

Commodities



Francisco Blanch +44 20 7996 4144
Commodity Strategist
MLPF&S (UK)
francisco.blanch@baml.com

Gustavo Soares +1 646 855 4835
Commodity Strategist
MLPF&S
gustavo.soares@baml.com

A collage of images related to commodities. It includes a gold bar with "999.9 FINE GOLD 19154 88" inscribed on it, a pig, a cow, a corn cob, a person's face, and a gas stove with a frying pan on it.

Commodity alpha, beta and the investment super-cycle

Merrill Lynch does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 40-44.



- Why commodities? The case for a strategic allocation
 - Commodities have equity-like risk and return characteristics;
 - Commodities are one of the best hedges against inflation and loss of purchasing power, and;
 - Commodities can significantly reduce portfolio risk by generating diversification.
- Why now? A recovery geared towards commodity demand
 - The engineered cyclical recovery process in the global economy is setting the stage for higher commodity prices;
 - The commodity super-cycle is not over, it is just pausing, and;
 - Strong economic growth and a staggering demographic transition in EM will create strong upward pressures on global demand for commodities.
- How? Commodity alpha, beta & everything in between
 - As investors expand their focus into the asset class, understanding the trade-offs across investment products and new developments is key.
 - The separation between commodity beta and commodity alpha helps investors to focus on what is most important to them. The important thing for most investor is getting beta right.



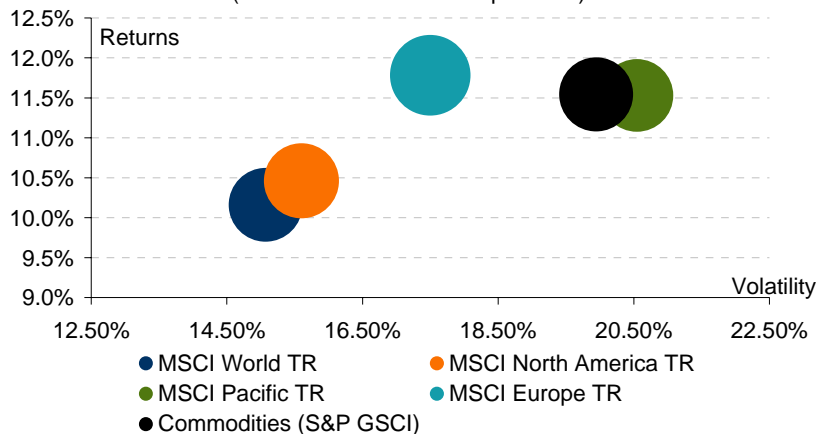
1. Why commodities?

Commodities have equity-like performance

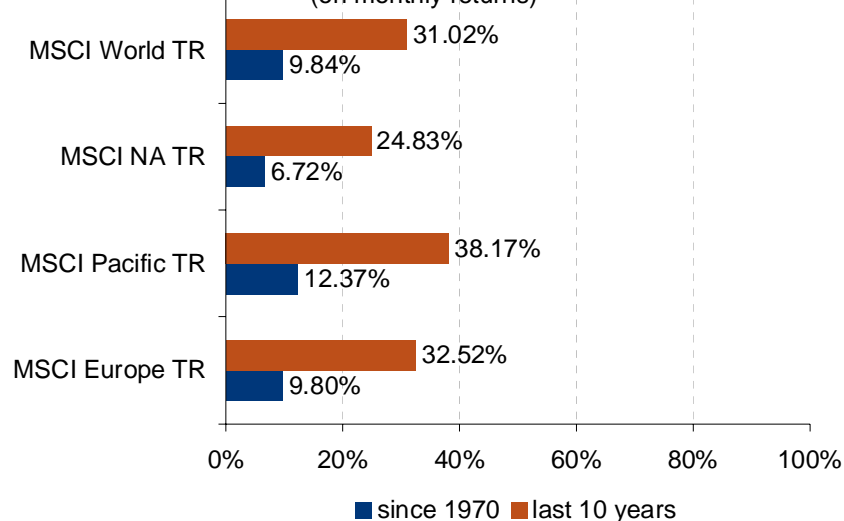
Commodities have shown a risk-return profile very similar to traditional equity investments

Commodities still bear very little correlation with equity investments in the long-run

Average monthly returns and vol since Jan-70
(Bubble sizes reflect Sharpe ratios)



Correlation between equity indices and commodities*
(on monthly returns)

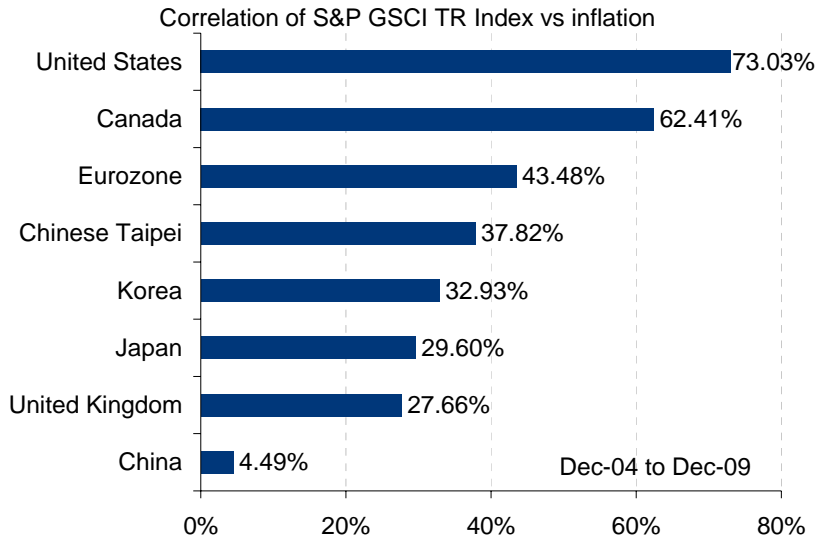


Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
* Commodities are here represented by the S&P GSCI TR index

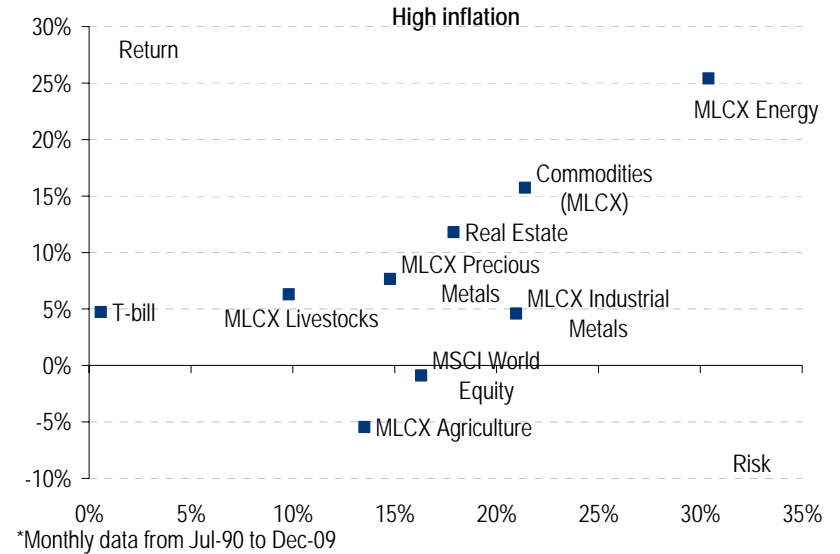
Commodities are closely linked to inflation

Commodities offer a great tool to minimize tracking error relative to inflation-linked liabilities



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Commodities have done particularly well during inflationary periods



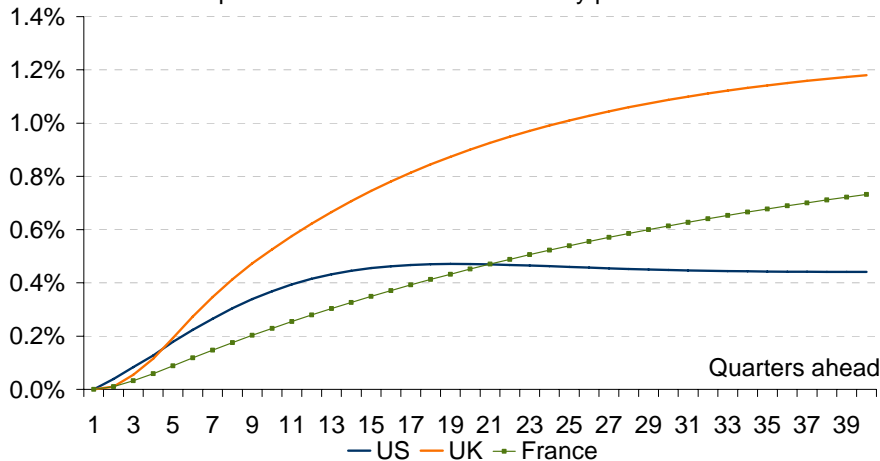
Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
Note: We take the top one-third months with the highest YoY inflation rates as "high inflation"

Commodities complement equity and debt markets from an ALM perspective

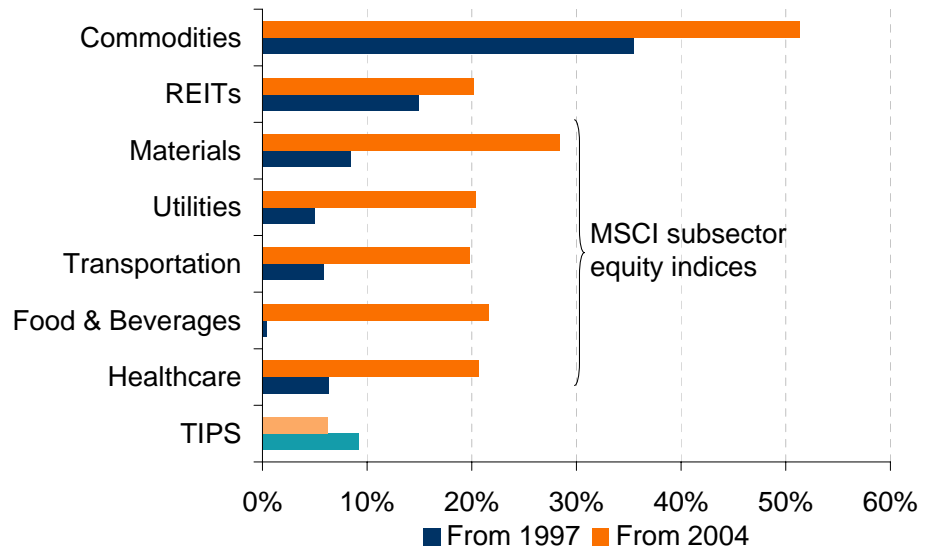
We find strong evidence of commodity prices having a persistent impact on inflation rates

IL bonds have a relatively high degree of tracking error to inflation on a mark-to-market basis

Cumulative response of YoY inflation rates to a 1% permanent increase in commodity prices



Correlation with monthly US CPI inflation rates

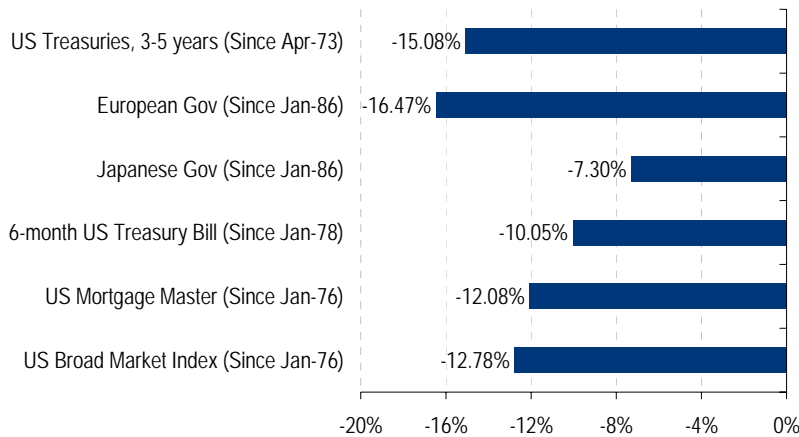


Commodities can improve the risk-return profile of a traditional portfolio

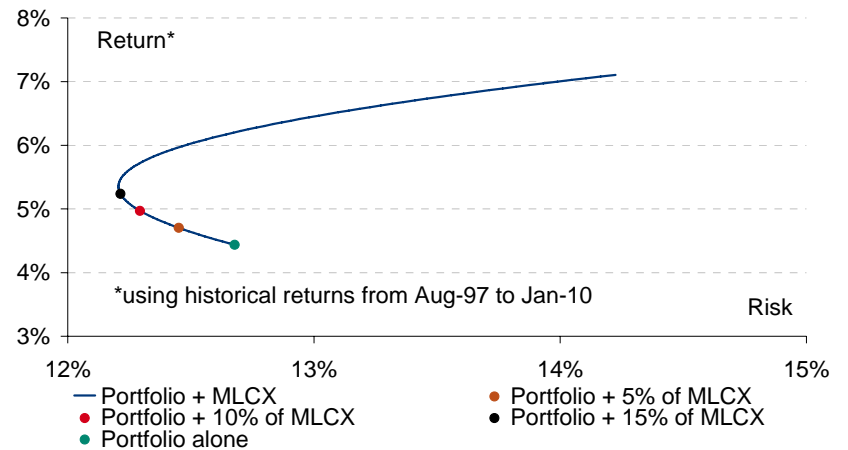
Because of a reverse relationship to inflation, commodities show a strong negative correlation with fixed income investments

