

TUDORPICKERING HOLT & CO | ENERGY INVESTMENT & MERCHANT BANKING

Weekly US Petroleum Data - Back to the Future



Dave Pursell
dpursell@tudorpickering.com
713-333-2962



API Data Release Moves To Tuesday Afternoon
A Discussion Of Implications

January 26, 2009

Summary

- While many investors don't realize it, the American Petroleum Institute (API) releases weekly petroleum inventory statistics (currently released simultaneously with DOE's on Wednesday morning).
- API data release is being moved up to Tuesday late afternoon, effective January 27.
- Potential market impact as financial types will trade on any available data...assuming it makes money and/or has an edge.
- Our analysis shows the API data is generally less accurate than the DOE. This introduces the possibility of increased market volatility (do we really need MORE?) until financial markets figure out the nuances of the API data.
- API data quality is OK for crude oil and distillate and poor for gasoline and Cushing oil inventories.
- We suggest sticking with the DOE's as the main source of inventory data...although we realize the temptation to peek at the API's initially will be too great to resist.

Introduction

- The American Petroleum Institute (API) is changing the release time of its weekly petroleum statistics from Wednesday morning to Tuesday afternoon (after the NYMEX close).
 - Energy veterans will remember the Tuesday PM inventory release of the “API’s” ...looks like we will be going “back to the future” starting this week.
- The information contained in the API weekly data is similar to the DOE’s weekly petroleum status report. Currently both API and DOE reports are released ~simultaneously on Wednesday mornings.
- The question this report attempts to address “which data set is more accurate?”
- Although the topic is kind of geeky, there is relevance to investors as commodity traders can/do influence oil and refined product prices and they will trade on any piece of information that “makes money”. An earlier release of inventory data will matter...if the data is accurate.

“Back in the old days” – the way things used to be

- Pre-2003 - Both DOE and API released statistics “before the commodity bell”
 - API released their weekly statistics Tuesday late afternoon ~5pm EST.
 - DOE released stats on Wednesday morning 9am EST.
 - Proof that “first is best”, API data were more widely quoted than DOE.
- Early 2003, DOE and API changed to simultaneous release (current time of 10:30EST)...during normal NYMEX trading hours.
 - DOE data has become industry standard in last five years during a period of simultaneous release (free market for ideas...the market has spoken).
- January 27, 2009
 - API plans to change release time back to Tuesday afternoon with a 4:30 EST planned released time.
 - API says round-the-clock trading makes a Tuesday release more practical.
 - Although the weekly stats are only a small part of “what the API does”, there must certainly be a “we want more attention” angle with the new release timing (see slide 11 for description of the API).

API and DOE Weekly Data - How do they compare

- Primary difference between API and DOE data
 - Reporting by industry to the entity:
 - DOE weekly reporting is mandatory
 - API report is voluntary

- Which is more accurate?
 - Our analysis says the DOE data are generally more accurate...particularly for gasoline inventories.
 - Note: to determine accuracy, we compared the weekly data to the more accurate DOE monthly data series...keep reading.

	Difference Between Weekly and Monthly Data Series Absolute Value - kbbls		DOE Better?	API Better?	Reference Purposes: Current Inventory Level (thousand barrels)
	DOE	API			
Crude Oil	3,828	3,795	Equal	Equal	332,700
Cushing Oil	500	881	Yes		33,200
Gasoline	2,551	2,994	Yes		220,000
Distillate	2,910	2,536		Slightly	145,000

