$1,804.67</b>	<b>\$2,648.53</b>	<b>\$834.81</b>	<b>\$4,594.45</b>
<b><i>Invested Capital Adjustments - Impact Analysis</i></b>					
Reported Net Assets	\$35,430.00	\$31,269.00	\$50,831.00	\$52,780.00	\$65,407.00
Excess Cash	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Total Reserves	\$831.00	\$0.00	\$0.00	\$0.00	\$82.00
Deferred Tax Liability	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Unconsolidated Subsidiary Assets (non-operating)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Net Assets from Discontinued Operations	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Off-Balance-Sheet Operating Leases	\$4,043.72	\$5,294.35	\$5,133.39	\$5,609.12	\$5,403.67
Accumulated Unrecorded Goodwill	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Accumulated Goodwill Amortization	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cumulative Asset Write-Offs After Tax	\$514.47	\$514.47	\$1,282.85	\$1,634.85	\$2,838.76
Accumulated OCI (Other Comprehensive Income)	\$35.00	\$199.00	\$125.00	\$560.00	\$467.00
<b>Invested Capital</b>	<b>\$40,854.19</b>	<b>\$37,276.82</b>	<b>\$57,372.24</b>	<b>\$60,583.96</b>	<b>\$74,198.44</b>

**Appendix 3: Red Flag Impact: Reconciling Net Income to Economic Earnings**

Values in millions except per share amounts

	2006	2007	2008	2009	2010
<b>NOPAT = Net Income with Adjustments as per below</b>					
GAAP Net Income	\$7,453.00	\$3,141.00	\$1,588.00	(\$907.00)	\$3,594.00
Net Non-Operating Expense	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
Change in Total Reserves	(7.0)	(831.0)	0.0	0.0	(76.0)
As a % of Revenue	(0.0%)	(3.0%)	0.0%	0.0%	(0.2%)
Goodwill Amortization	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
ESO Expense (Employee Stock Options)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
As a % of Revenue	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)
Implied Interest for PV of Operating Leases	156.1	202.5	177.0	175.7	169.1
As a % of Revenue	0.5%	0.7%	0.7%	0.8%	0.5%
Non-Operating Taxes	128.8	(129.9)	(342.5)	(558.9)	(440.7)
As a % of Revenue	0.4%	(0.5%)	(1.4%)	(2.4%)	(1.4%)
After-tax Charge, net	\$61.00	(\$578.00)	\$219.00	\$2,100.00	\$1,869.00
As a % of Revenue	0.2%	(2.1%)	0.9%	9.0%	5.9%
<b>NOPAT (Net Operating Profit After Tax)</b>	<b>\$7,791.91</b>	<b>\$1,804.67</b>	<b>\$2,648.53</b>	<b>\$834.81</b>	<b>\$4,594.45</b>
<b>Capital Charge = WACC * Invested Capital as detailed below</b>					
Capital Charge for Reported Net Assets	4,181.7	3,613.2	5,469.9	6,567.6	8,210.1
As a % of Revenue	12.1%	12.9%	22.1%	28.1%	26.0%
Capital Charge for Excess Cash	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
As a % of Revenue	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)
Total Reserves Capital Charge	98.1	0.0	0.0	0.0	10.3
As a % of Revenue	0.3%	0.0%	0.0%	0.0%	0.0%
Deferred Tax Liability Capital Charge	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
Capital Charge for Unconsolidated Subsidiary Assets (non-operating)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
As a % of Revenue	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)
Capital Charge for Net Assets from Discontinued Operations	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
As a % of Revenue	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)
Off-Balance-Sheet Operating Leases Capital Charge	477.3	611.8	552.4	698.0	678.3
As a % of Revenue	1.4%	2.2%	2.2%	3.0%	2.1%
Unrecorded Goodwill Capital Charge	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
Accumulated Goodwill Amortization Capital Charge	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
Asset Write-Offs After Tax Capital Charge	60.7	59.4	138.0	203.4	356.3
As a % of Revenue	0.2%	0.2%	0.6%	0.9%	1.1%
Accumulated OCI Capital Charge	4.1	23.0	13.5	69.7	58.6
As a % of Revenue	0.0%	0.1%	0.1%	0.3%	0.2%
Invested Capital Adjustment for Mid-Year Acquisitions Capital Charge	0.0	0.0	0.0	0.0	0.0
As a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Capital Charge</b>	<b>\$4,821.86</b>	<b>\$4,307.41</b>	<b>\$6,173.75</b>	<b>\$7,538.67</b>	<b>\$9,313.68</b>
<b>Economic Earnings = NOPAT minus Capital Charge</b>					
<b>Economic Earnings</b>	<b>\$2,970.05</b>	<b>(\$2,502.74)</b>	<b>(\$3,525.22)</b>	<b>(\$6,703.86)</b>	<b>(\$4,719.22)</b>
Economic Earnings per Share	\$2.94	(\$2.50)	(\$3.43)	(\$5.66)	(\$3.47)
Basic EPS	\$7.38	\$3.14	\$1.54	(\$0.77)	\$2.64

