Visit us at www.valuentum.com Valuentum Retail Equity Research Data as of 12-Mar-2024

Fair Value Range

\$46.00 - \$76.00

## BHP Billiton BHP FAIRLY VALUED

Estimated Fair Value

Economic Castle

Neutral

# Buying Index™

Value Rating



**BEARISH** 

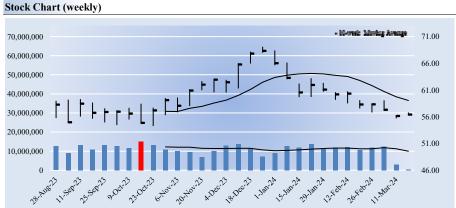
**Investment Style** LARGE-CAP VALUE

Sector Materials

3

Industry Mining & Chemicals

BHP is investing heavily into its operations. The firm is targeting capital and exploration expenditures of ~\$10 billion for both fiscal 2024 and fiscal 2025.



<b>Company Vitals</b>	
Market Cap (USD)	\$71,542
Avg Weekly Vol (30 wks)	10,903
30-week Range (USD)	54.28 - 69.11
Valuentum Sector	Materials
5-week Return	-4.6%
13-week Return	-17.0%
30-week Return	0.6%
Dividend Yield %	5.1%
Dividends per Share per ADR	2.88
Forward Dividend Payout Ratio	88.7%
Est. Normal Diluted EPS	3.21
P/E on Est. Normal Diluted EPS	8.8
Est. Normal EBITDA	29,083
Forward EV/EBITDA	5.2
EV/Est. Normal EBITDA	5.2
Forward Revenue Growth (5-yr)	1.0%
Forward EPS Growth (5-yr) NMF = Not Meaningful; Est. = Estimated; FY = Fisc	4.6% al Year

Returns Summary	3-year Historical Average
Return on Equity	35.4%
Return on Assets	16.4%
ROIC, with goodwill	30.6%
ROIC, without goodwill ROIC = Return on Invested Capital; NMF =	31.2% Not Meaningful

## Leverage, Coverage, and Liquidity

NMF = Not Meaningful

In Millions of USD	
Total Debt	21,081
Net Debt	8,590
Total Debt/EBITDA	0.8
Net Debt/EBITDA	0.3
EBITDA/Interest	31.1
Current Ratio	1.2
Quick Ratio	0.9

## **Investment Highlights**

- · BHP is a global mining company and leading producer of iron ore, copper, aluminum, uranium, nickel, metallurgic coal, thermal coal, zinc, manganese, and diamonds. The firm is pushing into the potash space via its Jansen Potash development in Canada. Each ADS represents two ordinary shares of BHP. The firm is headquartered in Melbourne, Australia.
- In June 2022, BHP merged its oil & gas operations with Woodside and effectively exited the space. BHP paid out a special dividend of Woodside shares to its shareholders. Looking ahead, BHP aims to grow its global mining footprint, with considerable capital spending expected in fiscal 2024 and fiscal 2025.
- · BHP's success is tied to China and the state of its industrial economy. Recent data indicates that China's manufacturing industry is recovering due to strong demand for goods in Western countries in North America (especially in the U.S.) and parts of Europe. Longer term, India's promising economic growth story supports BHP's outlook. Geopolitical concerns cannot be ignored, however.
- · BHP's operational execution is excellent, and its operating margins remain impressive. Through various growth and maintenance developments, its mining operations have been able to maintain significant levels of production, allowing BHP to capitalize on relatively strong commodity prices of late. Revenue performance will continue to be volatile though.
- · Looking ahead, rising global demand for copper and nickel as electric vehicles become more prevalent underpins BHP's long-term revenue outlook. BHP is extending the life of its Spence copper mine in Chile by over 50 years to capitalize on this potential.

DCF Valuation	FAIRLY VALUED
Relative Valuation	NEUTRAL
ValueCreation <sup>TM</sup>	EXCELLENT
ValueRisk <sup>TM</sup>	MEDIUM
ValueTrend <sup>TM</sup>	NEGATIVE

Cash Flow Generation STRONG Financial Leverage LOW Growth MODEST

Technical Evaluation BEARISH Relative Strength WEAK Money Flow Index (MFI) **NEUTRAL** 

Upside/Downside Volume (U/D)

**Investment Considerations** 

Near-term Technical Resistance, 10-wk MA 59.00 DCF = Discounted Cash Flow; MFI, U/D = Please see glossary. MA = Moving Average

			•	
<b>Business Quality</b>		ValueCreationTM	1	
ValueRisk <sup>TM</sup>	Very Poor	Poor	Good	Excellent
Low				
Medium				
High				
Very High				

Firms that generate economic profits with little operating variability

<b>Relative Valuation</b>	Forward P/E	PEG	Price / FV
Air Products & Chemicals	17.8	1.9	97.2%
DuPont	16.7	3.0	99.2%
Rio Tinto	9.1	NMF	101.8%
Sherwin-Williams	27.2	1.9	105.3%
Peer Median	17.3	1.9	100.5%
BHP Billiton	8.7	2.4	94.0%

Price / FV = Current Stock Price divided by Estimated Fair Value

<b>Financial Summary</b>	Actual		Projected
Fiscal Year End:	Jun-22	Jun-23	Jun-24
Revenue	65,098	53,817	54,651
Revenue, YoY%	14.4%	-17.3%	1.6%
Operating Income	32,940	21,582	24,142
Operating Margin %	50.6%	40.1%	44.2%
Net Income	20,245	12,921	16,473
Net Income Margin %	31.1%	24.0%	30.1%
Diluted EPS	3.99	2.55	3.25
Diluted EPS, YoY %	NMF	NMF	NMF
Free Cash Flow (CFO-capex)	26,063	11,618	12,881
Free Cash Flow Margin % In Millions of USD (except for per share items)	40.0%	21.6%	23.6%

## Structure of the Diversified Mining Industry

**POOR** 

The diversified mining industry is highly cyclical and almost entirely commoditized, with little differentiation from one firm to the next. Rising input costs can only be passed on to consumers if industry-wide prices increase. Exploration and development require large capital investments, which could pressure cash flows during weak economic times. A miner's position on the cost curve for each respective resource is a critical investment consideration, given the volatility of commodity prices. Though emerging market growth will be a key source of demand for years to come, we don't like the structure of the group.



## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating



Economic Castle Neutral Estimated Fair Value \$60.00 Fair Value Range \$46.00 - \$76.00 Investment Style LARGE-CAP VALUE Sector Materials

3

**Industry**Mining & Chemicals

## **Economic Profit Analysis**

## ValueCreation<sup>TM</sup> EXCELLENT

The best measure of a firm's ability to create value for shareholders is expressed by comparing its return on invested capital (ROIC) with its weighted average cost of capital (WACC). The gap or difference between ROIC and WACC is called the firm's economic profit spread. BHP Billiton's 3-year historical return on invested capital (without goodwill) is 31.2%, which is above the estimate of its cost of capital of 9.5%. As such, we assign the firm a ValueCreation<sup>TM</sup> rating of EXCELLENT. In the chart to the right, we show the probable path of ROIC in the years ahead based on the estimated volatility of key drivers behind the measure. The solid grey line reflects the most likely outcome, in our opinion, and represents the scenario that results in our fair value estimate.

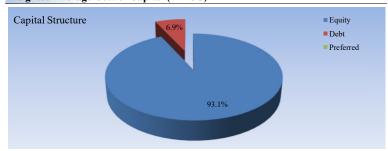
ROIC - WACC Spread, 3-year historical average	21.7%
ROIC - WACC Spread, 5-year projected average	10.5%

These spreads equal the firm's annual average ROIC (excluding goodwill) less its WACC.

ValueTrend™ NEGATIVE

BHP Billiton receives a ValueTrend<sup>TM</sup> rating of NEGATIVE, which is based on the company's trailing three-year performance. The firm's ROIC (excluding goodwill) fell to 24.2% last year from its trailing 3-year average of 31.2%. We expect ROIC (excluding goodwill) to be in the ballpark of about 17% by the end of our discrete forecast period, with downside risk to about 7% over that time period.

