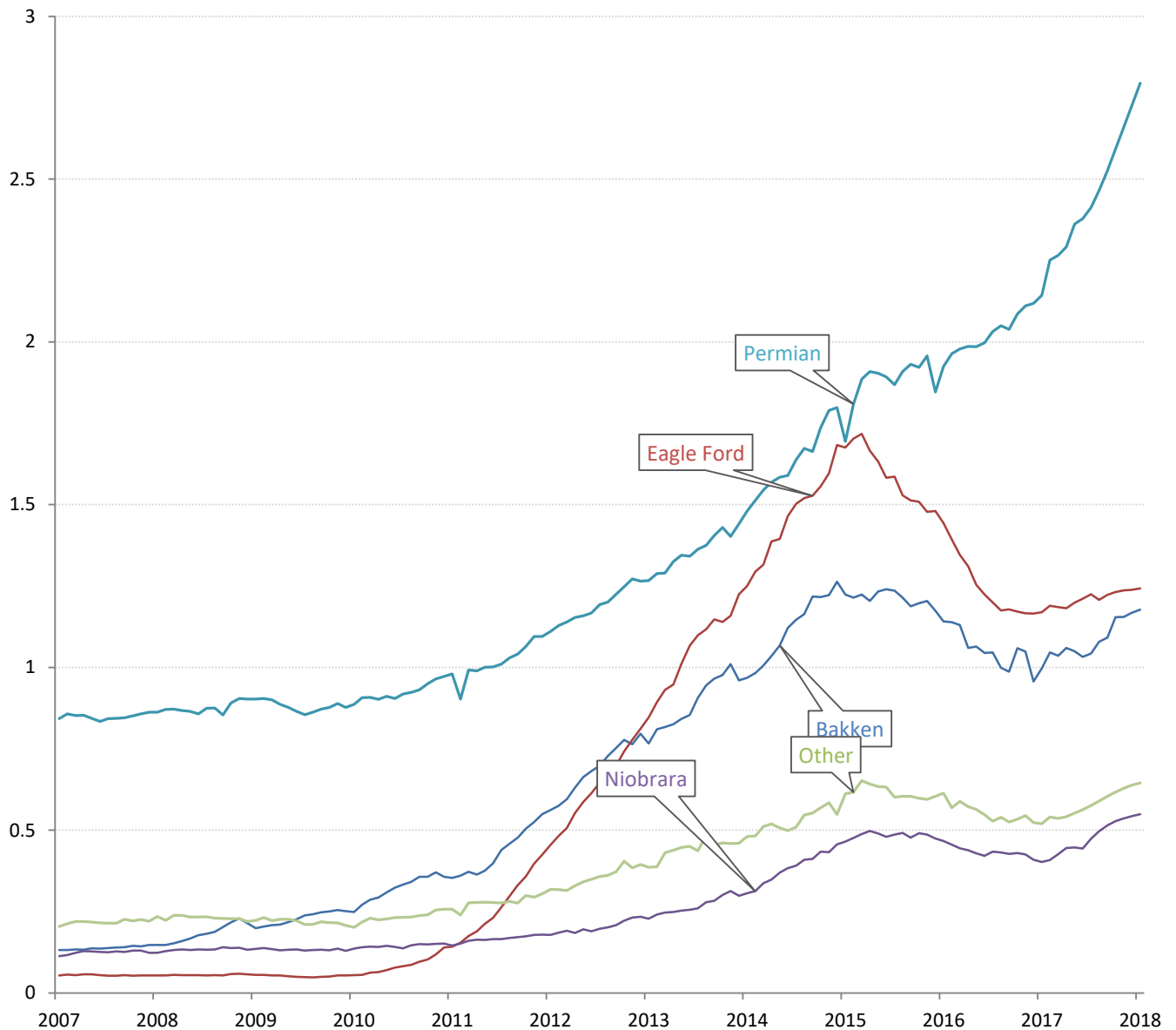


## Data Insights: Oil

Monday, December 18, 2017

### The light tight oil revolution -- the rollover and the recovery Production in major US shale plays, millions of barrels/day