Historically, investors would have improved the risk-return profile of their investments by adding commodities to their portfolio

Correlation on monthly returns with commodities*



Incorporating commodities into a diversified portfolio
Reference portfolio is 50% global equity, 20% fixed income, 10% real estate, 10% private equity, 10% cash



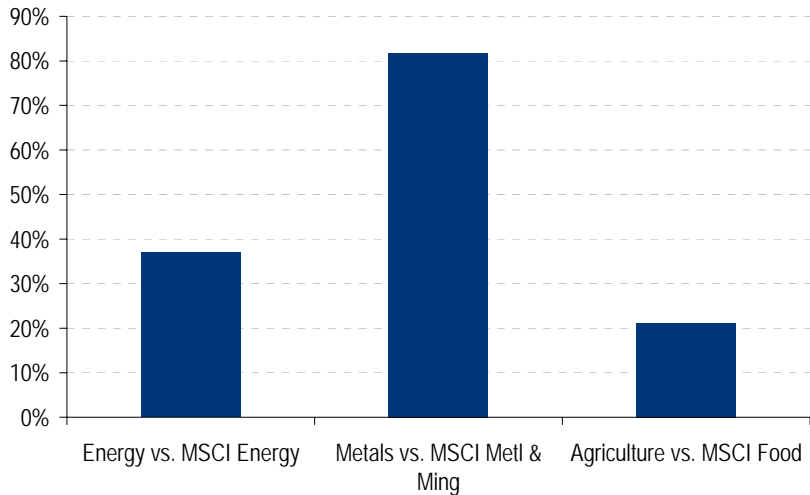
Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
* Commodities are here represented by the S&P GSCI TR index

Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Commodity-related equities do not offer the same exposure

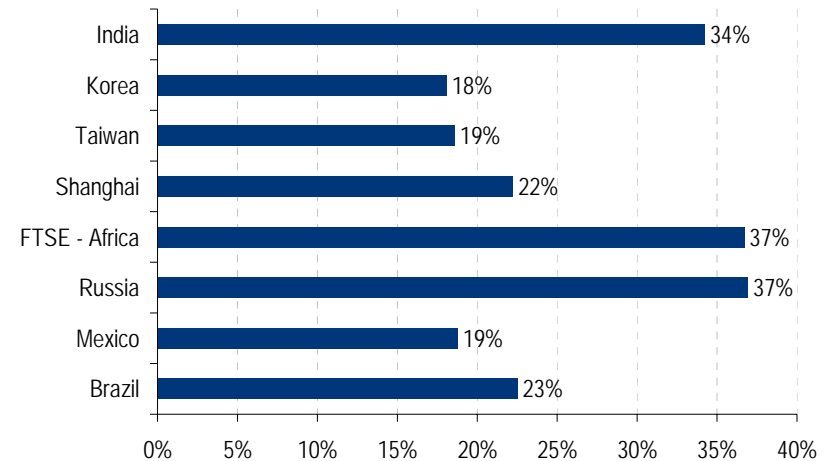
Commodity-related equities are often more exposed to the movements of the equity market than to commodity prices

MSCI sector index beta relative to commodity spot prices



While EM equities are correlated to commodities, they are far from a perfect instrument to access commodities

Correlations between commodities and EM stock market indices
From Jan-99 to present



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
* On weekly returns from Jul-00 to present.

Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
* On weekly returns from Jul-00 to present.



2.

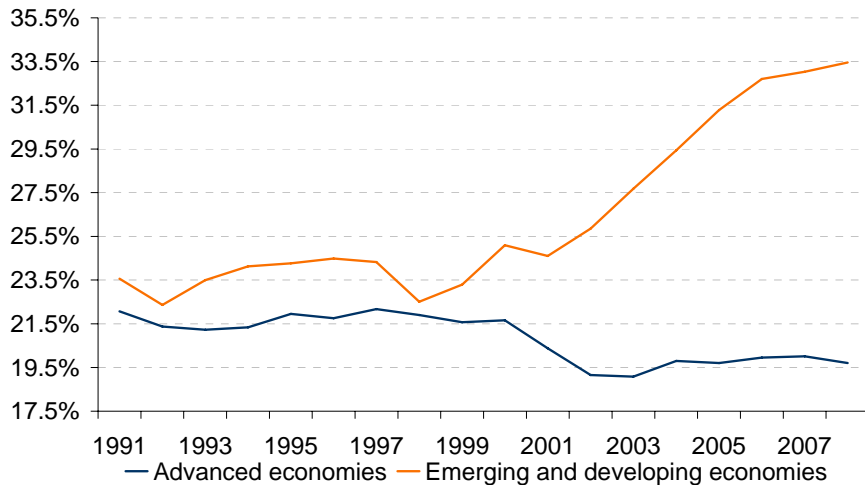
**Why now? A recovery geared
towards commodity demand**

EMs are in much better shape than advanced economies

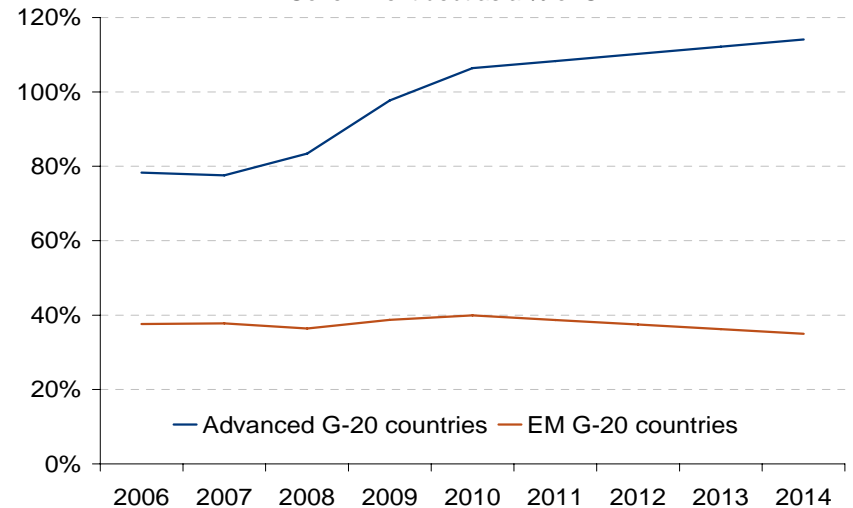
High savings rates in EMs should have enabled a high investment rate in the energy sector

Low levels of public debt in EMs as % of GDP will encourage increased leverage over the next decade

Gross national savings as percentage of GDP

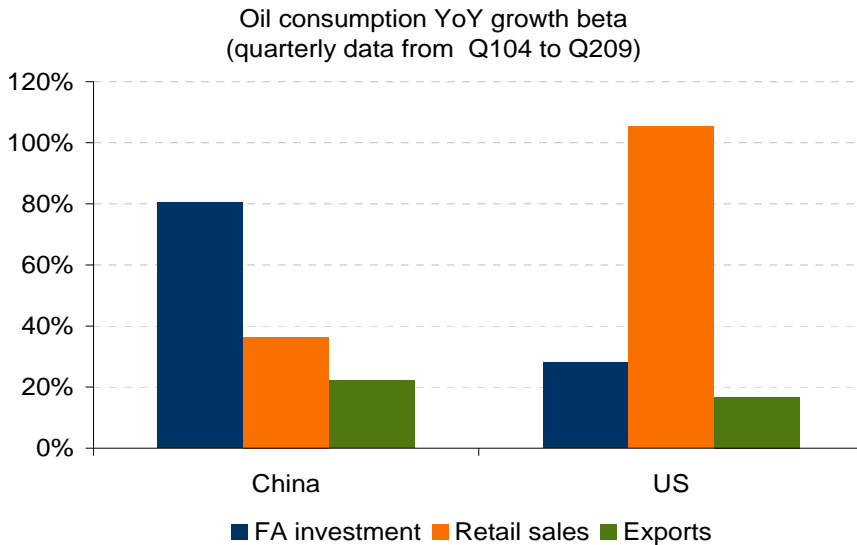


Government debt as a % of GDP



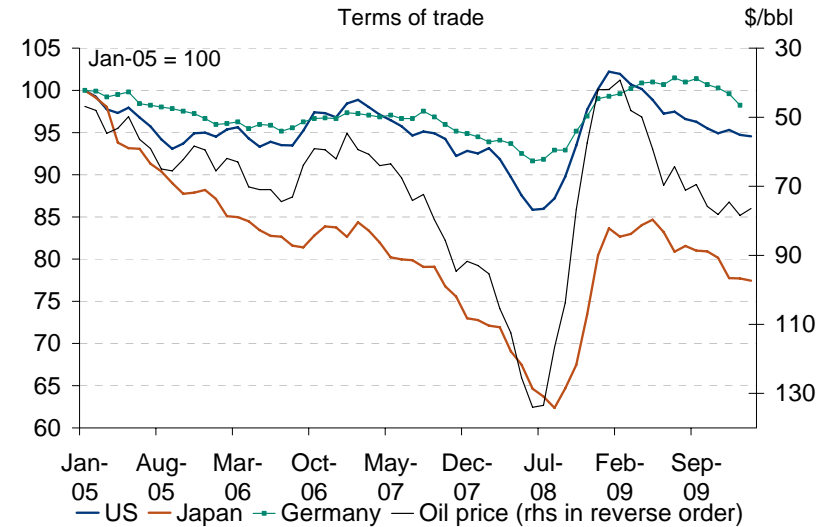
EM-led recovery means strong EM FX & domestic commodity demand

A growth model geared twds domestic demand in China could accelerate oil demand growth



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

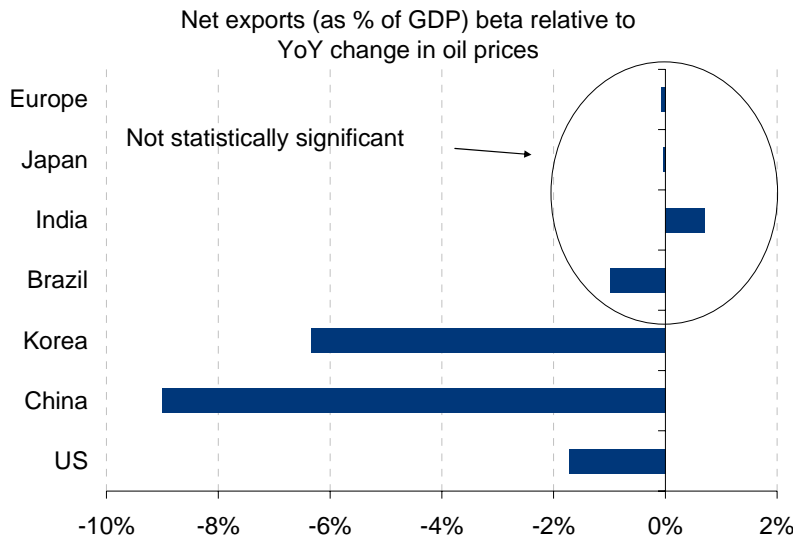
Oil prices are affected by individual currency movements, but they also feed back into exchange rates by changing the terms of trade



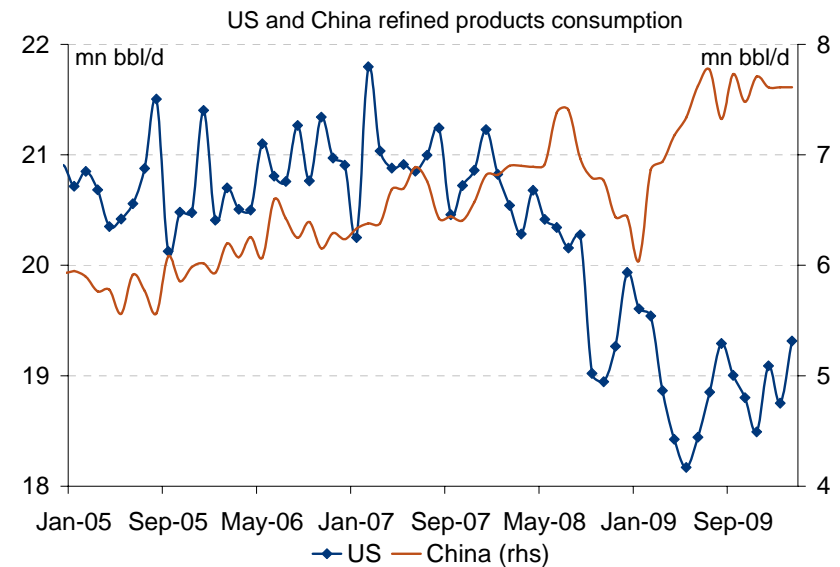
Source: EcoWin, BofA Merrill Lynch Global Commodity Research

Commodities are the new tug of war between China and the OECD economies

We find that both China and the US current accounts are vulnerable to higher oil prices



Chinese oil demand has accelerated compared to a significant reduction in the United States

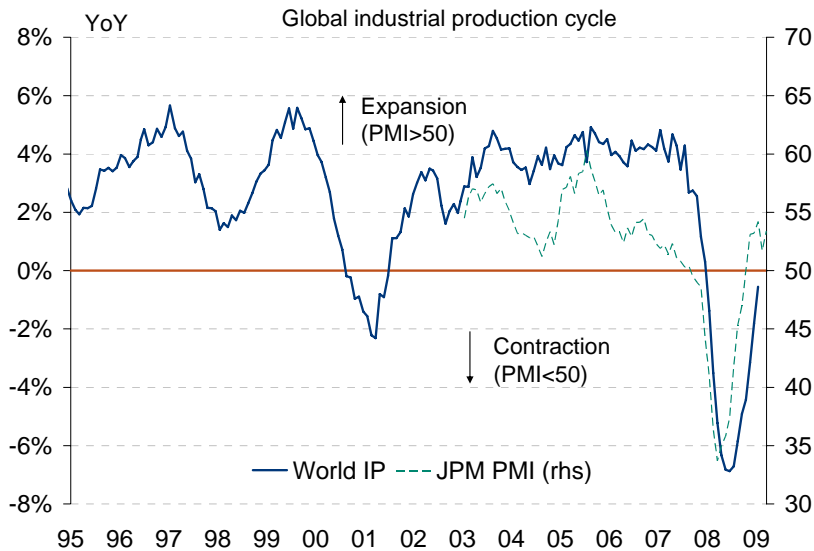


Source: Bloomberg, BofAML Global Commodity Research
 Note: based on a regression of YoY changes of net exports (as % of GDP) on YoY pct changes in oil prices and non-energy commodity prices using quarterly data from 1997 to 2009.

