

# Notes at the Margin

Philip K. Verleger, Jr.

Volume XIV, No. 2

January 11, 2010

## The Big Freeze: The Dog that Did Not Bark

Whatever happened to global warming? It is cold across the globe. There is a shortage of natural gas in China. Temperatures have dropped to -23°C (-8°F) in the United Kingdom. Transportation services have been disrupted across Europe, China, and the United States.

The United States is suffering from the massive cold spell. Florida's orange and strawberry crops have been ruined. The streets of Atlanta have been turned into an ice rink. The wind chill in Bismarck, North Dakota hit -51°F.

The front pages of major newspapers over the last week have been full of the traditional stories describing the trials and tribulations of those keeping warm with heating oil in the Northeast. *The New York Times* reported on the problems of Connecticut residents who face 50 to 100 percent price increases for their heating oil. *The Washington Post* reported that in home after home children are going hungry because families have to spend everything on heat. The highway department in one northeastern state reported it will have to stop plowing roads because diesel fuel prices have spiked so high. *The Los Angeles Times* noted independent truckers across the country are parking their trucks for the same reason. Once again, oil industry managers are being characterized as rapacious price gougers who take every opportunity to squeeze consumers.

Wait a minute. You mean to say *The New York Times* has not carried a story on the increase in home heating oil prices? You also claim you could not find the *Washington Post* piece about children going hungry? There was nothing about greedy oil companies, you say? Truckers have not complained any more than they usually do? Clearly, you have not done the research.

What do you mean prices did not increase? Prices always rise when it gets cold. This is how the world works. Every few years, it gets really frigid in December or January. Every few years, heating oil prices rise dramatically during the cold spell. Every few years, truckers complain about price spikes and highway departments cut plowing. Every few years, the press and politicians have a field day beating up the oil industry about the higher prices. This relationship explains why politicians invented price controls.

It was very cold last week. Oil prices should have increased. On a historical basis, the spot price of distillate fuel oil in New York should have jumped 60 percent from prices before the cold hit. Spot supplies of heating oil should be selling for \$3.20 per gallon in New York Harbor.

You mean to tell me I can buy all the heating oil I want for \$2.20 per gallon? What has happened? Have the Communists taken over?

---

*Notes at the Margin* is a e-mail service published by PKVerleger LLC ([www.pkverlegerllc.com](http://www.pkverlegerllc.com)). Please direct all inquiries to Dr. Philip K. Verleger, Jr. at [phil@pkverlegerllc.com](mailto:phil@pkverlegerllc.com).

© 2010, PKVerleger LLC. All rights reserved. Reproduction of *Notes at the Margin* in any form (photostatically, electronically, or via facsimile), including via local- and wide-area networks, is strictly forbidden without direct licensed permission from PKVerleger LLC.

---

January 11, 2010

OK, enough fun. Michael Masters take note. **The market has worked.** I calculate that U.S. consumers are enjoying a benefit that may total \$400 million per day because oil prices did not rise. On a worldwide basis, the benefit may add up to more than a billion per day. There has, of course, been no publicity about this.

This report's title, "The Dog that Did Not Bark," comes from the Sherlock Holmes story "Silver Blaze," where the detective solves the theft of an expensive race horse based on a stable dog not barking when it should have. Likewise, the failure of heating oil prices to rise is a silent dog that no one except me appears to have noticed.

The economic benefits of the lower heating oil prices are the direct result of passive investment in commodities. Investors purchased commodity futures, bidding prices into contango. The contango provided an incentive to build inventories. The low interest rate environment created by the Federal Reserve further reduced the cost of holding inventories. As a consequence, the world entered this cold spell with record crude and product stocks. As cash prices rose, the inventories were liquidated.

Credit for the market's success should be given to the agencies that regulate commodity futures, particularly the Commodity Futures Trading Commission. These agencies allowed passive investors to participate in commodity markets. ***In doing so, they recorded the first success for energy policy in 40 years.*** As readers will note, governments have maintained strategic crude and product stocks for the last 40 years. These strategic reserves have never been used effectively to moderate a price spike. Even the United States' vaunted "heating oil reserve" has been useless. ***However, the CFTC's brilliant***

***strategy of encouraging passive investors has worked where the DOE and IEA bureaucrats have failed.***

Last year, President Sarkozy of France and Prime Minister Brown of the United Kingdom wrote of the need to stabilize energy prices.<sup>1</sup> They called for an international effort to cooperate on the issue. I presume they have recognized the value of what is happening now and written a thank you letter to the CFTC.

The CFTC will hold a public meeting on passive commodity investment on January 14. For reasons I will explain in a moment, it should take place on January 16. However, let me note first that the meeting should celebrate the success of the agency's program. Consumer advocates should bring champagne to toast the CFTC. The awful coffee normally available should be replaced by bubbly, preferably a vintage French variety.