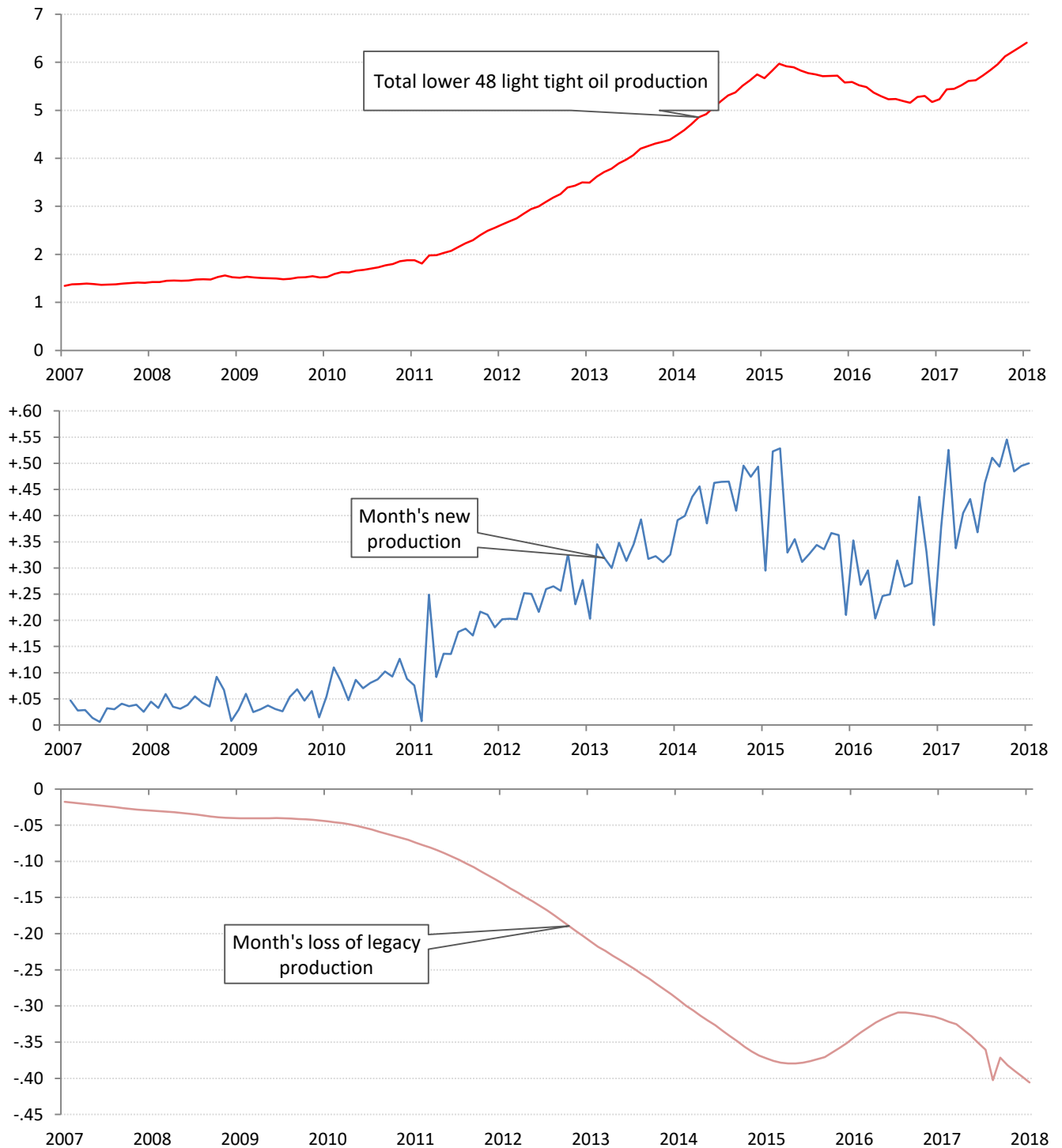


Source:DOE EIA Drilling Productivity Report, TrendMacro calculations

Copyright 2017 Trend Macrolytics LLC. All rights reserved. This document is not to be forwarded to individuals or organizations not authorized by Trend Macrolytics LLC to receive it. For information purposes only; not to be deemed to be recommendations for buying or selling specific securities or to constitute personalized investment advice. Derived from sources deemed to be reliable, but no warranty is made as to accuracy.

