

# The Bache Commodity Index<sup>SM</sup>



## Bache Commodity Index<sup>SM</sup>

### 2008 Annual Review



# The Bache Commodity Index<sup>SM</sup>

## *Built for Commodity Investors*

The Bache Commodity Index<sup>SM</sup> (BCI<sup>SM</sup>) is a transparent, fully investable commodity index. Our unique method of constructing the index results in lower turnover and lower risk than other commodity indices, while maintaining the potential returns.

### **Predictable, Consistent Exposure**

The BCI<sup>SM</sup> is designed so that the index does not become dominated by a single commodity sector or by several commodities within a commodity sector. This is accomplished by employing upper and lower bounds on investment in each sector and each commodity, and by rebalancing the BCI<sup>SM</sup> each day to maintain the desired exposure to each commodity market.

### **BCI<sup>SM</sup> Benefits from Multiple Sources of Return**

The BCI<sup>SM</sup> is designed to capture more sources of return to investing in commodities than are available with existing commodity indices. In our historical tests, our asset allocation and roll methods contributed an additional 45% to the total return over a 15-year period.

### **Momentum Means Greater Return, Less Risk**

Commodity markets have historically exhibited short-term momentum. Our view is that using momentum to decide which positions to reduce and which to increase is more profitable than holding fixed positions. By tactically reducing the risk of different commodities, the BCI<sup>SM</sup> holds an average of 30% less exposure than a fully invested strategy. As a result, the volatility of the BCI<sup>SM</sup> is roughly 30% less than equivalent indices.

### **Diversification, Inflation Hedge for Portfolios**

Like other commodity indices on the market, the BCI<sup>SM</sup> offers positive returns, may offer some inflation protection, and diversification benefits. Unlike other indices, the BCI<sup>SM</sup> offers these benefits while reducing the downside risk that can occur with commodity investing.

## ***BCI<sup>SM</sup> Strategy for Outperformance***

The development of the BCI<sup>SM</sup> represents a significant advancement in commodity indexing methodology. The index was designed using the view that the way commodities are held in a commodity index is as important as the choice of commodities and weights. Actively managed commodity programs do not hold a constant level of exposure either to individual commodities or to the commodity markets as a whole. Rather, an active manager varies exposure to particular commodities and sectors over time. The BCI<sup>SM</sup> is the first commodity index to incorporate this feature of dynamic asset allocation into an indexing framework. This is achieved while still preserving the essential properties that make commodity investment attractive to many institutional investors.

There are several investment strategies in commodity markets, including the buy-and-roll strategy, spread trading, and directional trading. However, major benchmarks currently only emphasize one strategy, the buy-and-roll strategy embedded in indices such as the S&P Goldman Sachs Commodity Index (SPGSCI) or the Dow Jones-AIG Commodity Index (DJAIG). Other common strategies such as spread trading and directional trading are important potential sources of return for investors, but are not captured by these existing benchmarks. The BCI<sup>SM</sup> includes sources of return that offer the investor a more predictable, positive expected return. The three factors incorporated in the index are Beta, Daily Roll, and Structured Asset Allocation. While these return factors are not new, this is the first time multiple return factors have been combined in an investable commodity index.

**The BCI<sup>SM</sup> was the No. 1 performer among the major 16 commodity indices listed on Bloomberg on an annual basis for the year 2008. On a total-return basis, the BCI<sup>SM</sup> outperformed its 15 competitors by 28 percent for the year.**

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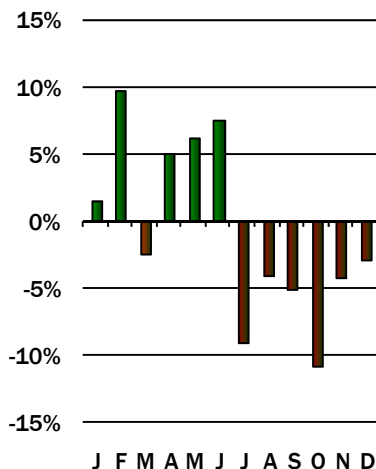
This report was prepared by Alternative Investment Analytics LLC (AIA) under the direction of PFDS Holdings, LLC pursuant to an agreement between AIA and PFDS Holdings, LLC. Prudential Bache Asset Management (PBAM) is a business unit within Bache Commodities Group. PBAM is registered with the SEC as an investment adviser and as a commodity trading adviser with the CFTC. PBAM's affiliated brokers, Prudential Bache Commodities, LLC (PBCL) and Bache Commodities Limited (BCL) provide advice, sales and trading on a global basis for a wide variety of commodity, financial and foreign exchange futures and forward contracts. PBAM's parent company, PFDS Holdings, LLC, is the developer and manager of Bache Commodity Index<sup>SM</sup> (BCI<sup>SM</sup>).