**Appendix 4: Net Operating Profit After Tax (NOPAT) - Operating Approach**

Values in millions except per share amounts

	2006	2007	2008	2009	2010
<b>Operating Revenue</b>					
Operating Revenue	\$31,335.00	\$25,245.00	\$21,537.00	\$22,368.00	\$30,758.00
Net Interest Income	3,279.0	2,781.0	3,202.0	990.0	864.0
<b>Total Operating Revenue</b>	<b>\$34,614.00</b>	<b>\$28,026.00</b>	<b>\$24,739.00</b>	<b>\$23,358.00</b>	<b>\$31,622.00</b>
<b>Operating Income</b>					
Income from Discontinued Operations (operating)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Income from Unconsolidated Subsidiaries (operating)	0.0	0.0	0.0	0.0	0.0
Income from Unconsolidated Subsidiaries After-tax (operating)	0.0	0.0	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0	0.0
<b>Total Operating Income</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Operating Expenses and Adjustments</b>					
Cost of Sales	\$756.00	\$0.00	\$0.00	\$0.00	\$0.00
Credit Loss Provision	0.0	0.0	0.0	0.0	0.0
<b>Total Cost of Sales</b>	<b>\$756.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Gross Profit</b>	<b>\$33,858.00</b>	<b>\$28,026.00</b>	<b>\$24,739.00</b>	<b>\$23,358.00</b>	<b>\$31,622.00</b>
Gross Margin	97.8%	100.0%	100.0%	100.0%	100.0%
Selling, General, and Administrative	\$2,247.00	\$1,943.00	\$2,135.00	\$2,054.00	\$2,152.00
Research and Development Expense	0.0	0.0	0.0	0.0	0.0
Depreciation and Amortization	0.0	0.0	0.0	0.0	0.0
Goodwill Amortization	0.0	0.0	0.0	0.0	0.0
Interest Expense (operating)	0.0	0.0	0.0	0.0	0.0
Stock Compensation	0.0	0.0	0.0	0.0	0.0
Other Compensation	14,387.0	16,552.0	12,306.0	14,438.0	16,048.0
Energy Operating Expense	0.0	0.0	0.0	0.0	0.0
Losses from Discontinued Operations (operating)	0.0	0.0	0.0	0.0	0.0
Losses from Unconsolidated Subsidiaries (operating)	228.0	47.0	0.0	0.0	0.0
Operating Other Real Estate Owned Expense	0.0	0.0	0.0	0.0	0.0
Other Operating Expense	6,224.0	6,090.0	8,011.0	6,009.0	7,220.0
<b>Total Operating Expense</b>	<b>\$23,842.00</b>	<b>\$24,632.00</b>	<b>\$22,452.00</b>	<b>\$22,501.00</b>	<b>\$25,420.00</b>