The meeting should, however, be rescheduled to January 16 to commemorate another hearing held on that date in 1990. The 1990 hearing was held by the Government Affairs Committee chaired by Senator John Glenn. The senators sought an explanation for the 60- percent increase in heating oil prices that occurred the prior December. I was one of the witnesses, along with Leon Hess, founder of the Hess Corporation; Charles DiBona, then president of the American Petroleum Institute; and Glenn Tilton, then CEO of Texaco. Hess regaled the senators with stories of traders in the futures market buying and selling oil and increasing price volatility. He was hilarious and of utterly no use.

---

<sup>1</sup> Gordon Brown and Nicolas Sarkozy, "We Must Address Oil-Market Stability," *The Wall Street Journal*, July 8, 2009.

January 11, 2010

DiBona presented the standard industry line:

The petroleum industry has been making extraordinary efforts to provide more heating oil to the Northeast and other areas of the country that have suffered during the record cold weather of late fall and early winter.<sup>2</sup>

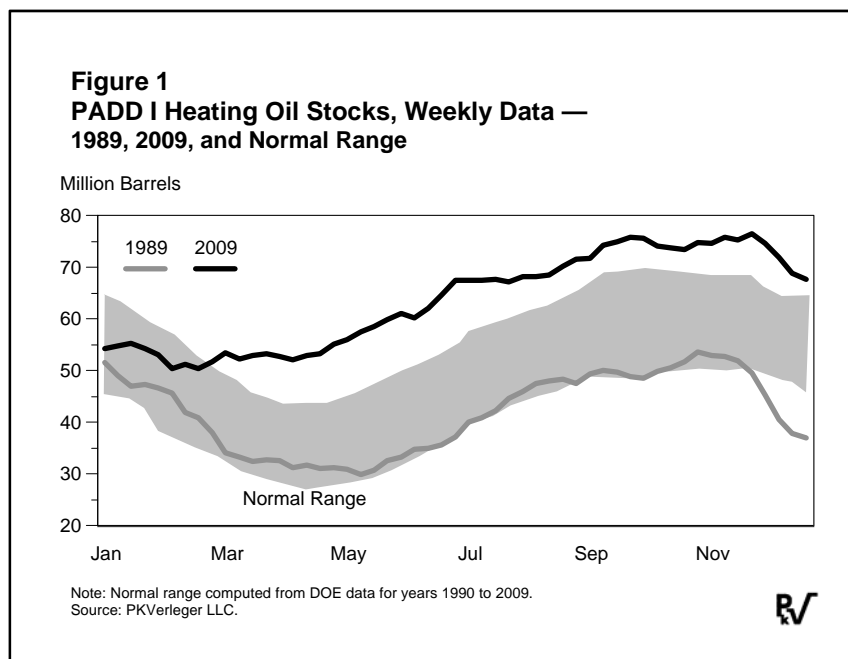
His explanation fell on deaf ears. The senators were ready to authorize a lynching had it been legal.

My testimony was more mundane. I explained that the cold spell took place when inventories were very low. I added that backwardation had increased as stocks had declined. I also noted that markets had been “commoditized,” a new word at the time. I went on to add that refiners and dealers responded to the forces of commoditization by minimizing inventories in the absence of financial incentive to hold them. The low stocks made the market more vulnerable to price spikes.<sup>3</sup>

The story remains the same today. Figure 1 compares the distillate fuel oil inventories held in PADD I in 1989 with PADD I stocks in 2009. The graph also shows the normal range computed from 20 years of data. Note that stocks in 1989 were low and plunged below the normal range as

the cold spell hit. Note also that inventories in 2009 have declined at essentially the same rate as in 1989, that is, 1989 and 2009 were very similar but for stocks declining to a much lower level in 1989.

Heating oil inventories in PADD I, the key market for heating oil, dropped to 37 million barrels at the end of 1989. PADD I heating oil stocks dropped to 67 million barrels in 2009 as the recent cold spell pushed up demand.



The price impacts were very different, however. Figure 2 (page 3) compares spot prices for New York Harbor distillate fuel oil in 1989 to spot prices in 2009. To make the comparison easy, the weekly prices are expressed as a percentage of the average price during the year. In 1989, prices for the last week of the year were 194 percent of the average for the year. In 2009, prices for the last week of the year were 123 percent of the yearly average.

<sup>2</sup> Prepared testimony submitted by Charles DiBona to the Senate Committee on Government Affairs, January 16, 1990.

<sup>3</sup> Prepared testimony of Philip K. Verleger, Jr., to the Senate Committee on Government Affairs, January 16, 1990.