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Sources for SPGSCI and DJAIG data is Bloomberg, LP. The source for BCI<sup>SM</sup> data is Bache Commodities Group.

<sup>1</sup>See disclosure on Page 12.

**Exhibit 1: Monthly BCI<sup>SM</sup> Returns, Jan - Dec 2008**



Source: Global Commodities Group

**Exhibit 3: BCI Weights 2008 (%)**

Commodity Market	2008* Weights	2007 Weights	Change 2008*
Coffee	2.5%	2.5%	0.0%
Corn	7.5%	5.0%	2.5%
Cotton	2.5%	2.5%	0.0%
Lean Hogs	2.5%	2.5%	0.0%
Live Cattle	2.5%	2.5%	0.0%
Soybeans	5.0%	5.0%	0.0%
Sugar	2.5%	2.5%	0.0%
Wheat	2.5%	5.0%	-2.5%
<b>Agriculture</b>	<b>27.5%</b>	<b>27.5%</b>	<b>0.0%</b>
Brent Crude	5.0%	5.0%	0.0%
Gasoil	7.5%	0.0%	7.5%
Gasoline	5.0%	5.0%	0.0%
Heating Oil	5.0%	10.0%	-5.0%
Natural Gas	7.5%	10.0%	-2.5%
WTI Crude Oil	20.0%	20.0%	0.0%
<b>Energy</b>	<b>50.0%</b>	<b>50.0%</b>	<b>0.0%</b>
Aluminum	5.0%	5.0%	0.0%
Copper	5.0%	7.5%	-2.5%
Gold	7.5%	5.0%	2.5%
Silver	2.5%	2.5%	0.0%
Zinc	2.5%	2.5%	0.0%
<b>Metal</b>	<b>22.5%</b>	<b>22.5%</b>	<b>0.0%</b>

## 2008 Annual Report

The Annual Report for the Bache Commodity Index<sup>SM</sup> (BCI<sup>SM</sup>) contains a summary of index performance, return attribution, economic analysis of key commodity markets, and a discussion of changes in BCI<sup>SM</sup> composition during 2008.

### Performance Summary<sup>1</sup>

The BCI<sup>SM</sup> Total Return index returned -10.7% during 2008. Exhibit 1 shows the monthly returns during 2008. The index generated 30.3% in the first six months of the year, but the declining trend in the remaining six months erased any positive returns. The largest monthly gain was 9.8% in February 2008. The largest decline was -10.9% in October, after the global economy entered a sharp downturn that impacted all markets simultaneously. That downturn was responsible for negative index returns in every month in the second half of 2008. For details, please see The BCI<sup>SM</sup> Methodology: A Case Study (page 3).

Exhibit 2 compares index performance in 2008 with historical figures. In spite of the fact that the return in 2008 was -10.7% over longer periods the index still generates attractive returns.

**Exhibit 2: Historical Performance of the BCI<sup>SM</sup>**

	1 Year 2008	3 Years 06-08	5 Years 04-08	10 Years 99-08
Annual Return (%)	(10.7)	2.2	10.1	13.6
Standard Deviation (%)	19.3	16.6	15.7	15.1
Sharpe Ratio	(0.54)	0.00	0.50	0.71

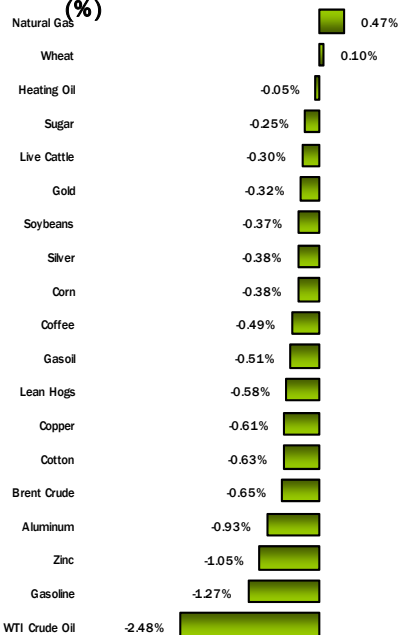
### Index Composition 2008

Upon annual review of the BCI<sup>SM</sup> Advisory Committee in January 2008, the index's commodity composition was changed on March 3. The overall section allocations remain unchanged. Gasoil was the only commodity market added to the BCI<sup>SM</sup> in 2008, and it was given a 7.5% allocation. Some commodity market allocations were shifted for 2008, including Corn (+2.5%), Wheat (-2.5%), Heating Oil (-5.0%), Natural Gas (-2.5%), Copper (-2.5%), and Gold (+2.5%).

