Beyond Warren Buffett

Opportunities in Second Generation Commodity Indexes

By Prof. David Costa[1]

There is nothing wrong with wanting to emulate the success of the world's richest man.[2] And with a record 21.1% annual growth and an impressive 400,863% overall gain for the period 1964-2007,[3] Berkshire Hathaway is by any measure an extraordinary successful holding.

During the 2008 Berkshire Hathaway Annual Shareholders meeting author Timothy Ferriss asked a question that many private investors probably have in mind:

> *If you were 30 years old and had no dependents but a full-time job that precluded full-time investing, how would you invest your first million dollars, assuming that you can cover 18 months of expenses with other savings? Thank you in advance for being as specific as possible with asset classes and allocation percentage.*[4]

To which the Oracle of Omaha answered:

> *I'd put it all in a low-cost index fund that tracks the S&P 500 and get back to work…Put it all in a low-cost index fund like a Vanguard 500.*[5]

This is not surprising. For several years Buffett's advice was in the same tone:

> *Most investors, both institutional and individual, will find that the best way to own common stocks is through an index fund that charges minimal fees. Those following this path are sure to beat the net results (after fees and expenses) delivered by the great majority of investment professionals.*[6]

Yet while the principle that most investors would probably achieve better returns through index investing is correct, the S&P 500 is not the best choice. Second generation commodity indexes[7], such as the UBS Bloomberg CMCI Index and the Lehman Brothers Commodity Index Pure Beta Total Return, outperformed[8] not only the S&P 500 but the great majority of stock-market indexes.

At the heart of success: Intrinsic Value

In order to understand Buffett's successful performance, it is certainly necessary to think in terms of Intrinsic Value. The work of the celebrated economist Benjamin Graham introduced the concept of investing in undervalued stocks, namely stocks with a price lower than their intrinsic value. Graham's model was based on the value of assets, especially cash.

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[1] Dean, Robert Kennedy College, Zürich, Switzerland
[2] Forbes 2008 Ranking available at http://www.forbes.com/2008/03/05/buffett-worlds-richest-cx_mm_0229buffetrichest.html. Accessed June 2008.
[3] Berkshire Hathaway 2007 Annual Report.
[4] Tim Ferriss Blog. Available at http://www.fourhourworkweek.com/blog/2008/06/11/061108-picking-warren-buffetts-brain-notes-from-a-novice/
[5] Ibid.
[6] Cunningham L.A. (2002). *The Essays of Warren Buffett.* Wiley & Sons, NJ.
[7] First generation indexes are subject to the roll losses that often occur in a contago market. Second generation indexes use a dynamic contract allocation methodology that, to mitigate losses, spread the investment over several future contracts.
[8] Period 31 July 1998 - 29 February 2008 data UBS Investment Bank

Buffett extended that approach and concentrated on "valuable franchises that were not recommended by the market."[9]

Easy to say but hard to do

Some rather dated academic evidence suggests that the average mutual funds under-perform the index by 5 basis points per year[10]. And more recent studies have maintained that stock-picking talent might indeed result in outperforming the S&P 500 Index 500 fund, albeit not to any great extent, specifically in the case of high-turnover funds.[11] However, the majority of professionally managed funds are not able to find undervalued companies and achieve the superior returns achieved by Buffett. The truth is that the principle of finding undervalued companies in order to achieve superior performance is easier said than done. Private and institutional investors alike often rely on the same sources (websites, available analyses) and thus make the same mistakes.

Picking the right stocks, then, is far from easy. The amount of research to be conducted on each share is extensive, and no matter how much information is gathered, a forecast might not result in an accurate prediction; as the old cliché goes, past performance is not necessarily a guide to future performance. The investment landscape has changed greatly over the last 40 years, and even Buffett would, these days, surely have great difficulty in achieving his record performance. Information on public companies is ubiquitous and finding hidden gems in this environment is all but simple.

