

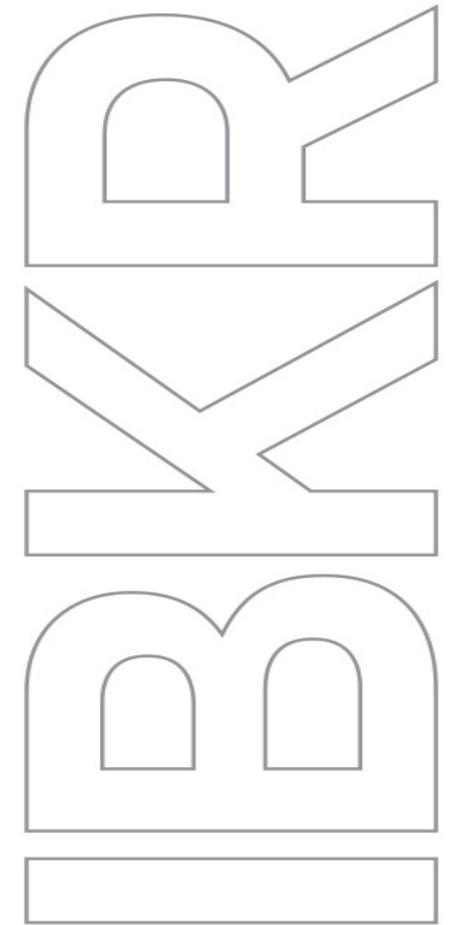


Interactive Brokers

in conjunction with
Fundamental Analytics
present:

**Fundamental Analytics -
Understand Current Energy
Supply and Demand Status
and What the Data is
Suggesting for 2021**

Joel Fingerman
Managing Partner
Fundamental Analytics, LLC



February 3, 2021

 **InteractiveBrokers**

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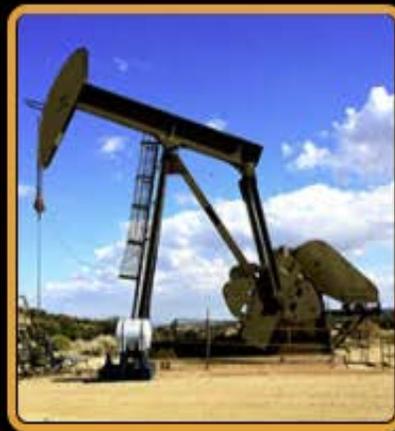
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After choosing the Energy icon we view the energy commodity choices.



Agriculture



Energy



Financial



Metals

Coal
Gasoil
Natural Gas


 Crude Oil
Gasoline

Emissions
Heating Oil

Prices is highlighted with the Crude Oil product.



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Chart 1     

Fundamentals

Prices

Analysis

Select Chart  Plot Data

Energy  Crude Oil  Select 



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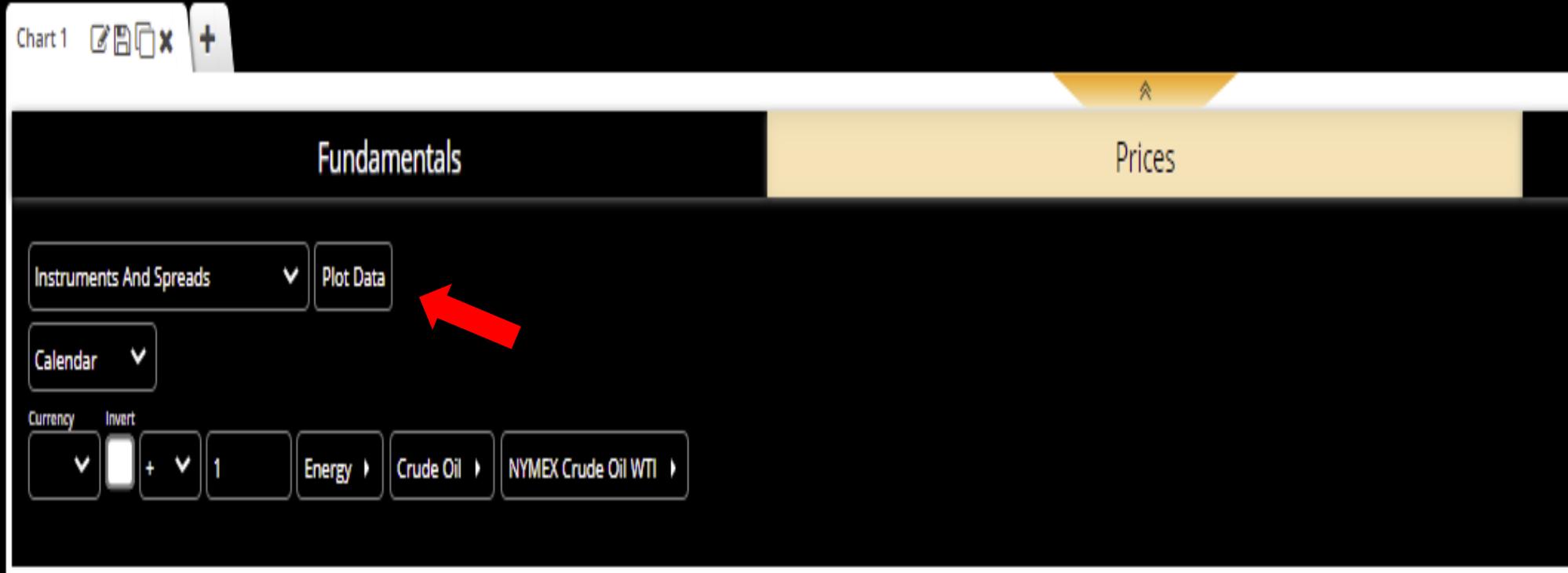
Using the dropdown we choose Instruments and Spreads.

The screenshot shows a software interface with two main tabs: 'Fundamentals' (dark grey) and 'Prices' (yellow). Below the 'Fundamentals' tab, there is a 'Select Chart' dropdown menu and a 'Plot Data' button. The dropdown menu is open, displaying a list of chart types. A red arrow points to the 'Instruments And Spreads' option. To the right of the dropdown, there is a 'Crude Oil WTI' button with a right-pointing arrow.