	2006	2007	2008	2009	2010
<i>Net Operating Profit After-Tax (NOPAT) - Operating Approach (continued)</i>					
Asset Write-Offs Included in Total Operating Expenses	(0.0)	(0.0)	(1,007.0)	(25.0)	(300.0)
Non-operating Expenses Included in Total Operating Expense	(0.0)	(0.0)	(0.0)	(0.0)	821.0
ESO Expense (Employee Stock Options)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
ESO Expense as a % of Revenue	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Adjusted Total Operating Expenses</b>	<b>\$23,842.00</b>	<b>\$24,632.00</b>	<b>\$21,445.00</b>	<b>\$22,476.00</b>	<b>\$25,941.00</b>
<b>EBIT</b>	<b>\$10,772.00</b>	<b>\$3,394.00</b>	<b>\$3,294.00</b>	<b>\$882.00</b>	<b>\$5,681.00</b>
Goodwill Amortization	0.0	0.0	0.0	0.0	0.0
<b>EBITA</b>	<b>\$10,772.00</b>	<b>\$3,394.00</b>	<b>\$3,294.00</b>	<b>\$882.00</b>	<b>\$5,681.00</b>
Change in Total Reserves	(7.0)	(831.0)	0.0	0.0	(76.0)
Implied Interest for PV of Operating Leases	156.1	202.5	177.0	175.7	169.1
<b>Capitalized Items Net Adjustment</b>	<b>\$156.12</b>	<b>\$202.53</b>	<b>\$177.05</b>	<b>\$175.75</b>	<b>\$169.11</b>
<b>NOPBT (Net Operating Profit Before Tax)</b>	<b>\$10,921.12</b>	<b>\$2,765.53</b>	<b>\$3,471.05</b>	<b>\$1,057.75</b>	<b>\$5,774.11</b>
NOPBT Margin	31.6%	9.9%	14.0%	4.5%	18.3%
<i>Taxes and Adjustments</i>					
NOPBT (Net Operating Profit Before Tax)	\$10,921.12	\$2,765.53	\$3,471.05	\$1,057.75	\$5,774.11
Cash Tax Rate	28.6%	26.7%	23.7%	21.1%	20.2%
<b>Cash Operating Taxes</b>	<b>\$3,129.21</b>	<b>\$960.86</b>	<b>\$822.51</b>	<b>\$222.94</b>	<b>\$1,179.66</b>
<b>NOPAT (Net Operating Profit After Tax)</b>	<b>\$7,791.91</b>	<b>\$1,804.67</b>	<b>\$2,648.53</b>	<b>\$834.81</b>	<b>\$4,594.45</b>

**Appendix 5: Invested Capital - Operating Approach**

Values in millions except per share amounts

	2006	2007	2008	2009	2010
<b>Current Assets / Investment Assets</b>					
Cash and Equivalents (non-operating)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Long-Term Investments (non-operating)	0.0	0.0	0.0	0.0	0.0
<b>Total Cash and Investments</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
Required Cash as % of Revenue	2.0%	2.0%	5.0%	5.0%	5.0%
Excess Cash	0.0	0.0	0.0	0.0	0.0
Required Cash	0.0	0.0	0.0	0.0	0.0
Cash and Equivalents (operating)	\$20,606.00	\$25,598.00	\$11,276.00	\$6,988.00	\$7,341.00
Restricted Cash	29,565.0	61,608.0	59,088.0	23,712.0	19,180.0
Other Investment Securities (operating)	385,689.0	370,052.0	324,038.0	312,591.0	343,525.0
Accounts Receivable	90,564.0	92,363.0	38,553.0	33,313.0	44,360.0
Inventory	0.0	0.0	0.0	0.0	0.0
Current Deferred Taxes	0.0	0.0	0.0	0.0	0.0
Allowance for Doubtful Accounts	0.0	0.0	0.0	0.0	0.0
Loan Loss Reserves	831.0	0.0	0.0	0.0	82.0
LIFO Reserves	0.0	0.0	0.0	0.0	0.0
Inventory Reserves	0.0	0.0	0.0	0.0	0.0
Net Loans	24,173.0	11,629.0	6,528.0	7,259.0	10,576.0
Separate Accounts	0.0	0.0	0.0	0.0	0.0
Other Current or Investment Assets	543,949.0	466,865.0	195,787.0	351,471.0	351,866.0
<b>Total Current Assets (adjusted)</b>	<b>\$1,095,377.00</b>	<b>\$1,028,115.00</b>	<b>\$635,270.00</b>	<b>\$735,334.00</b>	<b>\$776,930.00</b>