January 11, 2010

Inventories were higher in 2009 than in 1989 and the price impact of cold weather smaller because markets had become more commoditized. In 1989, open interest in heating oil futures was less than 100,000 contracts for much of the year. In 2009, open interest averaged 276,000 contracts. Figure 3 captures the difference in market size, comparing open interest in heating oil futures by week in 1989 with open interest in heating oil futures by week in 2009. According to CFTC data, in 2009 38,879 net long contracts were held by money managers and 79,284 net long contracts by swap dealers.

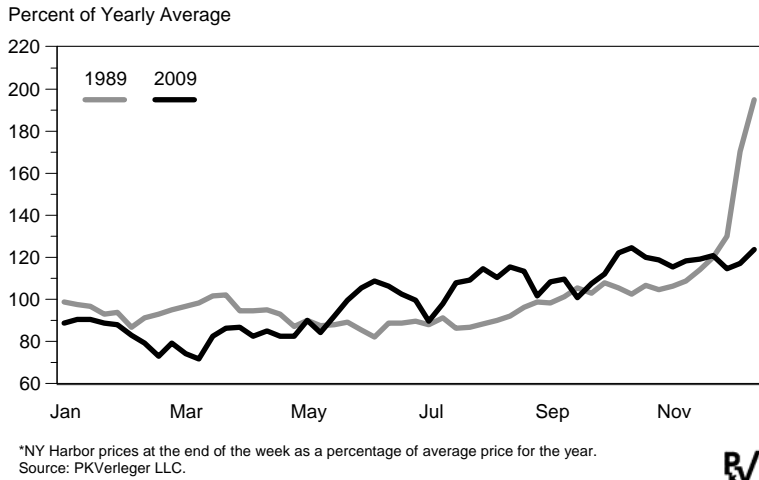
The situation is similar for natural gas. Natural gas inventories were roughly 30 percent higher in December 2009 than in December 1989 according to DOE data. As a consequence, no price impact was observed in markets in 2009 while prices rose in 1989 despite the fact that many supplies remained controlled at that time.

The events of 2009 emphasize the important role inventories play in markets. In a retrospective analysis of the events of 1989, the Energy Information Administration made this observation:

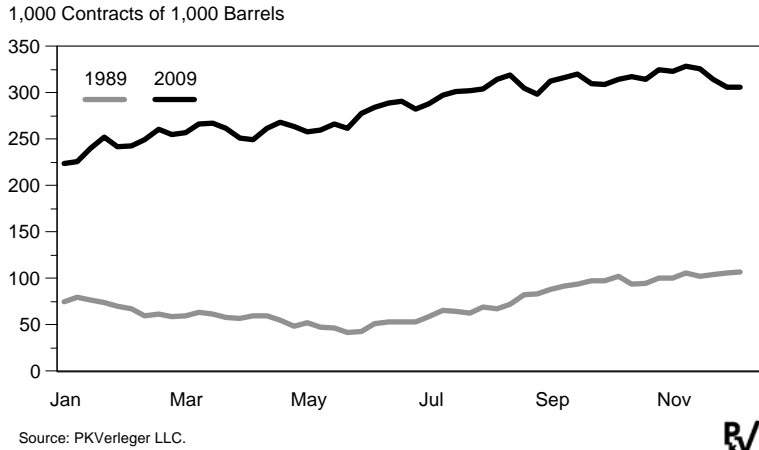
A significant portion of the price spike occurred in response to news of problems in the supply system. Production was ham-

pered by major refinery shut-downs (not all weather related)<sup>4</sup> and cutbacks in late December, in combination with problems in water-borne and pipeline distribution. Meanwhile, world markets continued to

**Figure 2**  
**NY Harbor Heating Oil Prices\*, Weekly Data, 1989 vs. 2009**



**Figure 3**  
**Heating Oil Open Interest in 1989 vs. Heating Oil Open Interest in 2009**



<sup>4</sup> The cold weather forced suppliers to interrupt natural gas supplies to refiners, forcing refiners to shut down just as distillate demand peaked.

January 11, 2010

compete for limited heating supplies and U.S. imports remained low.<sup>5</sup>

The EIA report also noted that “the dramatic rise in heating oil spot prices, for example, reflected demand for prompt (i.e., immediate) delivery oil, rather than speculation.”<sup>6</sup>

If the authors of the 1990 report were asked to update their analysis today, one hopes they would offer this explanation:

Prices in 2009 did not rise dramatically because inventories were so high. Inventories were high because investors had taken long positions in the futures market.

Unfortunately, the EIA will never write these sentences.