# Inside the revolution: depleting legacy, diminishing new production

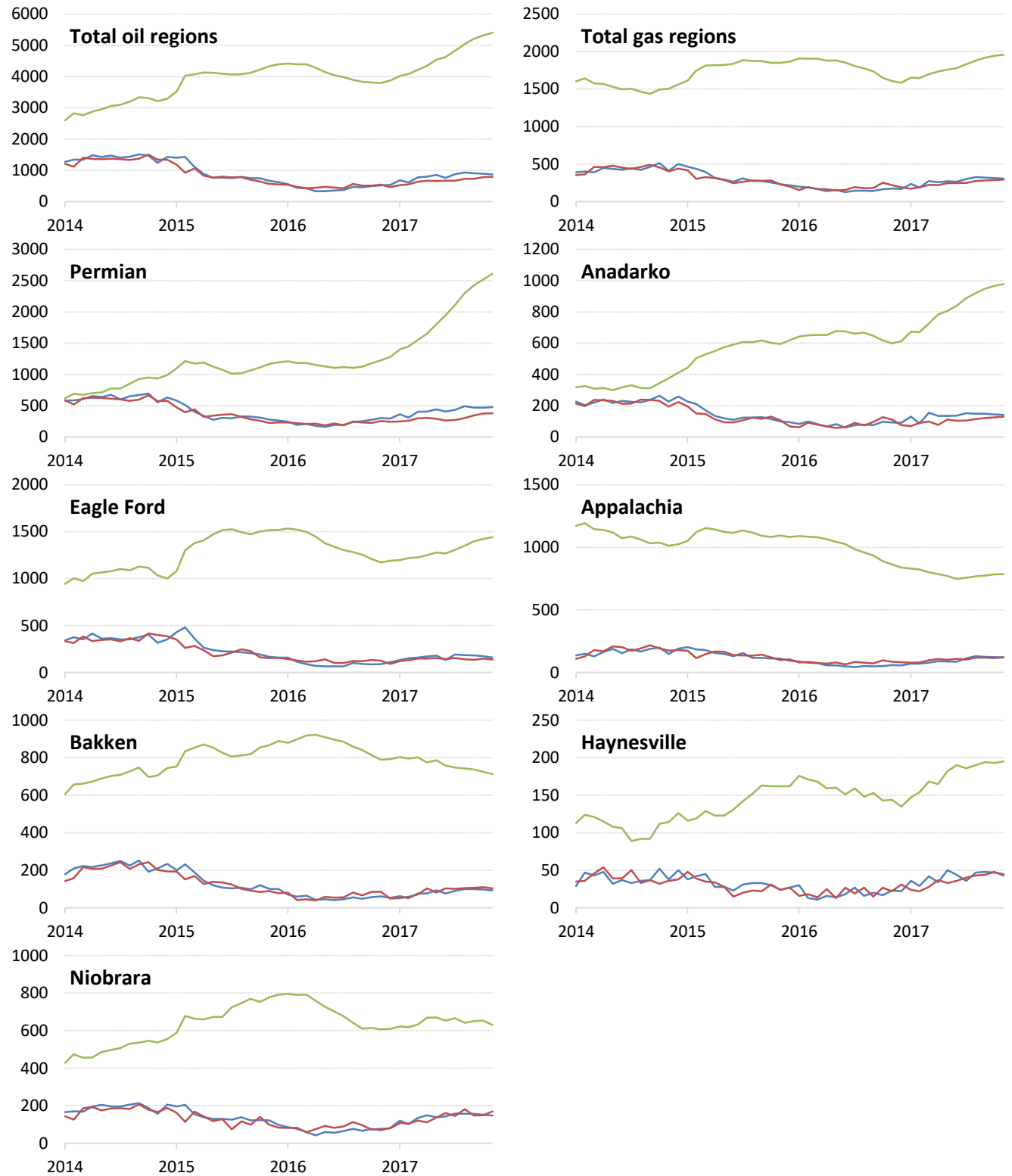
Aggregate production in major US shale plays, millions of barrels/day



Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

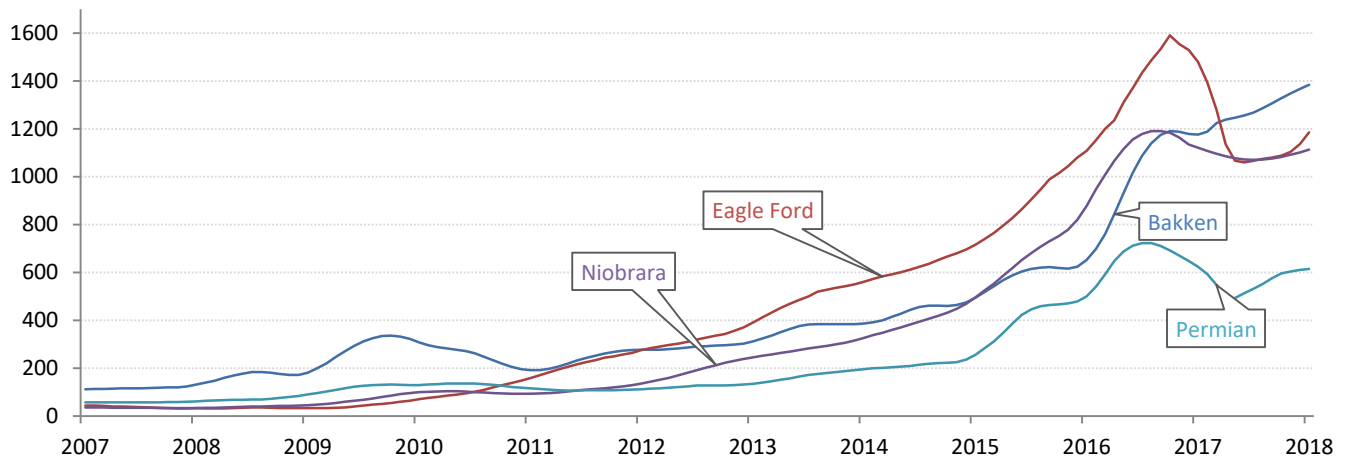
# Low fracking fruit: the inventory of drilled but uncompleted wells (DUC)