	2006	2007	2008	2009	2010
<i>Invested Capital - Operating Approach (continued)</i>					
<i>Current Liabilities / Investment Liabilities</i>					
Accounts Payable	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Deferred Income Taxes	0.0	0.0	0.0	0.0	0.0
Accrued Restructuring Charges	0.0	0.0	0.0	0.0	0.0
Current Deferred Revenue	0.0	0.0	0.0	0.0	0.0
Separate Accounts	0.0	0.0	0.0	0.0	0.0
Other NIBCL or Investment Liabilities	855,253.0	753,657.0	412,173.0	507,002.0	525,207.0
Investment Liabilities - Debt	229,962.0	260,483.0	195,808.0	211,680.0	217,084.0
<b>NIBCL (Non-Interest-Bearing Current Liabilities)</b>	<b>\$1,085,215.00</b>	<b>\$1,014,140.00</b>	<b>\$607,981.00</b>	<b>\$718,682.00</b>	<b>\$742,291.00</b>
<b>Net Working Capital</b>	<b>\$10,162.00</b>	<b>\$13,975.00</b>	<b>\$27,289.00</b>	<b>\$16,652.00</b>	<b>\$34,639.00</b>
<i>Fixed Assets</i>					
PPE (Property, Plant, and Equipment)	\$4,086.00	\$4,372.00	\$5,057.00	\$7,067.00	\$6,154.00
Net Goodwill	2,792.0	3,024.0	2,243.0	7,162.0	6,739.0
Other Intangibles, net	558.0	1,047.0	895.0	5,054.0	4,667.0
Restricted Cash	0.0	0.0	0.0	0.0	0.0
Deferred Tax Assets	0.0	0.0	0.0	0.0	0.0
Discontinued Operations (operating)	0.0	0.0	0.0	0.0	0.0
Unconsolidated Subsidiary Assets (operating)	0.0	0.0	0.0	0.0	0.0
Other Real Estate Owned	0.0	0.0	0.0	0.0	0.0
Other Fixed Assets	18,663.0	8,851.0	15,347.0	16,845.0	13,290.0
Off-Balance-Sheet Operating Leases	4,043.7	5,294.3	5,133.4	5,609.1	5,403.7
Cumulative Asset Write-Offs After Tax	514.5	514.5	1,282.9	1,634.8	2,838.8
Accumulated Unrecorded Goodwill	0.0	0.0	0.0	0.0	0.0
Accumulated Goodwill Amortization	0.0	0.0	0.0	0.0	0.0
Accumulated OCI (Other Comprehensive Income)	35.0	199.0	125.0	560.0	467.0
<b>Total Adjusted Fixed Assets</b>	<b>\$30,692.19</b>	<b>\$23,301.82</b>	<b>\$30,083.24</b>	<b>\$43,931.96</b>	<b>\$39,559.44</b>
<b>Invested Capital</b>	<b>\$40,854.19</b>	<b>\$37,276.82</b>	<b>\$57,372.24</b>	<b>\$60,583.96</b>	<b>\$74,198.44</b>