## Weighted Average Cost of Capital (WACC)



## Cost of Equity

Cost of Equity Assumption	9.8%
Estimated Equity Risk Premium	6.5%
Fundamental Beta (ERP multiplier)	0.9
Risk Free Rate Assumption	4.3%

## After-tax Cost of Debt

After-tax Cost of Debt	
Risk Free Rate Assumption	4.3%
Synthetic Credit Spread	1.22%
Cost of Debt Assumption	5.5%
Cash Tax Rate Assumption	25.0%
After-tax Cost of Debt Assumption	4.1%

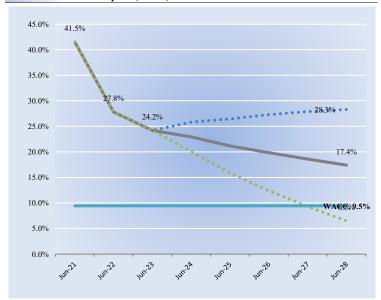
#### Cost of Preferred Stock

0
0
NA

## Weighted Average Cost of Capital (WACC)

ERP = Equity Risk Premium

#### **Return on Invested Capital (ROIC)**



The graph above shows the firm's ROIC (excluding goodwill) compared with historical averages and its WACC

#### **Assessment of Company Dividend Strategy**

## **Key Strengths**

BHP operates in a highly cyclical and commodity-price dependent industry. The company aims to distribute ~50% of its earnings back to shareholders in the form of dividends. We caution that while BHP is a great generator of free cash flow, the volatile nature of its business model combined with its substantial net debt load weighs on its Dividend Safety rating. The company's long-term growth trajectory is underpinned by expected increases in global copper and nickel consumption in the wake of growing electric vehicle demand, two metals BHP is a major producer of. Improved commodities pricing of late has improved BHP's outlook, but near-term pressures persist and geopolitical concerns, particularly with China, endure.

## **Potential Weaknesses**

The cyclical nature of the mining industry applies significant pressure to the health of BHP's dividend, and the firm's large debt load only magnifies the ebbs and flows of the cyclical backdrop. Though BHP's cost cutting efforts have been effective over the past few years to a degree, ultimately exogenous forces will always have an outsized impact on its financial performance. Rising geopolitical tensions between US-China need to be monitored. BHP has cut its dividend in the past and remains very exposed to exogenous shocks without a material net cash position to support its future payouts. Operational risks are a major concern. We don't view BHP as a great dividend growth idea.

Note: Valuentum may provide an adjusted ROIC measure to better reflect the economic substance of a company's operations, as in the case of companies with negative invested capital.



## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating

Economic Castle Neutral Estimated Fair Value \$60.00 **Fair Value Range** \$46.00 - \$76.00

Investment Style LARGE-CAP VALUE Sector Materials

3

**Industry**Mining & Chemicals

## **Growth Analysis**

<b>Revenue Growth</b>				MODEST
		Last Fiscal		
		Year	3-year Historical	5-year Projected
		Revenue	CAGR	CAGR
BHP Billiton	USD	53,817	11.4%	1.0%
Air Products & Chemical	USD	12,600	12.5%	6.2%
DuPont	USD	13,017	-5.5%	-0.6%
Rio Tinto	USD	55,554	8.8%	-3.7%
Sherwin-Williams	USD	22,149	7.4%	4.2%
Peer Median			8.1%	1.8%
Industry Median			9.8%	3.5%

BHP Billiton's revenue expansion has been greater than the median of both its peer group and industry group during the past three years. We expect the firm's pace of revenue growth to fall below the median of both its peer group and industry group during the next five years. Our growth assessment of each firm is based on the firm's 5-year forward revenue CAGR. BHP Billiton's future pace of revenue growth is MODEST, in our opinion.

## **EBITDA** Growth

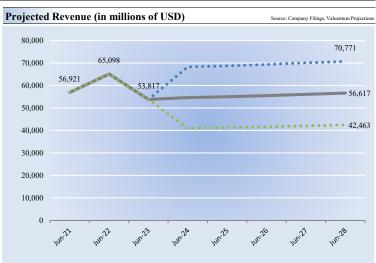
		Last Fiscal		
		Year EBITDA	3-year Historical CAGR	5-year Projected CAGR
BHP Billiton	USD	26,643	13.9%	1.8%
Air Products & Chemical	USD	4,011	5.3%	11.2%
DuPont	USD	3,185	-2.5%	4.7%
Rio Tinto	USD	22,709	6.1%	-3.1%
Sherwin-Williams	USD	3,578	6.5%	12.3%
Peer Median			5.7%	7.9%
Industry Median			7.9%	6.8%

BHP Billiton's EBITDA expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's pace of EBITDA growth to fall below that of both its peer group and industry group during the next five years. Sherwin-Williams sports the highest EBITDA growth rate among peers.

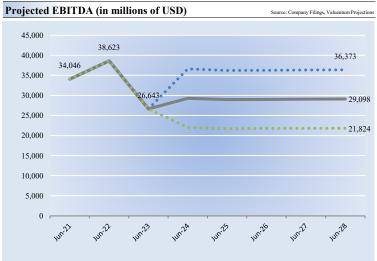
## Net Income Growth

		Last Fiscal		
		Year Net	3-year Historical	5-year Projected
		Income	CAGR	CAGR
BHP Billiton	USD	12,921	17.5%	4.6%
Air Products & Chemical	USD	2,293	6.8%	11.3%
DuPont	USD	1,012	-264.8%	11.4%
Rio Tinto	USD	12,420	15.7%	-4.3%
Sherwin-Williams	USD	2,020	9.4%	16.5%
Peer Median			8.1%	11.4%
Industry Median			8.1%	8.0%

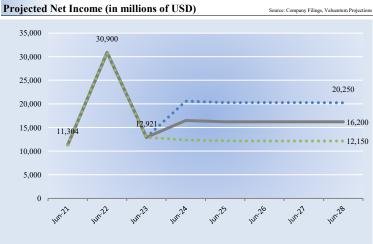
BHP Billiton's net income expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's pace of net income growth to fall below that of both its peer group and industry group during the next five years. Sherwin-Williams sports the highest net income growth rate among peers.



In the chart above, we show our baseline forecast for revenue as well as potential upside and downside cases.



In the chart above, we show our baseline forecast for EBITDA as well as potential upside and downside cases.



In the chart above, we show our baseline forecast for net income as well as potential upside and downside cases.



## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating

Economic Castle Neutral Estimated Fair Value \$60.00 Fair Value Range \$46.00 - \$76.00 Investment Style LARGE-CAP VALUE Sector Materials

3

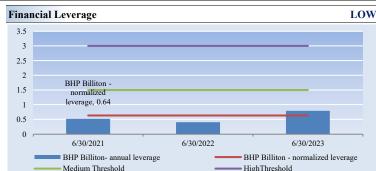
**Industry**Mining & Chemicals

## **Cash Flow and Financial Leverage Analysis**



The bars above show the firms operating cash flow, capital expenditures, and free cash flow, respectively

Firms that generate a free cash flow margin (free cash flow divided by total revenue) above 5% are usually considered cash cows. BHP Billiton's free cash flow margin has averaged about 33.1% during the past 3 years. As such, we think the firm's cash flow generation is relatively STRONG. The free cash flow measure shown above is derived by taking cash flow from operations less capital expenditures and differs from enterprise free cash flow (FCFF), which we use in deriving our fair value estimate for the company. For more information on the differences between these two measures, please visit our website at Valuentum.com. At BHP Billiton, cash flow from operations decreased about 31% from levels registered two years ago, while capital expenditures expanded about 22% over the same time period.



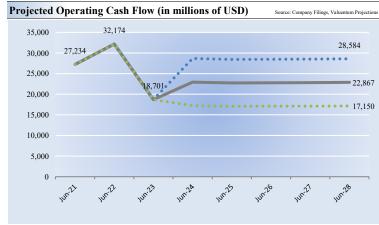
The bars above show the firm's annual debt-to-EBITDA. The red line shows the firm's normalized measure.