Next week, the CFTC will meet not to celebrate the success of its policies but rather to consider the subject of position limits. One commissioner, Bart Chilton, advocates such limits due to what he describes as the “massive passives.” Regarding these investors, Chilton has offered these comments:

I am not suggesting that these new speculators are purposely intending to manipulate in Machiavelli’s terms, nor that they are within the strict definition of manipulation under our current law.

To the contrary, they generally appear to be passive—and indeed, indifferent to market price movements. That is, they are “price insensitive” for the most part, because they typically do not alter their trading strategy based upon what is taking place on a day to day basis. Nonetheless, their very presence may be skewing markets.<sup>7</sup>

Chilton has proposed imposing position limits on passive investors. He will no doubt push this view at the CFTC meeting on January 14. CFTC chairman Gary Gensler has indicated he will do the same.

The commissioners should rethink their views. The failure of prices to rise over the last two weeks despite widespread cold weather is proof that markets are working. As noted above, the price stability marks the first real success of energy policy in 40 years. Politicians and economists have spent billions of dollars on the energy issue yet this is probably their singular triumph. My message to the CFTC is please celebrate the success by not screwing things up.

On a related note, this year the primary focus of our publications will be on this simple phrase: ***First do no harm***. I even hope to write a book with that title, subtitled “Suggestions for Energy and Economic Policymakers.” Medical doctors understand the “Do No Harm” phrase instinctively. Economists and policymakers do not. Indeed, if physicians followed the same approach as policymakers, the global population today would be less than 100 million. The human race could even become extinct!

By doing nothing next week, the CFTC will break new ground in the history of economic policymaking.

### **Note to Clients**

PKVerleger LLC generally enforces its copyright on this publication aggressively. We insist on the right to approve further distribution. However, we make an exception with this report. In other words, the January 11, 2010 issue of *Notes at the Margin* can be redistributed freely. We hope it may influence government regulators to heed the economic version of the Hippocratic Oath and

---

<sup>5</sup> Energy Information Agency, “A Short-Term Analysis of Heating Fuel Market Behavior,” Memo, January 1990, p. 17

<sup>6</sup> EIA, p. 17.

<sup>7</sup> Bart Chilton, “De Principatibus,” speech before the Argus Media Summit, Houston, Texas, October 21, 2009, p. 4.

January 11, 2010

“do no harm.” (Note: To make access to this issue easier, we will post a PDF of the report for download on the Publications page at [www.pkverlegerllc.com](http://www.pkverlegerllc.com).)

### Market Statistics

Crude and product prices rose last week, spurred no doubt in part by the cold weather. However, prices were also pushed up by increased purchases of futures. In the course of one week, open interest in WTI rose more than 100,000 contracts (this includes NYMEX and ICE). Open interest in Brent went up more than 50,000 contracts, while open interest in gasoil climbed 22,000 contracts, open interest in heating oil rose 22,000 contracts, and open interest in gasoline increased by 24,000 contracts.

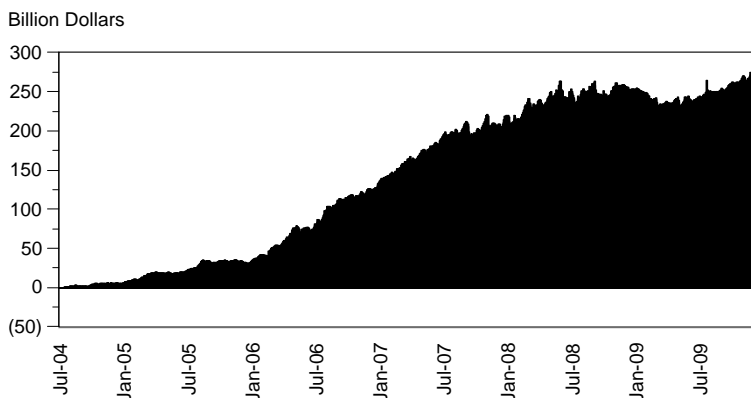
In one week, a notional amount of almost \$10 billion was injected into WTI, pushing the total amount put in since June 2004 to more than \$300 billion, a new record according to our accounting. Figure 4 shows our estimate of the cumulative cash influx into WTI.

Passive investors seem to be the source of much of the activity. With the beginning of 2010, it appears there is a new and increased interest in commodities as an alternative investment. This change can be seen in our tracking of the two most popular indices, the S&P GSCI and Dow Jones-UBS. Note, though, that a change in weighting of these indices imparts a significant change to their calculated size. Our estimates, shown on the final page of this report, are based on

the 2009 weights. Our initial calculation using the new weights suggests that the total invested is as much as \$75 billion higher than previously thought. Using 2009 weights, we found roughly \$138 billion invested in the two indices. With the 2010 weights, it appears that \$200 billion is invested.