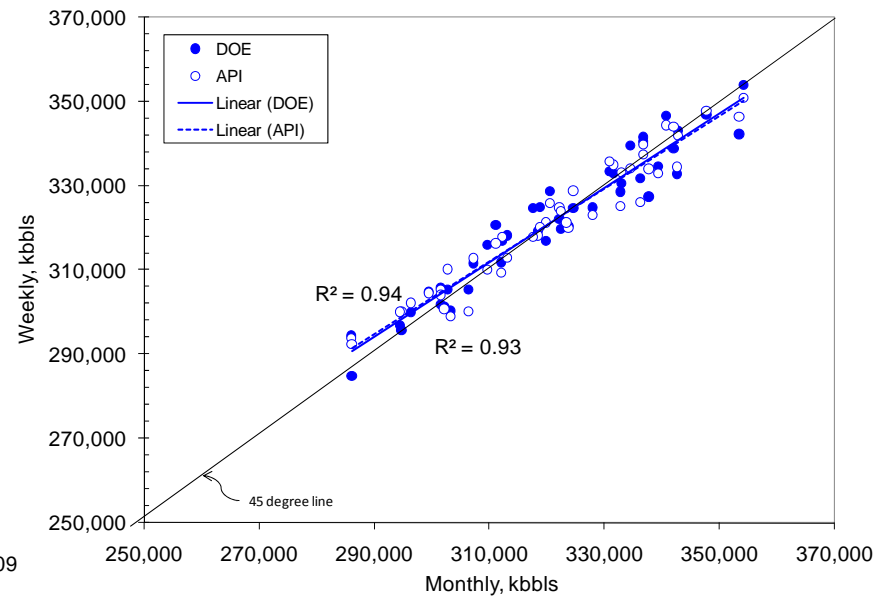
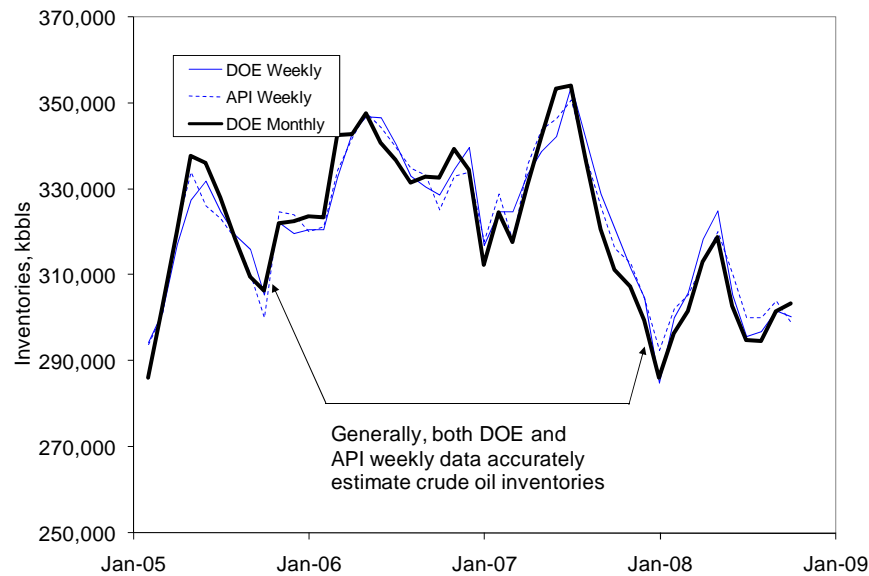
Weekly and Monthly Data Comparison

- To gauge the accuracy of API and DOE weekly samples, we compare to the more accurate/complete monthly data (see below).
 - We compare data from 2005 to present using a robust interpolation technique to set the weekly inventory data to month end (to “directly” compare the weekly and monthly data). We use monthly data for 2008 and revised monthly data for 2005-2007.
-

- Weekly Data - DOE (mandatory reporting) and API (voluntary)
 - Data for the week ending previous Friday
 - Usually **based on operational data** - makes it least accurate data source but most timely
 - Financial markets track closely (mostly DOE) and often trade on the data
- Monthly data from DOE (released at end of month in Petroleum Supply Monthly)
 - Data for entire month - released ~60 days after end of the month
 - Usually **based on monthly accounting systems** - more accurate data but less timely
 - Financial markets incorporate in models and use to adjust investment thesis
- Revised Monthly from DOE (released middle of following year in Petroleum Supply Annual)
 - Monthly data for prior year
 - Adjusts monthly data via re-submissions/corrections - most accurate but not useful due to large time lag. Financial markets largely ignore.