Source: Bloomberg, BofAML Global Commodity Research

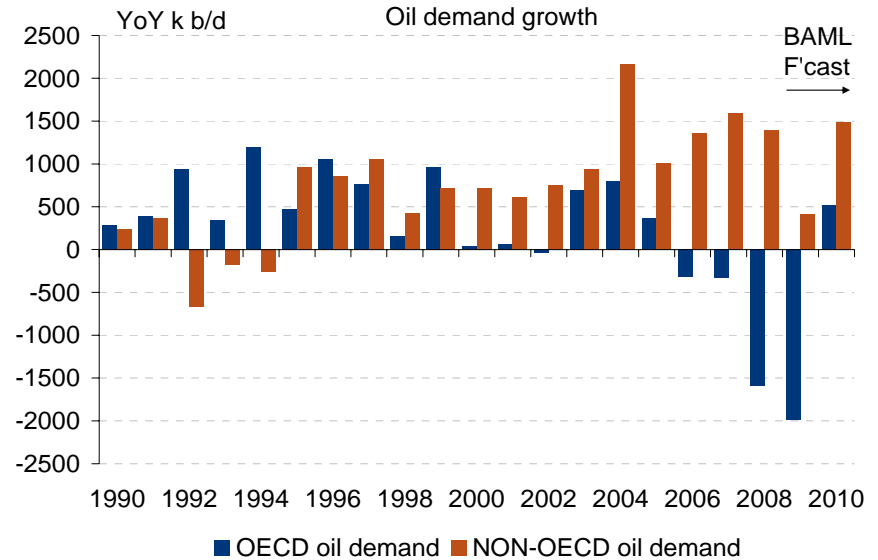
The recovery in oil demand will be driven by emerging markets

The global economy is bouncing back after the sharpest recession in the post WW II period



Source: IMF, IEA, BofAML Global Commodity Research

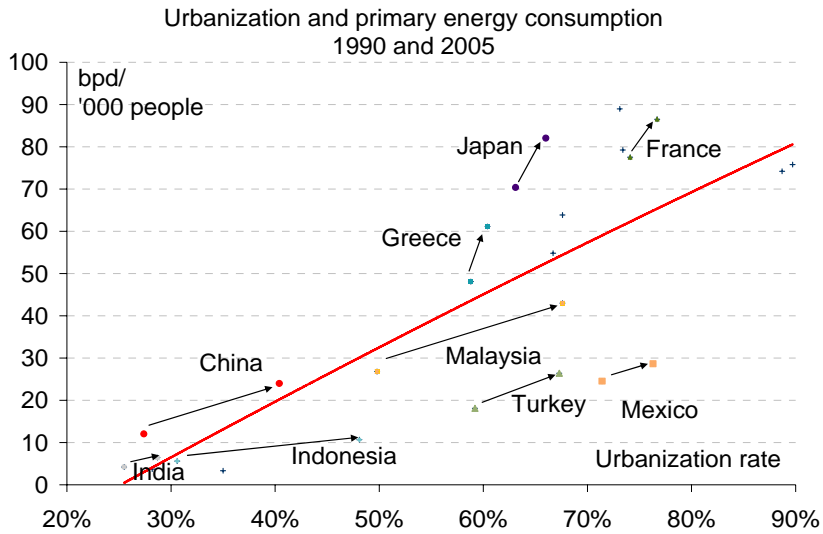
The recovery in oil demand is driven by Asia, the Middle East and Latin America



Source: IEA, BofAML Global Commodity Research

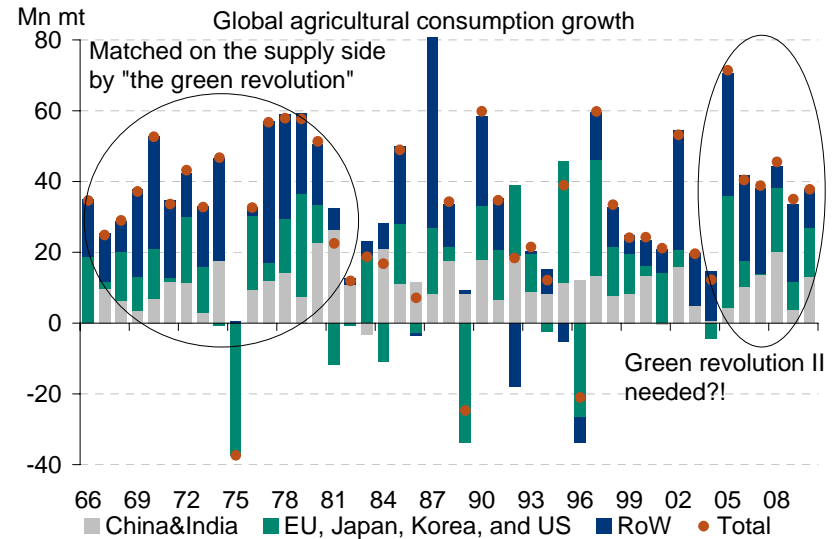
Urbanization is a very commodity-intensive endeavour

Increased urbanization rates in emerging economies will push up energy consumption



Source: BofA Merrill Lynch Global Commodity Research

If global grain consumption continues along the growth path of recent years, supply will struggle to follow

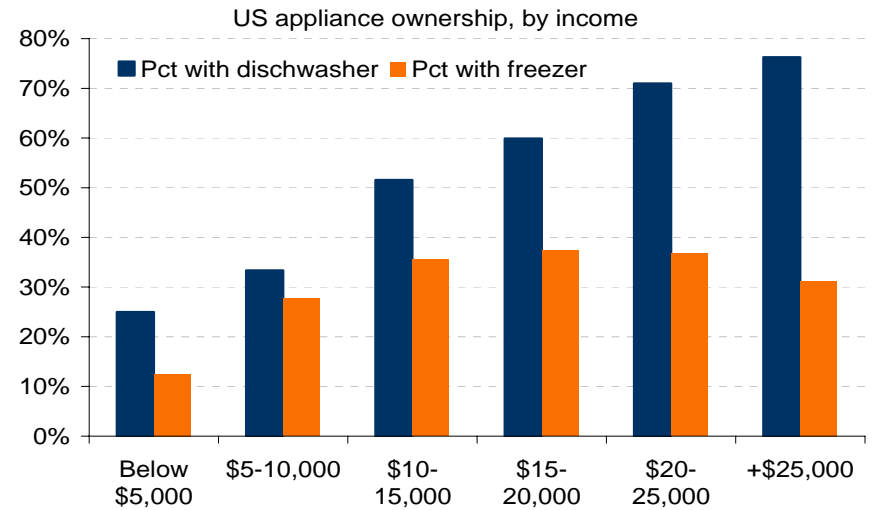
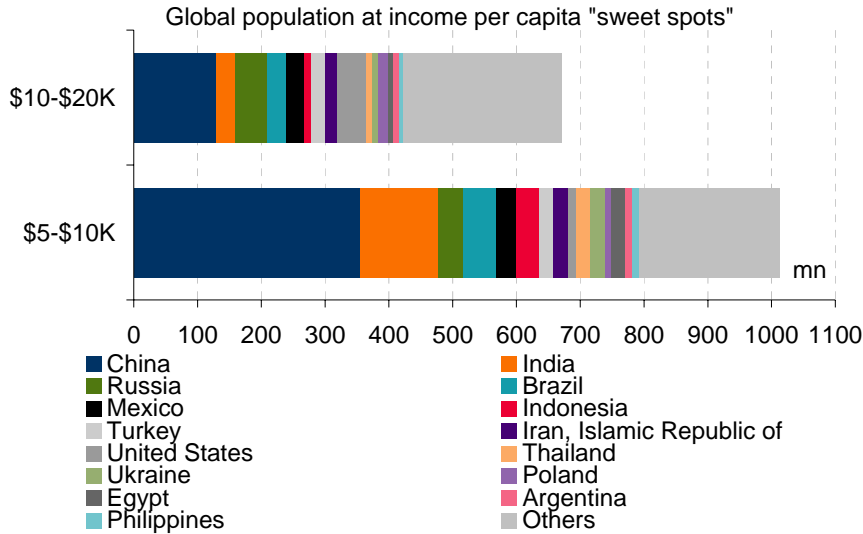


Source: USDA, BofA Merrill Lynch Global Commodity Research

1.7 billion unlevered consumers have GDP per head of \$5-20k

On our estimates, there are about 1.7 billion consumers sitting on an annual GDP per head of \$5,000 to \$20,000

The \$5 to \$20,000 bracket of income is a sweet spot for the consumption of durable goods and a sweet spot for leverage too

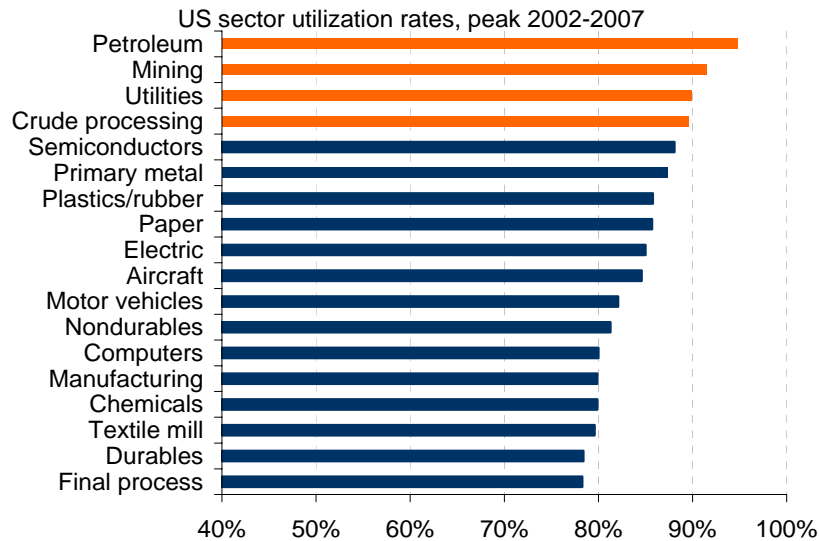


Source: World Bank, IMF, UN, BofAML Global Commodity Research

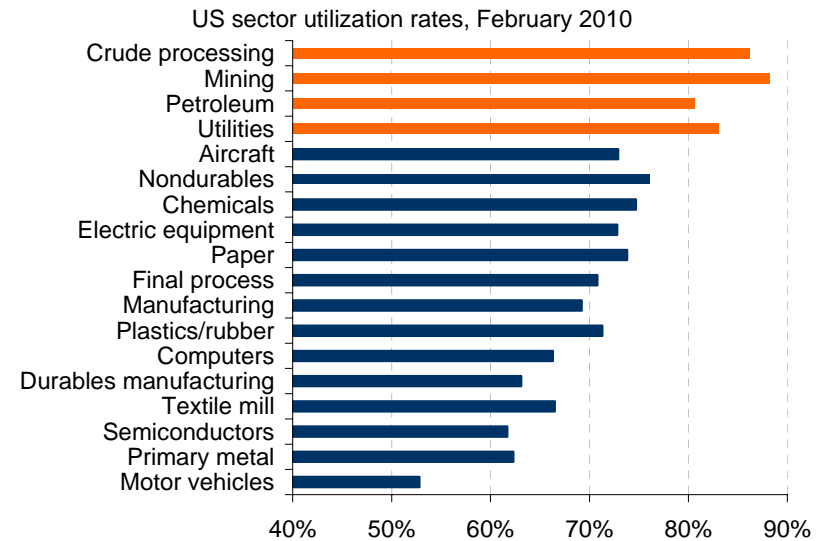
Source: EIA, BofAML Global Commodity Research