Firms that exhibit high leverage tend to be more risky than firms with relatively low debt loads, all else equal. We measure financial leverage by taking a firm's current total debt load and dividing it by the firm's trailing average 3-year annual EBITDA. Firms that are over 3 for this metric, we rate as having high leverage. Companies that have less than 1.5 turns of leverage (or a measure below 1.5), we rate as having low leverage. BHP Billiton's normalized debt-to-EBITDA measure of about 0.64 puts it in the LOW camp.

#### **Cash Flow from Operations**

		Last Fiscal Year CFO	3-year Historical CAGR	5-year Projected CAGR
BHP Billiton	USD	18,701	6.0%	4.1%
Air Products & Chemical	USD	3,206	-0.6%	11.1%
DuPont	USD	588	-25.3%	41.3%
Rio Tinto	USD	16,134	2.7%	-2.1%
Sherwin-Williams	USD	1,920	-6.1%	23.0%
Peer Median			-3.4%	17.1%
Industry Median			3.3%	10.9%

BHP Billiton's cash flow from operations expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's pace of cash flow from operations growth to fall below that of both its peer group and industry group during the next five years. DuPont sports the highest expected cash flow from operations growth rate among peers.

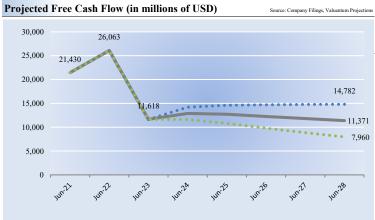


In the chart above, we show our baseline forecast for CFO as well as potential upside and downside cases.

## Free Cash Flow (CFO-capital expenditures)

		Last Fiscal Year FCF	3-year Historical CAGR	5-year Projected CAGR
BHP Billiton	USD	11,618	6.8%	-0.4%
Air Products & Chemical	USD	-1,420	-223.4%	-210.0%
DuPont	USD	-155	-50.0%	-278.2%
Rio Tinto	USD	9,384	-0.1%	-7.9%
Sherwin-Williams	USD	1,275	-13.8%	31.5%
Peer Median			-31.9%	-108.9%
Industry Median			-6.0%	11.0%

BHP Billiton's free cash flow expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's free cash flow to outpace its peer group but trail that of its industry group during the next five years. Sherwin-Williams sports the highest expected free cash flow growth rate among peers.



In the chart above, we show our baseline forecast for free cash flow as well as potential upside and downside cases

## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating

 Economic Castle
 Estimated Fair Value
 Fair Value Range
 Investment Style
 Sector
 Industry

 Neutral
 \$60.00
 \$46.00 - \$76.00
 LARGE-CAP VALUE
 Materials
 Mining & Chemicals

## Valuation Analysis

Valuation Assumptions				
In Millions of USD (except for per share items)	5-year Projections			
Revenue CAGR %	1.0%			
Avg. EBIT Margin %	43.0%			
Avg. Cash Tax Rate %	25.0%			
Earnings Before Interest CAGR %	1.2%			
Earnings Per Share CAGR %	4.6%			
Free Cash Flow to the Firm CAGR %	2.7%			
Earnings before interest = Net operating profits less adjusted taxes	Long-term Projections			
Phase II> III FCFF CAGR %	4.3% (II) 3% (III)			
Cost of Equity %	9.8%			
After-tax Cost of Debt %	4.1%			
Discount Rate (WACC) %	9.5%			
Synthetic credit spread = 1.217%	Results			
Phase I Present Value	42,673			
Phase II Present Value	67,095			
Phase III Present Value	50,617			
Total Firm Value	160,385			
Net Balance Sheet Impact	-8,590			
Total Equity Value	151,795			
Diluted Shares Outstanding	5,073.0			
Fair Value per ADR The Fair Value reflects an ADR conversion ratio of 2 shares per ADR.	\$60.00			

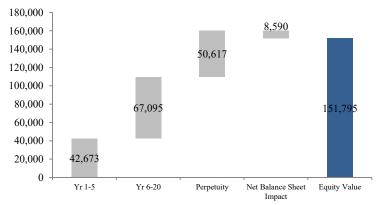
#### **DCF Valuation Summary**

We think BHP Billiton is worth \$60 per ADR with a fair value range of \$46.00 - \$76.00. The margin of safety around our fair value estimate is driven by the firm's MEDIUM ValueRisk™ rating, which is derived from an evaluation of the historical volatility of key valuation drivers and a future assessment of them. Our near-term operating forecasts, including revenue and earnings, do not differ much from consensus estimates or management guidance. Our model reflects a compound annual revenue growth rate of 1% during the next five years, a pace that is lower than the firm's 3-year historical compound annual growth rate of 11.4%. Our model reflects a 5-year projected average operating margin of 43%, which is below BHP Billiton's trailing 3-year average. Beyond year 5, we assume free cash flow will grow at an annual rate of 4.3% for the next 15 years and 3% in perpetuity. For BHP Billiton, we use a 9.5% weighted average cost of capital to discount future free cash flows.

#### Valuation Breakdown

In the chart below, we show the build up to our estimate of total enterprise value for BHP Billiton and the break down to the firm's total equity value, which we estimate to be about 151.79USD billion. The present value of the enterprise free cash flows generated during each phase of our model and the net balance sheet impact is displayed. We divide total equity value by diluted shares outstanding to arrive at our \$30 per share fair value estimate. Since there are 2 shares per ADR, we use the relevant ADR conversion ratio to arrive at our fair value estimate of \$60 per ADR.

3



In Millions of USD

<b>Enterprise Free Cash Flow</b>				
	Fiscal Year End:	6/30/2021	6/30/2022	6/30/2023
Earnings before Interest		30,421	18,201	15,597
+ Depreciation		5,084	5,623	4,967
- Capital Expenditures		5,804	6,111	7,083
- Change in Working Capital		3,621	-421	-1,238
- Acquisitions		3	-1,255	5,786
Enterprise Free Cash Flow (FCFF	)	26,077	19,389	8,933
In Millions of USD				

Our future forecasts for key valuation drivers result in a future free enterprise cash flow stream. Above, we show how we calculate enterprise free cash flow and the historical performance of the metric for BHP Billiton. Over the next five years, we expect the firm's enterprise free cash flow to expand at about a 3% compound annual growth rate. During years 6 through 20, we expect the measure to grow at a 4.3% rate. Beyond year 20 (in perpetuity), we grow the firm's free cash flow at inflation (3%).

Source: Company Filings, Valuentum Projection

#### **Company Metrics versus Peer and Industry Medians**

Company Name	Valuentum Buying Index™	Forward Price-to- Earnings	P/E on Est. Normal Diluted EPS	Price/Earnings-to- Growth (PEG), 5- year	Forward EV/EBITDA	EV/Est. Normal EBITDA	5-year Forward Earnings per Share CAGR	3-year Hist Avg ROIC, without goodwill	Dividend Yield %	Stock Price / Fair Value Estimate
BHP Billiton 3 8.7	8.8	2.4	5.2	5.2	4.6%	31.2%	5.1%	94.0%		
Air Products & Chemical	3	17.8	14.9	1.9	11.3	9.8	11.4%	11.0%	3.2%	97.2%
DuPont	3	16.7	16.7	3.0	8.8	8.7	12.0%	-4.3%	2.0%	99.2%
Rio Tinto	6	9.1	9.6	NMF	4.9	5.3	-4.3%	21.8%	5.8%	101.8%
Sherwin-Williams	6	27.2	20.4	1.9	19.8	16.3	18.9%	31.5%	0.9%	105.3%
Peer Median	4.5	17.3	15.8	1.9	10.1	9.3	11.7%	16.4%	2.6%	100.5%
Industry Median	5.5	17.3	13.8	2.3	9.6	8.8	7.5%	14.5%	1.4%	99.4%

View back of report for a full list of industry constituents covered by Valuentum. VBI: Valuentum's ranking for the attractiveness of this investment at the date of the report.



## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

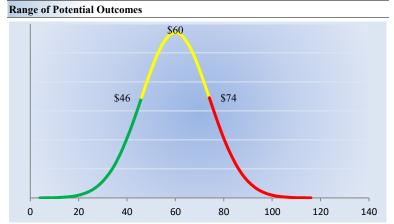
Value Rating



Economic Castle Neutral Estimated Fair Value \$60.00 **Fair Value Range** \$46.00 - \$76.00

Investment Style LARGE-CAP VALUE Sector Materials **Industry**Mining & Chemicals

## **Margin of Safety Analysis**



Our discounted cash flow process values each firm on the basis of the present value of all future free cash flows. Although we estimate the firm's fair value at about \$60 per ADR, every company has a range of probable fair values that's created by the uncertainty of key valuation drivers (like future revenue or earnings, for example). After all, if the future were known with certainty, we wouldn't see much volatility in the markets as stocks would trade precisely at their known fair values. Our ValueRisk<sup>TM</sup> rating sets the margin of safety or the fair value range we assign to each stock. In the graph above, we show this probable range of fair values for BHP Billiton. We think the firm is attractive below \$46 per ADR (the green line), but quite expensive above \$76 per ADR (the red line). The prices that fall along the yellow line, which includes our fair value estimate, represent a reasonable valuation for the firm, in our opinion.

## ValueRisk<sup>TM</sup> MEDIUM

3

BHP Billiton receives a ValueRisk<sup>TM</sup> rating of MEDIUM based of the historical volatility of key drivers of economic value creation. The fair value range sets the margin of safety around our fair value estimate of the firm's shares.

Revenue Volatility 20.3%
Gross Margin Volatility 24.0%
Earnings (EBI) Volatility Greater than 50%
Cash Flow (FCFF) Volatility Greater than 50%

Fair Value Range

The Fair Value Range sets the premium or discount on our estimate of the firm's fair value.

#### **Upside and Downside Probabilities**

Probability (fair value < \$0)

Probability (fair value > 2x current share price)

Less than 0.1%

0.01%

We strive to answer a few questions that investors often ask: 1) What are the chances of a total loss of investment in this company? and 2) What is the chance that the company is really worth twice what I paid for it? The probability (fair value < 0) strives to answer the first question. It indicates the chance that the firm may encounter insolvency based on the characteristics of its cash flow stream, capital structure, and risk profile. The probability (fair value > 2x current share price) strives to answer the second question. It is our best estimate of whether investors are participating in a half-off sale by buying the company's shares at current prices.

## **Future Path of Fair Value**

We estimate BHP Billiton's fair value at this point in time to be about \$60 per ADR. As time passes, however, companies generate cash flow and pay out cash to shareholders in the form of dividends. The chart to the right compares the firm's current share price with the path of BHP Billiton's expected equity value per ADR over the next three years, assuming our long-term projections prove accurate. The range between the resulting downside fair value and upside fair value in Year 3 represents our best estimate of the value of the firm's ADRs three years hence. This range of potential outcomes is also subject to change over time, should our views on the firm's future cash flow potential change. The expected fair value of \$69 per ADR in Year 3 represents our existing fair value per ADR of \$60 increased at an annual rate of the firm's cost of equity less its dividend yield. The upside and downside ranges are derived in the same way, but from the upper and lower bounds of our fair value estimate range.



The graph above shows the expected future fair value of the firm's shares relative to its current stock price.

## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating



**Economic Castle** Neutral

**Estimated Fair Value** \$60.00

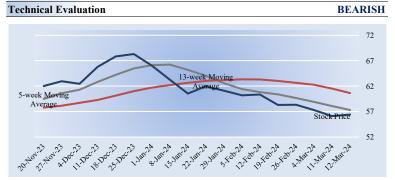
Fair Value Range \$46.00 - \$76.00

**Investment Style** LARGE-CAP VALUE

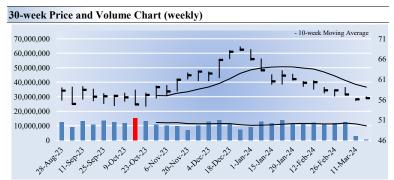
Sector Materials

Industry Mining & Chemicals

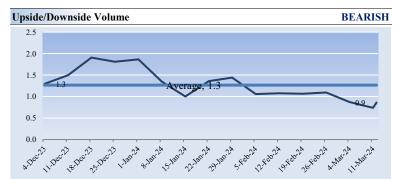
## Technical Analysis



The firm's near-term moving average (5-week, grey line) and medium-term moving average (13-week, red line) are shown in the chart above. Typically, when a shorterterm moving average crosses a medium- or longer-term moving average from below, it represents a bullish signal. If the short-term moving average crosses from above, traders often view this as bearish. BHP Billiton's 5-week moving average is below its 13-week measure, indicating a BEARISH trend. We'd grow more constructive on the firm's technicals if the firm's 5-week moving average crosses its 13-week moving average.



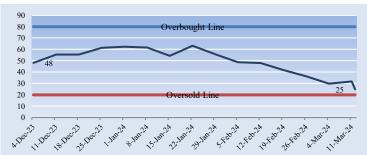
In the chart above, we pinpoint the heaviest accumulation or distribution week of the firm, determined by the week with the highest trading volume during the past 30 weeks. A heavy accumulation (buying) or distribution (selling) week often determines the future near-term direction of the firm's share price, as money managers continue to move in or out of the stock in the days and weeks ahead driving the stock up or down, respectively. For BHP Billiton, the week with the highest trading volume out of the last 30 weeks was a week of heavy selling, or distribution (red bar). Such market activity could indicate a reversal of an uptrend or further confirmation of a downtrend.



The level and trend of the Upside/Downside (U/D) volume ratio reveals whether institutional participation has been bullish or bearish as of late. BHP Billiton's U/D volume ratio of 0.9 is not only less than 1 but also is lower than its trailing average, indicating BEARISH institutional interest during the past several weeks.



3



The Money Flow Index (MFI) is an oscillator that uses price and volume to measure buying and selling pressure. Chartists often look for overbought (above 80) and oversold (below 20) levels to warn of unsustainable near-term price extremes. BHP Billiton's MFI of 25 (green line) is neutral, suggesting the firm's stock is neither overbought nor oversold at this time. However, a score below 50 tends to favor bears. The MFI can also be used to gauge the strength or weakness of a firm's price trend. In BHP Billiton's case, its stock price and money flow neither reveals a bullish nor bearish divergence, further supporting our neutral view on its money flow action.

#### Relative Price Strength WEAK

A firm's relative price strength can be assessed over any number of time horizons. We show the firm's performance over the past 5 weeks, 13 weeks, and 30 weeks below. In arriving at our relative strength rating for each company, we assess the past 13 weeks, which includes the market's reaction to the firm's most recently reported quarter, where applicable, and other more recent economic events. During the past 13 weeks, BHP Billiton's shares returned -17%, while the market benchmark returned 10.4%. We think BHP Billiton's 13-week relative price performance is WEAK.

5-week Company Performance	-4.6%
5-week Market Benchmark Performance	5.1%
5-week Relative Performance vs. Market Benchmark	-9.7%
13-week Company Performance	-17.0%
13-week Market Benchmark Performance	10.4%
13-week Relative Performance vs. Market Benchmark	-27.4%
30-week Company Performance	0.6%
30-week Market Benchmark Performance	12.2%
30-week Relative Performance vs. Market Benchmark	-11.6%

Timeliness Matrix <sup>TM</sup> Equity Valuation							
Relative Strength	Overvalued	Fairly Valued	Undervalued				
Strong							
Neutral							
Weak							

Firms that are undervalued and currently showing near-term pricing strength score near the top right of the matrix

Companies that are undervalued and showing near-term relative price strength could represent timely buys, as the stock may be attractive to both value and momentum investors. A cross section of the firm's equity valuation and its relative share price strength is shown in the matrix above. We tend to prefer undervalued stocks that have strong pricing momentum, also called Valuentum stocks.