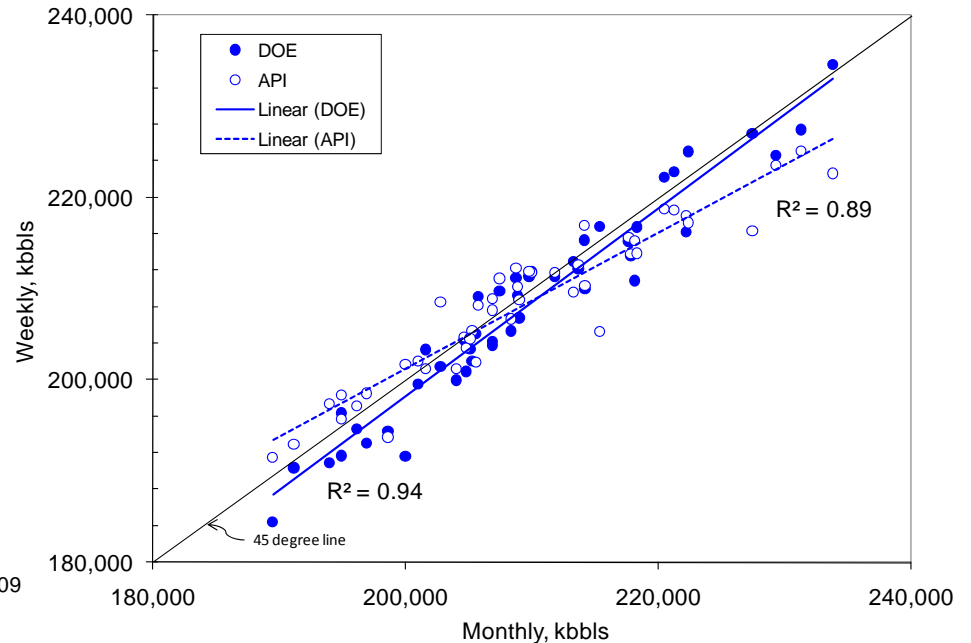
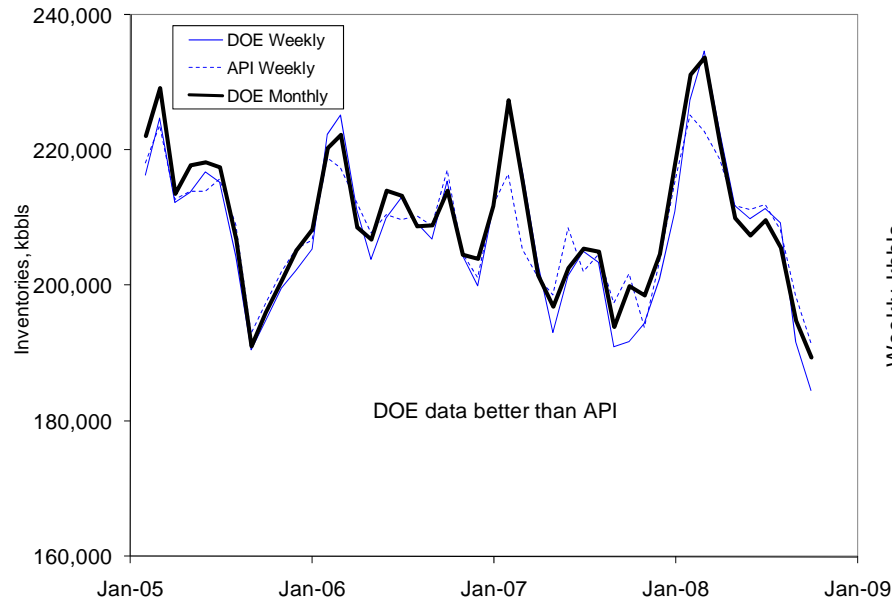
Monthly data more accurate than weekly as it is pulled from accounting systems