Investors tend to overvalue their decisions,[12] and overconfident individuals tend, of course, to be very poor systematic value investors. In essence, the majority of private investors think that they can beat the Index and emulate the success of giant investors like Warren Buffett, whereas in practice this is an immensely sophisticated and tricky task.

Investing in Commodities

According to Jim Rogers,[13] for years commodities received little if no respect from investors. A possible reason for this could be traced to the fact that while stocks and bonds are purely financial assets and exist solely to generate a profit, commodities primarily exist to be consumed and not to be held as a financial asset class[14].

The reality is that in the past 43 years, commodities have performed as well as stocks but with a lower volatility,[15] and have largely outperformed bonds.

Furthermore, among several myths surrounding the world of commodity futures, there is the one that commodities are more complicated to handle than stocks. The opposite is true. Investing in commodities is mostly based on very simple supply and demand principles.

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[9] Bruner R. F. (1995). *Warren E. Buffett.* Darden Business Publishing, University of Virginia.
[10] Gruber, M. J. (1996). Another puzzle: The growth in actively managed mutual funds, *Journal of Finance* 51, 783–810.
[11] Wermers, R. (2000). Mutual Fund performance: An empirical decomposition into stock- picking talent, style, transaction costs, and expenses. *Journal of Finance*, 55(4), 1655-95.
[12] Baker, M. and Sesia A. Jr. (2007). Behavioral finance at JP Morgan. *Harvard Business School Review.* February.
[13] Rogers, J. (2004). *How Anyone Can Invest Profitably in the World's Best Market.* New York, Wiley.
[14] Dunsby A., Eckstein J., Gaspar J. and Mulholland S. (2008). *Commodity Investing.* New York, Wiley.
[15] Gorton, G. B. and Rouwenhorst, K. G. (2005). *Facts and Fantasies About Commodity Futures.* Yale ICF Working Paper No. 04-20.

If there is more demand than supply of a given commodity like Oil or Cocoa, their price will rise. If there is a record production of Cocoa or of Oil reserves the price will fall. There is no management to scrutinize, nor extensive competitive analysis to be conducted other than supply and demand fundamentals.

Buffett's approach can be applied to commodities, but the same caveats come into play. Trying to predict the future trend in a given commodity might be easier than predicting a stock price but it is always going to involve a certain amount of guesswork and will thus be far from an exact exercise. For this reason, possibly the best way to invest in commodities is not through leveraged futures, where your losses and gains are highly amplified, but through an exchange traded note based on a second-generation commodity index.

Why second generation indexes?

Traditional first-generation indexes, like the S&P GSCI and the Dow Jones AIG Commodity Index, can be profitable but using them might also be highly inefficient. When investing in commodities you are effectively investing in a future contract. The first-generation indexes usually hold the future contract relevant to the most liquid month and, to avoid physical delivery of the commodity, have to "roll" their contracts to the next available one before the contract expires.

An upward forward curve (contago) will result in rolling loss. This is particularly true in agricultural commodities where the forward price between contracts is typically higher.

As an example, let us say that the Corn future with delivery in December 2008 is traded at 790 cents/bushel. If you were rolling today to the March 2009 contract, you would need to sell the existing one at 790 and re-buy the next available one at, say, 806, hence incurring the typical situation of selling low and buying high with a rolling loss of 16 cents/bushel. Second-generation indexes spread the track across several contracts with different delivery months, hence reducing the rolling loss and optimizing the rolling yield.

By contrast when futures prices are lower than the currently traded contract the index would achieve a rolling yield, also defined as backwardation. This is typically the case of crude and other commodities that logically will not cost more in the future if still on the ground – by contrast agricultural commodities and livestocks have to factor the storage costs in the forward price.

