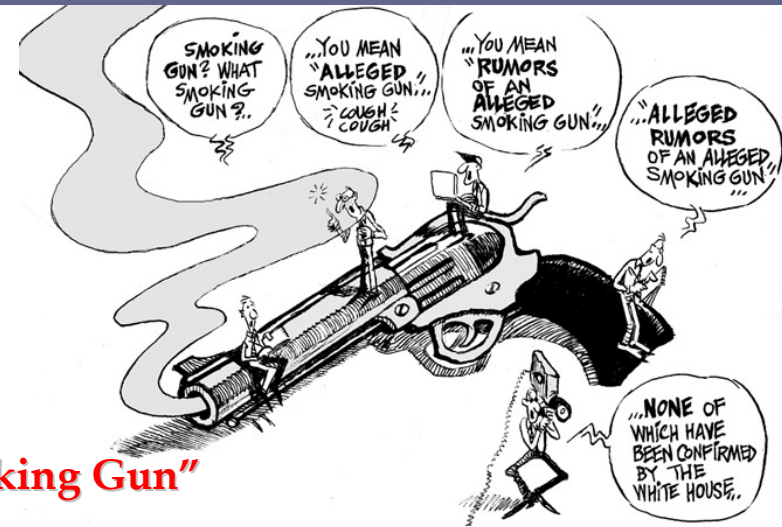
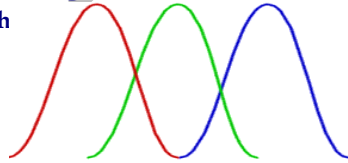


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November 17, 2008

Special Report: **Commodity Speculation's "Smoking Gun"**

Denial remains wide spread that excessive speculation in commodity markets, especially by index "investors," was responsible for the extraordinary run-up in prices from July 2007 to July 2008, and the even more dramatic collapse in the last four months. Media leaders such as the New York Times and Wall Street Journal are in rare agreement that there has been no evidence of speculation, just normal supply and demand factors at work. The Bush administration has stridently supported this view, while pushing for more domestic drilling. The Commodity Futures Trading Commission, the federal agency whose primary responsibility is to control speculation, has not only ignored the problem, but also has attempted to deny its existence. The agency released an interim report on July 22, 2008¹ and a final report on September 11, 2008², both of which spuriously concluded indexed trading has not impacted commodity prices, especially oil.

A simple and straightforward statistical analysis is all that is necessary to provide the "smoking gun" that proves excessive index driven speculation is now dominating pricing activities. The change in the correlation between prices of the various commodities in the indexes currently, when index trading has become a dominate factor, and historically before indexing was material make the impact of indexing irrefutable. The Goldman Sachs Commodity Index (GSCI) is used to prove this point. The commodities included in this analysis are diverse; ranging from soft commodities such as cotton, cocoa, and coffee, to grains, including corn, soybeans, and wheat, to industrial materials such as copper, to precious metals, and finally energy products, primarily crude oil. Real market forces in these diverse markets are largely independent of one another, and therefore price changes should be essentially uncorrelated. This was clearly true historically; from 1984 through 1999 average correlation between all commodities was only 7%. In the last 12 months this average rose to 64%. Correlation with the GSCI was 23% historically, and rose to 76% in the last year. Index speculation has swamped real market forces.

¹ <http://www.cftc.gov/stellent/groups/public/@newsroom/documents/file/itfinterimreportoncrudeoil0708.pdf>

² <http://www.cftc.gov/stellent/groups/public/@newsroom/documents/file/cftcstaffreportonswapdealers09.pdf>



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Table 1. Correlation Matrices of Futures in the Goldman Sachs Commodity Index (GSCI) - Monthly Data

(Note: Use of daily or weekly data does not alter conclusion.)