The recession created spare productive capacity, but not so much for commodities

At the peak of the last business cycle most economic sectors saw capacity utilization rates above 80%



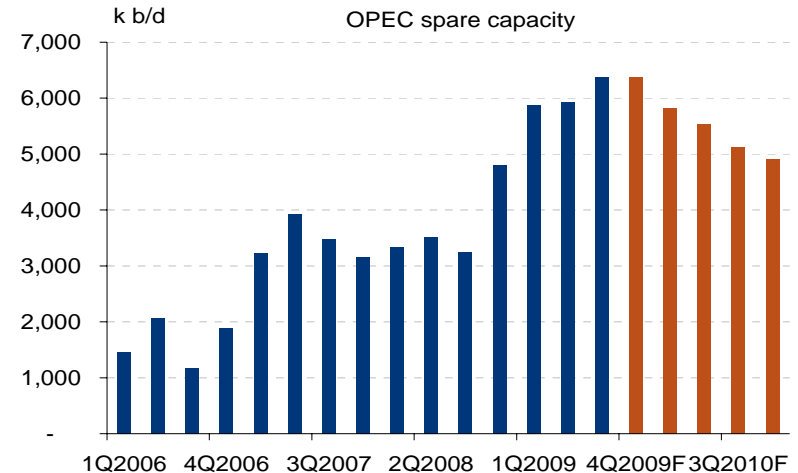
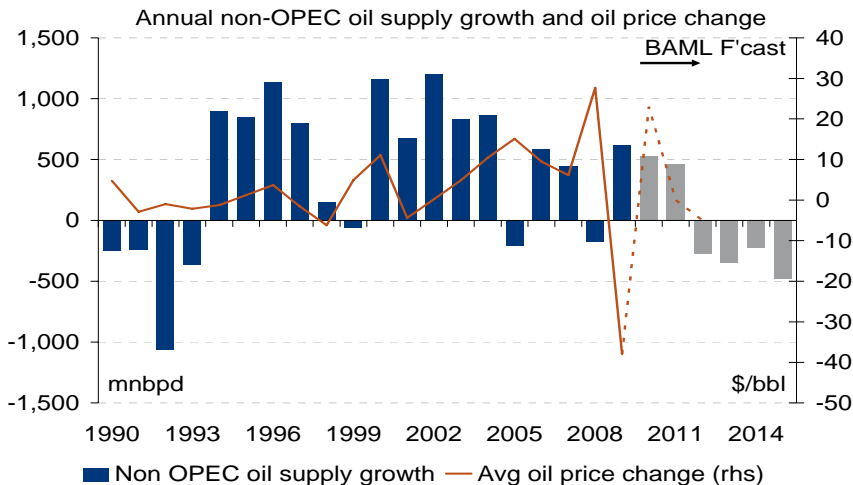
Productive capacity has increased above previous business cycle downturns in a number of economic sectors in the US



Supply constraints could return in 2010, prompting OPEC to raise oil production

Non-OPEC oil supply growth will likely fall far short of demand growth expectations over the coming five years

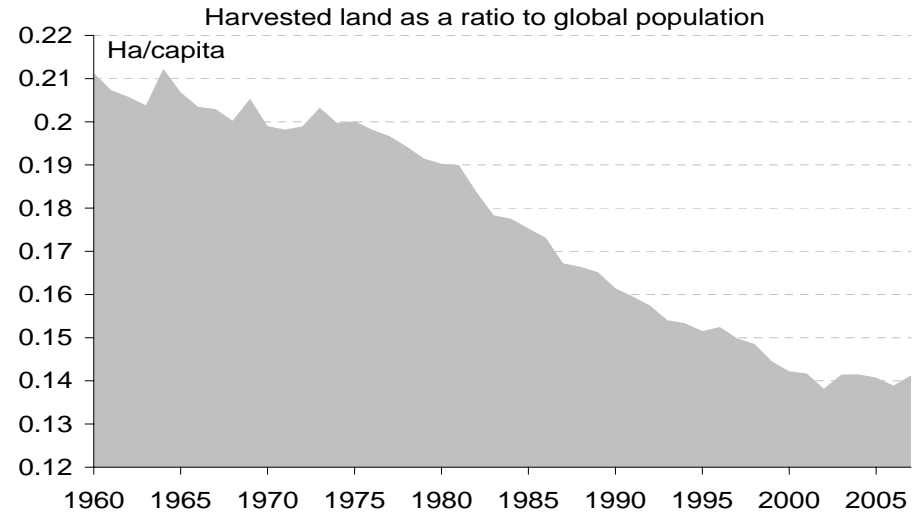
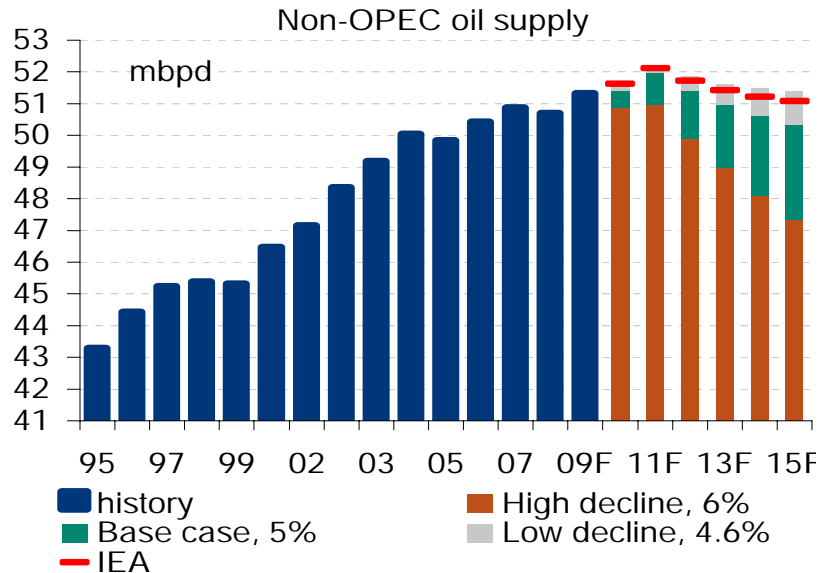
OPEC crude oil supply has to increase to fill the gap, eating into spare capacity



**Demand should continue to outpace supply.
Marginal costs tend to rise with higher output**

Many producers commonly experience zero (or negative) output growth in old projects

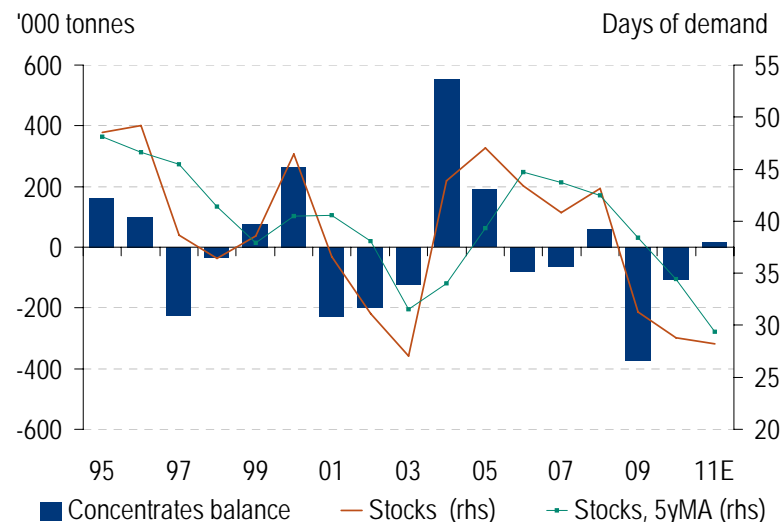
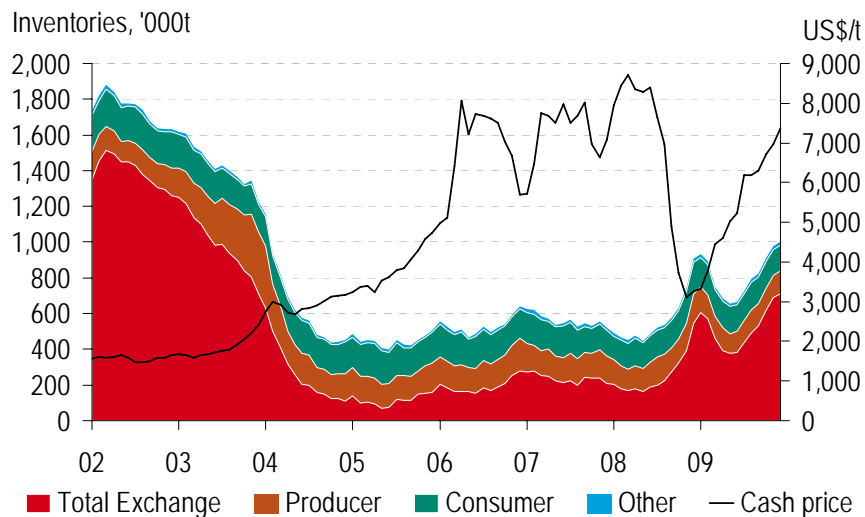
Relative to 1970, we are today using 26% more farmland to feed 80% more people



Copper: Fundamentals remain structurally strong

We see 3-month copper prices averaging \$7,125/t (\$3.23/lb) in 2010

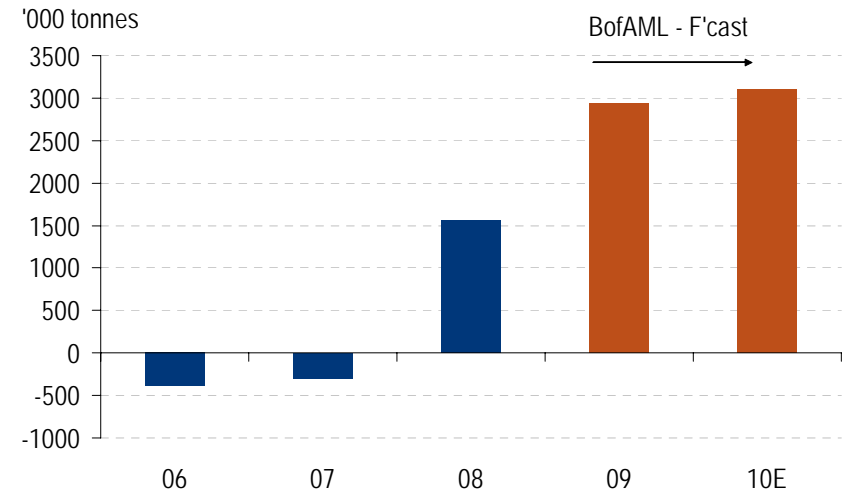
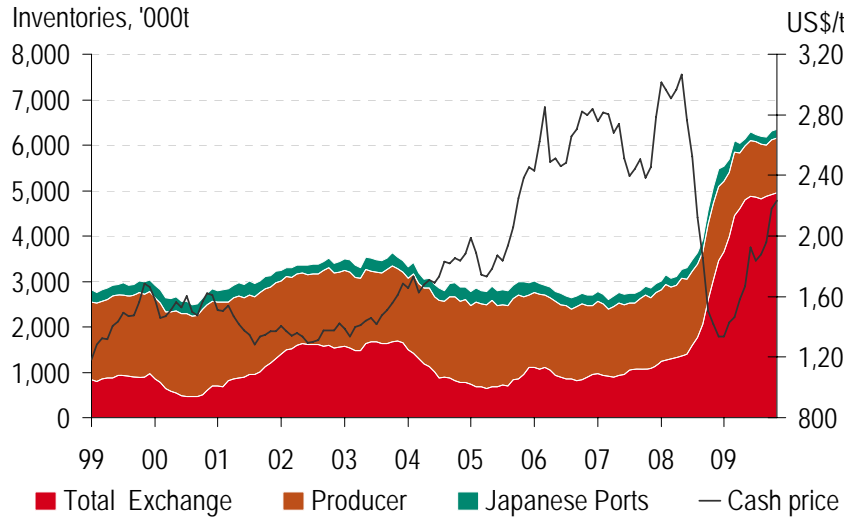
The copper concentrates market remains tight



Aluminium: Can't escape the weak fundamentals

We expect 3-month aluminium prices to average \$2,025/t (0.92c/lb) in 2010

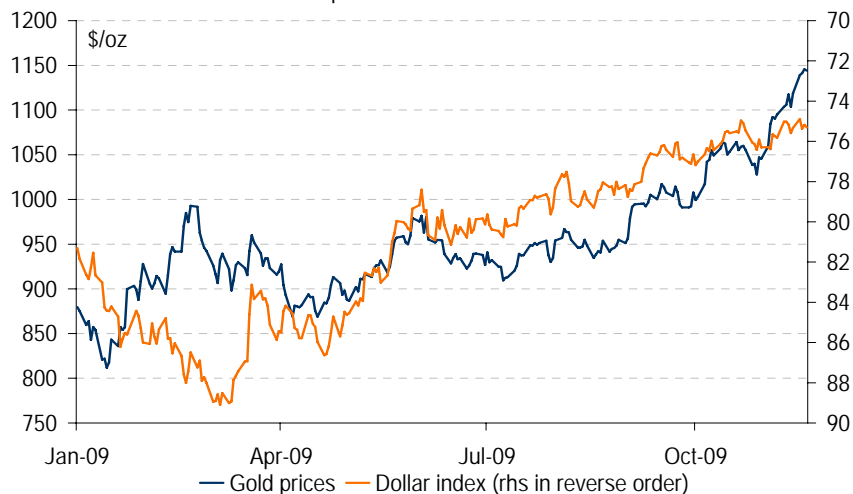
The aluminium market will likely remain in a massive surplus this year and next