To gain a better understanding of how second-generation indexes are effective in optimizing returns, we need to take a closer look at them:

Lehman Brothers Commodity Index (LBCI) Pure Beta Total Return

"The LBCI Pure Beta is a second-generation version of the LBCI and uses a contract allocation methodology that seeks to mitigate distortions in the commodity markets associated with investment flows and supply disruptions, among others."[16]

As can be seen from Figure A, the S&P 500 Total Return Index (with dividends re-invested) as recommended by Buffett would have returned a modest 7.5% annualized return over the last five years compared with a 34.2% for the LBCI Pure Beta.

[16] OPTA ETN Prospectus, available at www.optaetn.com. Accessed July 2008.

Figure A Comparative Annual Returns
Source: Lehman Brothers[17]

Annualized Returns	1 Year	3 Year	5 Year	Standard Deviation
Lehman Brothers Commodity Index Pure Beta Total Return	+ 70.8%	+ 29.9%	+34.2%	17.7%
Dow Jones AIG Commodity Index Total Return	+ 42.2%	+19.6%	+18.8%	14.8%
S&P 500 Index Total Return	-13.2%	+4.1%	+7.5%	10.1%

Even without the booming energy sector, the LBCI Pure Beta Agriculture Total Return Sub-Index returned a 23.6% annualized over five years.

If these results look like a lucky five-year period, the ten years of the UBS Bloomberg CMCI Index tells us something different:

> *The CMCI TR measures the collateralized returns from a basket of 28 commodity futures contracts representing the energy, precious metals, industrial metals, agricultural and livestock sectors. In addition, the commodity futures contracts are diversified across five constant maturities from three months up to three years.*[18]

In the simulated period between July 31 1998 and February 29 2008, the UBS Bloomberg CMCI would have returned 20.21% annualized, or 483.26% as a total return (Figure B).

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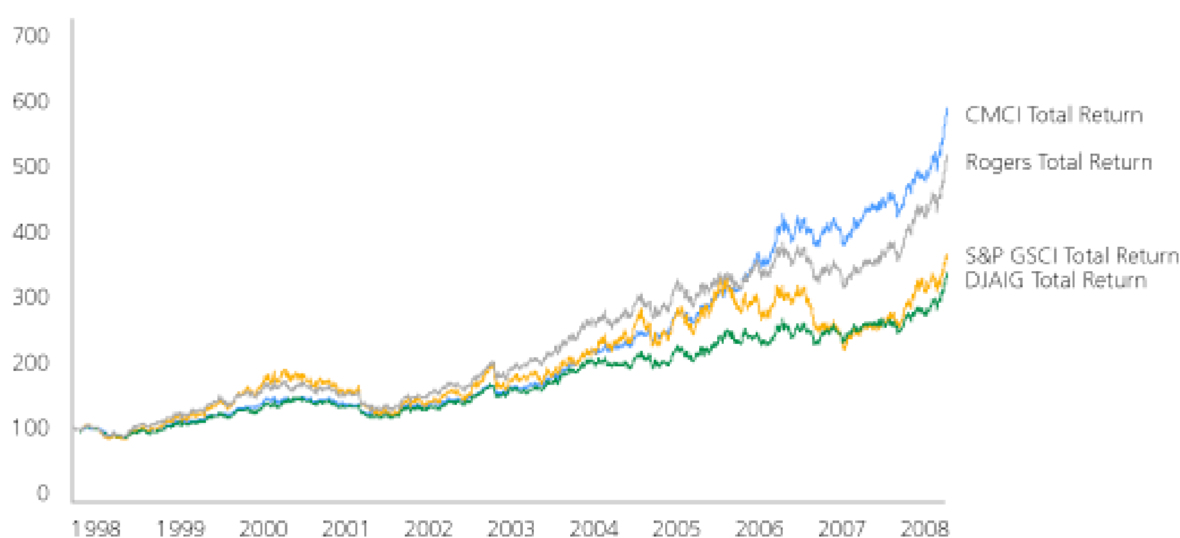
[17] OPTA ETN Prospectus Ibid.
[18] E-Tracs Prospectus available at http://keyinvest.ibb.ubs.com/e-tracs/CMCI.shtml. Accessed June 2008.