- Select Chart
- Select Chart
- Basis
- Daily Price Table
- Forward Curve
- Futures Vs Open Interest
- High-Low-Close
- Historic Volatility
- Implied Volatility
- Implied Volatility Delta
- Implied Volatility Skew
- Instruments And Spreads
- Open Interest
- Open Interest - Compare Contracts
- Open Interest - Data Table
- Open Interest - Totals
- Spread Matrix
- Term Structure

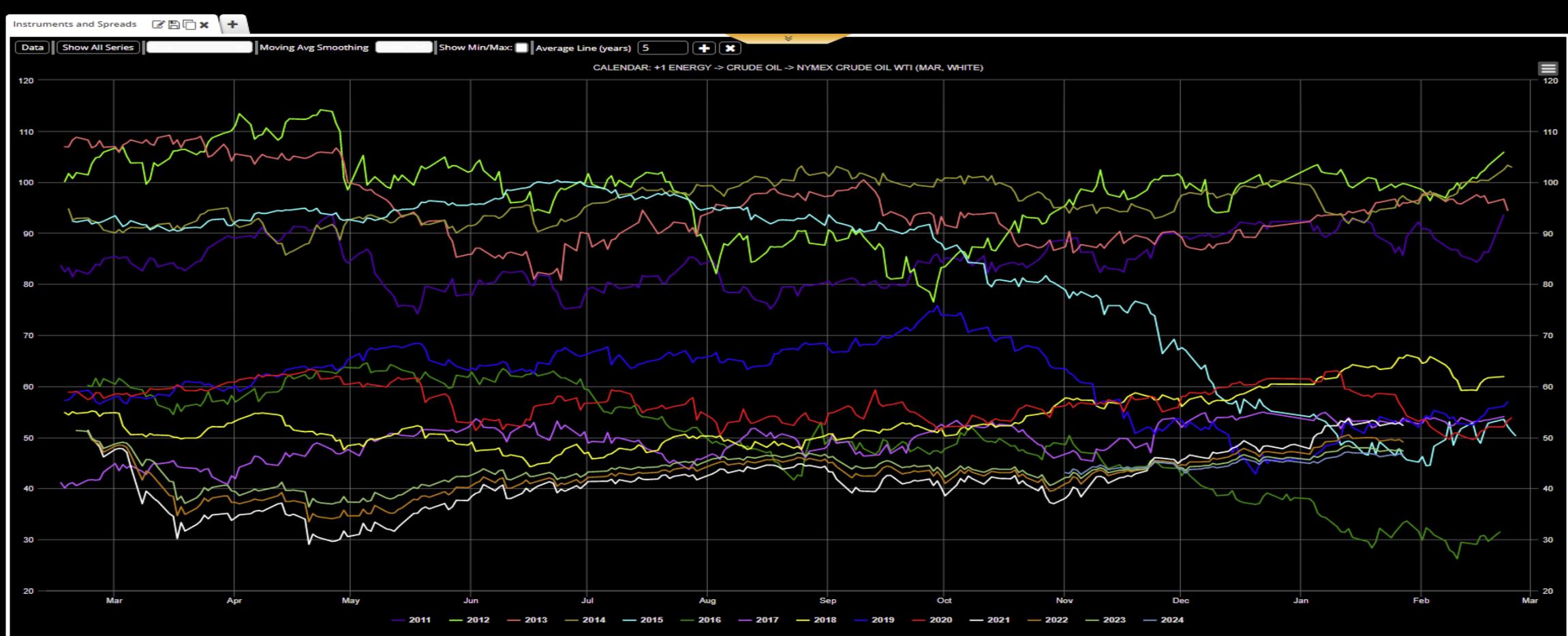
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Then we click on Plot Data



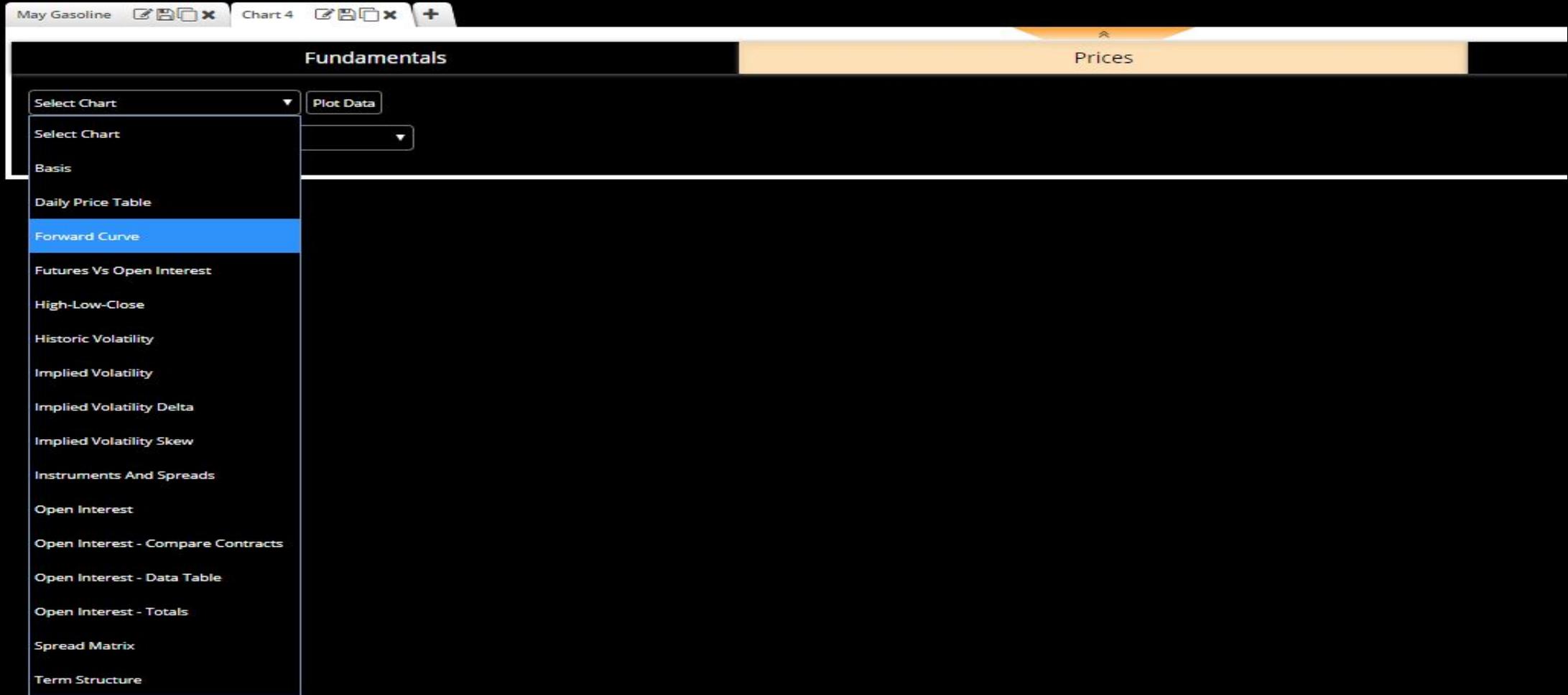
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A year –on-year plot is created of the NYMEX March WTI Crude Oil futures prices price going back to 2011.