We will issue revisions to our estimates after fully analyzing the changes. We may wait, though, for the publication of the CFTC’s latest data on quarterly investment.

**Figure 4**  
**Cumulative Injection of New Cash into the WTI Futures Market, July 2004-January 2010**



Note: Calculation assumes fully funded futures position. This means that investors follow GSCI approach of setting aside the face amount of the futures contract when the position is taken. The assumption clearly overstates the amount invested in oil through futures. However, comparing these calculations shows that our number matches those reported by other organizations for the amount invested in oil since mid-2004.  
Source: PKVerleger LLC.

Information from that report will hopefully clarify some of the differences.

The absolute amount invested in commodities is of less interest, however, than the impact on market prices. As noted above, cash prices for heating oil rose more than 60 percent in December 1989 during a similar cold spell. The price rise was caused not by speculators but by a surge in demand that occurred when inventories were low. The price increase this year has been minimal. Comparisons of returns to storage provide a

key indicator of how the situation has changed. Table 1 (page 7) shows returns to storage for heating oil at the beginning of December and beginning of January for the 1989/90 and 2009/10 periods.

es over the coming months. As noted above, this stability is strictly market induced and can be credited to the CFTC's hands-off attitude. One can only hope the agency will recognize its success and heed the Hippocratic Oath.

Table 1. Heating Oil Returns to Storage for Beginning of December and Beginning of January for 1989/90 and 2009/10 Cold Weather Episodes (Percent at Annual Rates)

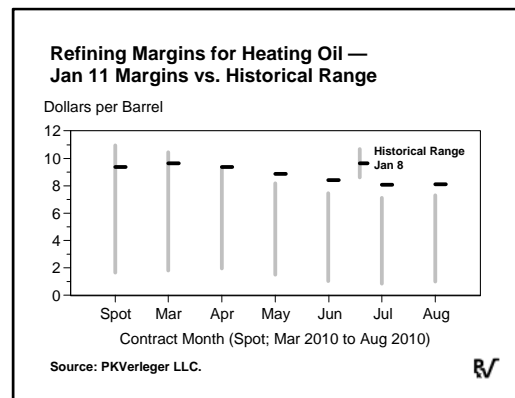
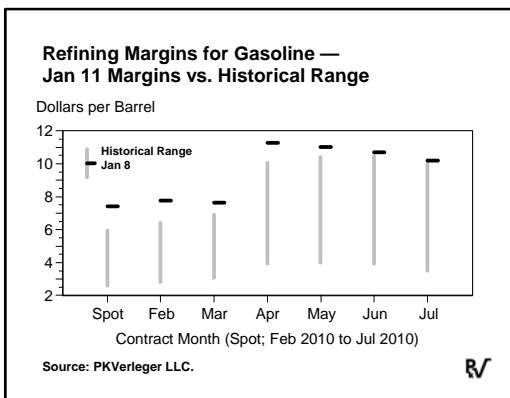
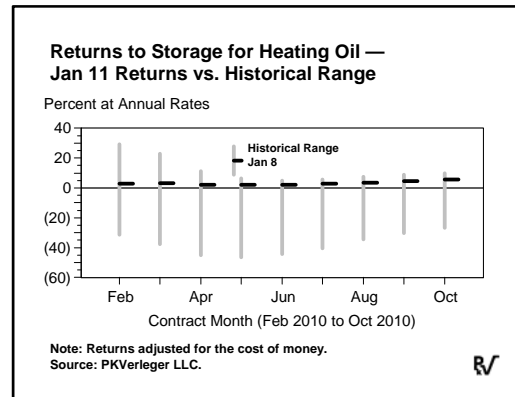
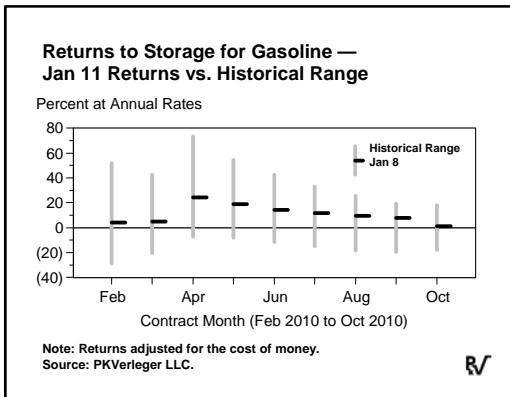
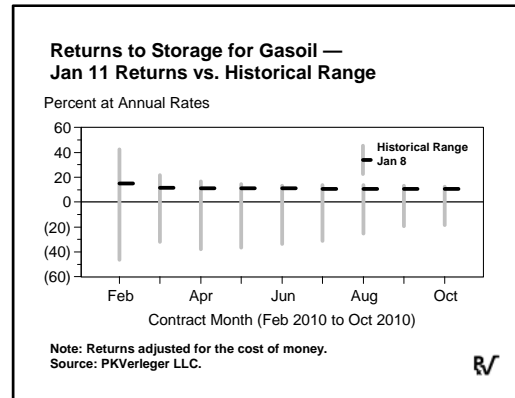
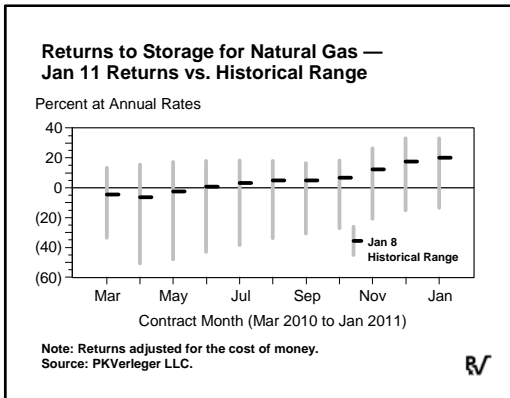
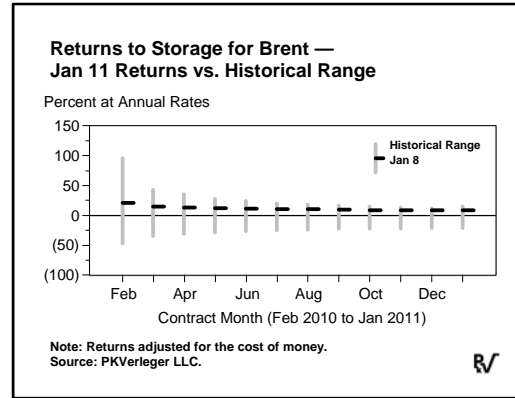
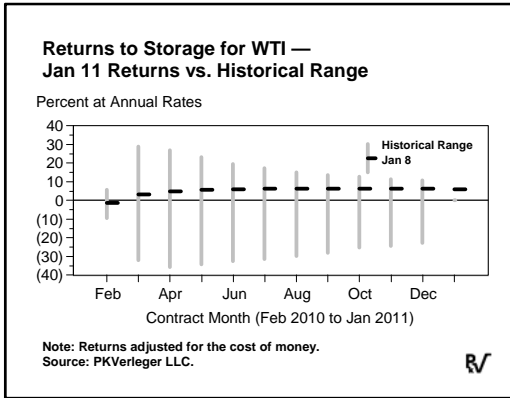
Delivery Month	Beginning of December		Beginning of January	
	1989	2009	1990	2010
Jan	-11.4	23.1		
Feb	-28.3	23.4	-95.6	2.7
Mar	-43.9	20.8	-89.3	3.2
Apr	-49.1	17.1	-81.5	2.2
May	-50.0	15.0	-74.8	2.0
Jun	-47.8	13.6	-68.5	2.1
Jul	-44.5	13.2	-62.3	3.0
Aug	-40.0	12.6	-55.6	3.7
Sep	-35.4	12.8	-49.6	4.7
Oct	-8.5	13.1	-45.0	5.6