Figure B

Returns for the period from July 31, 1998 through February 29, 2008. Source: UBS Investment Bank, publicly available data.[19]

	Total Return	Annualized Return	Annual Volatility
CMCI Total Return	483.26%	20.21%	12.24%
S&PG GSCI Total Return	260.51%	14.32%	21.92%
DJAIG Total Return	232.43%	13.36%	14.87%
Rogers Total Return	411.03%	18.56%	16.58%



This is almost double the return of the first-generation S&P GSCI Index and still a few points ahead of the more diversified Rogers Total Return Index. If, as recommended by Buffett, we had invested in the Vanguard 500 Index Fund, our annualized return would have been a disappointing 3.43%. Even a very simple investment based on the UBS Bloomberg CMCI Gold Total Return Sub-Index would have warranted an annualized return of 12.94%[20] in the past ten years for a total of 244%, outperforming the spot price. This is not just much better than the S&P 500 Vanguard Index but probably much better than what most budding Warren-Buffett-Me-Too investors and fund managers would have achieved.

As in the example of Gold, these indexes will now even allow one, through a sub-index, to pick one's favorite commodities and invest more precisely in what one is interested in rather than in a wider basket as the index usually provides. That said, it should be added that the index can offer an excellent opportunity to diversify at a lower cost.

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[19] OPTA ETN Prospectus, E-Tracs Prospectus Ibid.

[20] E-Tracs UBS CMCI Gold (UBG) Prospectus Ibid.

How to invest

Even if actually much less famous than Exchanged Traded Funds (ETF), Exchange Traded Notes (ETN) are an excellent way to invest directly in a second-generation index at a reasonable cost. An ETN is essentially an unsecured, unsubordinated debt security traded daily on an exchange exactly like a share. It is an obligation of the issuer to pay the value of the underlying index minus expenses. As a debt security, it carries a risk (albeit minimal) of the default of the issuer. This risk does not exist on an ETF where one is effectively the owner of the underlying fund asset.

This type of instrument is relatively new in the USA but widely known in Switzerland where over 7,000 of these products are traded on the Scoach exchange (a partnership between the SWX Exchange and Deutsche Börse).

As per Figure C, trading these instruments is as easy as buying and selling a share, and for reasonable annual charges.

Figure C – ETN sampling

Source: UBS Investment Bank, Lehman Brothers

ETN	Ticker – Exchange	Annual Fees
Opta Lehman Brothers Commodity Index Total Return Pure Beta	RAW (Amex)	0.85%
Opta Lehman Brothers Commodity Index Total Return Agriculture Pure Beta	EOH (Amex)	0.85%
UBS E-TRACS CMCI Total Return	UCI (NYSE Arca)	0.65%
UBS E-TRACS CMCI Food Total Return	FUD (NYSE Arca)	0.65%
UBS E-TRACS CMCI Industrial Metals Total Return	UBM (NYSE Arca)	0.65%
UBS E-TRACS CMCI Gold	UBG (NYSE Arca)	0.30%

Even taking into account the very small risk factor, an ETN represents a cost-effective way of entering the commodity market.

A last word

Is this sustainable? Speculation plays a role in every liberal market but the high demand for both energy and agricultural commodities, especially in emerging countries, will be hard to address in the short term. On average a commodity bull market lasts for 17 years [21] hence it might not be late to invest now. Second-generation commodity indexes have largely outperformed the S&P 500 Index over the past five to ten years. With the availability of non-leveraged exchange-traded products like ETNs, any investor can achieve better returns without being Warren Buffett, or wasting time doing extensive research or, as recommended by Warren Buffett, living with the low returns as offered by the Vanguard S&P 500 Index Fund.

[21] Rogers, J. (2004). Ibid.