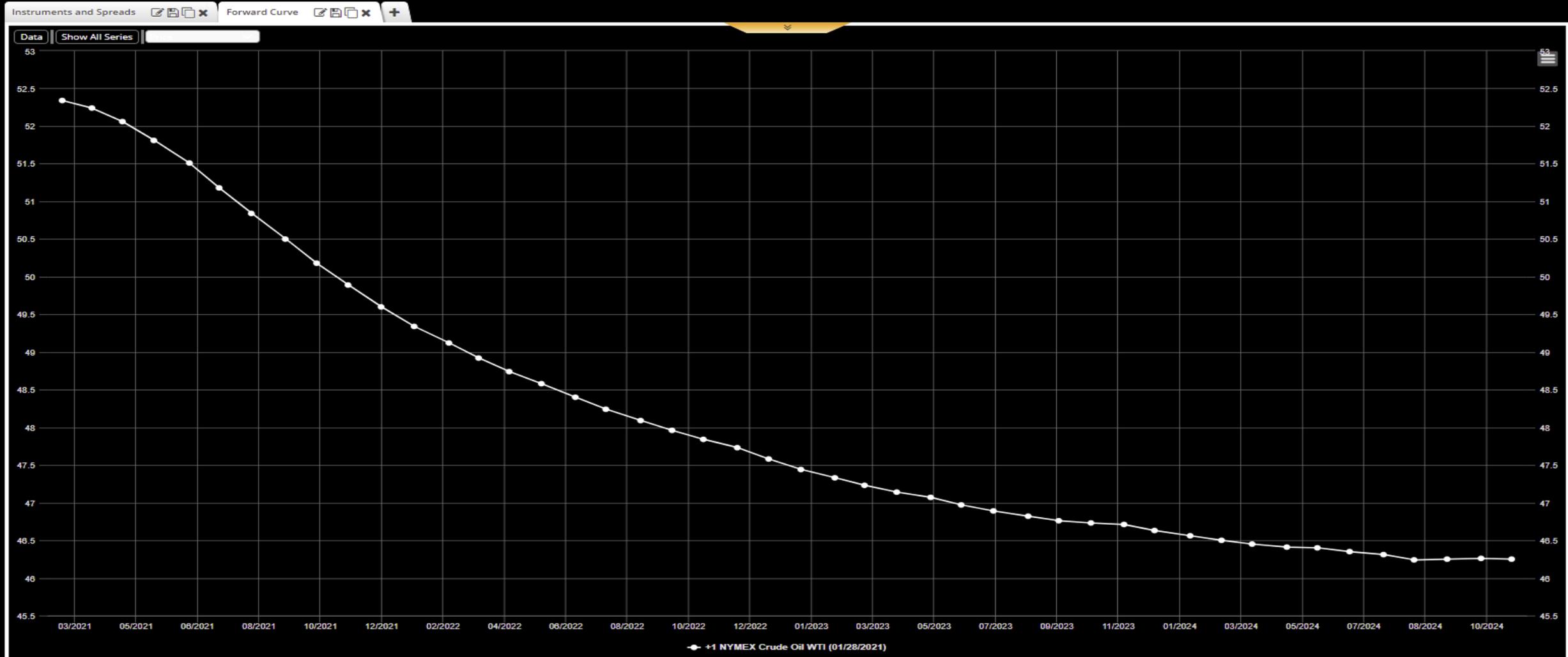
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Using the dropdown again under Prices we choose the Forward Curve.



All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Clicking on the Plot Data button retrieves a graph of the Forward Curve of Prices of Natural Gas settles.



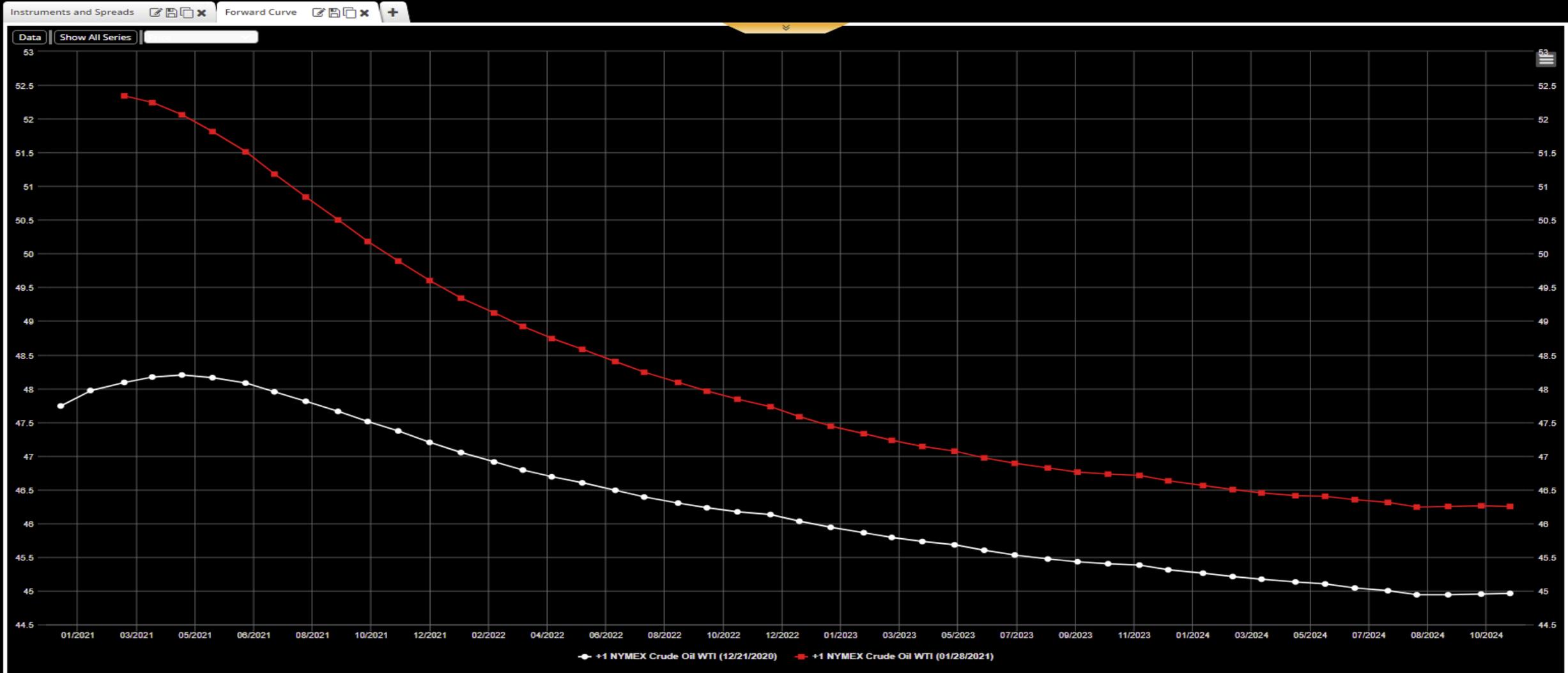
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We Add Position and click on the date box to bring up another date to compare with the most recent.