## **BHP Billiton BHP FAIRLY VALUED**

Buying Index™

3

Value Rating



 Economic Castle
 Estimated Fair Value
 Fair Value Range
 Investment Style
 Sector
 Industry

 Neutral
 \$60.00
 \$46.00 - \$76.00
 LARGE-CAP VALUE
 Materials
 Mining & Chemicals

## **Pro Forma Income Statement**

Diluted Weighted Shares Outstanding

		Historical	Proje	Projected	
In Millions of USD (except for per share items)	Jun-21	Jun-22	Jun-23	Jun-24	Jun-25
m . 10					
Total Revenue	56,921	65,098	53,817	54,651	54,952
Cost of Goods Sold	7,746	9,340	10,949	10,363	10,581
Selling, General and Administrative Expenses	0	0	0	0	0
Other Operating Expenses	20,213	22,818	21,286	20,146	20,570
Operating Income	28,962	32,940	21,582	24,142	23,801
Unusual items	0	0	0	0	0
Operating Income, including unusual items	28,962	32,940	21,582	24,142	23,801
Interest Expense	(505)	(497)	(856)	(856)	(856)
Other Non-operating Income	(4,165)	694	675	548	548
Pre-tax Income	24,292	33,137	21,401	23,834	23,493
Income Taxes	10,616	10,737	7,077	5,959	5,873
Income after tax	13,676	22,400	14,324	17,876	17,620
Minority Interest and Equity Income	(2,147)	(2,155)	(1,403)	(1,403)	(1,403)
Net Income, excluding extra items	11,529	20,245	12,921	16,473	16,217
Income Available to Common, excluding extra items	11,529	20,245	12,921	16,473	16,217
Diluted Earnings per Share, excluding extra items	2.27	3.99	2.55	3.25	3.20

Source: Company Filings, Xignite, Valuentum Projections, Seeking Alpha

5,073.0

Note: Pro forma data in discounted cash-flow valuation may reflect significant adjustments from GAAP accounting data, including cash (not effective) tax rates and other analytical adjustments on a backward-looking and forward-looking basis. No individual data, by itself, found in this report should be used to make any investment decision.

5,068.0

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5,073.0

## **BHP Billiton BHP FAIRLY VALUED**

Buying Index™

Value Rating

----- Projected -----

3



Economic CastleEstimated Fair ValueFair Value RangeInvestment StyleSectorIndustryNeutral\$60.00\$46.00 - \$76.00LARGE-CAP VALUEMaterialsMining & Chemicals

----- Historical -----

## **Pro Forma Balance Sheet**

In Millions of USD (except for per share items)

In Millions of USD (except for per share items)					
	Jun-21	Jun-22	Jun-23	Jun-24	Jun-25
Assets					
Total Cash (including marketable securities)	15,269	17,539	12,491	10,762	14,123
Inventory	4,426	4,935	5,220	4,999	5,163
Accounts Receivable	6,338	5,689	5,102	5,195	5,237
Other Current Assets	660	501	538	538	538
Total Current Assets	26,693	28,664	23,351	21,493	25,062
Gross Fixed Assets	151,361	121,130	135,346	145,404	155,462
(Accumulated Depreciation)	(77,548)	(59,835)	(63,528)	(68,572)	(73,644)
Net Property, Plant, and Equipment	73,813	61,295	71,818	76,832	81,818
Goodwill, Net	1,197	1,197	1,389	1,389	1,389
Intangibles, Net	240	172	221	127	33
Other Long-term Assets	6,984	3,838	4,517	4,517	4,517
Total Assets	108,927	95,166	101,296	104,358	112,819
Liabilities					
Accounts Payable	5,079	5,360	6,296	5,904	6,332
Other Current Liabilities	9,585	9,098	5,948	6,137	5,880
Current Portion of Long-term Debt	1,739	2,461	6,799	6,799	6,799
Total Current Liabilities	16,403	16,919	19,043	18,840	19,011
Long-term Debt	15,934	13,215	14,282	14,282	20,000
Other Long-term Liabilities	25,326	20,075	23,475	23,475	23,475
Total Liabilities	57,663	50,209	56,800	56,597	62,486
Preferred Stock	0	0	0	0	0
Shareholders' Equity					
Common Stock and Additional Paid in Capital	2,686	4,638	4,737	4,737	4,737
Retained Earnings	46,779	40,338	39,787	43,053	45,624
Other Equity	1,799	(19)	(28)	(28)	(28)
Total Shareholders' Equity	51,264	44,957	44,496	47,762	50,333
Total Liabilities and Shareholders' Equity	108,927	95,166	101,296	104,358	112,819

ce: Company Filings, Xignite, Valuentum Projections, Seeking Alpha

Note: Pro forma data in discounted cash-flow valuation may reflect significant adjustments from GAAP accounting data, including cash (not effective) tax rates and other analytical adjustments on a backward-looking and forward-looking basis. No individual data, by itself, found in this report should be used to make any investment decision.



Data as of 12-Mar-2024 Valuentum Retail Equity Research (10=best)

## **BHP Billiton BHP FAIRLY VALUED**

Buying Index™

3

Value Rating

----- Projected -----



**Estimated Fair Value** Sector **Economic Castle** Fair Value Range **Investment Style** Industry LARGE-CAP VALUE Neutral \$60.00 \$46.00 - \$76.00 Materials Mining & Chemicals

----- Historical -----

## **Pro Forma Cash Flow Statement**

In Millions of USD (except for per share items)					
	Jun-21	Jun-22	Jun-23	Jun-24	Jun-25
Cash from Operations					
Net Income	11,304	30,900	12,921	17,876	17,620
Depreciation and Amortization	5,084	5,683	5,061	5,138	5,166
Deferred Income Taxes	0	0	0	0	0
Operating Gains Or Losses	10,846	(4,409)	719	0	0
Changes in Working Capital	0	0	0	(75)	(35)
Cash Flow from Operations	27,234	32,174	18,701	22,939	22,750
Cash from Investing					
Purchase of Property, Plant, Equipment	(5,804)	(6,111)	(7,083)	(10,058)	(10,058)
Other Investing Cash Flows	(2,041)	(848)	(5,982)	0	0
Cash Flow from Investing	(7,845)	(6,959)	(13,065)	(10,058)	(10,058)
Cash from Financing					
Issuance (Retirement) of Stock	(234)	(149)	(88)	0	0
Issuance (Retirement) of Debt	(7,789)	(2,194)	4,893	0	0
Dividends Paid	(7,901)	(17,851)	(13,268)	(14,610)	(15,049)
Other Financing Cash Flows	(1,998)	(2,573)	(1,852)	0	0
Cash Flow from Financing	(17,922)	(22,767)	(10,315)	(14,610)	(15,049)
Foreign Exchange	353	(458)	(134)	0	0
Net Change in Cash	1,820	1,990	(4,813)	(1,729)	(2,356)

ce: Company Filings, Xignite, Valuentum Projections, Seeking Alpha

Note: Pro forma data in discounted cash-flow valuation may reflect significant adjustments from GAAP accounting data, including cash (not effective) tax rates and other analytical adjustments on a backward-looking and forward-looking basis. No individual data, by itself, found in this report should be used to make any investment decision.



## BHP Billiton BHP FAIRLY VALUED

# Buying Index™

Value Rating



Economic Castle Neutral Estimated Fair Value \$60.00 **Fair Value Range** \$46.00 - \$76.00

Investment Style LARGE-CAP VALUE Sector Materials

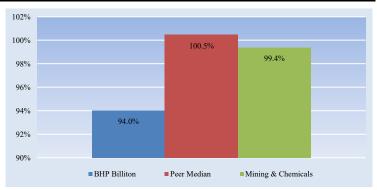
3

**Industry**Mining & Chemicals

## Mining & Chemicals

#### Mining & Chemicals FAIRLY VALUED

We think the Mining & Chemicals industry is fairly valued at this time. The industry's market cap is trading between 80% and 120% of our estimate of its fair value based on our DCF process. Although we use a firm-specific ValueRisk™ measure to determine whether a firm is undervalued or overvalued based on our DCF process, we consider an industry to be undervalued if it is trading below 80% of our estimate of its fair value and overvalued if it is trading at over 120% of our estimate of its fair value. We think these fair value ranges are appropriate given the diversification benefits of holding a basket of stocks. Although there may be individual opportunities within the Mining & Chemicals industry, we don't find the industry as a whole attractive based solely on valuation.



The above bar chart reveals the price/fair value of the company, its peers, and the industry as a whole.

Shaded blue denotes that the firm has earned the highest rating for that respective category.