Crude Oil Inventory Comparison



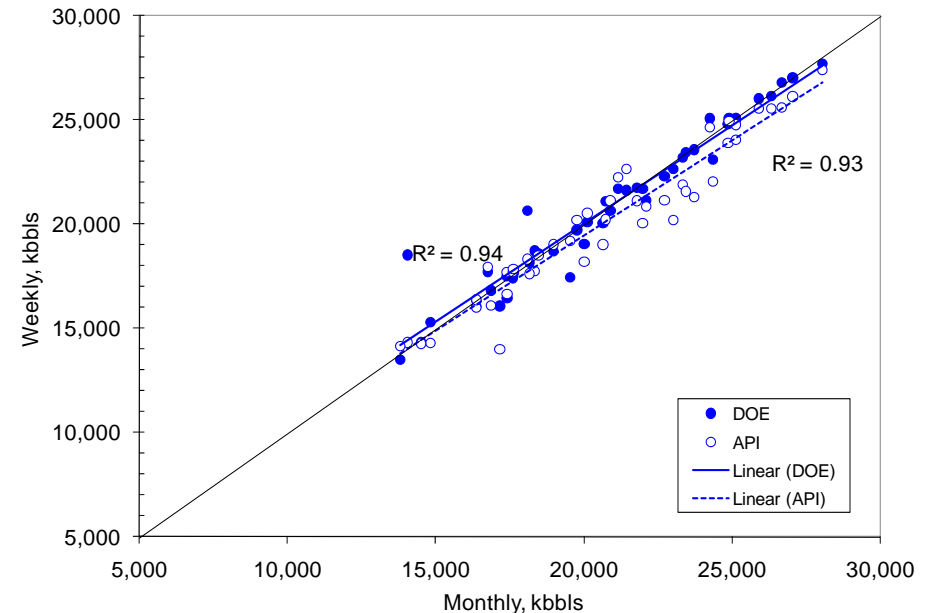
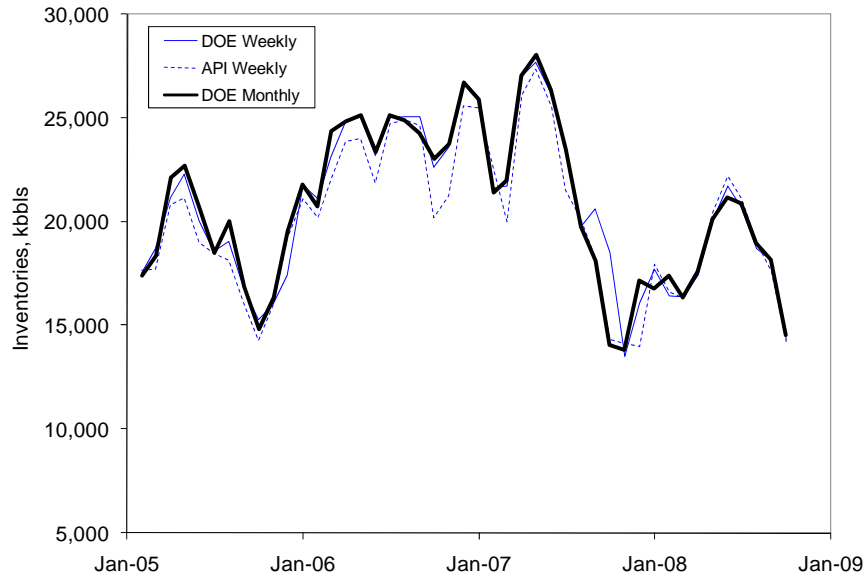
- API and DOE are both pretty good at estimating crude oil inventories.
- Both tend to overstate inventories at low levels and understate when inventories are high.

Gasoline Inventories



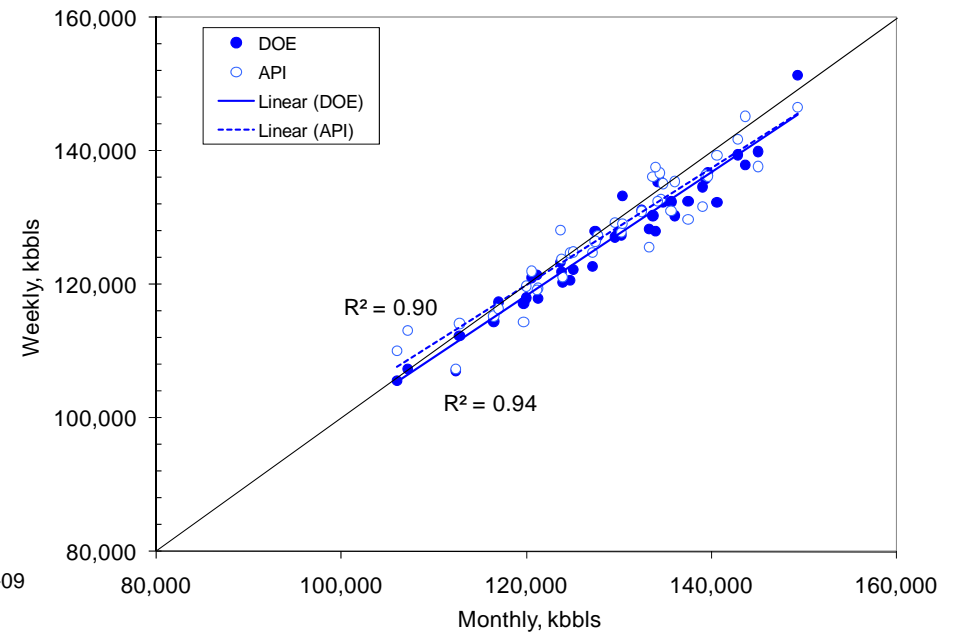
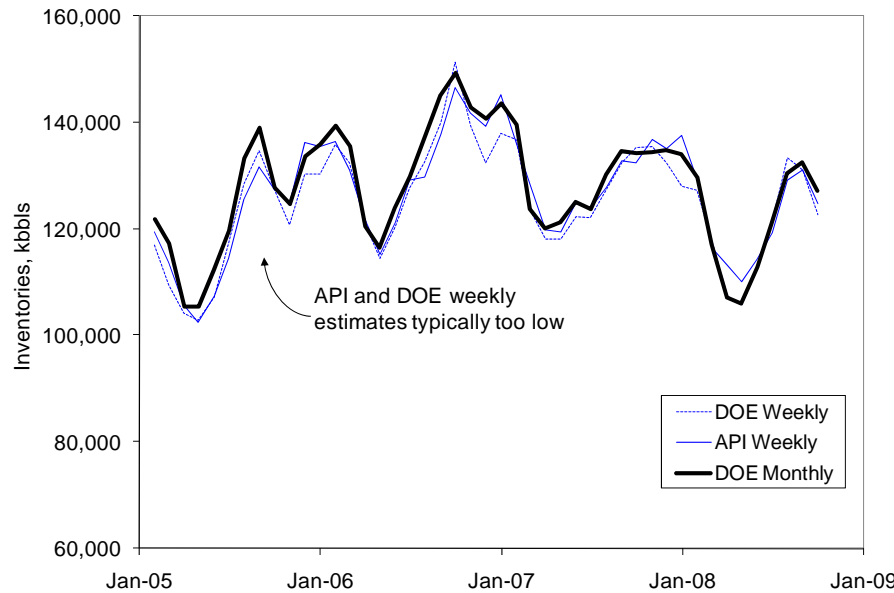
- DOE is much better at estimating gasoline inventories.
- API tends to overstate inventories at low levels and understate when inventories are high.
- API data has more "scatter" (lower R^2 value).