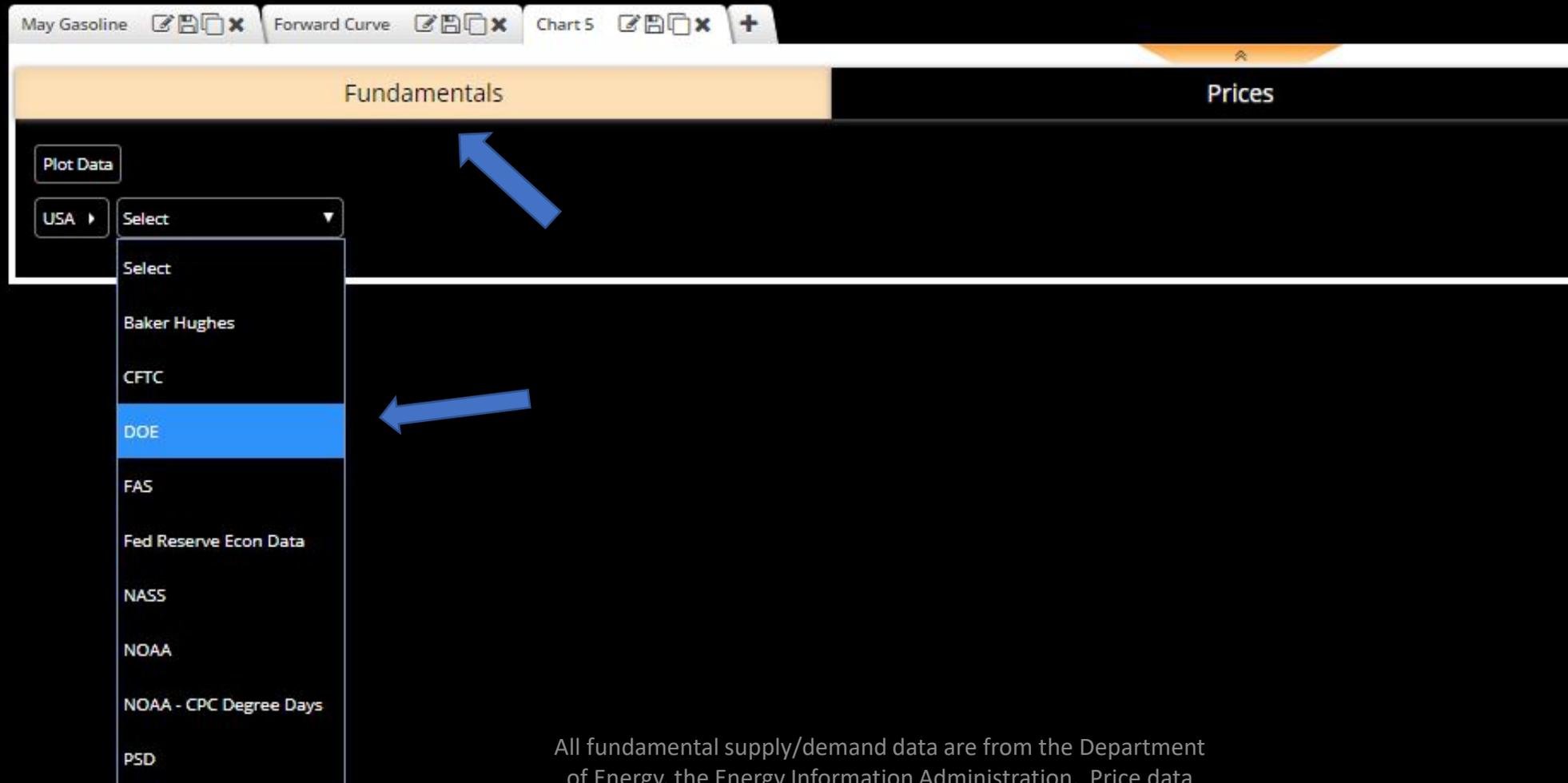
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

We can now compare the change in the level and structure of the forward curves.



All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

We now consider Fundamental data as they provide insights to price behavior. We click on the Fundamentals bar and use the dropdown to retrieve DOE (Department of Energy) data.



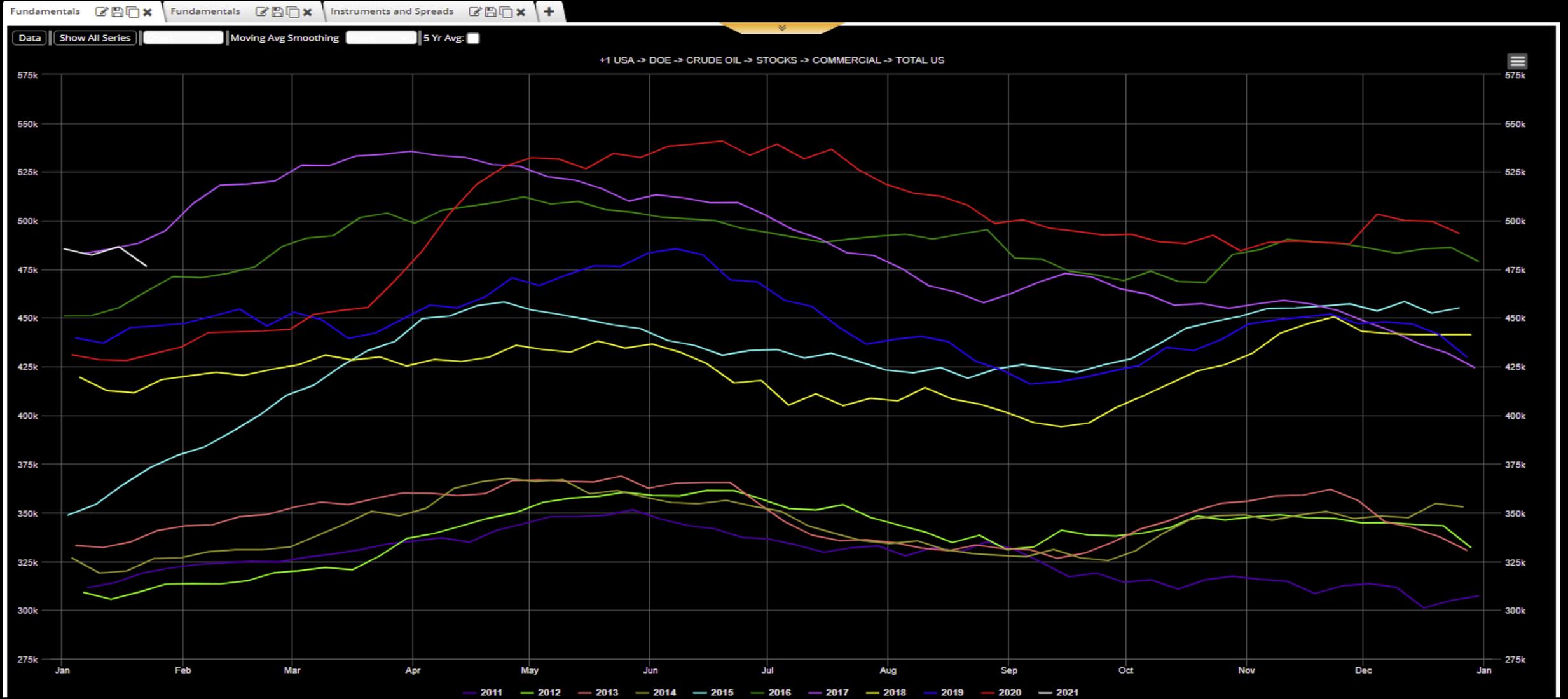
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

After clicking on DOE we retrieve Crude Oil.

The screenshot shows a web application interface with three main tabs: 'Fundamentals' (highlighted in yellow), 'Prices', and 'Analysis'. Below the tabs, there is a navigation area with a 'Plot Data' button and a series of dropdown menus. The first dropdown is 'USA', the second is 'DOE', and the third is 'Crude Oil'. The 'Crude Oil' dropdown is open, showing a list of options: 'Select', 'Asphalt', 'Crude Oil' (highlighted in blue), 'Crude Oil And Petroleum Products', 'Distillate Fuel Oil', 'Fuel Ethanol', 'Gasoline', 'Kerosene', 'LPG', 'Natural Gas', 'NGPLs/LRGs', 'Other Oils', 'Propane/Propylene', 'Propylene', 'Residual Fuel Oil', 'Total Petroleum Products', and 'Unfinished Oils'. A fourth dropdown menu labeled 'Select' is also visible to the right of the 'Crude Oil' dropdown.