Wells: — Drilled — Completed — Drilled but uncompleted



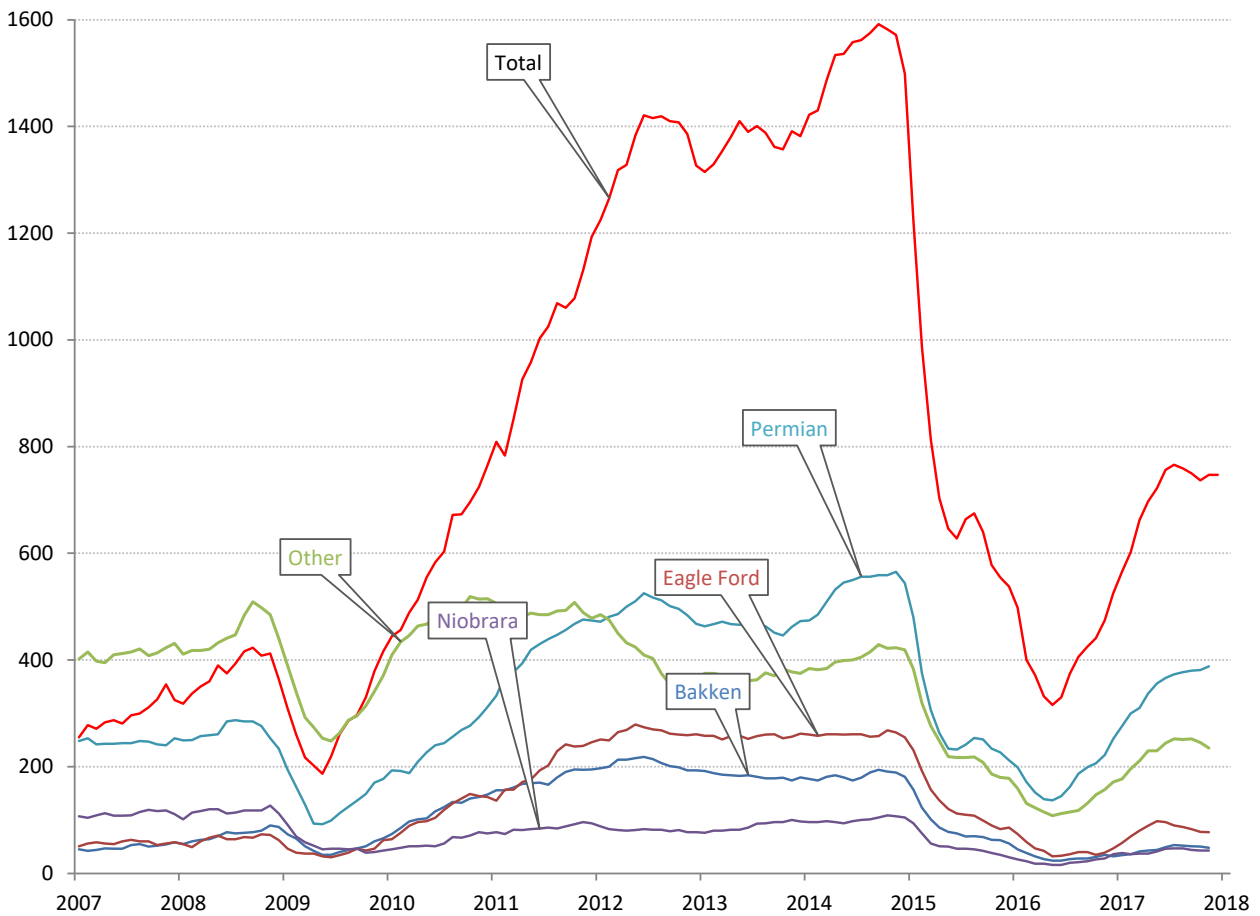
Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