Market Cap (USD-

Company Name	Ticker	mil)	Investment Style	DCF Valuation	Relative Valuation	ValueCreation™	ValueRisk™	ValueTrend™	Technicals	Relative Strength
Air Products & Chemicals	APD	49,593	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	GOOD	MEDIUM	NEGATIVE	BEARISH	WEAK
Albemarle	ALB	14,458	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	GOOD	MEDIUM	POSITIVE	BEARISH	WEAK
Alcoa	AA	4,737	MID-CAP VALUE	FAIRLY VALUED	UNATTRACTIVE	GOOD	HIGH	NEGATIVE	BEARISH	WEAK
BHP Billiton	BHP	71,542	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	EXCELLENT	MEDIUM	NEGATIVE	BEARISH	WEAK
Carlisle Companies	CSL	15,026	LARGE-CAP CORE	FAIRLY VALUED	NEUTRAL	EXCELLENT	MEDIUM	POSITIVE	BULLISH	STRONG
Chart Industries	GTLS	5,636	MID-CAP BLEND	FAIRLY VALUED	NEUTRAL	VERY POOR	MEDIUM	POSITIVE	BEARISH	WEAK
DuPont	DD	36,162	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	VERY POOR	LOW	NEGATIVE	BEARISH	WEAK
Eastman Chemical	EMN	10,674	LARGE-CAP VALUE	FAIRLY VALUED	ATTRACTIVE	EXCELLENT	LOW	NEGATIVE	BULLISH	NEUTRAL
Ecolab	ECL	58,117	LARGE-CAP CORE	FAIRLY VALUED	NEUTRAL	EXCELLENT	MEDIUM	NEGATIVE	NEUTRAL	NEUTRAL
Freeport McMoRan	FCX	56,937	LARGE-CAP CORE	FAIRLY VALUED	ATTRACTIVE	GOOD	HIGH	NEGATIVE	BULLISH	WEAK
Graco	GGG	15,638	LARGE-CAP VALUE	FAIRLY VALUED	UNATTRACTIVE	EXCELLENT	MEDIUM	POSITIVE	NEUTRAL	NEUTRAL
LyondellBasell	LYB	31,324	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	EXCELLENT	LOW	POSITIVE	BULLISH	WEAK
Martin Marietta	MLM	33,551	LARGE-CAP GROWTH	FAIRLY VALUED	UNATTRACTIVE	POOR	MEDIUM	NEGATIVE	NEUTRAL	STRONG
Newmont Mining	NEM	25,567	LARGE-CAP BLEND	FAIRLY VALUED	NEUTRAL	GOOD	HIGH	NEGATIVE	BEARISH	WEAK
Nucor	NUE	44,852	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	EXCELLENT	HIGH	POSITIVE	BULLISH	WEAK
PPG Industries	PPG	33,877	LARGE-CAP VALUE	FAIRLY VALUED	ATTRACTIVE	EXCELLENT	LOW	POSITIVE	BEARISH	WEAK
Rio Tinto	RIO	112,752	LARGE-CAP CORE	FAIRLY VALUED	NEUTRAL	EXCELLENT	MEDIUM	NEGATIVE	BULLISH	STRONG
Sherwin-Williams	SHW	73,914	LARGE-CAP CORE	FAIRLY VALUED	NEUTRAL	EXCELLENT	MEDIUM	NEGATIVE	BULLISH	NEUTRAL
Vale	VALE	69,057	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	EXCELLENT	HIGH	NEGATIVE	BULLISH	STRONG
Valmont	VMI	2,468	MID-CAP VALUE	FAIRLY VALUED	ATTRACTIVE	EXCELLENT	MEDIUM	POSITIVE	BULLISH	STRONG
Vulcan Materials	VMC	32,172	LARGE-CAP CORE	FAIRLY VALUED	NEUTRAL	GOOD	MEDIUM	NEGATIVE	BULLISH	STRONG
Wheaton Precious Metals	WPM	21,937	LARGE-CAP GROWTH	FAIRLY VALUED	NEUTRAL	POOR	MEDIUM	NEGATIVE	BULLISH	STRONG

# Valuentum's Full Page Stock Report

**DCF Valuation** 

Shows whether the firm is undervalued, fairly valued, or overvalued based on our DCF process and by how much.

## Valuentum Buying Index (VBI)

Provides insight into the timeliness of an investment opportunity. We rank firms from 1 to 10 based on rigorous fiancial, valuation, and technical analysis. A 10 represents one of our top picks.



#### Valuentum Value Rating (VVR)

Indicates whether we think a firm is undervalued, fairly valued, or overvalued on the basis of our DCF process.



## Investment Considerations

Evaluates firms on 12 different measures, from the firm's growth and cash flow generation to the stock's money flow index and upside/downside volume. We reveal technical support and resistance levels.

**Business Quality** 

for shareholders

operations.

compared wth the

underlying risk of its

**Investment Highlights** 

analysis of its financial

and technical strengths

**Relative Valuation** 

Comparison of the

peers.

firm's PE, PEG, and

Price/FV ratios versus

Our opinion of the

and weaknesses.

company, including

Summary of the firm's

ability to create value

#### 30-week Price and **Volume Action**

Displays the last accumulation or distribution week of the stock and historical price and volume action.

**Company Vitals** 

industry and other

relevant company

Normalized EPS

Estimation of the

firm's normalized

earnings measures

valuation mutliples.

corresponding

and EBITDA

and the

Shows sector.

information.

Visit us at www.valuentum.com Valuentum Retail Equity Research Apple AAPL UNDERVALUED 3 Buying Index™ Value Rating Economic Castle Highest Rated Estimated Fair Value Investment Style MEGA-CAP VALUE Investment Consideration Apple is as much a brand as it is one of the most innovative companies

Stock Chart (weekly) ValueCreation<sup>TM</sup> ValueRisk<sup>TM</sup> 1.800.000.000 ValueTrend<sup>TM</sup> 116.00 Cash Flow Generation 111 1,200,000,000 Technical Evaluatio 800,000,000 Relative Strength Company Vitals

Apple is as much a brand as it is one of the world's

most innovative companies. The firm is no longer

known for its iPods and personal computers, as the

proliferation of the iPhone over the past several years

has been a sight to behold. The company's execution

remains top notch, and we enter it it to continue to out innovative products in technology, its most recent many product launch.

UNDERVALUED Relative Valuation UNATTRACTIVE EXCELLENT LOW POSITIVE STRONG MODEST BULLISH STRONG Money Flow Index (MFI) NEUTRAL Upside/Downside Volume (U/D) BULLISH Near-term Technical Support, 10-week MA 112.00 ited Cash Flow; MFI, U/D = Please see glos

ansimess Saumis		A WINGC LEWINOR.		
/alueRisk <sup>TM</sup>	Very Poor	Poor	Good	Excellent
Low				
Medium				
High				
Very High				
irms that generate economic	profits with little oper	eating variability scor	e near the top rigi	at of the matrix.
Relative Valuation	K	Forward P/E	PEG	Price / FV
		220	272.00	00.20/

· Criticism over the firm's dependence on sales of the	Firms that generate economic profits with little op	erating variability score	e near the top ris		
iPhone gained momentum in fiscal 2016, as the second quarter of the fiscal year marked the first	Relative Valuatio	Forward P/E	PEG		
quarterly sales decline in 13 years. High levels of	BlackBerry	-53.0	NMF		
demand for the iPhone 7 and multiple safety issues at	Cray	49.4	0.9		
rival Samsung have eased concerns for the time being.	Hewlett-Packard	9.0	NMF		
· Apple's rollout of future iterations of the iPhone	IBM	11.7	2.6		
should propel its fundamentals higher. Though we're	Peer Median	10.4	1.8		
not embedding another blockbuster hit in our model,	Apple	14.0	2.0		
we wouldn't be surprised if Apple delivers another one	Price / FV = Current Stor vided by Estimated Fair Value				
from its pipeline. Perhaps only a dream five years ago, the popularity of the new Apple Watch is now worth	Financial Summar	Actual			
watching, though it has yet to catch fire in the eyes of	Fiscal Year End:	Sep-14	Sep-		