Source: PKVerleger LLC.

Recall that returns to storage measure the curvature of the forward price curve. Positive numbers indicate contango while negative numbers indicate backwardation. From Table 1, one may observe that heating oil was slightly backwardated in December 1989, suggesting tight inventories. By January, the curve had shifted into extreme backwardation with the run on February oil at a negative 96 percent. In contrast, the market was in contango in December 2009. Returns still actually encouraged inventory accumulation. Returns dropped over the month but were apparently still high enough to make stock accumulation marginally profitable, even after the cold spell.

The inflow of more cash into futures markets from investors will likely continue to promote stock building, particularly if temperatures return to normal. The continued accumulation of inventories will, as a result, tend to promote relatively stable pric-

January 11, 2010



January 11, 2010

Table 2. Returns to Storage for Crude, Products, and Natural Gas — First Week of January vs. Prior Week and First Week of January in Prior Years (Percentage at Annual Rates)

	<u>Current</u>	<u>Last Week</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>
<u>Gasoline</u>							
March	5.0	33.0	82.3	18.0	24.3	33.2	15.4
April	24.6	22.8	136.4	40.5	71.5	53.5	32.2
May	19.1	17.9	101.3	29.3	55.1	40.6	27.0
April	14.5	13.2	83.1	21.2	45.3	32.2	18.7
May	11.9	11.2	69.1	15.1	37.4	26.5	12.5
<u>Distillate</u>							
February	2.7	6.8	-1.3	0.8	41.6	31.1	5.5
March	3.2	5.4	1.7	-4.9	30.7	26.8	-0.7
April	2.2	4.4	3.1	-10.4	22.8	19.1	-16.5
May	2.0	4.0	5.1	-12.8	17.1	14.4	-20.8
June	2.1	3.9	6.8	-13.3	14.1	11.6	-21.3
<u>Gasoil</u>							
February	15.1	9.3	34.3	14.2	22.0	150.2	-4.1
March	11.7	9.2	26.0	-1.6	15.6	63.9	-5.7
April	11.1	9.6	24.3	-6.2	13.0	43.4	-9.3
May	11.0	10.1	24.3	-7.9	12.0	34.5	-9.6
June	11.0	10.3	24.2	-8.2	11.4	29.1	-8.7
<u>WTI</u>							
February	-1.3	-6.3	21.0	-4.3	-3.6	-5.7	6.5
March	3.1	0.3	118.9	-7.6	7.8	3.0	5.0
April	4.8	3.0	116.3	-8.4	9.8	4.1	0.4
May	5.7	3.9	102.9	-8.6	9.0	3.8	-2.9
June	6.1	4.5	88.7	-8.7	8.4	3.2	-4.8
<u>Brent</u>							
February	20.7	3.3	90.3	-7.7	63.0	28.5	-5.0
March	14.9	7.2	138.6	-8.2	29.7	8.5	-10.1
April	13.0	8.5	113.8	-7.6	22.6	7.6	-7.4
May	12.3	9.0	94.2	-7.6	18.9	6.6	-7.4
June	11.5	8.8	80.8	-7.6	16.5	5.5	-7.5
<u>Natural Gas</u>							
April	-6.4	-4.9	0.9	-8.5	6.9	0.9	-2.1
May	-2.6	-1.7	5.2	-6.3	7.5	2.1	-0.9