1984 through 1999

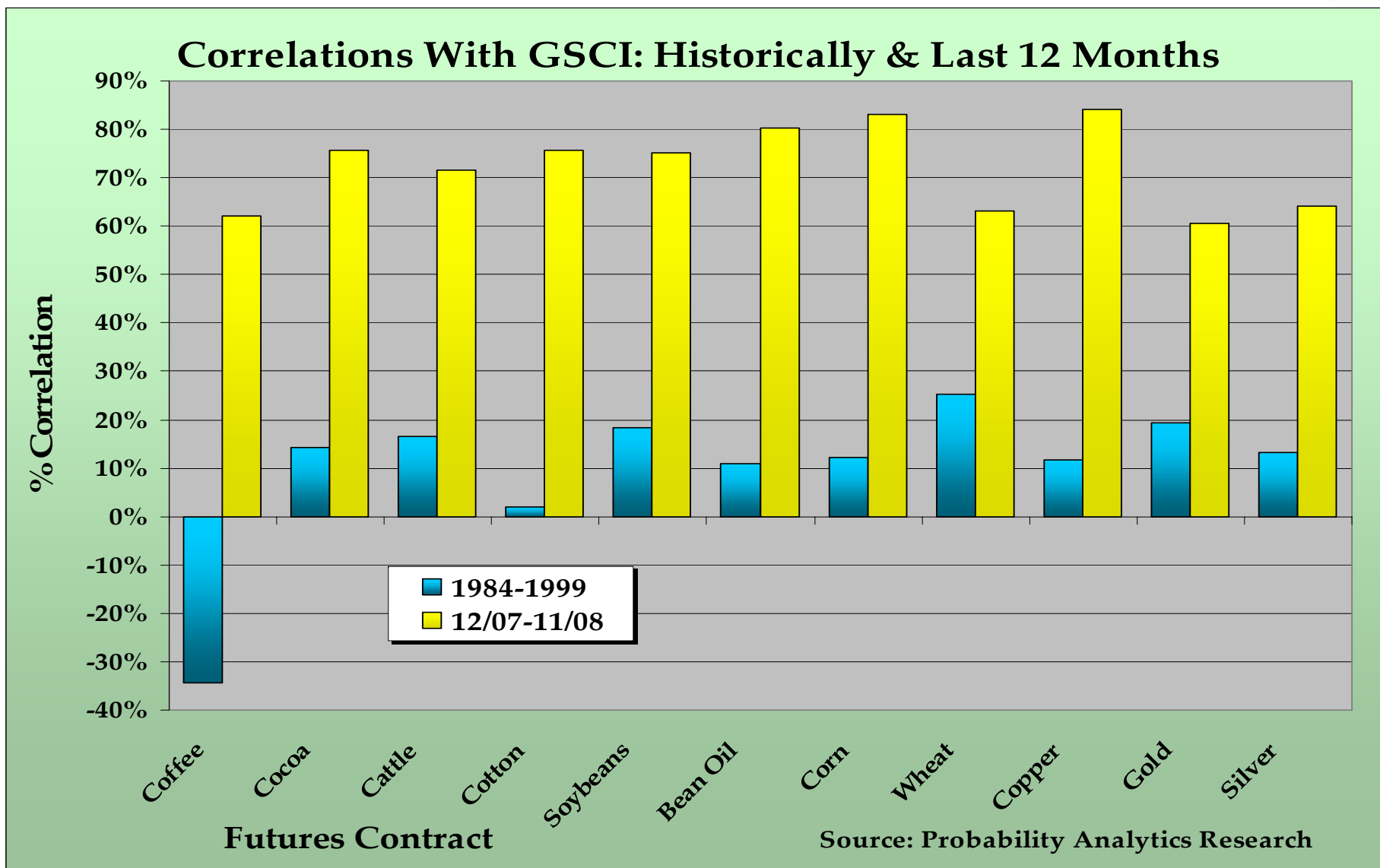
<u>Contract</u>	CL	NG	HO	QA/KT	CC	LC	CT	S	BO	C	W	CP	GC	SI
NG	36%													
HO	74%	40%												
QA/KT	-24%	-26%	-27%											
CC	12%	-1%	11%	-1%										
LC	3%	-3%	10%	-18%	0%									
CT	0%	-3%	2%	-10%	1%	-7%								
S	-6%	2%	-5%	1%	9%	1%	8%							
BO	-9%	-4%	-7%	-13%	5%	-9%	7%	70%						
C	-7%	9%	-7%	-20%	-1%	-1%	20%	64%	54%					
W	4%	7%	12%	-26%	4%	9%	1%	34%	29%	41%				
CP	-1%	-8%	7%	-9%	12%	-4%	12%	23%	17%	10%	8%			
GC	20%	8%	10%	-22%	17%	4%	7%	16%	3%	3%	4%	24%		
SI	11%	-4%	0%	-13%	13%	5%	8%	15%	3%	13%	2%	15%	64%	
GSCI	81%	56%	76%	-34%	14%	17%	2%	18%	11%	12%	25%	12%	19%	13%

<u>Futures Symbol Key:</u>	
Crude Oil	CL
Natural Gas	NG
Heating Oil	HO
Coffee	QA/KT
Cocoa	CC
Cattle	LC
Cotton	CT
Soybeans	S
Bean Oil	BO
Corn	C
Wheat	W
Copper	CP
Gold	GC
Silver	SI