I cet talecumit	10.4	E 140	001010
Apple	14.0	2.0	79.3%
Price / FV = Current Stor vided by I	Estimated Fair Val	lue	
Financial Summar	Actu	Projected	
Fiscal Year End:	Sep-14	Sep-15	Sep-16
Revenue	182,795	233,715	215,485
Revenue, YoY%	7.0%	27.9%	-7.8%
Operating Income	52,503	71,230	63,313
Operating Margin %	28.7%	30.5%	29.4%
Net Income	39,510	53,394	48,329
Net Income Margin %	21.6%	22.8%	22.4%
Diluted EPS	6.45	9.22	8.34
Diluted EPS, YoY %	13.6%	42.8%	-9.5%
Free Cash Flow (CFO-capex)	49,900	69,778	47,138
Free Cash Flow Margin %	27.3%	29.9%	21.9%

#### · Investors should pay close attention to the firm's Return on Equity 36.8% gross margin, which is expected to fall to 37.5%-38% in fiscal 2016 from 40% in fiscal 2015. Pricing and 19.3% Return on Assets ROIC, with goodwill cost pressures may be unavoidable. A slight step back ROIC, without goodwill ROIC = Return on Invested Capital; N

\$675,472

180.295

1.2%

2.28

7.3%

9.55

12.2

89.47 - 118.69

Information Technology

Leverage, Coverage, and Liquidity Total Debt 64,462 Net Debt -141.204 Total Debt/EBITDA 0.8 Net Debt/EBITDA EBITDA/Interest Current Ratio Quick Ratio

Market Cap (USD)

Valuentum Sector

5-week Return

13-week Return

30-week Return

Dividend Yield %

Dividends per Share

Est. Normal Diluted EPS

Est. Normal EBITDA

Forward EV/EBITDA

Returns Summary

EV/Est. Normal EBITDA

Forward Dividend Payout Ratio

P/E on Est. Normal Diluted EPS

Forward Revenue Growth (5-yr)

Forward EPS Growth (5-yr)
NMF = Not Meaningful: Est. = Estimated: FY = Fiscal Year

Avg Weekly Vol (30 wks)

30-week Range (USD)

fiscal 2016 should not be a major conce vestors given Apple's massive cash position and impressive track record

· Apple's cash hoard is more than some of the market capitalizations of the largest companies in the S&P 500. The company retains tremendous flexibility in this regard, and we continue to expect dividend increases and share buybacks.

Structure of the Computer Hardware Industry The computer hardware space, which spans the personal computer to the iPhone and iPad, is highly competitive. The indu is characterized by frequent product introductions and rapid technological advances that can cause dramatic market share shifts. Though some firms benefit from a strong brand, participants often price aggressively, pressuring margins. Firms are also subject to potential component shortages/disruptions, which can punish perform some, and services revenue has become critical for others. We're neutral on the space

VALUENTUM

77.3%

75.9%

## **Returns Summary**

3-year averages of the firm's key return measures, including return on invested capital, with and without goodwill.



Page 1

## Leverage, Coverage, and Liquidity

A snapshot of the company's financial health.



## **Financial Summary**

A summary of the proforma financial statements found in the extended report.

# **About Valuentum**

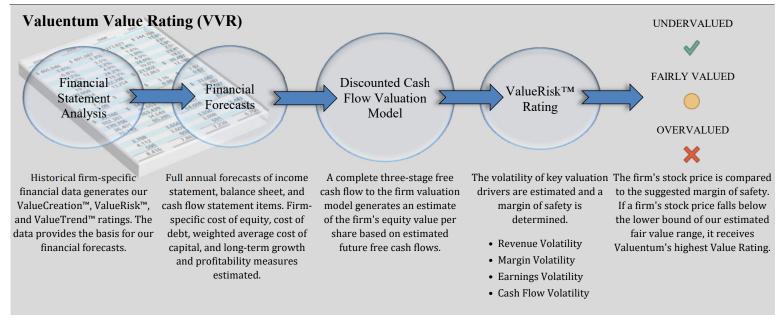
@Valuentum, we strive to stand out from the crowd. Most investment research publishers fall into a few camps, whether it be value, growth, income, momentum, chartist or some variant of the aforementioned. We think each in its own right holds merit, but we think the combination of these approaches can be even more powerful. After all, stock price movements aren't just driven by investors of the value or growth variety, but by all market participants. Therefore, we look at stocks from a variety of investment perspectives in order to better understand and identify ideas. We want to provide relevant information.

The core of our process is grounded in rigorous discounted cash flow analysis and incorporates the concept of a margin of safety. We offer a fair value estimate for each company and provide a relative valuation assessment in the context of a company's industry and closest peers. A cross section of our ValueCreation<sup>TM</sup> and ValueRisk<sup>TM</sup> ratings provides a financial assessment of a company's business quality, while our ValueTrend<sup>TM</sup> rating offers insight into the trajectory of a firm's economic profit creation. The Economic Castle rating measures the magnitude of future economic value generation, and the Dividend Cushion ratio assesses the financial capacity of a company to keep raising its dividend.

Our analysis doesn't stop there. We also offer a technical evaluation of the stock as well as other momentum indicators. We not only want to reveal to readers which firms may be undervalued, in our view, but we also want to provide readers with information to help them assess entry and exit points. Most research publishers focus on arriving at a target price or fair value estimate, but may fall short of providing a technical assessment to bolster buy and sell disciplines. We strive to go the distance and provide readers with answers--not half the story.

An explanation of our approach would not be complete if we didn't describe our ideal stock idea. We're looking for companies that are undervalued--both on a DCF basis and versus peers--have strong growth potential, have a solid track record of creating economic profits for shareholders with reasonable risk, are strong cash flow generators, have manageable financial leverage, and are currently showing bullish technical and momentum indicators. For dividend growth ideas, we look for companies that have both the capacity and willingness to keep raising the dividend.

Can such stock ideas exist? Subscribe to Valuentum to receive our best investment ideas and analysis on hundreds of stocks, dividends, ETFs and more.



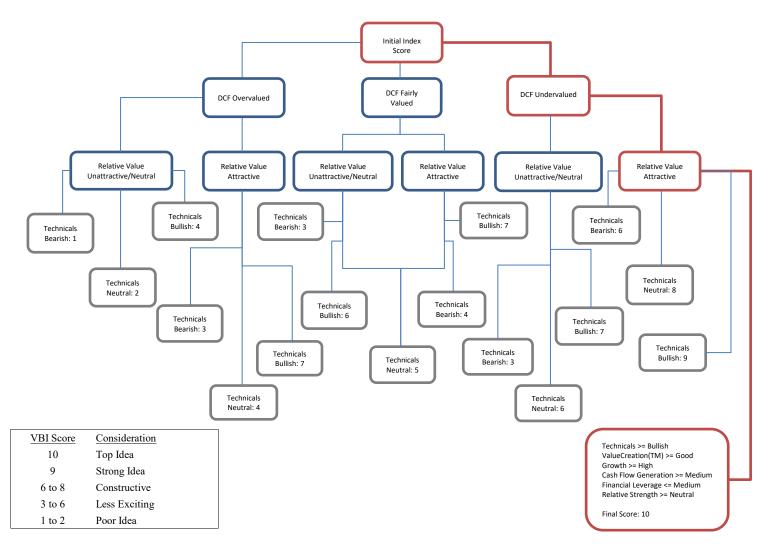
# Methodology for Picking Stocks - Valuentum Buying Index<sup>TM</sup> (VBI)

@ Valuentum, we like to look at companies from a number of different perspectives. The Valuentum Buying Index (VBI) combines rigorous financial and valuation analysis with an evaluation of a stock's technicals to derive a rating between 1 and 10 for each company. The VBI places considerable emphasis on a company's discounted cash-flow (DCF) valuation, its relative valuation versus peers (both forward PE and PEG ratios), and its technicals in order to help readers assess entry and exit points on the most interesting ideas.

Let's follow the red line on the flow chart below to see how a company can score a 10, the best mark on the index. First, the company would need to be 'undervalued' on a DCF basis and 'attractive' on a relative value basis. The stock would also have to be exhibiting 'bullish' technicals. The firm would need a ValueCreation<sup>TM</sup> rating of 'good' or 'excellent', exhibit 'high' or 'aggressive' growth prospects, and generate at least a 'medium' or 'neutral' assessment for cash flow generation, financial leverage, and relative price strength.