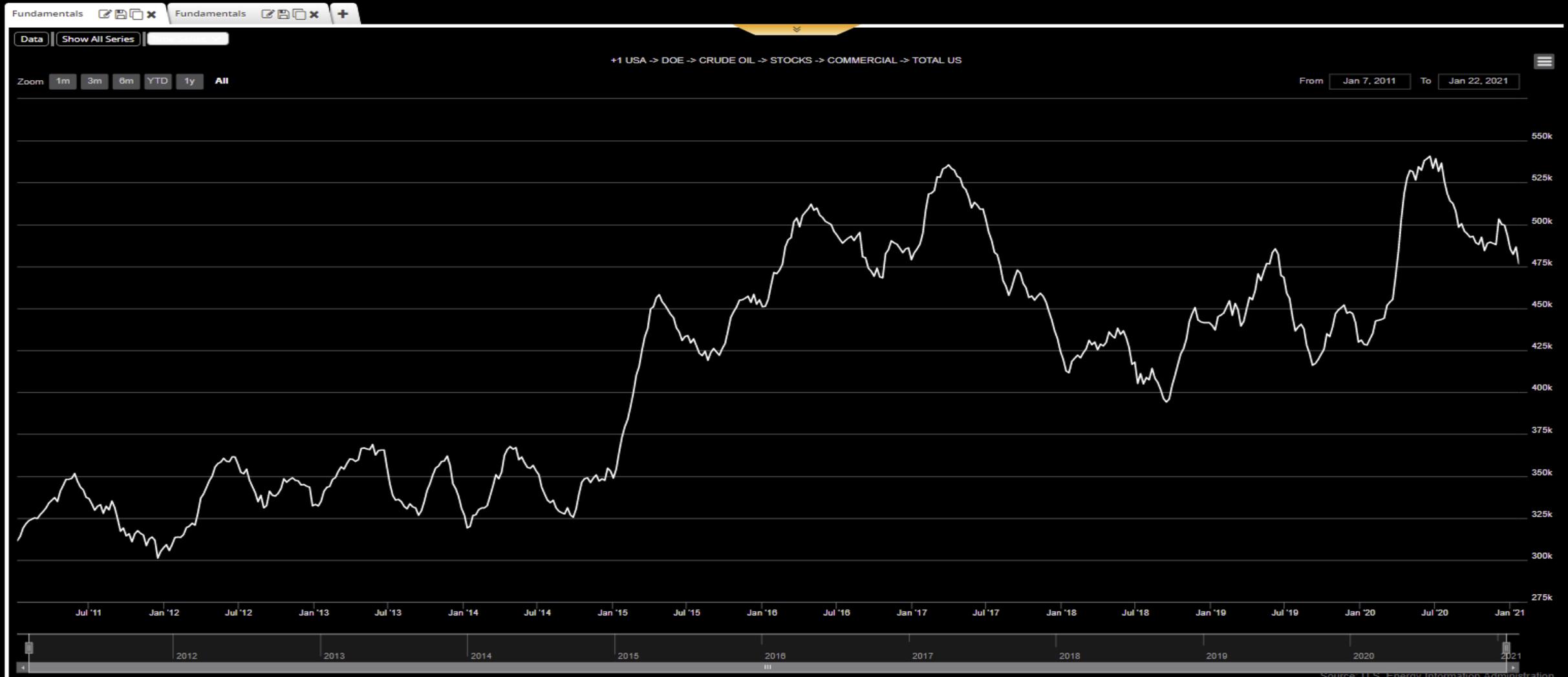
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

We then choose Total Stocks and the seasonality of storage.



All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

We then click on the Chart tab and choose Series which displays the data in time series format.



All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Source: U.S. Energy Information Administration

We then click on the Duplicate icon, and change from Total US to Cushing, Ok

Fundamentals

Fundamentals

Fundamentals

Prices

Plot Data

+ 1 USA DOE Crude Oil Stocks Commercial Cushing, Oklahoma Weekly

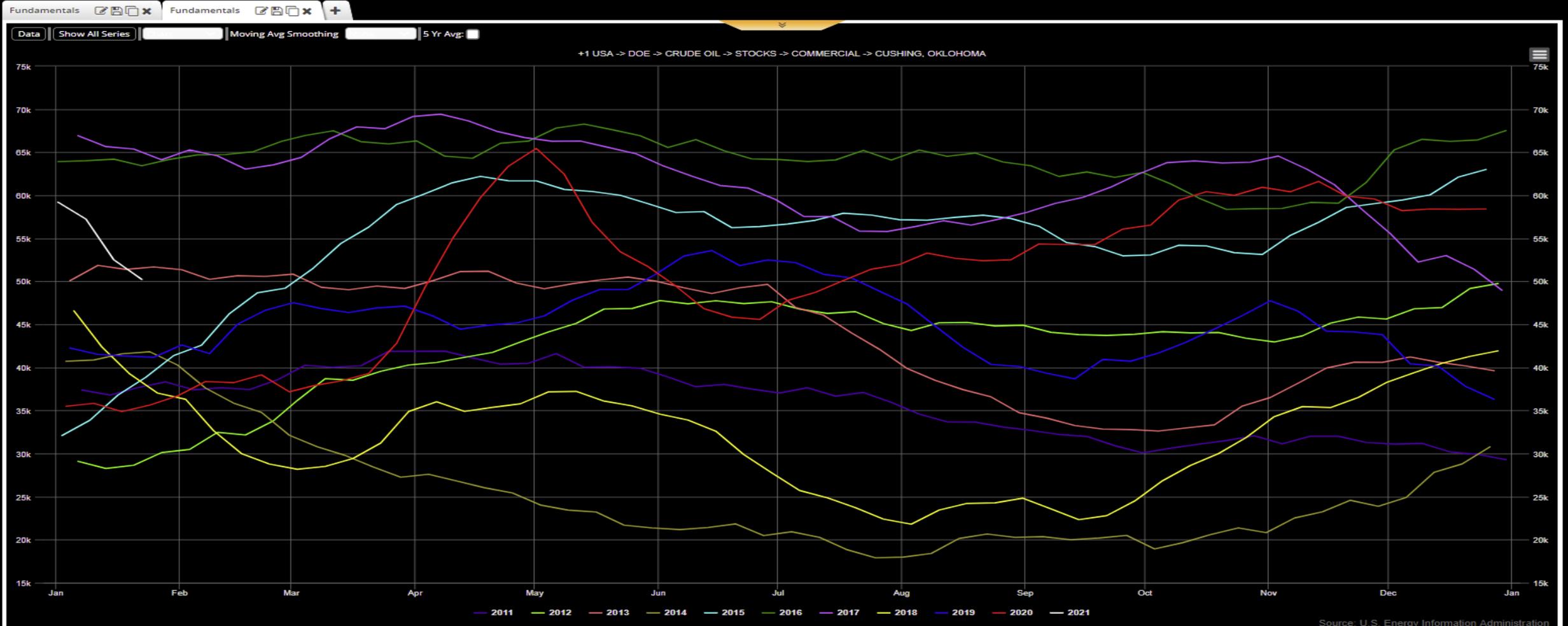
Data Show All Series

+1 USA -> DOE -> CRUDE OIL -> PRODUCTION -> DOMESTIC PRODUCTION ->

Zoom 1m 3m 6m YTD 1y All

All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Clicking on the Plot Data button brings up the year-on-year chart of Cushing, OK region, the delivery point of the NYMEX WTI crude oil contract.