Cushing Oil Inventories



- DOE is generally better at estimating oil inventories at Cushing (NYMEX crude oil delivery point). Exception was late 2007 where DOE significantly overestimated inventories for a few months.
- API Cushing accuracy is good...but generally not as accurate as the DOE's.
- Note: Cushing inventories tend to matter more at extremes (either "full" or "empty") - DOE is more accurate at higher ("full") inventory levels.

Distillate Inventories



- Both API and DOE inventories generally underestimate distillate inventories.
- API does a slightly better job at estimating distillate inventories.

American Petroleum Institute - Who are they and why are they here?

- API - only national trade organization that represents all aspects of America's oil and natural gas industry. API has a broad range of programs:
 - Advocacy
 - Research and Statistics
 - Collect data on US industry operations - supply and demand, imports and exports, drilling activities, costs and well completions.
 - Weekly petroleum statistics
 - Standards
 - API develops industry equipment and operating standards. API maintains 500+ standards and recommended practices.
 - Certification
 - API verifies equipment manufacturers are operating in compliance with industry standards.
 - Education
 - www.api.org

Weekly petroleum data report – only a small piece of “what API does”.

Conclusions - How will TPH use the data?

- First few months (late-Jan thru March)
 - Watch both data series
 - Compare/educate on the differences
 - Focus on the DOE's unless market/data quality suggests otherwise.
- April and beyond
 - Focus primarily on DOE data unless the API data shows clear improvement in data quality.
- Buckle up - Jan 27th is here!

Analyst Certification:

We, Dan Pickering and Dave Pursell, do hereby certify that, to the best of our knowledge, the views and opinions in this research report accurately reflect our personal views about the company and its securities. We have not nor will we receive direct or indirect compensation in return for expressing specific recommendations or viewpoints in this report.

Important Disclosures:

The following analysts were involved in creating or supervising the content of this message; Dan Pickering and Dave Pursell. None of these analysts (or members of their household) have a long or short position in the securities mentioned in this report.

Analysts' compensation is not based on investment banking revenue and the analysts are not compensated by the subject companies. This communication is based on information which Tudor, Pickering, Holt & Co. Securities, Inc. believes is reliable. However, Tudor, Pickering, Holt & Co. Securities, Inc. does not represent or warrant its accuracy. The viewpoints and opinions expressed in this communication represent the views of Tudor, Pickering, Holt & Co. Securities, Inc. as of the date of this report. These viewpoints and opinions may be subject to change without notice and Tudor, Pickering, Holt & Co. Securities, Inc. will not be responsible for any consequences associated with reliance on any statement or opinion contained in this communication. This communication is confidential and may not be reproduced in whole or in part without prior written permission from Tudor, Pickering, Holt & Co. Securities, Inc.

For detailed rating information, distribution of ratings, price charts and other important disclosures, please visit our website at <http://www.tudorpickering.com/Disclosure/> or request a written copy of the disclosures by calling 713-333-2960.