**Appendix 6: WACC (Weighted Average Cost of Capital)**

Values in millions except per share amounts

	2006	2007	2008	2009	2010	Current
<b>Cost of Equity Capital according to the Capital Asset Pricing Model (CAPM)</b>						
Risk-Free Rate (10-yr Treasury)	4.78%	4.67%	3.81%	3.26%	3.21%	3.12%
Beta Adjusted	2.00	2.00	2.00	2.00	2.00	2.00
Expected Market Return	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
Equity Risk Premium	3.72%	3.83%	4.69%	5.24%	5.29%	5.38%
Cost of Equity	12.22%	12.33%	13.19%	13.74%	13.79%	13.88%
Market Value of Basic Equity	\$76,940.96	\$52,819.04	\$15,452.08	\$40,273.62	\$41,142.12	\$40,232.80
Equity Per Total Adjusted Capital	95.01%	90.89%	75.06%	87.78%	88.39%	88.12%
Weighted Cost of Equity Capital	11.61%	11.21%	9.90%	12.06%	12.19%	12.23%
<b>Cost of Debt Capital</b>						
Risk-Free Rate (10-yr Treasury)	4.78%	4.67%	3.81%	3.26%	3.21%	3.12%
Debt Spread Adjusted	0.63%	0.55%	0.71%	0.71%	0.71%	0.71%
Cash Tax Rate	28.63%	26.72%	23.70%	21.08%	20.16%	20.16%
Cost of Debt After Tax	3.86%	3.83%	3.45%	3.13%	3.13%	3.06%
Adjusted Total Debt	4,043.7	5,294.3	5,133.4	5,609.1	5,403.7	5,421.7
Debt Per Total Adjusted Capital	4.99%	9.11%	24.94%	12.22%	11.61%	11.88%
Weighted Cost of Debt After Tax	0.19%	0.35%	0.86%	0.38%	0.36%	0.36%
<b>Cost of Preferred Capital</b>						
Preferred Dividends	\$19.00	\$68.00	\$97.00	\$2,243.00	\$881.00	\$881.00
Preferred Capital	1,100.0	1,100.0	19,155.0	9,597.0	9,597.0	9,597.0
Cost of Preferred Capital	1.73%	6.18%	1.00%	10.00%	9.18%	9.18%
<b>WACC (Weighted Average Cost of Capital)</b>	<b>11.80%</b>	<b>11.56%</b>	<b>10.76%</b>	<b>12.44%</b>	<b>12.55%</b>	<b>12.59%</b>

## Appendix 7: Key Economic Metrics Summary

Values in millions except per share amounts

	2006	2007	2008	2009	2010	Current
<b>Economic Book Value (EBV)</b>						
Economic Book Value (EBV) Per Share	\$57.76	\$7.89	\$0.31	(\$10.79)	\$8.84	\$8.55
Stock Price (closing)	\$76.16	\$52.72	\$14.75	\$29.60	\$27.21	\$26.03
Economic Book Value (EBV)	\$58,353.24	\$7,908.17	\$320.18	(\$14,676.92)	\$13,369.92	\$13,215.32
PEBV (Price to Economic Book Value) per Share	1.32	6.68	48.26	(2.74)	3.08	3.04
Price to Accounting Book Value	2.27	1.78	0.32	0.75	0.67	0.64
Price to Unlevered NOPAT per Share	9.87	29.27	5.83	48.24	8.95	8.76
P/E (Price/Earnings Multiple)	10.78	17.69	10.18	(38.69)	10.68	10.22
<b>Components of Economic Book Value</b>						
NOPAT (Net Operating Profit After Tax)	\$7,791.91	\$1,804.67	\$2,648.53	\$834.81	\$4,594.45	\$4,591.79
WACC (Weighted Average Cost of Capital)	11.80%	11.56%	10.76%	12.44%	12.55%	12.59%
Excess Cash	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted Net Assets from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Unconsolidated Subsidiary Assets (non-operating)	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted Total Debt	\$4,043.72	\$5,294.35	\$5,133.39	\$5,609.12	\$5,403.67	\$5,421.70
Preferred Capital	1,100.0	1,100.0	19,155.0	9,597.0	9,597.0	9,597.0
Minority Interests	0.0	0.0	0.0	6,092.0	8,196.0	8,196.0
Pensions Net Funded Status	(\$419.00)	(\$312.00)	\$217.00	(\$427.00)	(\$466.00)	(\$466.00)
Value of Outstanding ESO After Tax	2,521.6	1,315.3	4.1	87.7	35.6	27.8