Doing a lot more... New-well oil production per rig, major US shale plays, barrels/day



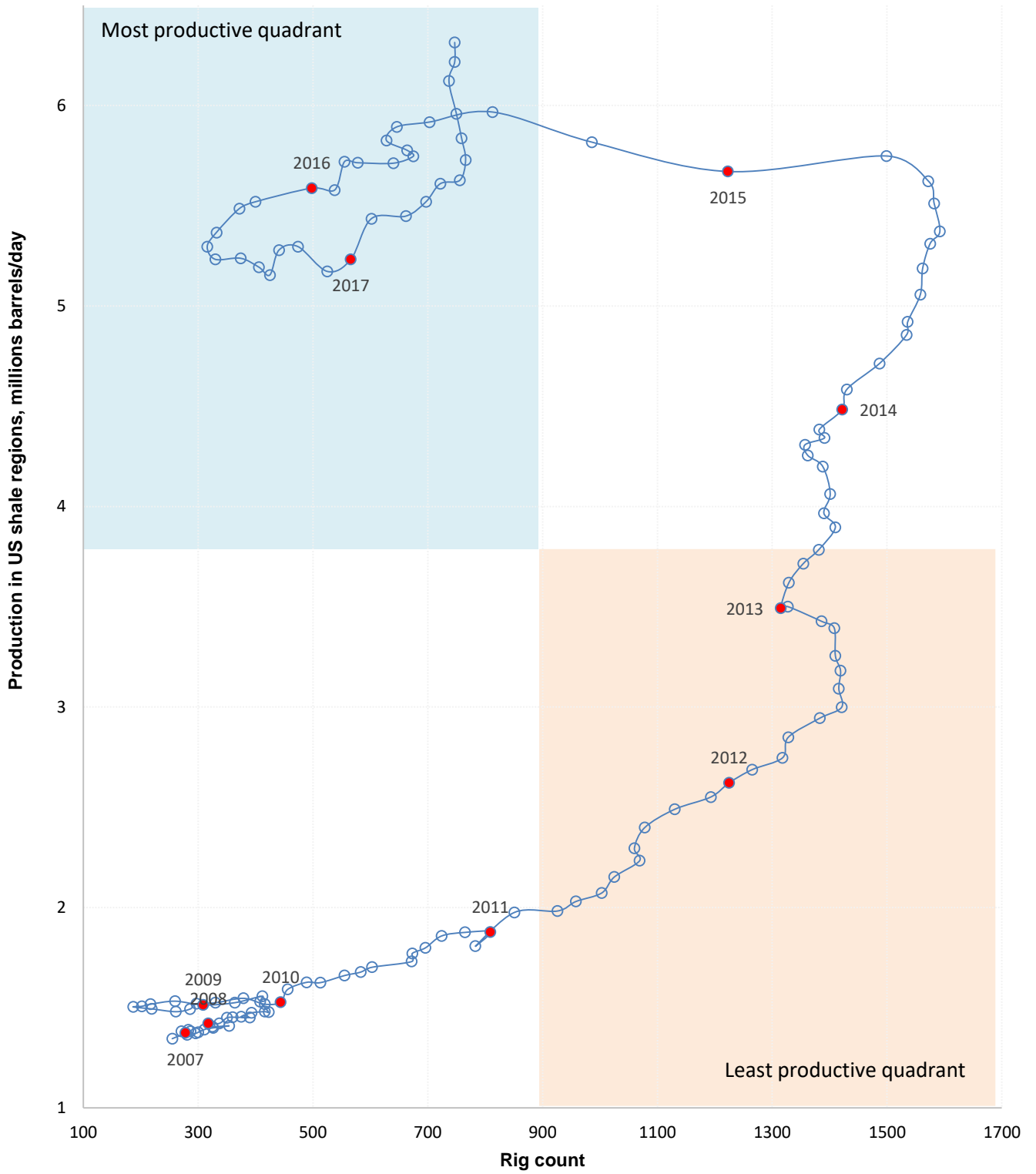
Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

...with a lot less Rig count, total oil and major US shale plays



Source: DOE EIA Drilling Productivity Report, Baker Hughes, TrendMacro calculations