June	0.8	1.6	8.7	-3.8	8.0	2.8	0.4
July	3.3	4.2	11.8	-2.0	8.5	3.2	1.3
August	4.8	5.7	12.8	-0.9	8.6	3.3	1.3

Note: Data for "Current" are as of 1/8/2010. All returns to storage are adjusted for the cost of money.

Source: PKVerleger LLC.

January 11, 2010

Table 3. Open Interest for Crude, Products, and Natural Gas — First Week of January vs. Prior Week and First Week of January in Prior Years (Number of Contracts)

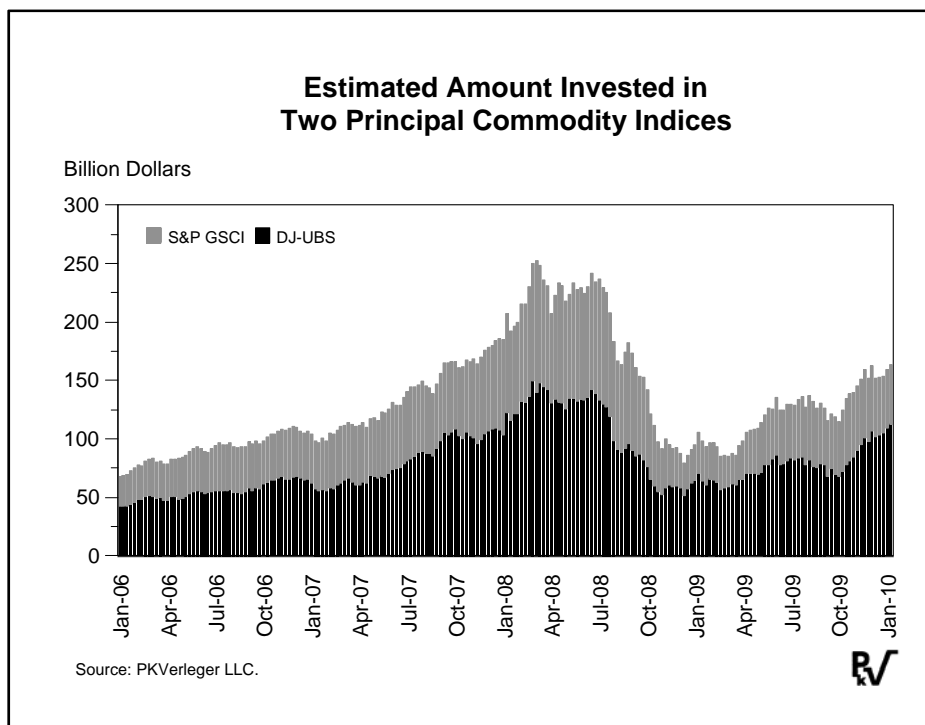
	<u>Current</u>	<u>Last Week</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>
<u>Gasoline</u>							
Total	256,842	232,937	192,857	217,987	159,534	153,143	156,284
February	91,481	85,395	66,782	49,146	46,377	47,623	52,431
March	49,860	42,756	41,169	59,509	43,698	47,563	26,863
April	35,664	29,946	20,592	29,350	21,648	21,081	21,861
May	16,204	13,014	12,566	26,966	14,145	13,900	23,521
<u>Distillate</u>							
Total	325,326	306,792	225,474	207,452	220,598	170,105	149,791
February	94,206	92,722	46,197	62,595	69,047	48,669	53,062
March	59,588	50,280	35,663	59,875	59,786	58,943	35,347
April	33,703	28,636	23,981	20,119	22,641	17,413	15,092
May	19,886	17,664	18,517	11,692	9,129	8,754	6,345
<u>Gasoil</u>							
Total	562,364	554,533	425,623	226,485	321,779	217,576	174,671
February	135,984	105,451	92,986	63,513	88,692	68,276	47,050
March	62,434	53,920	42,216	44,480	38,782	45,179	17,486
April	39,352	30,364	26,349	18,141	19,205	21,339	10,576
May	27,744	25,232	23,472	16,491	16,218	7,659	4,704
<u>WTI</u>							
Total	1,277,089	1,198,339	1,187,901	1,425,137	1,300,098	905,014	698,047
February	262,309	282,617	207,749	221,440	199,377	116,009	148,723
March	196,110	168,505	207,159	290,688	295,530	229,223	107,225
April	79,734	52,703	69,643	87,214	72,794	79,611	49,488
May	49,369	35,988	45,945	64,564	49,588	40,393	26,235
<u>Brent</u>							
Total	776,685	728,331	631,455	538,334	564,454	373,024	363,201
February	144,865	184,565	74,225	70,145	41,071	20,911	57,337
March	189,084	140,423	164,891	123,979	142,540	117,018	94,676
April	78,681	62,485	77,765	78,461	99,503	67,046	38,244
May	38,922	31,195	25,099	20,338	29,594	18,257	10,811
<u>Natural Gas</u>							
Total	738,474	703,993	695,166	868,576	899,525	548,151	399,230
February	119,093	120,353	80,713	75,902	66,705	54,050	65,322
March	139,262	131,859	107,364	131,977	160,845	84,273	46,455
April	78,787	75,447	64,146	63,527	103,566	32,759	27,799
May	46,971	38,520	42,765	55,034	46,816	31,816	21,939