	2006	2007	2008	2009	2010
<b>Return on Invested Capital (ROIC)</b>					
<i>ROIC derived from prime components (NOPAT Margins * Invested Capital Turns)</i>					
NOPAT Margin	22.5%	6.4%	10.7%	3.6%	14.5%
Invested Capital Turns	0.85	0.75	0.43	0.39	0.43
ROIC (Return On Invested Capital)	19.1%	4.8%	4.6%	1.4%	6.2%
WACC (Weighted Average Cost of Capital)	11.80%	11.56%	10.76%	12.44%	12.55%
Change in ROIC	3.0%	(14.2%)	(0.2%)	(3.2%)	4.8%
Incremental Return on Capital	(106.5%)	(58.0%)	(23.6%)	(9.0%)	117.1%
Return on Equity	21.1%	10.0%	3.1%	(1.9%)	6.3%

	2006	2007	2008	2009	2010
<b>Economic Earnings (EE) and Free Cash Flow (FCF)</b>					
Economic Earnings Margin (ROIC - WACC)	7.3%	(6.7%)	(6.1%)	(11.1%)	(6.4%)
Economic Earnings	2,970.0	(2,502.7)	(3,525.2)	(6,703.9)	(4,719.2)
GAAP Net Income	\$7,453.00	\$3,141.00	\$1,588.00	(\$907.00)	\$3,594.00
Change in Economic Earnings	\$1,810.52	(\$5,472.79)	(\$1,022.48)	(\$3,178.64)	\$1,984.64
Net Income Change	\$2,514.00	(\$4,312.00)	(\$1,553.00)	(\$2,495.00)	\$4,501.00
Economic Earnings per Share	\$2.94	(\$2.50)	(\$3.43)	(\$5.66)	(\$3.47)
Economic Earnings per Share Growth	166.2%	(185.0%)	37.3%	64.9%	(38.7%)
FCF (Free Cash Flow)	(\$2,533.95)	\$5,382.04	(\$17,446.89)	(\$2,376.91)	(\$9,020.02)
FCF as a % of Invested Capital	(6.2%)	14.4%	(30.4%)	(3.9%)	(12.2%)
FCF as a % of Total Revenue	(7.3%)	19.2%	(70.5%)	(10.2%)	(28.5%)
Diluted GAAP EPS	\$7.07	\$2.98	\$1.45	(\$0.77)	\$2.55
Diluted GAAP EPS Growth	54.5%	(57.8%)	(51.4%)	(152.8%)	(432.8%)
Basic EPS	\$7.38	\$3.14	\$1.54	(\$0.77)	\$2.64
Basic EPS Growth	56.8%	(57.5%)	(50.7%)	(149.5%)	(445.0%)
Unlevered NOPAT Per Share	\$7.71	\$1.80	\$2.58	\$0.70	\$3.37
Unlevered NOPAT Per Share Growth	64.8%	(76.6%)	43.0%	(72.7%)	379.1%



**Appendix 8: DCF Forecast Drivers Summary**

Values in millions except per share amounts

Historical					DCF Forecast Drivers									
2006	2007	2008	2009	2010	EY 1	EY 2	EY 3	EY 4	EY 6	EY 11	EY 16	EY 21	EY 26	EY 51
<b>Total Operating Revenue Growth</b>														
25.2%	(19.0%)	(11.7%)	(5.6%)	35.4%	6.2%	10.8%	10.0%	8.0%	7.0%	6.5%	6.5%	6.5%	6.5%	6.0%
<b>NOPBT Margin</b>														
31.6%	9.9%	14.0%	4.5%	18.3%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
<b>Cash Tax Rate</b>														
28.6%	26.7%	23.7%	21.1%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%
<b>Net Working Capital Delta as % of Revenue Delta</b>														
18.9%	(57.9%)	(405.1%)	770.2%	217.7%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
<b>Fixed Adjusted Assets Delta as % of Revenue Delta</b>														
129.5%	112.2%	(206.3%)	1,002.8%	(52.9%)	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%

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