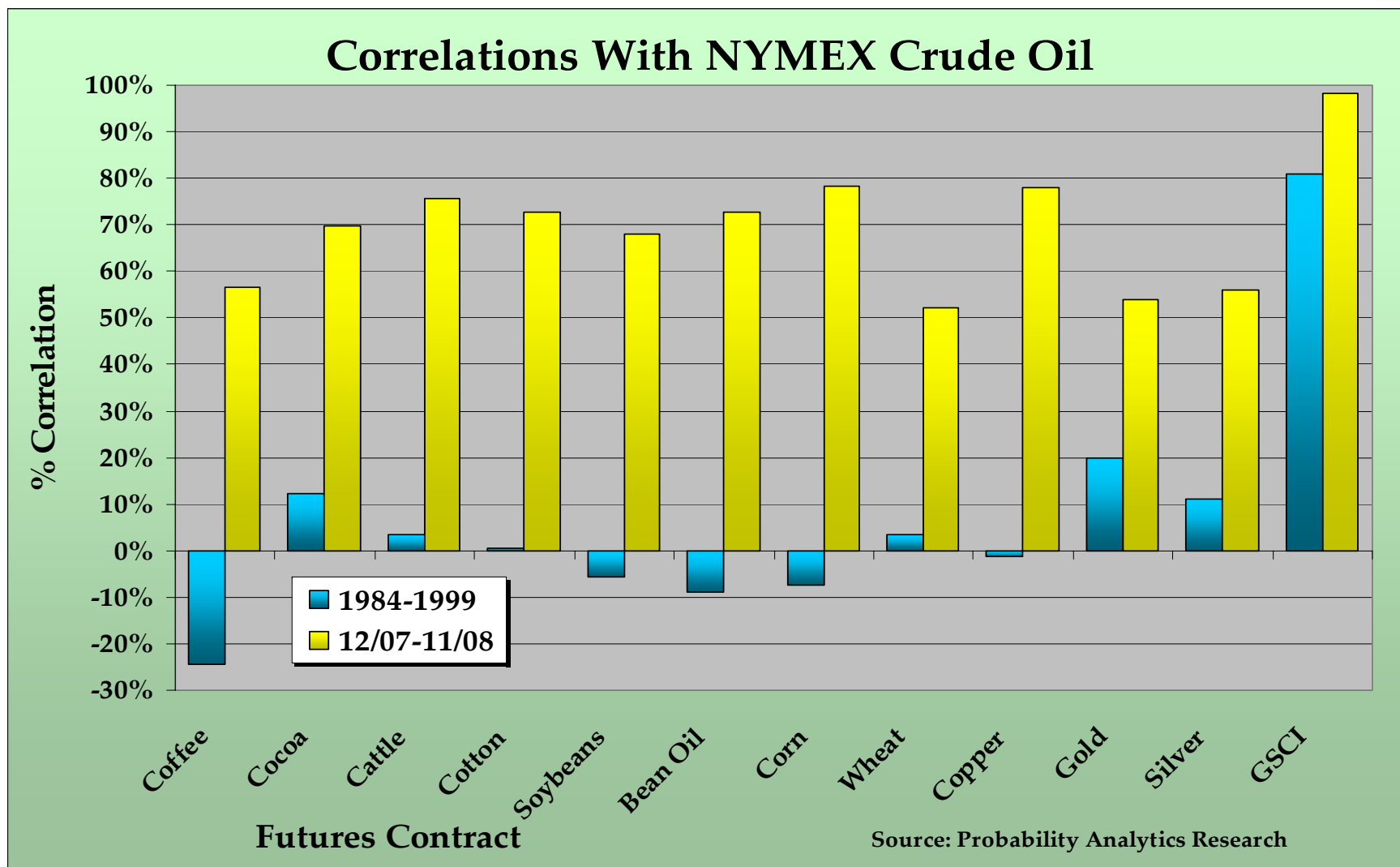
Last 12 Months: December 2007 through November 2008

<u>Contract</u>	CL	NG	HO	QA/KT	CC	LC	CT	S	BO	C	W	CP	GC	SI
NG	66%													
HO	95%	70%												
QA/KT	57%	40%	39%											
CC	70%	61%	54%	88%										
LC	76%	30%	64%	73%	59%									
CT	73%	39%	61%	73%	70%	57%								
S	68%	62%	56%	90%	85%	63%	83%							
BO	73%	59%	64%	89%	87%	63%	82%	93%						
C	78%	79%	72%	54%	74%	46%	73%	76%	67%					
W	52%	43%	53%	65%	61%	42%	78%	74%	75%	64%				
CP	78%	56%	76%	57%	78%	43%	75%	64%	75%	73%	74%			
GC	54%	40%	56%	38%	47%	29%	59%	46%	61%	53%	69%	64%		
SI	56%	43%	55%	51%	57%	23%	75%	67%	79%	53%	71%	70%	83%	
GSCI	98%	73%	95%	62%	76%	72%	76%	75%	80%	83%	63%	84%	61%	64%

<u>Average Correlation:</u>		
	1984/ 1999	Last 12 Months
With GSCI		
All	23%	76%
Non-energy	10%	72%
With each other	7%	64%



Energy contracts, especially oil, account for over two-thirds of the GSCI. Therefore their price changes would be expected to have a high correlation with the GSCI, as shown on the next page. All of the other commodities historically have had very low correlations with the GSCI, as would be expected in normal market conditions. The across-the-board leap in correlations in an environment dominated by indexing “investment” proves its dominance of price determination. Bubbles form and burst independently of physical supply and demand.



As noted, the heavy weighting of energy, especially crude oil, in the GSCI insures a high correlation between the two. This has risen from 82% historically to 98% in the last 12 months as overall index activity has dominated all markets. In the physical markets for these individual commodities supply and demand factors are unique, largely independent, and historically have shown no correlation with each other, especially with crude oil as shown in the chart above. The present very high correlations prove the dominance of indexing in price determination across all markets. The physical interaction between oil prices and these other commodities' prices has not changed in recent years. The only explanation for the dramatic increase in their current correlation is indexing's dominance of futures markets pricing.