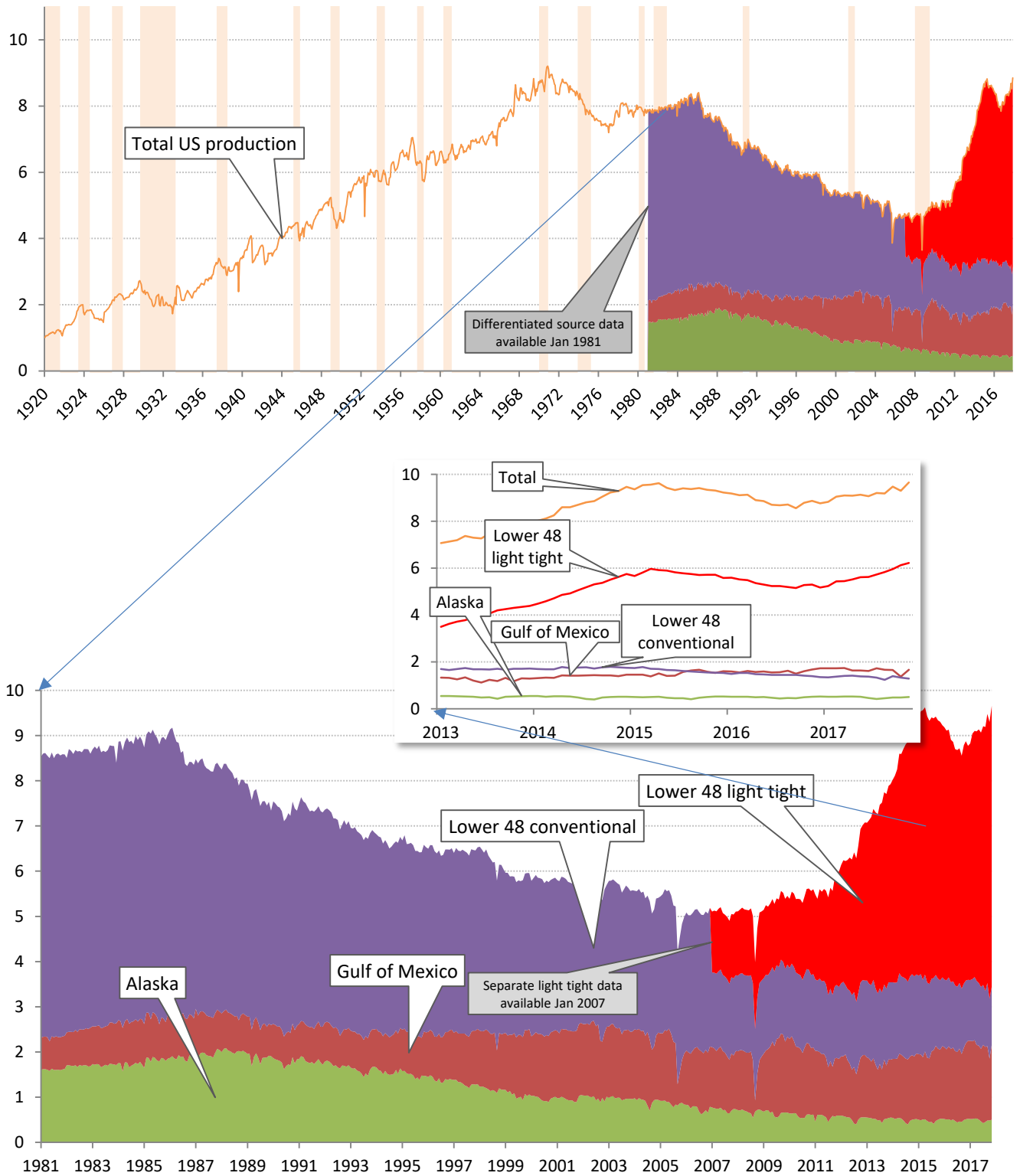
# Flooding the productivity zone



Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

# US crude oil production -- deep history, and the modern transformation of sources

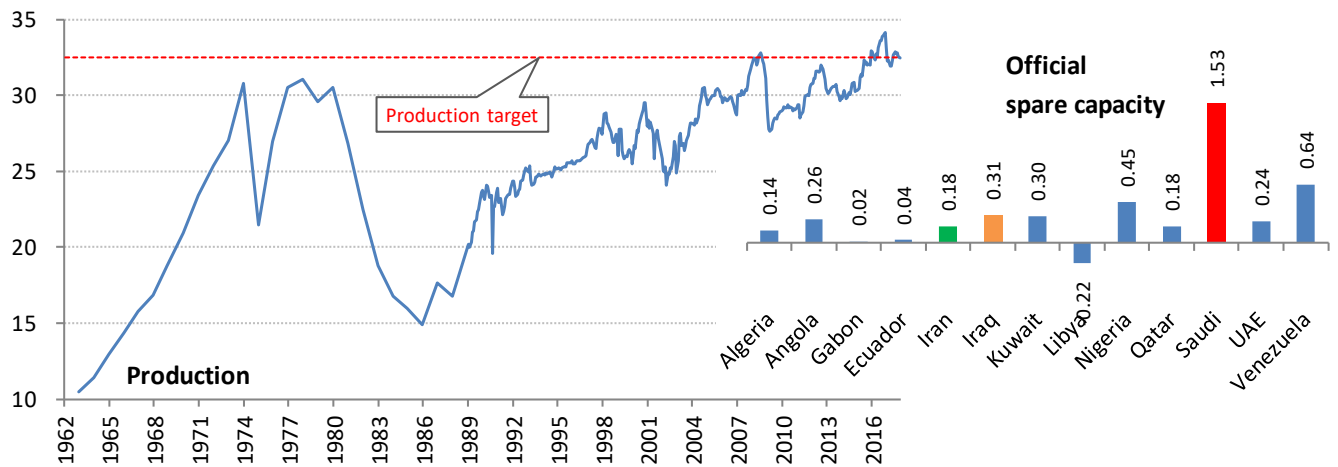
Millions of barrels/day ■ Recession



Source: DOE EIA Short Term Energy Outlook, Drilling Productivity Report, TrendMacro calculations