Note: Data for "Current" are as of 1/8/2010.

Source: PKVerleger LLC.

January 11, 2010

## Tracking Commodity Investments by Passive Investors



## Relevant Oil Market Statistics for Investor Activity (Note: Calculations Based on 2009 Weights)

	1/5/10	12/29/09	12/1/09	1/6/09
<u>Total Investment (Millions as of Date)</u>				
S&P GSCI	\$113,071	\$110,067	\$107,575	\$55,834
DJ-UBS	\$50,765	\$49,560	\$55,382	\$34,633
Total	\$163,836	\$159,627	\$162,957	\$90,468
<u>Total Cash Injections (Millions, Four-Week Moving Average)</u>				
S&P GSCI	\$867	\$1,151	\$1,879	\$1,490
DJ-UBS	\$45	-\$992	-\$841	-\$153
<u>Relevant Statistics for Petroleum (Share of Open Interest, %)</u>				
WTI (NYMEX; ICE)	24.3	25.5	26.1	26.2
Brent	18.2	19.0	18.9	21.2
Heating Oil	21.0	21.2	21.6	24.8
Gasoil	10.5	11.1	10.7	10.7
Gasoline	22.4	23.7	22.8	32.3
<u>Value of Position (Millions)</u>				
WTI (NYMEX; ICE)	\$30,024	\$31,638	\$36,322	\$21,849
Brent	\$9,349	\$9,879	\$10,438	\$6,687
Heating Oil	\$5,265	\$5,211	\$6,061	\$3,805
Gasoil	\$3,286	\$3,496	\$3,766	\$2,348
Gasoline	\$4,182	\$4,303	\$5,020	\$3,098

Note: All data are estimates based on the best efforts of PKVerleger LLC. However, statistics must be considered indicative only for the following reasons. First, this calculation assigns all investment activity to two indices, the Dow-Jones-UBS (DJ-UBS) and the S&P Goldman Sachs Commodity Index (S&P GSCI). There are, in fact, a number of indices. The two used here are thought to be the most important. Second, the calculations are based on approximations of the value of three critical agricultural commodities that account for a small share of investment. This fact introduces further error. Third, we do not know whether funds instantaneously invest new cash or make investments on a periodic basis. The pattern of investment will skew the results. Readers are cautioned to use these data as indicators, not absolute numbers.

Source: PKVerleger LLC.