We see gold surging to \$1500/oz in three stages:
credit risk, USD weakness, commodity strength

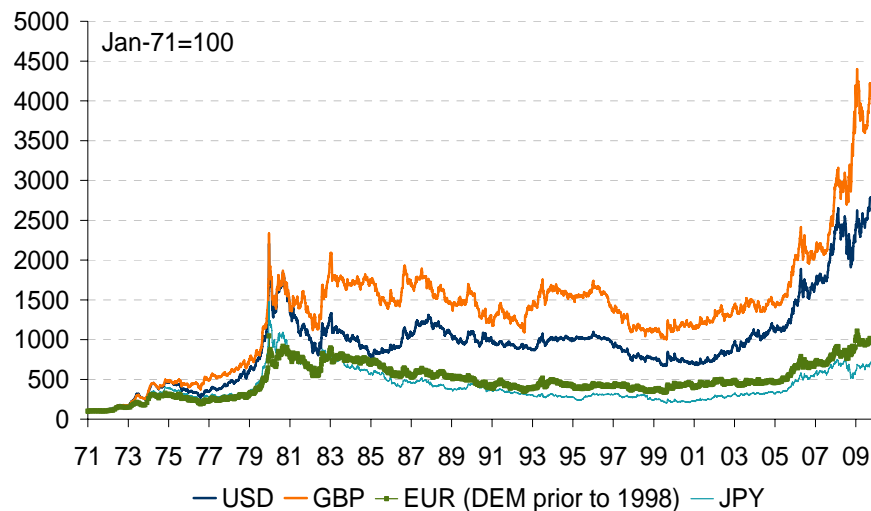
Gold prices have rallied with the depreciation of the USD since April

Gold prices and the Dollar index



Gold is now breaking free from a weak dollar and appreciating in all currencies

Gold prices in different currencies indexed

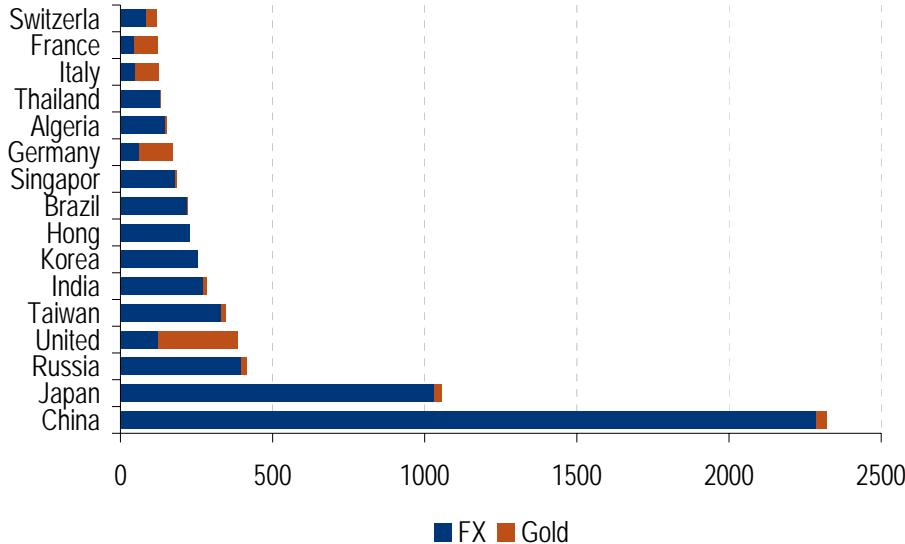


Emerging Market capital inflows are bullish for gold

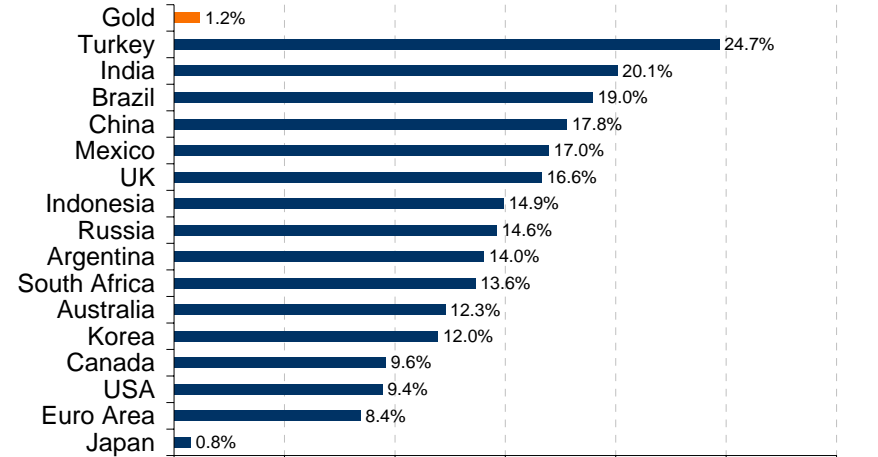
Top reserve holders need to increase their exposure to gold

Money supply is increasing a lot faster than gold

Gold and FX reserves of top reserve holders
(billions of USD in 3Q09)



2008 growth in broad money in local currency and growth in gold above ground stocks*



Source: World Gold Council, BofAML Global Commodity Research

Source: IMF, World Gold Council, BofAML Global Commodity Research

*Note: gold above ground stocks in the form of private investment and official holdings



- The commodity super-cycle is not over, it is just pausing.
- While gold led other commodity prices higher in 2009, a strong cyclical upswing will likely provide support to commodities across the board.
- Our economics team expects the world economy to grow by 4.4% in 2010 and 4.5% in 2011.
- On the back of this view, we see a significant increase in the demand for energy and industrial commodities around the world.
- In our view, WTI and Brent oil prices will average \$85/bbl, above the forward curve, and we believe that prices could spike above \$100/bbl as we approach 2011.
- We do not expect the weakness in US natural gas prices to dissipate any time soon and we remain concerned on continued negative roll returns.
- We forecast a tighter copper balance, with prices averaging \$7125/t in 2010 and \$8000/t in 2011, but foresee an uneventful year for aluminium in 2010, with prices averaging \$2025/t.
- Gold should surge to \$1500/oz by the end of 2011 in three differentiated stages including credit risk, USD weakness and commodity strength. We are currently transitioning from phase 2 to phase 3.



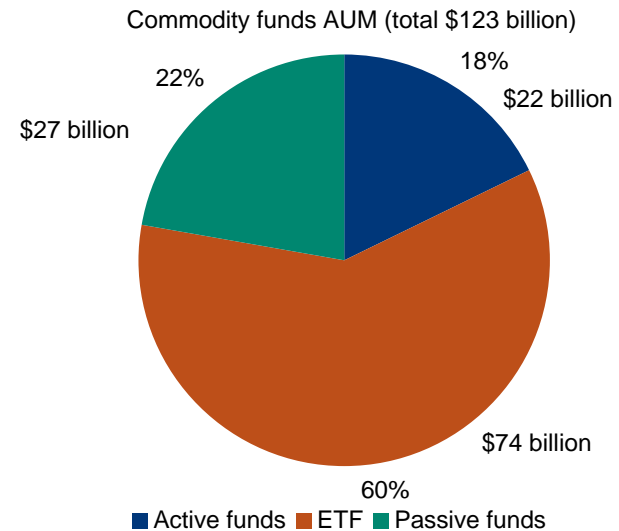
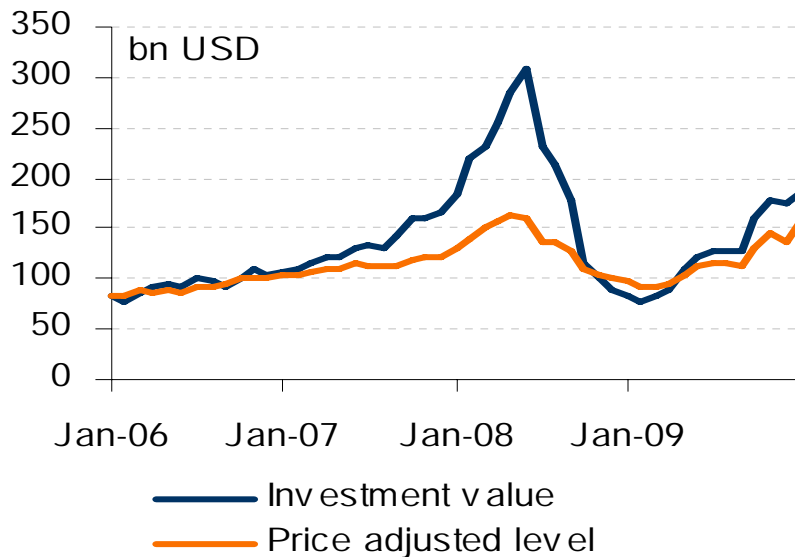
3. How? Vehicles for commodity exposure

How? Vehicles for commodity exposure

Investors have been steadily increasing their exposure to commodities

Exchange-traded funds and index-linked funds represent a large share of the assets tracking commodity indices

Investment value*, price adjusted

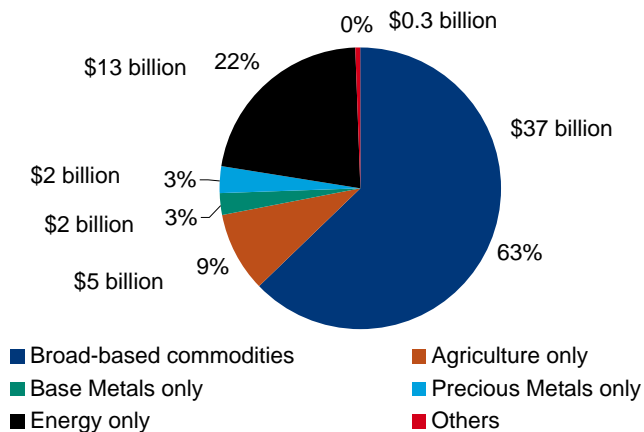


What are investors doing?

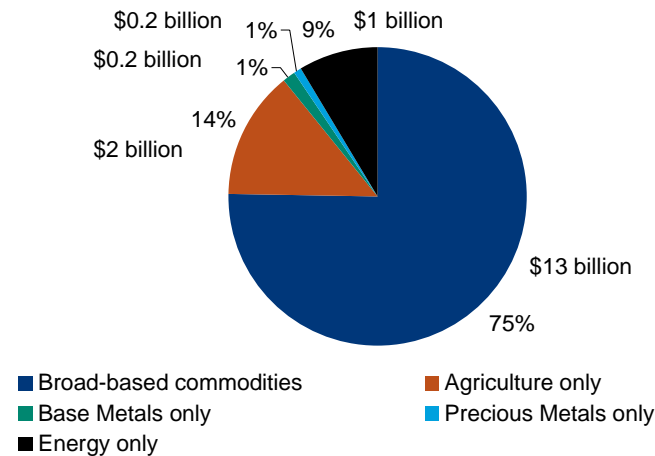
Broad-based commodity investment has the largest share of the exposure among passive vehicles

Among active vehicles, the bulk of the exposure is also found in broad-based commodity vehicles

Passive vehicles self-declared investment sector, excluding physically backed precious metals funds (total \$58 billion)



Active vehicles self-declared investment sector, when stated (total \$17 billion)



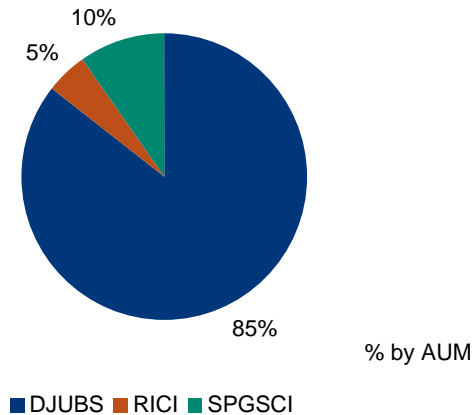
Source: Commercial hedge fund databases, Bloomberg, BofA Merrill Lynch Global Commodity Research

Source: Commercial hedge fund databases, Bloomberg, BofA Merrill Lynch Global Commodity Research

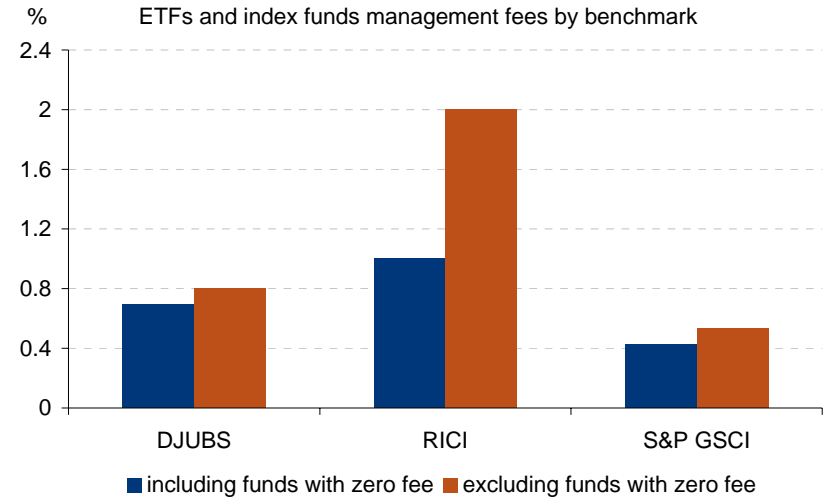
Commodity index funds are mostly linked to the DJ-UBS TR index