This is a tall order for any company. Stocks that don't make the cut for a 10 are ranked accordingly, with the least attractive stocks, in our opinion, garnering a rating of 1. Most of our coverage universe registers ratings between 3 and 7, but at any given time there could be large number of companies garnering either very high or very low scores, especially at market lows or tops, respectively.

The Best Ideas Newsletter portfolio puts the VBI into practice.



# Glossary

**Estimated Fair Value.** This measure is our opinion of the fair equity value per share of the company. If our forecasts prove accurate, which may not always be the case, we may expect a firm's stock price to converge to this value within the next 3 years.

Fair Value Range. The fair value range represents an upper bound and lower bound, between which we would consider the firm to be fairly valued. The range considers our estimate of the firm's fair value and the margin of safety suggested by the volatility of key valuation drivers, including revenue, gross margin, earnings before interest, and enterprise free cash flow (the determinants behind our ValueRisk<sup>TM</sup> rating).

**DCF Valuation.** We opine on the firm's valuation based on our DCF process. Firms that are trading with an appropriate discount to our fair value estimate receive an UNDERVALUED rating. Firms that are trading within our fair value range receive a FAIRLY VALUED rating, while firms that are trading above the upper bound of our fair value range receive an OVERVALUED rating.

Relative Value. We compare the firm's forward price-to earnings (PE) ratio and its price/earnings-to-growth (PEG) ratio to that of its peers. If both measures fall below the peer median, the firm receives an ATTRACTIVE rating. If both are above the peer median, the firm receives an UNATTRACTIVE rating. Any other combination results in a NEUTRAL rating.

ValueCreation™. This is a proprietary Valuentum measure. ValueCreation™ indicates the firm's historical track record in creating economic value for shareholders, taking the average difference between ROIC (without goodwill) and the firm's estimated WACC during the past three years. The firm's performance is measured along the scale of EXCELLENT, GOOD, POOR, and VERY POOR. Those firms with EXCELLENT ratings have a demonstrated track record of creating economic value, while those that register a VERY POOR mark have been destroying economic value.

ValueRisk™. This is a proprietary Valuentum measure. ValueRisk™ indicates the historical volatility of key valuation drivers, including revenue, gross margin, earnings before interest, and enterprise free cash flow. The standard deviation of each measure is calculated and scaled against last year's measure to arrive at a percentage deviation for each item. These percentage deviations are weighted equally to arrive at the corresponding fair value range for each stock, measured in percentage terms. The firm's performance is measured along the scale of LOW, MEDIUM, HIGH, and VERY HIGH. The ValueRisk™ rating for each firm also determines the fundamental beta of each firm along the following scale: LOW (0.85), MEDIUM (1), HIGH (1.15), VERY HIGH (1.3).

ValueTrend™. This is a proprietary Valuentum measure. ValueTrend™ indicates the trajectory of the firm's return on invested capital (ROIC). Firms that earned an ROIC last year that was greater than the 3-year average of the measure earn a POSITIVE rating. Firms that earned an ROIC last year that was less than the 3-year average of the measure earn a NEGATIVE rating.

Cash Flow Generation. Firms' cash flow generation capacity are measured along the scale of STRONG, MEDIUM, and WEAK. A firm with a 3-year historical free cash flow margin (free cash flow divided by sales) greater than 5% receives a STRONG rating, while firms earning less than 1% of sales as free cash flow receive a WEAK rating.

**Financial Leverage.** Based on the firm's normalized debt-to-EBITDA metric, we rank firms on the following scale: LOW, MEDIUM, and HIGH. Companies with a normalized debt-to-EBITDA ratio below 1.5 receive a LOW score, while those with a measure above 3 receive a HIGH score.

**Upside/Downside Volume.** Heavy volume on up days and lower volume on down days suggests that institutions are heavily participating in a stock's upward advance. We use the trailing 14-week average of upside and downside volume to calculate an informative ratio. We rank each firm's U/D volume ratio along the following scale: BULLISH, IMPROVING, DETERIORATING, and BEARISH.

Investment Style. Valuentum uses its own proprietary stock-classification system. Nano-cap: Less than \$50 million; Micro-cap: Between \$50 million and \$200 million; Small-cap: Between \$200 million and \$2 billion; Mid-cap: Between \$2 billion and \$10 billion; Large-cap: Between \$10 billion and \$200 billion; Mega-cap: Over \$200 billion. Blend: Firm's that we think are undervalued and exhibit high growth prospects (growth in excess of three times the rate of assumed inflation). Value: Firm's that we believe are undervalued, but do not exhibit high growth prospects. Growth: Firms that are not undervalued, in our opinion, but exhibit high growth prospects. Core: Firms that are neither undervalued nor exhibit high growth prospects.

Company Vitals. In this section, we list key financial information and the sector and industry that Valuentum assigns to the stock. The P/E-Growth (5-yr), or PEG ratio, divides the current share price by last year's earnings (EPS) and then divides that quotient by our estimate of the firm's 5-year EPS growth rate. The estimated normalized diluted EPS and estimated normalized EBITDA represent the five-year forward average of these measures used in our discounted cash flow model. The P/E on estimated normalized EPS divides the current share price by estimated normalized diluted EPS. The EV/estimated normalized EBITDA considers the current enterprise value of the company and divides it by estimated normalized EBITDA. EV is defined as the firm's market capitalization plus total debt, minority interest, preferred stock less cash and cash equivalents.

Business Quality Matrix. We compare the firm's ValueCreation™ and ValueRisk™ ratings. The box is an easy way for investors to quickly assess the business quality of a company. Firms that generate economic profits with little operating variability score near the top right of the matrix.

**Timeliness Matrix.** We compare the company's recent stock performance relative to the market benchmark with our assessment of its valuation. Firms that are experiencing near-term stock price outperformance and are undervalued by our estimate may represent timely buys.

Range of Potential Outcomes. The firm's margin of safety is shown in the graphic of a normal distribution. We consider a firm to be undervalued if its stock price falls along the green line and overvalued if the stock price falls along the red line. We consider the firm to be fairly valued if its stock price falls along the yellow line.

**Return on Invested Capital.** At Valuentum, we place considerable emphasis on return on invested capital (both with and without goodwill). The measure focuses on the return (earnings) the company is generating on its operating assets and is superior to return on equity and return on assets, which can be skewed by a firm's leverage or excess cash balance, respectively.

**Technical Evaluation.** We evaluate a firm's near-term and medium-term moving averages and money flow index (MFI) to assign each firm a rating along the following scale: VERY BULLISH, BULLISH, NEUTRAL, BEARISH, and VERY BEARISH.

Stock Price Relative Strength. We assess the perfomance of the company's stock during the past quarter, 13 weeks, relative to an ETF that mirrors the aggregate performance of constituents of the stock market. Firms are measured along the scale of STRONG, NEUTRAL, and WEAK. Companies that have outperformed the market index by more than 2.5% during this 13-week period receive a STRONG rating, while firms that trailed the market index by more than 2.5% during this 13-week period receive a WEAK rating.

Money Flow Index (MFI). The MFI is a technical indicator that measures buying and selling pressure based on both price and volume. Traders typically use this measure to identify potential reversals with overbought and oversold levels. We use a 14-week measure to rank firms along the following scale: EXTREMELY OVERBOUGHT (>90), OVERBOUGHT (80-90), NEUTRAL (20-80), OVERSOLD (10-20), EXTREMELY OVERSOLD (0-10).



# Disclosures, Disclaimers & Additional Sources

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BHP Rating History	Price	Fair Value	VBI
12-Mar-24	\$56.41	\$60.00	3
12-Dec-23	\$62.12	\$66.00	6
25-Sep-23	\$56.12	\$60.00	3
20-Jun-23	\$62.32	\$57.00	6
19-Dec-22	\$61.01	\$59.00	6
1-Jul-22	\$53.60	\$68.00	3
30-Jul-21	\$78.56	\$66.00	7
18-Nov-20	\$53.81	\$50.00	7
15-Jul-20	\$53.09	\$47.00	5
20-Aug-19	\$48.36	\$45.00	4
11-Feb-19	\$52.76	\$42.00	6
10-Sep-18	\$45.47	\$40.00	3
4-May-18	\$48.27	\$40.00	6
5-Jan-18	\$48.14	\$40.00	6

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