Exhibit 3 compares index composition in 2008 with 2007. The BCI<sup>SM</sup> grew to 19 commodity markets in 2008. The largest single allocation continued to be WTI Crude Oil (20%) as energy tends to be a return driver. All other commodities had an allocation of 7.5% or lower. The energy sector was the most concentrated, with 50% of the index allocation across six markets. The agriculture sector was the most diffuse, with eight markets and a 27.5% weight.

<sup>1</sup>See disclosure on Page 12.

**Exhibit 4: BCI<sup>SM</sup> Return Attribution by Commodity Market in 2008 (%)**



Source: Global Commodities Group

**Exhibit 5: Performance of Individual BCI<sup>SM</sup> Commodities**

Total Return (%) 2008

**Energy Markets**

Natural Gas	(1.7)
Gasoil	(8.4)
Heating Oil	(9.4)
WTI Crude Oil	(16.5)
Brent Crude	(16.8)
Gasoline	(25.4)

**Agriculture Markets**

Corn	0.5
Soybeans	(7.6)
Sugar	(9.4)
Live Cattle	(11.3)
Coffee	(16.9)
Wheat	(17.8)
Lean Hogs	(19.9)
Cotton	(21.1)

**Metals Markets**

Gold	1.4
Silver	(13.5)
Aluminum	(17.0)
Copper	(19.9)
Zinc	(32.8)

Source: Global Commodities Group

## BCI<sup>SM</sup> Performance

Only two markets made positive contributions to BCI<sup>SM</sup> performance in 2008: Natural Gas and Wheat (see Exhibit 4). The sector with the largest negative returns was energy, in reverse of last year's gains. Energy markets suffered major losses in 2008 as global demand faltered due to stalled economic growth in the second half of the year.

With the exception of Wheat, all components of the agriculture sector made a negative contribution to index returns. Agriculture prices were dragged lower in the second half of 2008 by weak demand and the stronger dollar.

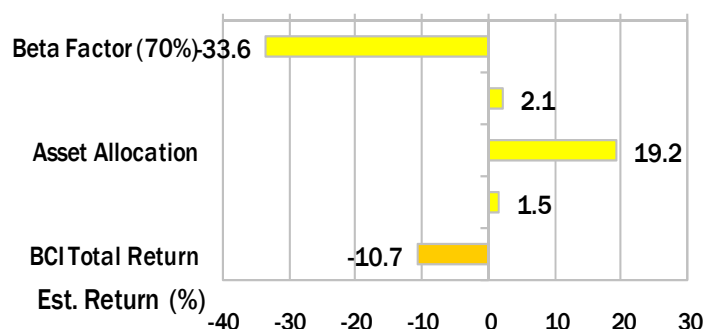
In the metals sector, all contributions were negative. Industrial metals prices were driven lower by the global economic slowdown, and precious metals were hit by the stronger dollar. However, by the end of the year, Gold had regained some of its appeal as a safe haven investment.

Corn and Gold had a negative contribution to the index despite a positive performance for the year (see Exhibit 5), because the allocation to these commodities was increased at the end of the first quarter when prices were high. The opposite is true for Natural Gas and Wheat. The index allocation to these commodities was reduced when prices were high, so their contribution to the index for the year was positive.

## Decomposition of BCI<sup>SM</sup> Returns 2008

The BCI<sup>SM</sup> is designed to capture more sources of investment return when investing in the index than are available with existing commodity indices. The contribution of these sources of return to overall performance is analyzed in Exhibit 6.

Exhibit 6: BCI<sup>SM</sup> Style Factor Decomposition 2008 (%)



\* Any discrepancies are due to small rounding errors.

Source: Global Commodities Group

<sup>1</sup>See disclosure on Page 12.

*The BCI<sup>SM</sup> earned higher risk-adjusted returns versus other benchmark commodity indices over 1-, 3-, 5-, and 10-year periods, as a result of its unique methodology.<sup>1</sup>*

Index performance in 2008 provided a clear demonstration of the significance of the multiple-source of return approach. The rough year in commodities was reflected by the return of the Beta factor, which fell -33.6%. This is the market factor that will be reflected in all commodity indices, and the primary reason why commodity indices ended 2008 with losses. However, in the BCI<sup>SM</sup> the Beta factor losses were offset by the 19.2% positive return in the Asset Allocation factor. The Daily Roll factor provided an additional 2.1% to the index return versus a passive roll strategy. The Treasury Bill collateral return added 1.5%.

## **Structured Risk Reduction**

The BCI<sup>SM</sup> employs a structured risk reduction methodology that dynamically reduces exposure to commodities when prices falter. Investments that are not allocated to commodities are allocated to a cash reserve. A fully invested index would have had a much larger loss because commodity prices struggled so much in the second half of 2008. When commodities perform significantly below their long-term trend as they did in 2008, the cash allocation feature of the index can result in stronger returns.