All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

We now switch back to NYMEX Crude Oil prices

The screenshot shows a software interface with three tabs at the top: 'Fundamentals', 'Fundamentals', and 'Chart 2'. Below the tabs is a navigation bar with three sections: 'Fundamentals', 'Prices', and 'Analysis'. The 'Prices' section is highlighted in yellow. Below the navigation bar, there are two rows of controls. The first row contains a 'Select Chart' dropdown menu and a 'Plot Data' button. The second row contains three buttons: 'Energy', 'Crude Oil', and 'Select', with a dropdown arrow on the 'Select' button.

All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Using the dropdown Select Chart we again choose Instruments and Spreads

The screenshot shows a trading interface with two tabs: 'Fundamentals' and 'Prices'. The 'Prices' tab is active. Below the tabs, there is a 'Select Chart' dropdown menu and a 'Plot Data' button. The dropdown menu is open, showing a list of chart types. The 'Instruments And Spreads' option is highlighted in blue. To the right of the dropdown, there is a 'Gasoline RBOB' dropdown menu with a right-pointing arrow. The main content area below the dropdowns is currently blank.

- Select Chart
- Select Chart
- Basis
- Daily Price Table
- Forward Curve
- Futures Vs Open Interest
- High-Low-Close
- Historic Volatility
- Implied Volatility
- Implied Volatility Delta
- Implied Volatility Skew
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- Open Interest
- Open Interest - Compare Contracts
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- Term Structure

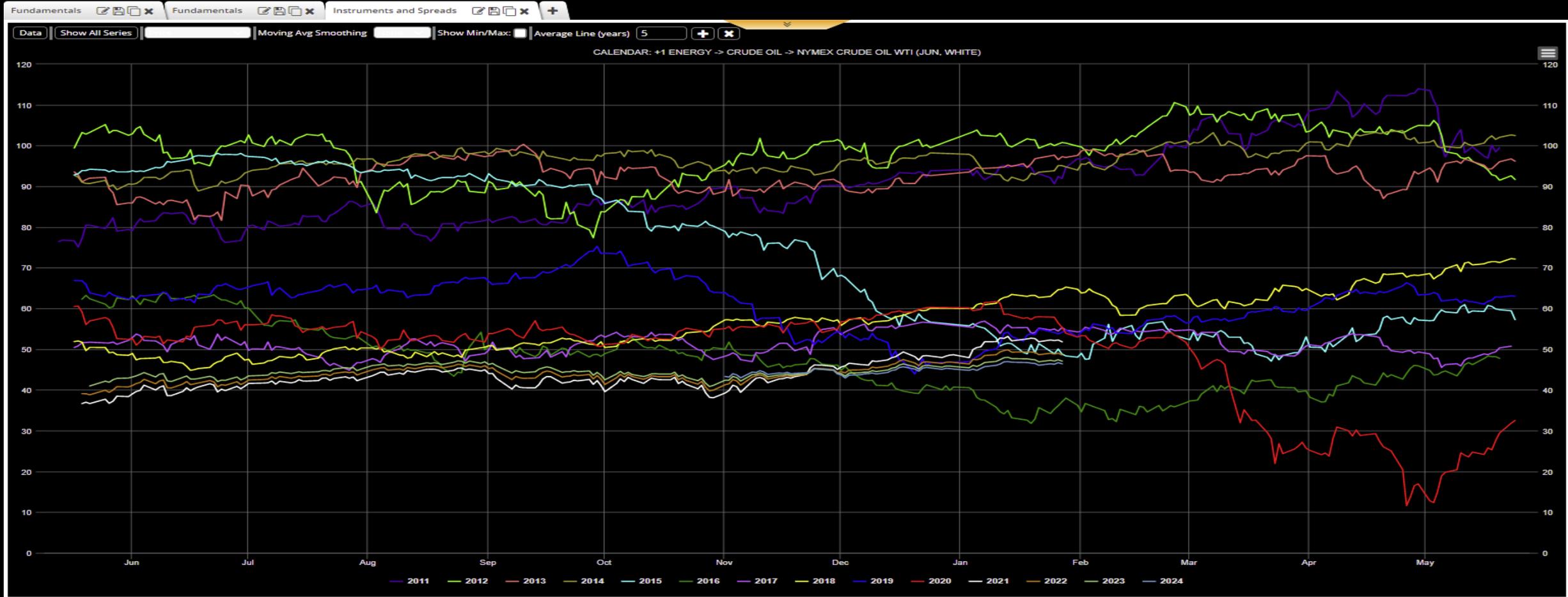
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This time we change the default from March to June

The screenshot shows a trading software interface with three tabs: 'Fundamentals', 'Prices', and 'Analysis'. The 'Prices' tab is active. Below the tabs, there are several control elements: 'Instruments And Spreads' dropdown, 'Plot Data' button, 'Calendar' dropdown, 'Currency' dropdown, 'Invert' checkbox, a '+' button, a '1' input field, 'Energy' dropdown, 'Crude Oil' dropdown, 'NYMEX Crude Oil WTI' dropdown, a '+' button, 'JUN' dropdown, and 'White Months' dropdown. A red arrow points from the 'NYMEX Crude Oil WTI' dropdown to the 'JUN' dropdown.

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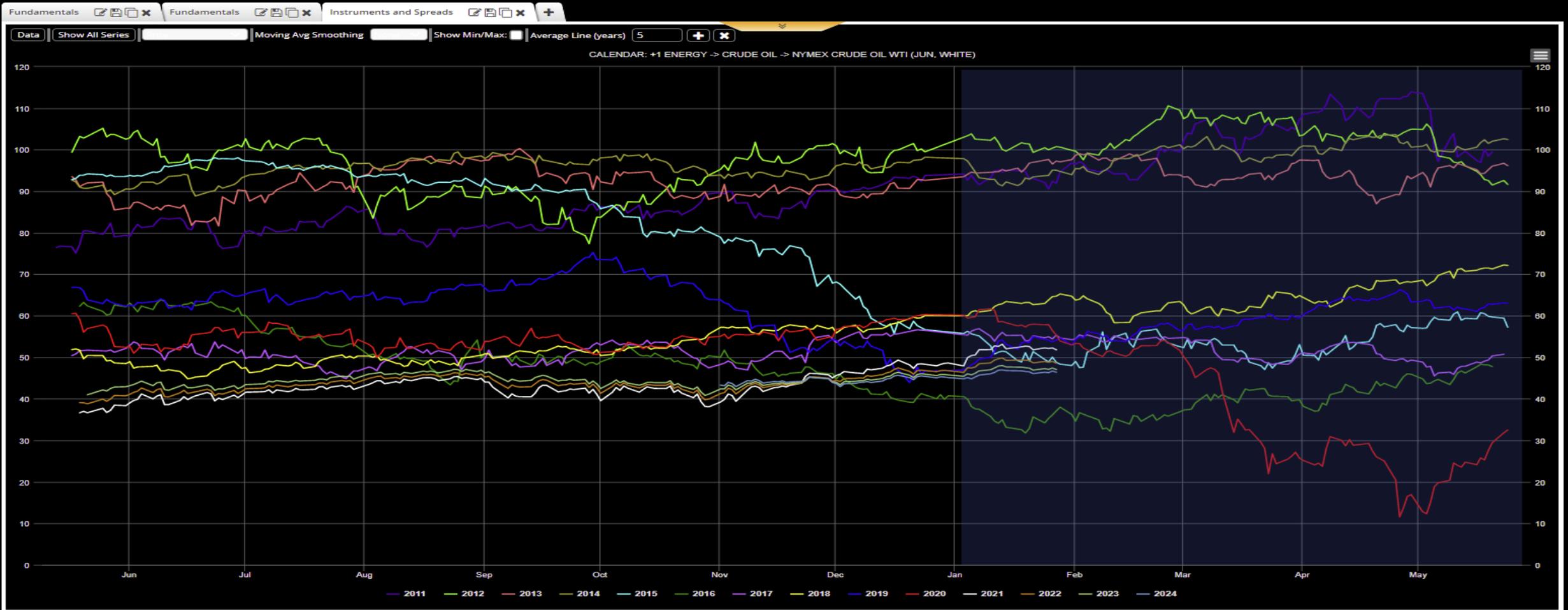
By clicking on the Plot Data button we retrieve the year-on-year chart of the June WTI Crude oil prices.