The largest funds by AUM are funds tracking the DJ-UBS index

AUM with a declared benchmark often used the DJ-UBS family (ETFs and mutual funds)



Index funds tend to charge relatively low fees

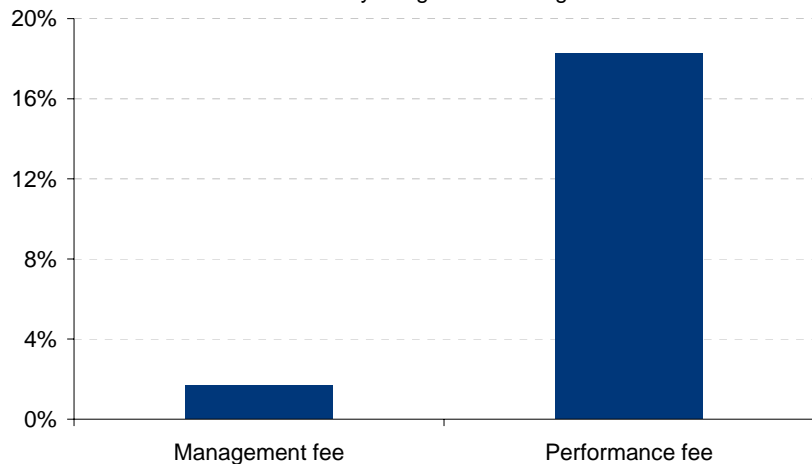


Commodity hedge funds come in different shapes, even blending various asset classes

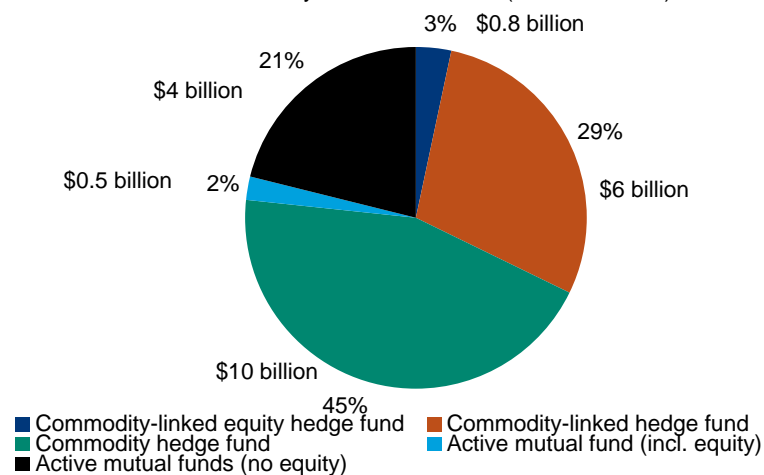
Many commodity hedge funds charge not only management fees but also performance fees

Because of the complexity of their exposure, commodity hedge funds come in very different styles

Commodity hedge fund average fee



Commodity active funds AUM (total \$22 billion)



Source: Commercial hedge fund databases, BofA Merrill Lynch Global Commodity Research

Source: Commercial hedge fund databases, Bloomberg, BofA Merrill Lynch Global Commodity Research



4. Enhanced beta & alpha



Spot, roll and T-bill returns are uncorrelated to each other

Performance can be very different depending on the vehicle chosen for beta exposure

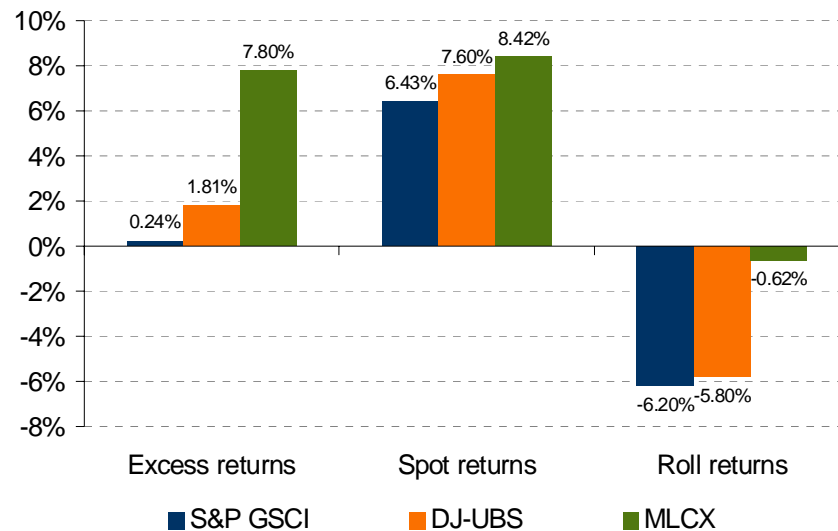
About 2/3 of the price appreciation seen in traditional commodity benchmarks has been eroded by negative roll returns

Performance since launch



Source: Bloomberg, BofAML Commodity Research

Average yearly returns over the last 15 years

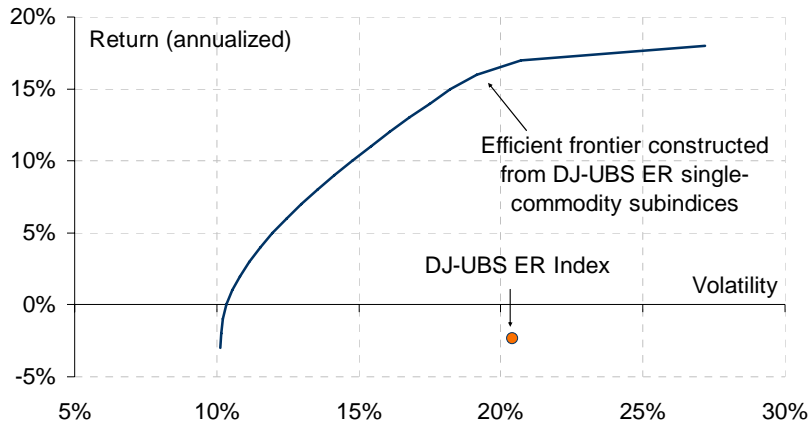


Source: Bloomberg, BofAML Commodity Research

Getting beta right

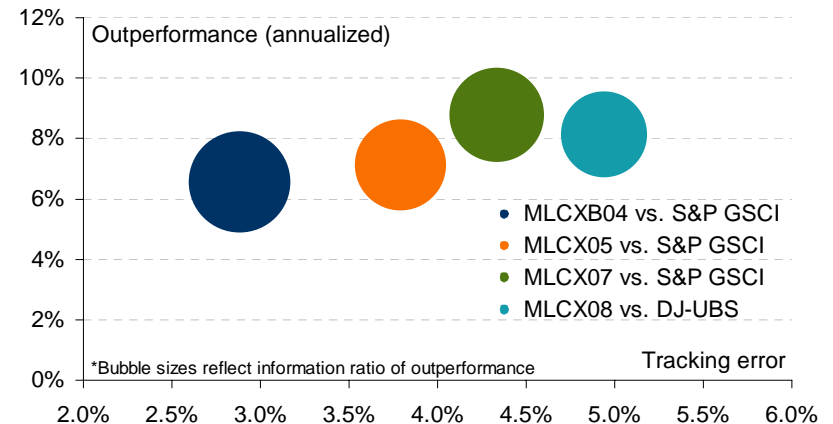
Enhanced beta strategies have performed substantially better than traditional indices during the last five years

Risk-return over the period from Jan 2005 to present



Enhanced beta strategies have performed substantially better than their benchmarks with very little tracking error

Enhanced beta vs. traditional benchmarks since Jan-05

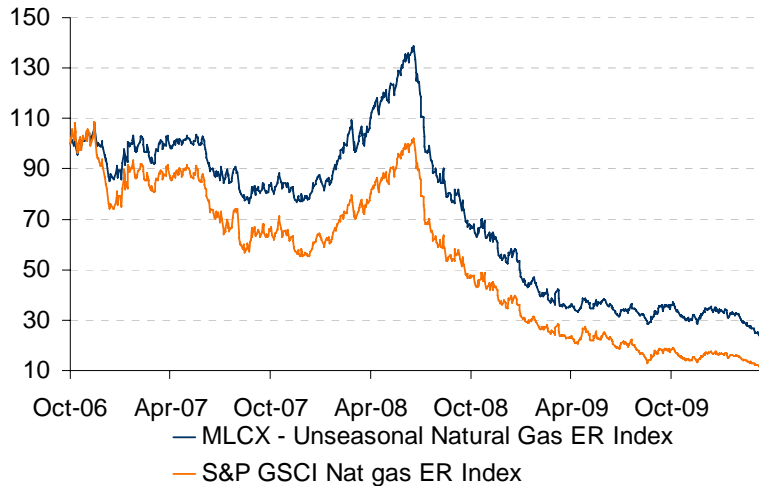


Exploiting seasonality in commodity markets

MLCX Unseasonal nat gas index offers significantly better risk-adjusted returns than traditional nat gas index investments

At the same time, the MLCX Unseasonal nat gas index has maintained a high degree of correlation to benchmark indices

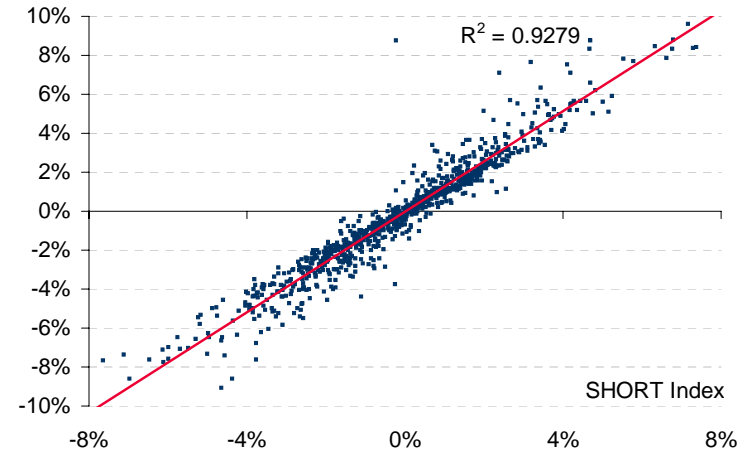
Performance since launch



Source: Bloomberg, BofAML Commodity Research

LONG Index

Daily returns since launch

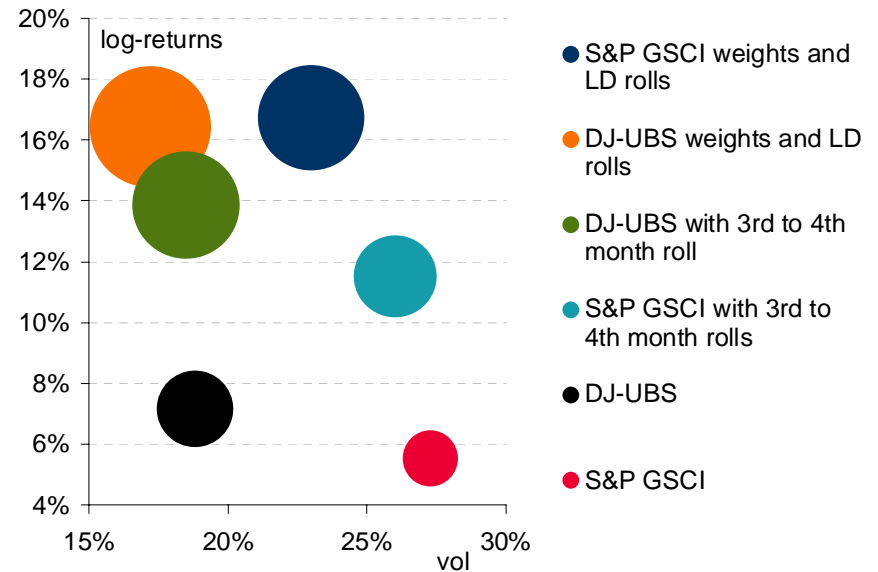
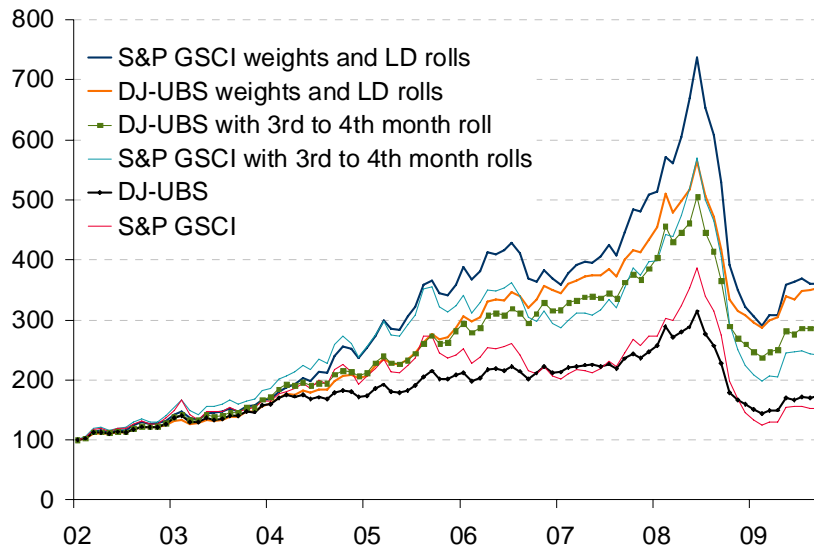