## **The BCI<sup>SM</sup> Methodology: A Case Study**

The year 2008 provided an opportunity for the BCI<sup>SM</sup> methodology to demonstrate the value of the structured risk reduction factor. After a significant rally in the first half of 2008, most commodity indices declined more than 50% during the period from July 1 to December 31. The decline over that 6-month period was all-encompassing across commodity sectors—all markets were under significant price pressure at the same time. Specific commodity allocation proved to be less of a differentiating factor among index performance because the index losses were so broad-based.

The 2008 decline was unusual in that all commodity sectors were under significant pressure at the same time. The BCI<sup>SM</sup> was able to avoid a 50+ percent decline by dynamically allocating a portion of the index out of commodity futures and into Treasury bills. The BCI<sup>SM</sup> energy sector declined 39.9%, which is 26.2% better than the DJAIG Energy index. The BCI<sup>SM</sup> industrial metals sector outperformed DJAIG by 25.5%, agriculture by 16.8% and precious metals by 2.9%.

The BCI<sup>SM</sup> outperformance was driven by the index's risk reduction methodology, which manages risk and volatility through a flexible allocation to Treasury bills. This feature allowed the BCI<sup>SM</sup> to outperform comparable indices and prevent a major loss for 2008.

<sup>1</sup>See disclosure on Page 12.

**Exhibit 7: BCI<sup>SM</sup> Performance  
Relative to DJAIG and SPGSCI\***

Return(%)	2008	3 Yrs	5 Yrs	10 Yrs
BCI <sup>SM</sup>	(10.7)	2.2	10.1	13.6
SPGSCI	(46.5)	(15.5)	(2.4)	7.4
DJAIG	(35.7)	(8.6)	0.2	7.6
StDev(%)	2008	3 Yrs	5 Yrs	10 Yrs
BCI <sup>SM</sup>	19.3	16.7	15.7	15.1
SPGSCI	40.1	30.3	28.0	25.3
DJAIG	28.7	23.0	19.9	17.5
Sharpe Ratio	2008	3 Yrs	5 Yrs	10 Yrs
BCI <sup>SM</sup>	(0.54)	0.00	0.50	0.71
SPGSCI	(1.35)	(0.51)	(0.05)	0.28
DJAIG	(1.40)	(0.43)	(0.04)	0.32

\*Total Return Indices  
High Return/Low Risk Highlighted

Source: Global Commodities Group, Bloomberg

*Commodity prices crashed en masse in the second half of 2008, as the global economy plunged into recession amid a housing market crash, financial sector collapse, and credit freeze.*

## Comparison with Commodity Benchmarks

The BCI<sup>SM</sup> return in 2008 far outpaced the S&P Goldman Sachs Commodity Index (SPGSCI) and the Dow Jones AIG Commodity Index (DJAIG). The differences were almost entirely due to the ability of the BCI<sup>SM</sup> to move investments into cash when prices are falling.

As shown in Exhibit 7, at left, the BCI<sup>SM</sup> return was higher for 1-, 3-, 5-, and 10-year horizons, compared to the SPGSCI and the DJAIG commodity indices. Over the past year, the BCI<sup>SM</sup> outperformed the DJAIG by 25% and the SPGSCI by 35.8%.

Although the BCI<sup>SM</sup> experienced above-average volatility in 2008, the increase was less pronounced than for other indices. The standard deviation of the BCI<sup>SM</sup> rose to 19.3% in 2008 as compared to its 10-year volatility of 15.1%. The other indices experienced much larger increases in volatility. The DJAIG standard deviation was 28.7% in 2008—an increase of more than 60% above the long-run volatility of 17.5%.

The lower volatility of the BCI<sup>SM</sup> resulted in a higher Sharpe ratio than both competitor benchmarks in 2008. The BCI<sup>SM</sup> has higher risk-adjusted returns than the SPGSCI and the DJAIG over 1-, 3-, 5-, and 10-year horizons. Over the past five years, the BCI<sup>SM</sup> has a positive Sharpe ratio while the other indices have negative risk-adjusted returns.

## Economic Environment for Commodities

Commodity prices hit their highs for the year in the summer months, and then crashed en masse in the second half of the year, as the global economy plunged into recession amid a housing market collapse and credit freeze. Commodity prices were hit broadly, bringing commodity allocation down from record highs to large negatives for the year, facing their biggest annual decline in 50 years.

**Energy:** The energy complex was particularly hard hit in 2008, with the macroeconomic freefall in the second half severing demand. Gas futures led losses, falling 59% by year end. Crude prices tumbled 54% in 2008, after hitting an all-time high of \$147.27 per barrel in July 2008. Crude closed the year at \$44.60 per barrel.