# OPEC: what it's producing, what's left to produce

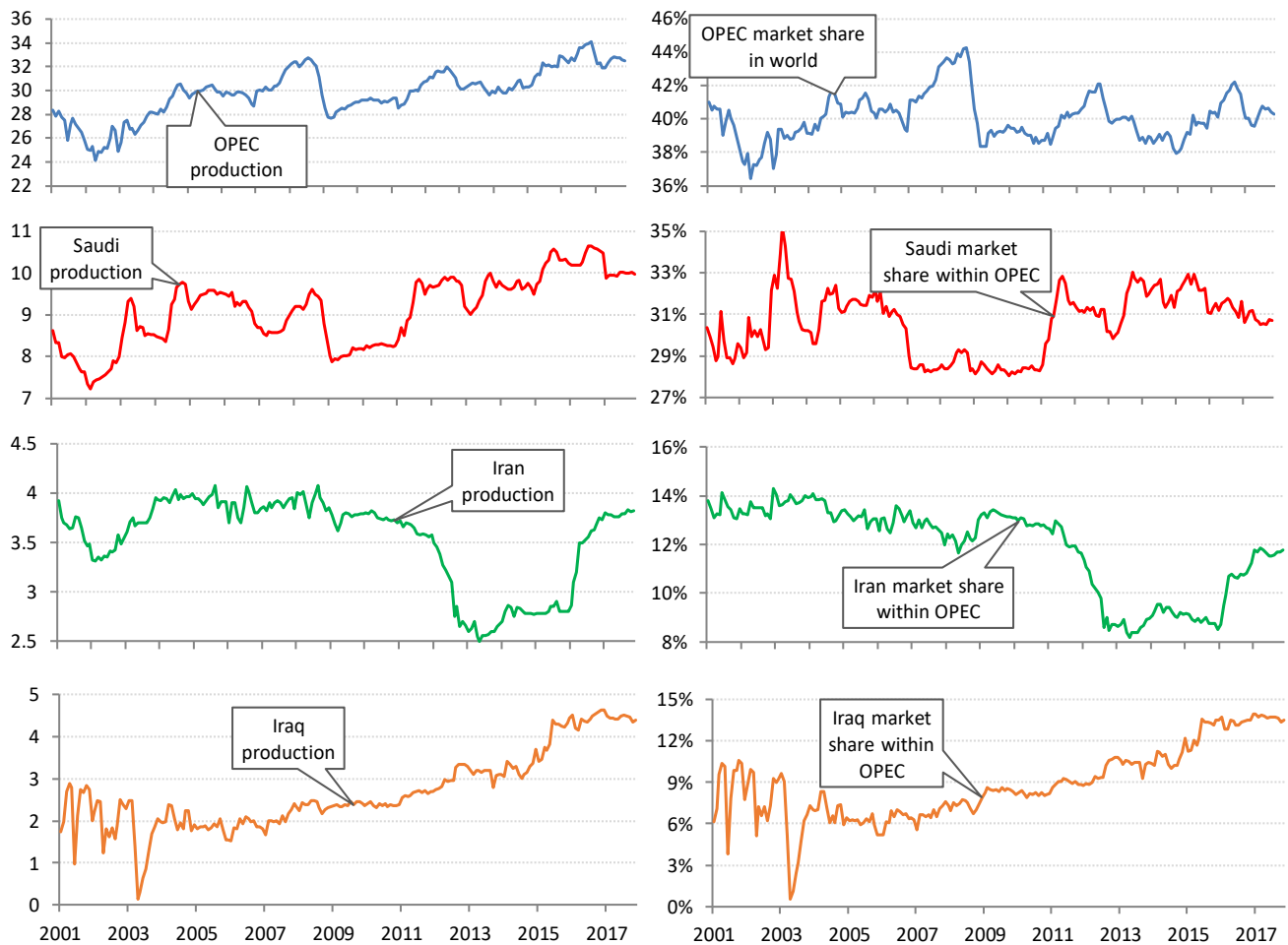
Millions of barrels/day



Source: Bloomberg News, TrendMacro calculations