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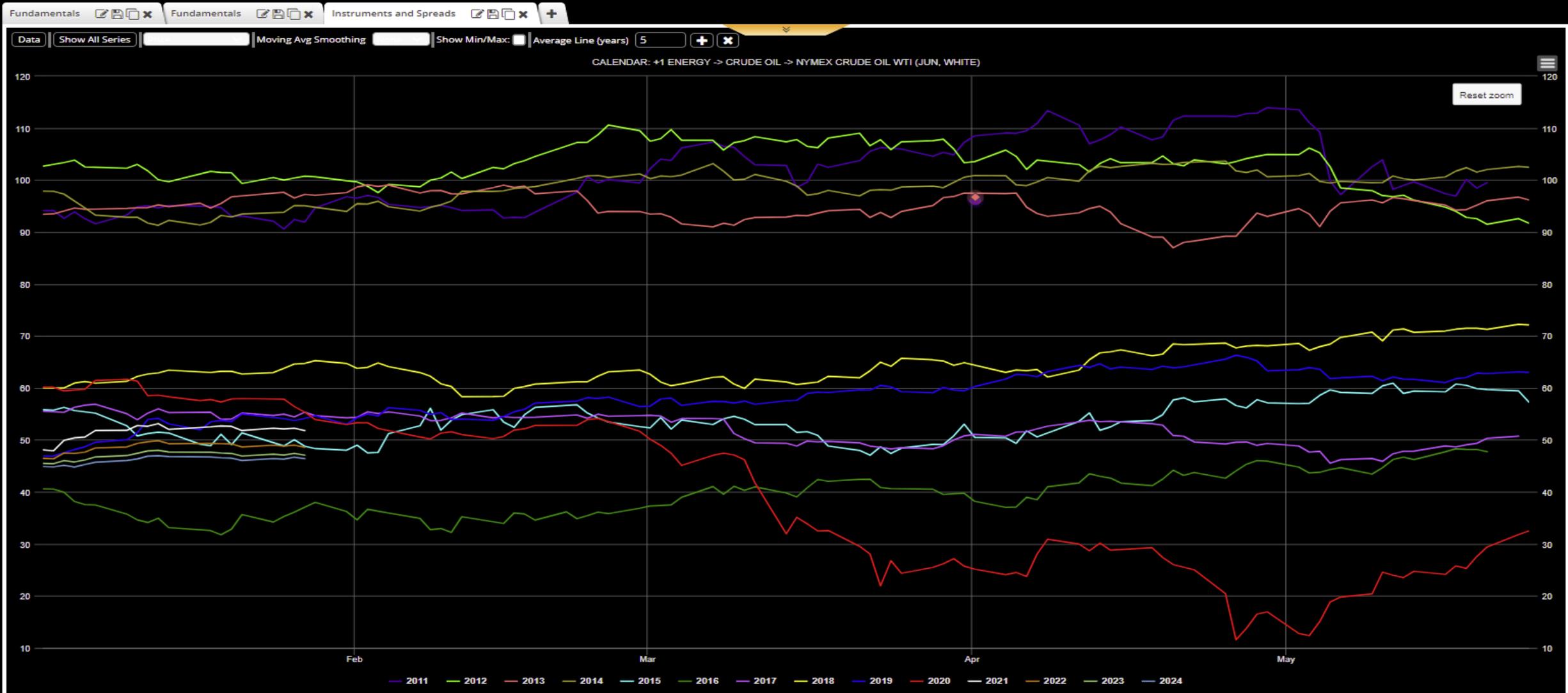
We can zoom in to a portion of the chart by left clicking on the mouse and dragging it over the area of interest in the chart as shown by the blue shading.

ANALYTICS



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Releasing the mouse click shows the zoomed in area.



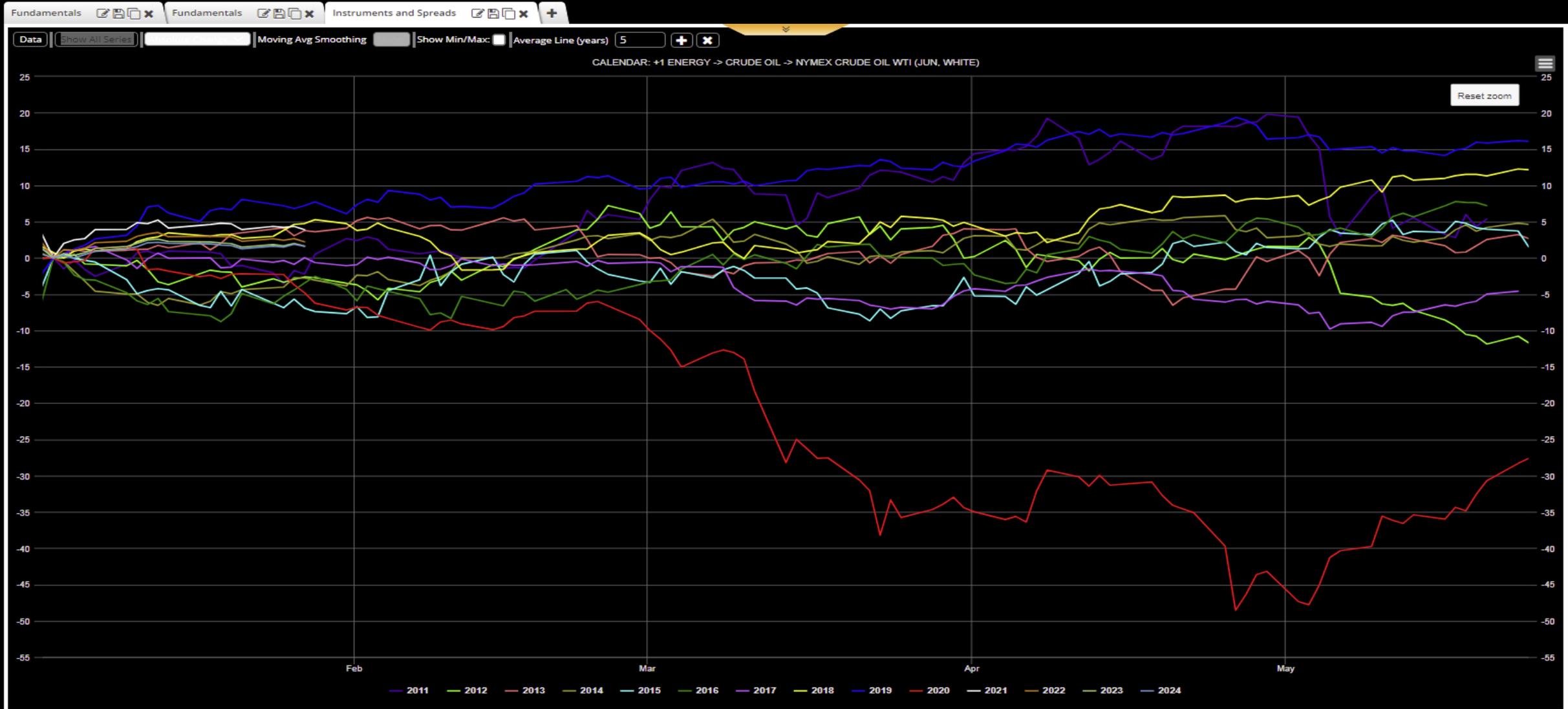
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Clicking on the dropdown of Price and choosing Absolute Change allows the chart to translate the plots to start at zero and show the change.