**Metals:** Metals markets were struck with similar losses. Copper futures declined 54% after reaching a record in May. Gold futures actually rose 5.5% for the year, attracting interest as a safe-haven investment amid the chaos of the financial market meltdown.

**Agriculture:** The agriculture sector was hit hard by the global recession in the second half of the year. Wheat prices were brought into negative territory after reaching record levels in the first half.

## **Global Economic Growth**

The year 2008 was plagued with what some called the worst financial crisis since the Great Depression. The worldwide economy collapsed in the second half of the year, taking with it some major financial institutions, the housing market, the U.S. automakers, and consumer spending. The U.S. government enacted a \$700-billion bail-out package, about half of which went to troubled banks. Despite the best efforts of central banks working in concert to provide liquidity to the financial system, credit froze globally and further strangled the international economy until it was officially declared a recession. In November, the International Monetary Fund (IMF) lowered its forecast for global growth by .75% to 2.2% for 2009, and expects it may have another downward revision.

The slowdown in the larger economies quickly spread to the emerging economies as demand for exports dried up and commodity prices fell. Even China, which became the world's third-largest economy in 2007, was not immune as its exports and economic growth faltered. Going forward, worldwide growth is expected to slow into 2009 accompanied by higher unemployment, less export demand, and uncertain inflation.

**United States:** The U.S. economy led the decline in 2008. Consumer confidence plummeted to the lowest in at least 41 years, according to the Conference Board, as the housing bubble finally popped, and jobs began to disappear from the economy. This is a huge impact as the U.S. consumer drives two-thirds of the U.S. economy. Economists surveyed by Bloomberg said the U.S. jobless rate could reach 8.2% at the end of 2009. Over the year, the FOMC lowered benchmark lending rates from 4.25% to a range of 0 to .25% in an attempt to revive the struggling economy. The Organisation for Economic Co-operation and Development (OECD) in November said it expects the U.S. economy to contract 0.9% in 2009.

In the fourth quarter in particular, the economic picture in the U.S. deteriorated. The U.S. Commerce Department said the economy slowed 0.5% in the third quarter, and economists surveyed by Bloomberg expect a 4.3% contraction for the fourth quarter. Housing values continue to plummet, according to industry sources. The National Association of Realtors reported in December that home resales fell in November and median home prices fell 13% from a year ago, which is reportedly the most since records began in 1968. Fourteen of the 20 cities in the S&P/Case-Shiller home-price index had record declines in October from a year earlier.

Amidst all of this, the Democratic party was brought back in to the White House with the election of Barack Obama, and both houses of Congress ended the 2008 elections with democratic majorities. The newly elected president has a series of economic stimulus

## Commodity News Highlights 2008

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*Crude Oil Futures Fall 54%*  
Crude oil futures fell 54% in 2008, the first annual decline since 2001. This was also the biggest drop since trading began in 1983. A global economic recession hit demand for oil in the second half of 2008.

*Gold Has 8th Annual Gain*  
Gold prices climbed 5.5% in 2008, the eighth straight annual gain. However, the annual increase was the smallest since 2004. The metal gained on safe haven demand in the face of a global recession and political turmoil in the Middle East.

*Copper Plunges 54% in 2008*  
Copper tumbled 54% in 2008, the most since at least 1987. Slowing growth in the U.S., the biggest copper consumer after China, hurt demand.

*Sugar Gains 9.1% in 2008*  
Sugar rose 9.1% in 2008, posting the first annual gain since 2005. Sugar fell 7.9% in 2007, and 20% in 2006. Expected increased demand from India boosted the price at the end of the year.

*Gas Drops 59% in 2008*  
Gasoline futures fell 59% in 2008, hitting a low of 78.5 cents per gallon on December 24.

Source: Bloomberg News

goals including creating jobs, commencing infrastructure projects, and providing tax relief.

**Europe:** Economic growth in the Euro area slowed in the second and third quarters of the year, compounded by the international financial market turmoil. The OECD is predicting that economic output will contract into the first half of 2009. Headline inflation has come down for the highs of the year, and the ECB lowered its key interest rates 1.5% in 2007, ending the year at 2.5%.

**Japan:** Growth in Japan also slowed in 2008, with the world's second-largest economy slipping into recession as it contracted in the second and third quarters. The Economist magazine predicts that the Japanese economy will slow 1.7% in 2009. Exports of goods and services contracted 2.6% in the second quarter of 2008, following an average rise of 2.9% in the previous three quarters. In the third quarter exports increased 0.8%, however they are not expected to contribute much to the economy in the near term. This could further hamper economic growth as Japan has come to rely more on exports to support its economy. There are also concerns that Japan may see a resurgence of deflation due to falling commodity prices and the country's current recession.