Source: Bloomberg, BofAML Commodity Research

Long-dated exposure can greatly improve the risk-return profile of benchmarks

Historically, long-dated exposure has been able to provide better performance than other indices

We also find that long-dated exposure can improve the risk-return profile of the allocation

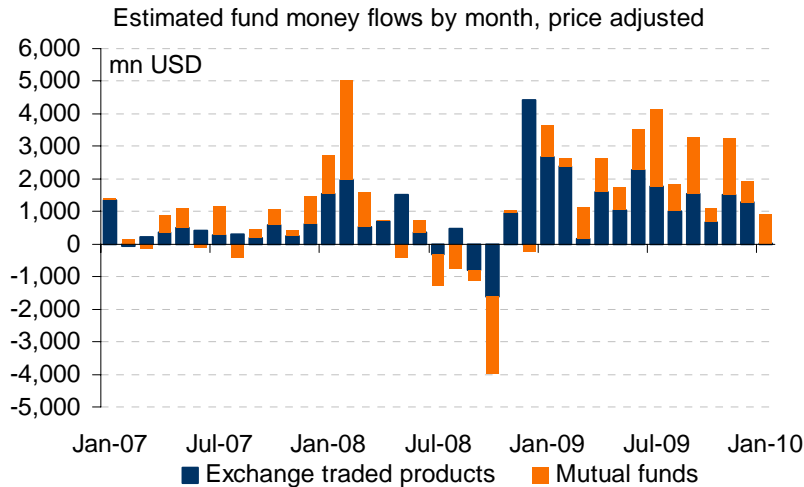


Source: Bloomberg, BofAML Commodity Research

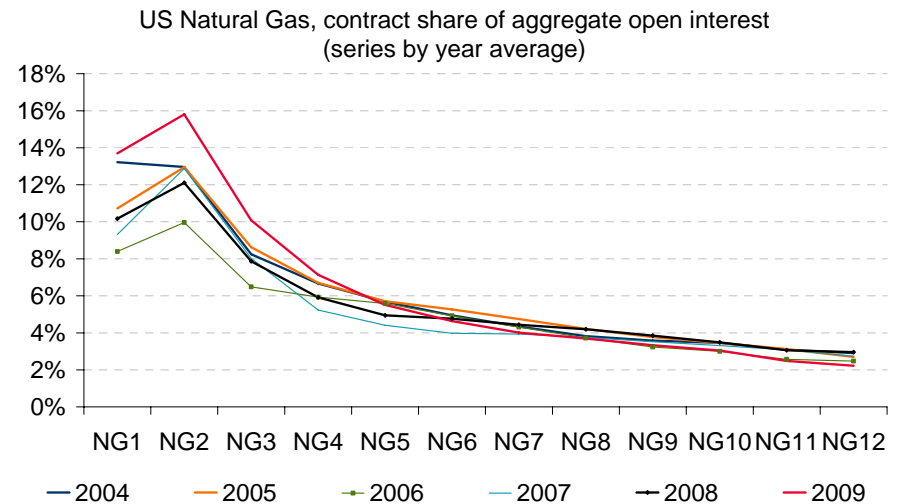
Source: Bloomberg, BofAML Commodity Research

Alpha opportunities may increase as the economy recovers

Commodity investment flows are already increasing on the back of a perceived recovery in global economic growth



Front end contracts have increased in importance at the nat gas market



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research
*In our estimates we include 222 ETFs/ETNs (excluding physically backed ETFs) and 60 funds.

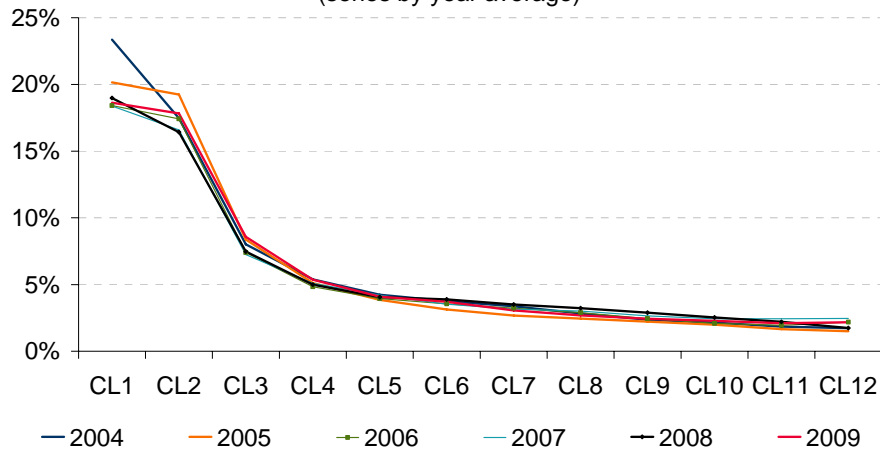
Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

How popular are enhanced rolls?

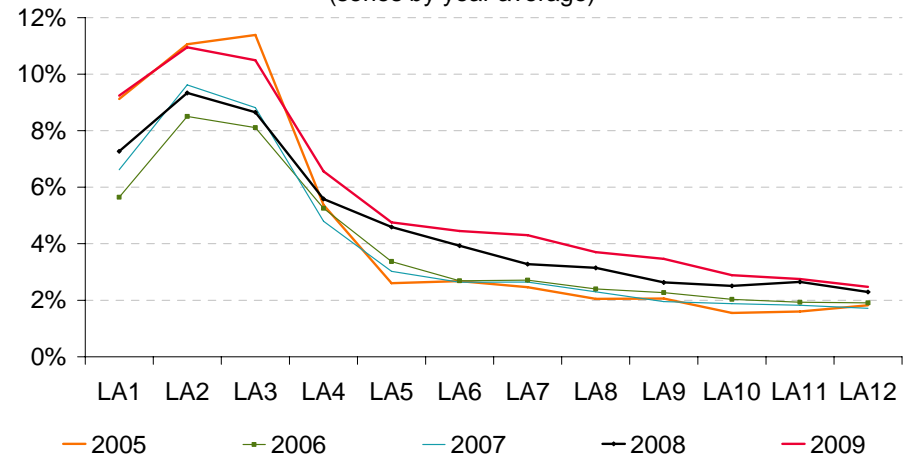
No significant change in open interest in WTI

If anything, front end contracts have increased in importance at the LME

WTI Crude oil, contract share of aggregate open interest (series by year average)



Aluminium, contract share of aggregate open interest (series by year average)

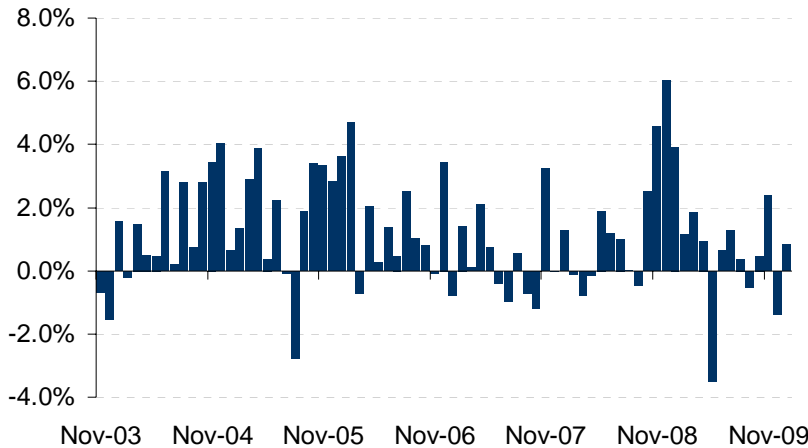


Divergent hedging needs help create structural alpha

By combining enhanced beta commodity exposure with a traditional commodity index such as the S&P GSCI...

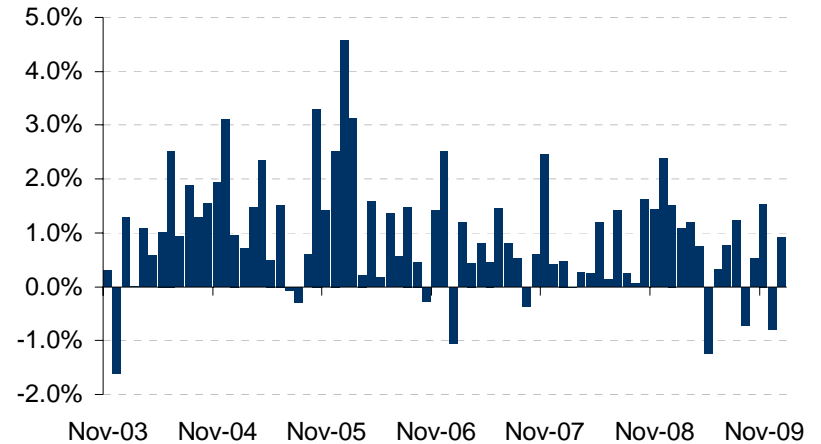
...or the DJ-UBS in a long/short format, investors are able to package structural alpha into a single strategy

Outperformance over S&P GSCI by using long-dated rolls



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Outperformance over DJ-UBS by using long-dated rolls

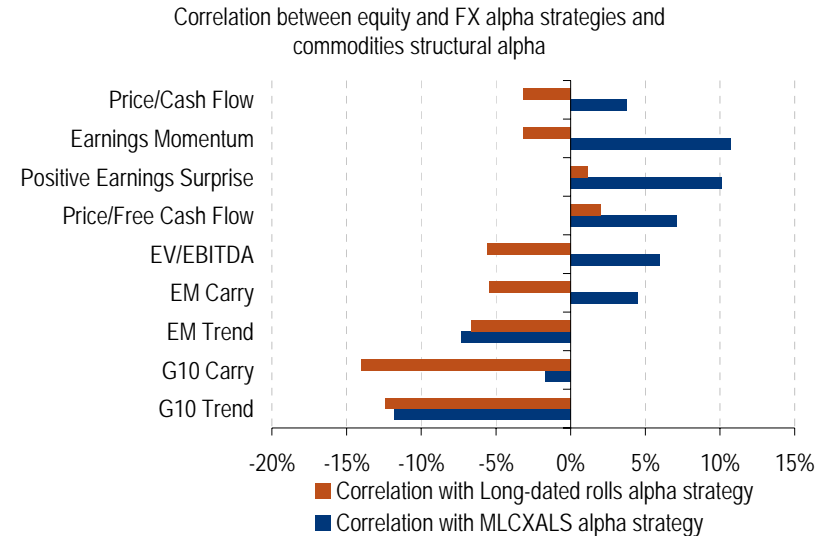
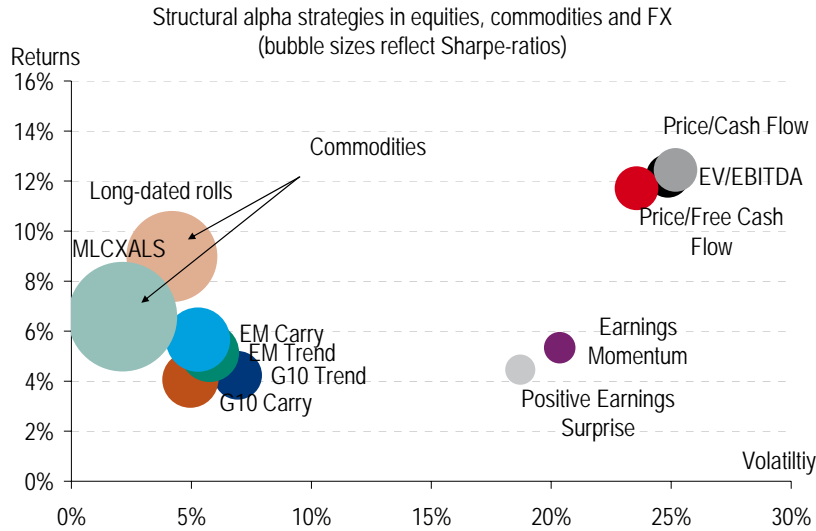


Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Diversification benefits of commodities play out in the alpha as well as in the beta side

Our track record in designing outperformance strategies suggests commodities offer plenty of structural alpha opportunities

The well-known diversification benefits of commodities also play out among alpha strategies



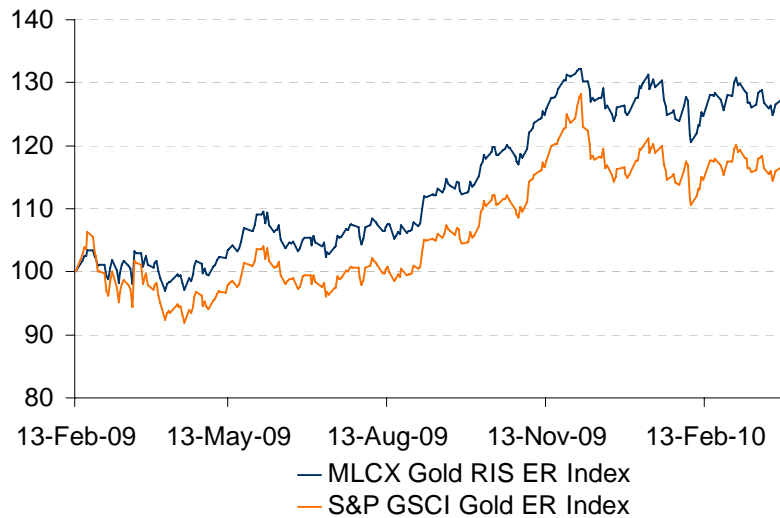
Source: BofA Merrill Lynch Commodity Research
*Estimates based on monthly returns since Feb-02.