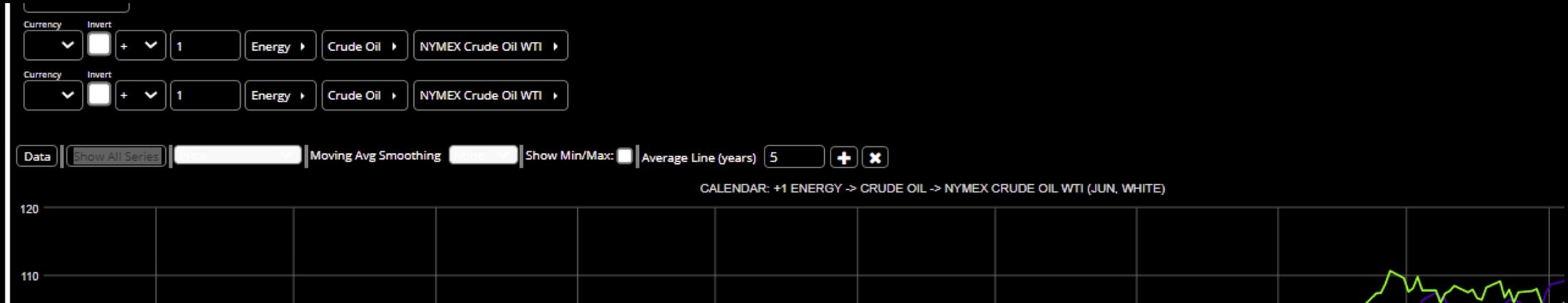
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The change in the March Natural Gas price into expiration is shown.



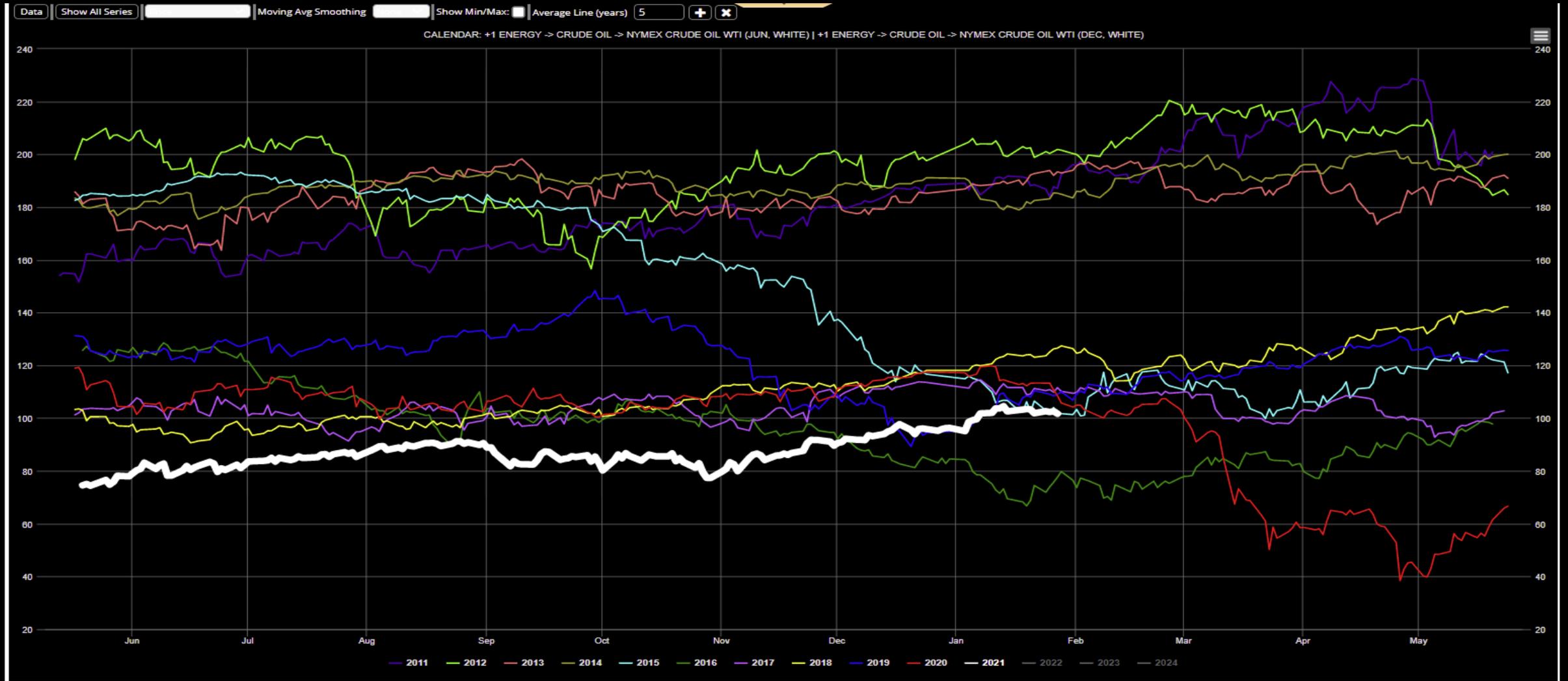
All fundamental supply/demand data are from the Department of Energy, the Energy Information Administration. Price data source: Barchart/CME

Clicking on the + box adds another position or “leg” and we construct the June-Dec crude oil calendar spread.



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Clicking on the Plot Data button retrieves the June-Dec crude oil calendar spread which can be a leading indicator of crude oil supplies for the upcoming driving season



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