

## **Crude Oil Price Data Documentation**

### **Overview**

This documentation pertains to the crude oil prices contained in MasterFile\_CDataM.xlsx. This data package is updated monthly using real time data available on the last day of each month at 11:59 pm EST.

This data is from Ellwanger and Snudden (2023a) and the backcasted (Pre-1986) data is from Ellwanger and Snudden (2023b). Please cite the appropriate sources when using this data.

Note that real-time data for the global crude oil market, including the Refiner's Acquisition Cost of Crude Oil, are reported in a separate data package.

### **Spot Prices of Crude Oil and Petroleum Products Spreadsheet Documentation**

- *Monthly average and end-of-month spot prices Brent and WTI*

This is the monthly average and end-of-month spot price of WTI and Brent. Data is obtained from the EIA website. Monthly average prices are the simple monthly average of daily closing spot prices. The end-of-month spot prices (WTI\_lastday and Brent\_lastday) are the closing prices on the last trading day of the month. Monthly WTI and Brent prices are backcasted prior to 1986M1 and 1987M5, respectively, using data from the front futures contract and then RAC.

- *Nominal RAC*

This is the latest vintage of the Refiner's Acquisition Cost of Crude Oil expressed in dollars per barrel. This is weighted monthly average of acquisition costs. The typical delay of this data series is 2 months. The data is retrieved from U.S. Energy Information Administration's (EIA) Monthly Energy Review (MER). Imputation for 1973 follows Mork (1989).

- *US CPI*

This is the latest vintage of monthly seasonally adjusted U.S. consumer price index for all urban consumers available from the Economic Indicators published by the Council of Economic Advisers and obtained from the macroeconomic real-time database of the [Federal Reserve Bank of Philadelphia \(PCPI\)](#). The typical delay of this data series is 1 month.

**Table 1. Crude Oil Prices***(Filename: Masterfile\_CDataM)*

<u>Series</u>	<u>Unit of Measurement</u>	<u>Start-Date</u>	<u>Data Sources</u>
WTI	Dollars per Barrel (Monthly Average)	1986 - 01	<i>Petroleum and Other Liquids</i> from the <a href="#">U.S. Energy Information Administration</a>
Brent	Dollars per Barrel (Monthly Average)	1987 - 05	<i>Petroleum and Other Liquids</i> from the <a href="#">U.S. Energy Information Administration</a>
WTI_lastday	Dollars per Barrel (Closing price on the last trading day of the month)	1986 - 01	<i>Petroleum and Other Liquids</i> from the <a href="#">U.S. Energy Information Administration</a>
Brent_lastday	Dollars per Barrel (Closing price on the last trading day of the month)	1987 - 05	<i>Petroleum and Other Liquids</i> from the <a href="#">U.S. Energy Information Administration</a>
RAC	Dollars per Barrel	1973 - 01	Imputed, Mork (1989, p. 741)
		1974 - 01	Crude Oil Price Summary, <a href="#">Monthly Energy Review</a> from the EIA
CPI	US Consumer Price Index	1973 - 01	Latest release from the macroeconomic real-time database of the <a href="#">Federal Reserve Bank of Philadelphia (PCPI)</a> .

## **References**

Ellwanger, R. and S. Snudden, (2023a). Forecasts of the Real Price of Oil Revisited: Do they Beat the Random Walk? *Journal of Banking and Finance*, 154(106962): 1-8.

Ellwanger, R. and Snudden, S. (2023b). Futures Prices are Useful Predictors of the Spot Price of Crude Oil. *The Energy Journal*, 44(4): 45-62.

Mork, K. A. (1989). Oil and the macroeconomy when prices go up and down: an extension of Hamilton's results. *Journal of Political Economy*, 97(3), 740-744.