Source: BofA Merrill Lynch Research
*Estimates based on monthly returns since Feb-02.

Divergent hedging needs help create structural alpha on the volatility space

The richness of implied volatility in commodities translates in outperformance of call overwriting

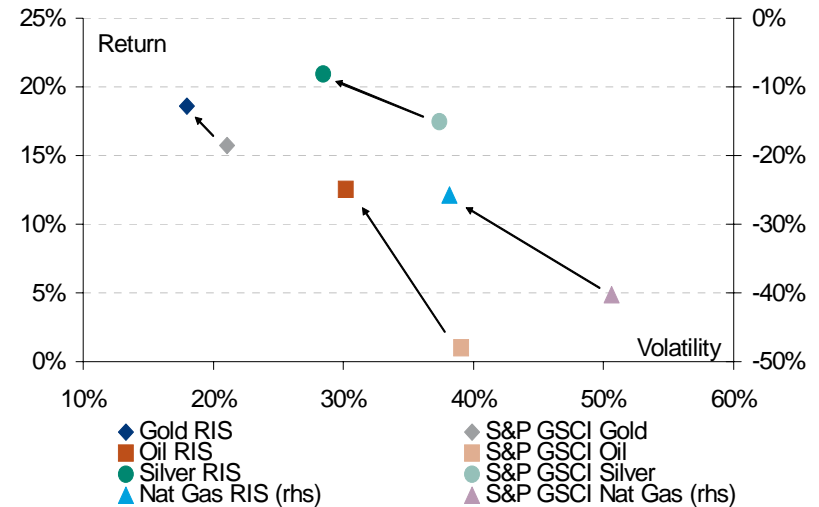
Performance since launch



Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Call overwriting can improve the risk-return profile of the allocation

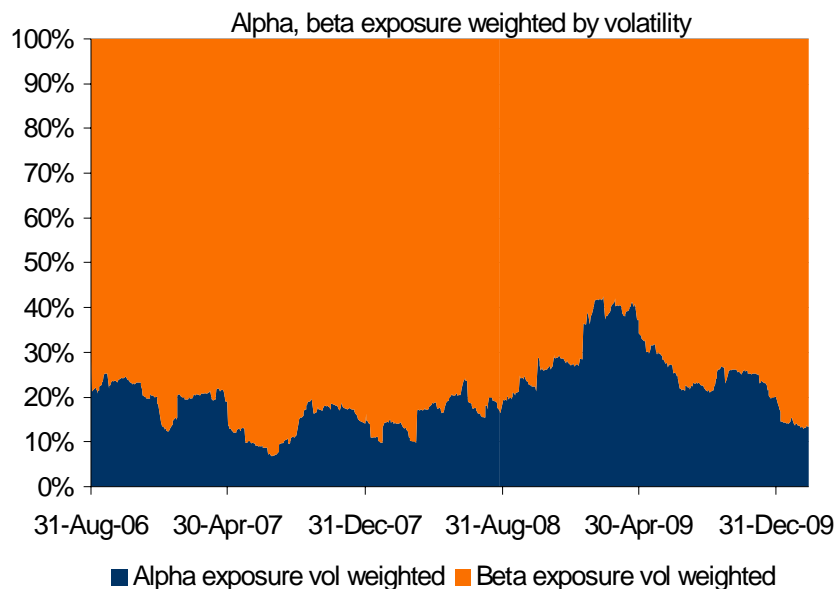
Annualized performance from 31-Dec-03 to 31-Mar-10



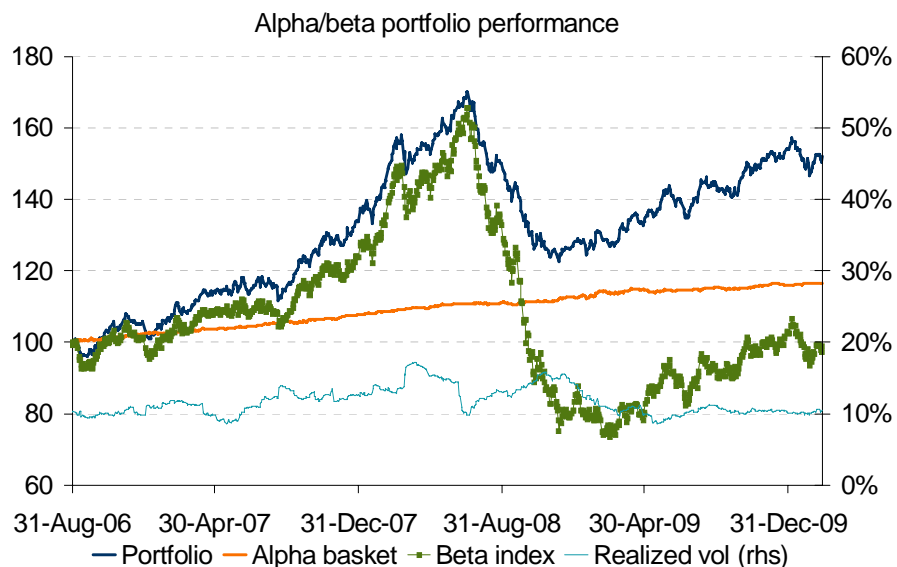
Source: Bloomberg, BofA Merrill Lynch Global Commodity Research

Moving to neutral returns (alpha) when market risk is high improves efficiency

In our example, the composition of the portfolio changes depending on the volatility of the beta component



Targeting a volatility of about 10%, a dynamically rebalanced portfolio can substantially beat its beta component over the long run



Important Disclosures

BofAML fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

BofA Merrill Lynch (BofAML) Research refers to the combined Global Research operations of Merrill Lynch and BAS.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Merrill Lynch Research policies relating to conflicts of interest are described at <http://www.ml.com/media/43347.pdf>.

"Merrill Lynch" includes Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates, including BofA (defined below). "BofA" refers to Banc of America Securities LLC ("BAS"), Banc of America Securities Limited ("BASL") and their affiliates. Investors should contact their Merrill Lynch or BofA representative if they have questions concerning this report.

Information relating to Non-US affiliates of Merrill Lynch and Distribution of Affiliate Research Reports:

MLPF&S, BAS, and BASL distribute, or may in the future distribute, research reports of the following non-US affiliates in the US (short name: legal name): Merrill Lynch (France): Merrill Lynch Capital Markets (France) SAS; Merrill Lynch (Frankfurt): Merrill Lynch International Bank Ltd, Frankfurt Branch; Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd; Merrill Lynch (Milan): Merrill Lynch International Bank Limited; MLPF&S (UK): Merrill Lynch, Pierce, Fenner & Smith Limited; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited; Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd; Merrill Lynch (Canada): Merrill Lynch Canada Inc; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa; Merrill Lynch (Argentina): Merrill Lynch Argentina SA; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co, Ltd; Merrill Lynch (Seoul): Merrill Lynch International Incorporated (Seoul Branch); Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd.; DSP Merrill Lynch (India): DSP Merrill Lynch Limited; PT Merrill Lynch (Indonesia): PT Merrill Lynch Indonesia; Merrill Lynch (Israel): Merrill Lynch Israel Limited; Merrill Lynch (Russia): Merrill Lynch CIS Limited, Moscow; Merrill Lynch (Turkey): Merrill Lynch Yatirim Bankasi A.S.; Merrill Lynch (Dubai): Merrill Lynch International, Dubai Branch; MLPF&S (Zürich rep. office): MLPF&S Incorporated Zürich representative office; Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V.; Merrill Lynch (Brazil): Banco Merrill Lynch de Investimentos S.A.

This note has been approved for publication in the United Kingdom by Merrill Lynch, Pierce, Fenner & Smith Limited and BASL, which are authorized and regulated by the Financial Services Authority; has been considered and distributed in Japan by Merrill Lynch Japan Securities Co, Ltd and Banc of America Securities – Japan, Inc., registered securities dealers under the Financial Instruments and Exchange Law in Japan; is distributed in Hong Kong by Merrill Lynch (Asia Pacific) Limited and Banc of America Securities Asia Limited, which are regulated by the Hong Kong SFC and the Hong Kong Monetary Authority; is issued and distributed in Taiwan by Merrill Lynch Securities (Taiwan) Ltd.; is issued and distributed in India by DSP Merrill Lynch Limited; and is issued and distributed in Singapore by Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd (Company Registration No.'s F 06872E and 198602883D respectively) and Bank of America Singapore Limited (Merchant Bank). Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd and Bank of America Singapore Limited (Merchant Bank) are regulated by the Monetary Authority of Singapore. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 provides this note in Australia in accordance with section 911B of the Corporations Act 2001 and neither it nor any of its affiliates involved in preparing this note is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this note in Brazil.

Merrill Lynch (Frankfurt) distributes this report in Germany. Merrill Lynch (Frankfurt) is regulated by BaFin.

This research report has been prepared and issued by MLPF&S and/or one or more of its non-US affiliates. MLPF&S is the distributor of this research report in the US and accepts full responsibility for research reports of its non-US affiliates distributed to MLPF&S clients in the US. Any US person (other than BAS, BAI and their respective clients) receiving this research report and wishing to effect any transaction in any security discussed in the report should do so through MLPF&S and not such foreign affiliates.

Other Important Disclosures

BAS distributes this research report to its clients and accepts responsibility for the distribution of this report in the US to BAS clients. Transactions by US persons that are BAS clients in any security discussed herein must be carried out through BAS.

General Investment Related Disclosures:

This research report provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This report is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this report.

Securities and other financial instruments discussed in this report, or recommended, offered or sold by Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

Futures and options are not appropriate for all investors. Such financial instruments may expire worthless. Before investing in futures or options, clients must receive the appropriate risk disclosure documents. Investment strategies explained in this report may not be appropriate at all times. Costs of such strategies do not include commission or margin expenses.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by Merrill Lynch entities located outside of the United Kingdom. These disclosures should be read in conjunction with the BASL general policy statement on the handling of research conflicts, which is available upon request.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Merrill Lynch is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. Merrill Lynch may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

Merrill Lynch, through business units other than BofAML Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented in this report. Such ideas or recommendations reflect the different time frames, assumptions, views and analytical methods of the persons who prepared them, and Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this report.

Other Important Disclosures

In the event that the recipient received this report pursuant to a contract between the recipient and MLPF&S for the provision of research services for a separate fee, and in connection therewith MLPF&S may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom MLPF&S has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by MLPF&S). MLPF&S is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities mentioned in this report.

Copyright and General Information regarding Research Reports:

Copyright 2010 Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. This research report is prepared for the use of Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Merrill Lynch. Merrill Lynch research reports are distributed simultaneously to internal and client websites and other portals by Merrill Lynch and are not publicly-available materials. Any unauthorized use or disclosure is prohibited. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets) without first obtaining expressed permission from an authorized officer of Merrill Lynch.

Materials prepared by Merrill Lynch research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of Merrill Lynch, including investment banking personnel. Merrill Lynch has established information barriers between BofAML Research and certain business groups. As a result, Merrill Lynch does not disclose certain client relationships with, or compensation received from, such companies in research reports.

To the extent this report discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this report. Merrill Lynch research personnel's knowledge of legal proceedings in which any Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving companies mentioned in this report is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This report has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of MLPF&S, any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). Merrill Lynch policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This report may contain links to third-party websites. Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this report and is not incorporated by reference into this report. The inclusion of a link in this report does not imply any endorsement by or any affiliation with Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.



Other Important Disclosures

All opinions, projections and estimates constitute the judgment of the author as of the date of the report and are subject to change without notice. Prices also are subject to change without notice. Merrill Lynch is under no obligation to update this report and Merrill Lynch's ability to publish research on the subject company(ies) in the future is subject to applicable quiet periods. You should therefore assume that Merrill Lynch will not update any fact, circumstance or opinion contained in this report.

Certain outstanding reports may contain discussions and/or investment opinions relating to securities, financial instruments and/or issuers that are no longer current. Always refer to the most recent research report relating to a company or issuer prior to making an investment decision.

In some cases, a company or issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such company or issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BAS, MLPF&S or any of their affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither Merrill Lynch nor any officer or employee of Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.