**China:** The global financial crisis also impacted the Chinese economy, which grew 6.8% in the fourth quarter of 2008, the slowest in seven years. As recessions drag down major economies around the world, demand for China's exports is consequently waning. Fitch Ratings is expecting the Chinese economy to grow 6% in 2009, with ensuing social unrest as the jobless rate increases. The firm said that exports may decline 6% in 2009 due to the global recession, compared to a 17.2% increase in 2008.

### Global Equity Markets

Stock markets around the world posted crisis-caliber losses for the year. U.S. stocks fell the most in 2008 since the Great Depression, with the S&P 500 decreasing 38.5% compared to 38.6% in 1937. The index reached an 11-year low on November 20. The Dow Jones Industrial Average plunged 34% to end the year at 8,776.39, registering the steepest drop since 1931. Volatility also soared along with the plummeting markets. The Chicago Board Options Exchange Volatility Index, which is a volatility gauge, rose 78% to 40. Around the world, stock markets registered similar results. The Nikkei ended its worst year ever, falling 42% in 2008. Brazil's Bovespa index also had a record decline this year, falling 41%, while the Russian RTS led losses in the 20 biggest stock markets with a loss of 72%. China's CSI 300 Index posted its first annual decline since inception, losing 66% this year. The MSCI Europe index also tumbled for the year, losing 45.5% in 2008.

*In 2008, stock markets around the world posted crisis-caliber losses for the year. U.S. stocks plummeted the most since the Great Depression.*

*Tumbling commodity prices and financial market turmoil conspired to cause dramatic currency moves in 2008.*

### **Currency Markets**

Tumbling commodity prices and financial market turmoil conspired to cause dramatic currency moves in 2008. Among the major currencies, the yen and dollar rose against the euro in 2008, while the dollar fell the most versus the yen in over 20 years. The dollar fell 19% to 90.86 versus the yen, and gained 4.5% to 1.3966 versus the euro. The euro posted its biggest annual gain versus the British pound since the European currency's inception in 1999. The euro gained 30% versus the pound in 2008, to close the year at 95.80. The yen rose against all major currencies as credit market issues encouraged investors to unwind the yen carry trade. In the developing world, the South African rand lost 28% versus the dollar, and the Mexican peso had its worst yearly decline versus the U.S. dollar since 1995, falling 20% in 2008. The Australian and New Zealand dollars had their worst decline versus the U.S. dollar on record, falling 19% and 24% respectively. These declines were due in part to falling commodity prices.

### **Global Forecasts for 2009**

According to OECD projections, the global economy is expected to struggle in 2009. The recession will be protracted due in part to its global scope. Unemployment is also expected to rise, and inflation may fall but in the shadow of possible deflation.

## A1. BCI<sup>SM</sup> Commodity Markets 2008

Commodity Market	Exchange	Sector	Sub-Sector
Corn	CBT	Agriculture	Grains
Soybeans	CBT	Agriculture	Grains
Wheat	CBT	Agriculture	Grains
Live Cattle	CME	Agriculture	Livestock
Lean Hogs	CME	Agriculture	Livestock
Coffee	ICE	Agriculture	Soft
Cotton	ICE	Agriculture	Soft
Sugar	ICE	Agriculture	Soft
Crude Oil WTI	NYMEX	Energy	Crude Oil
Crude Brent	ICE	Energy	Crude Oil
Heating Oil	NYMEX	Energy	Refined Petroleum
Unleaded Gas	NYMEX	Energy	Refined Petroleum
Gasoil	ICE	Energy	Refined Petroleum
Natural Gas	NYMEX	Energy	Natural Gas
Copper	LME	Metals	Industrial
Aluminum	LME	Metals	Industrial
Zinc	LME	Metals	Industrial
Gold	COMEX	Metals	Precious
Silver	COMEX	Metals	Precious

## Notes

- i. **BCI<sup>SM</sup> returns** quoted in this report are for the Total Return version of the index, which includes the return to a 3-month Treasury Bill yield in addition to the return attributable to changes in the underlying futures contracts.
- ii. **Standard deviation** is calculated as annualized standard deviation of monthly total returns.
- iii. **Beta Factor** is 70% of the return to the fully invested index (Excess Return).
- iv. **Asset Allocation Factor** is the return provided by the dynamic risk reduction methodology.
- v. **Daily Roll Factor** is the incremental return attributable to the use of the daily roll methodology versus rolling at the end of the roll period.
- vi. **Collateral** is based on the 3-month Treasury Bill yield.
- vii. **Fully Invested Index** is calculated using the same weights and roll schedule as the BCI<sup>SM</sup>, but assumes that rolls take place at the end of the BCI<sup>SM</sup> roll period (rather than the daily roll methodology actually employed by the BCI<sup>SM</sup>) and is also calculated without the dynamic risk reduction feature of the BCI<sup>SM</sup>. As such, the comparison index is always fully invested.

**A2. BCI<sup>SM</sup> Component Weights 2008 (%)**

<b>Sector</b>	<b>2008 Weight</b>	<b>2007 Weight</b>	<b>Change 2008</b>
Agriculture	27.5	27.5	-
Energy	50.0	50.0	-
Metals	22.5	22.5	-

<b>Sub-Sector</b>	<b>2008 Weight</b>	<b>2007 Weight</b>	<b>Change 2008</b>
Grains	15.0	15.0	-
Livestock	5.0	5.0	-
Softs	7.5	7.5	-
Crude Oil	25.0	25.0	-
Refined Petroleum	17.5	15.0	2.5
Natural Gas	7.5	10.0	-2.5
Industrial Metals	12.5	15.0	-2.5
Precious Metals	10.0	7.5	2.5

<b>Commodity</b>	<b>2008 Weight</b>	<b>2007 Weight</b>	<b>Change 2008</b>
Coffee	2.5	2.5	-
Corn	7.5	5.0	2.5
Cotton	2.5	2.5	-
Lean Hogs	2.5	2.5	-
Live Cattle	2.5	2.5	-
Soybeans	5.0	5.0	-
Sugar	2.5	2.5	-
Wheat	2.5	5.0	-2.5
Brent Crude	5.0	5.0	-
Gasoil	7.5	-	7.5
Gasoline	5.0	5.0	-
Heating Oil	5.0	10.0	-5.0
Natural Gas	7.5	10.0	-2.5
WTI Crude Oil	20.0	20.0	-
Aluminum	5.0	5.0	-
Copper	5.0	7.5	-2.5
Gold	7.5	5.0	2.5
Silver	2.5	2.5	-
Zinc	2.5	2.5	-

A3. Roll Schedule for Bache Commodity Index<sup>SM</sup> Components.

Roll Date: 5th Day of:		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Agriculture</b>													
Corn	CBT		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Soybeans	CBT		Mar	May	Jul	Jul	Jul	Jul		Nov			Jan
Wheat	CBT		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Lean Hogs	CME	Feb	Apr	Jun	Jun	Jun	Jun	Aug		Oct		Dec	
Live Cattle	CME	Feb	Apr	Jun	Jun	Jun	Jun	Aug		Oct		Dec	
Coffee	ICE		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Cotton	ICE		Mar	May	Jul	Jul	Jul	Jul				Dec	
Sugar	ICE		Mar	May	Jul	Jul	Jul	Jul		Oct			
<b>Energy</b>													
WTI Crude Oil	Nymex	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
Natural Gas	Nymex	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
Heating Oil	Nymex	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
Gasoline	Nymex	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
Brent Crude	ICE	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
Gasoil	ICE	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec
<b>Metals</b>													
Aluminum	LME		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Copper	LME		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Zinc	LME		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	
Gold	Comex	Feb	Apr	Jun	Jun	Jun	Jun	Aug		Oct		Dec	
Silver	Comex		Mar	May	Jul	Jul	Jul	Jul	Sep			Dec	

Notes:

Date is Last Roll Date for Contract nearest to expiration

For example, January 5th is the last roll date for the February WTI Crude Oil Contract

Bache Commodity Index. Total Returns (USD), January 1991 to Dec 2008

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Stdev
1991	-5.6	0.9	1.4	2.0	0.2	-2.0	2.7	2.0	0.8	2.4	-2.8	-3.4	-1.7	9.3
1992	0.9	-0.5	1.3	2.5	3.6	-0.3	1.2	-0.1	1.7	-1.6	-0.1	0.4	9.3	5.0
1993	-0.6	1.7	2.0	1.1	-1.9	-0.4	1.2	-0.4	-1.8	-2.3	-1.2	0.6	-2.0	5.1
1994	3.9	-1.6	0.1	3.8	6.0	3.4	2.8	-4.1	-0.2	0.1	-0.5	1.5	15.9	9.8
1995	-0.3	1.6	1.6	3.1	-1.1	-0.8	1.2	2.0	0.0	0.1	2.0	7.3	17.8	7.9
1996	-0.5	3.8	6.5	5.7	-1.0	2.3	-1.8	4.9	3.4	0.2	5.8	3.0	37.2	9.9
1997	0.1	0.1	1.7	2.2	1.5	-4.7	-3.9	0.9	1.4	1.3	-4.3	-2.5	-0.6	8.5
1998	0.5	-2.8	-0.1	-1.4	-2.2	-0.6	-3.9	-2.5	6.0	-4.4	-6.0	-0.6	-17.0	10.5
1999	-0.6	-2.1	12.7	4.7	-4.7	4.7	2.3	5.4	4.5	-3.4	3.5	2.3	32.1	16.3
2000	5.5	4.9	0.0	-0.4	8.5	4.4	-4.7	9.2	-0.1	-0.7	6.3	-0.1	37.1	14.9
2001	-2.9	0.1	-1.4	2.5	-2.2	-3.6	0.9	-0.2	-7.6	-1.8	-1.5	-1.2	-17.8	8.7
2002	-1.2	2.3	11.8	-0.4	-2.6	2.0	-0.1	3.4	3.4	-1.4	0.6	5.2	24.7	13.4
2003	8.2	6.2	-8.3	-1.8	4.5	-0.5	1.3	3.3	-2.0	2.1	0.1	5.5	18.9	15.5
2004	3.0	7.1	2.5	0.8	4.0	-3.5	4.2	-1.4	7.7	2.8	-1.3	-4.0	23.4	13.2
2005	2.4	4.5	6.0	-5.3	-1.4	1.5	4.5	10.2	2.8	-5.1	0.0	1.8	22.9	15.3
2006	3.5	-5.8	2.5	5.1	0.2	-0.6	2.0	-4.6	-3.9	0.8	3.6	-4.3	-2.5	12.8
2007	-0.2	3.3	2.1	1.2	-1.1	1.4	3.5	-3.1	6.7	5.8	-2.6	4.0	22.6	12.4
2008	1.5	9.8	-2.5	5.0	6.2	7.5	-9.1	-4.1	-5.1	-10.9	-4.3	-2.9	-10.7	19.3
Full Period	1.0	1.9	2.2	1.7	0.9	0.6	0.6	1.2	1.0	-0.9	-0.1	0.7	10.3	12.8

## Notes:

Returns Total returns include 90-day Treasury bill return, in percent

Annual Compounded annual return for all years except 2008; compounded year-to-date return for 2008

StDev Annualized standard deviation of monthly returns for all years except 2008; annualized standard deviation of daily returns for 2008.

Average in Month Average return during the calendar month. Not compounded. Includes returns through Dec 2008

Full period Compounded annualized return, annualized standard deviation of all monthly returns

Source: Global Commodities Group

## Disclosure

The returns presented in this document prior to February 1, 2007, were determined based on the pro forma calculations of the historical performance of the BCI<sup>SM</sup>. Because the BCI<sup>SM</sup> was not actually being calculated and published during these prior periods, and no actual trading was conducted in accordance with the BCI<sup>SM</sup>, these returns could be considered to be hypothetical performance results. Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any trading program or strategy will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved.

One of the limitations of hypothetical performance results is that they are necessarily prepared with the benefit of hindsight and, if the BCI<sup>SM</sup> were actually being calculated and published during these periods, it might have been based on different criteria and a different methodology. Moreover, the market conditions that existed during prior periods will most likely not be repeated and this difference could adversely affect performance. There are numerous factors related to the markets in general or the implementation of any investment strategy, which cannot be fully accounted for in the preparation of hypothetical results and all of which can adversely affect actual trading results, including but not limited to market liquidity, general levels of interest rates and the effect on the relevant markets of political, economic or other external events. In addition, hypothetical performance results do not involve financial risk, and no hypothetical performance results can completely account for the impact of financial risk in actual performance.

The hypothetical performance results shown were derived from a model based on an asset allocation strategy and daily roll strategy. The hypothetical performance reflects the historical contract daily return plus daily interest on the funds hypothetically committed to the investment. The hypothetical performance returns are estimates using current and historical futures price data as described. Historical results should not and cannot be viewed as an indicator of future results. For a more complete description of the BCI<sup>SM</sup>, reference is made to The Guide to the Bache Commodity Index<sup>SM</sup>.

The hypothetical performance results do not reflect any management fees, transaction costs or expenses which would reduce your actual return. Indexes are unmanaged and one cannot invest directly in an index. Past performance is no guarantee of future results.

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*Notes regarding the returns shown on the previous page:*

- 1) Returns reflected assume the 91 day Treasury bill rate earned on securities investments. While this rate will serve as the securities benchmark for program investors, it should be noted that the actual rate of return on securities portfolios may be above or below such rate.
- 2) The returns also reflect only the price performance of the BCI<sup>SM</sup>, not the performance of any actual account or group of accounts traded pursuant to the BCI<sup>SM</sup>. Accordingly, these returns are hypothetical in nature in that they were calculated without regard to the risks of loss ordinarily associated with actual trading.
- 3) The returns do not reflect the costs ordinarily associated with maintaining a BCI<sup>SM</sup>Total Return Strategy Program account. All program accounts will be subject to the fees and expenses described in PBAM's Form ADV.
- 4) No actual trading results are shown, because PBAM has been managing client money pursuant to the BCI<sup>SM</sup> Total Return Strategy Program for less than 3 months.

Past performance is not necessarily indicative of future results.