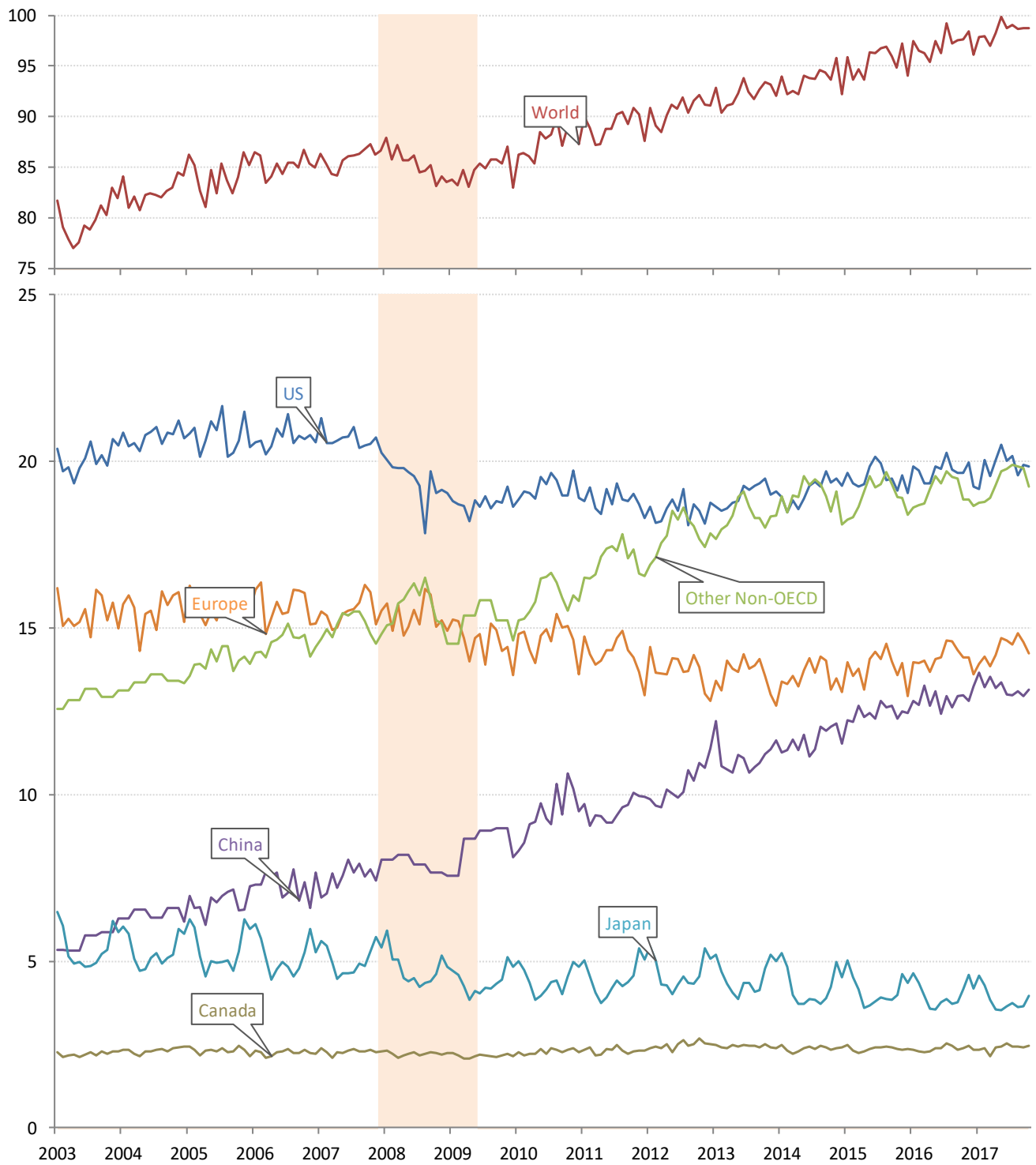
# OPEC's battle for market share

Millions of barrels/day



Source: Bloomberg News, TrendMacro calculations

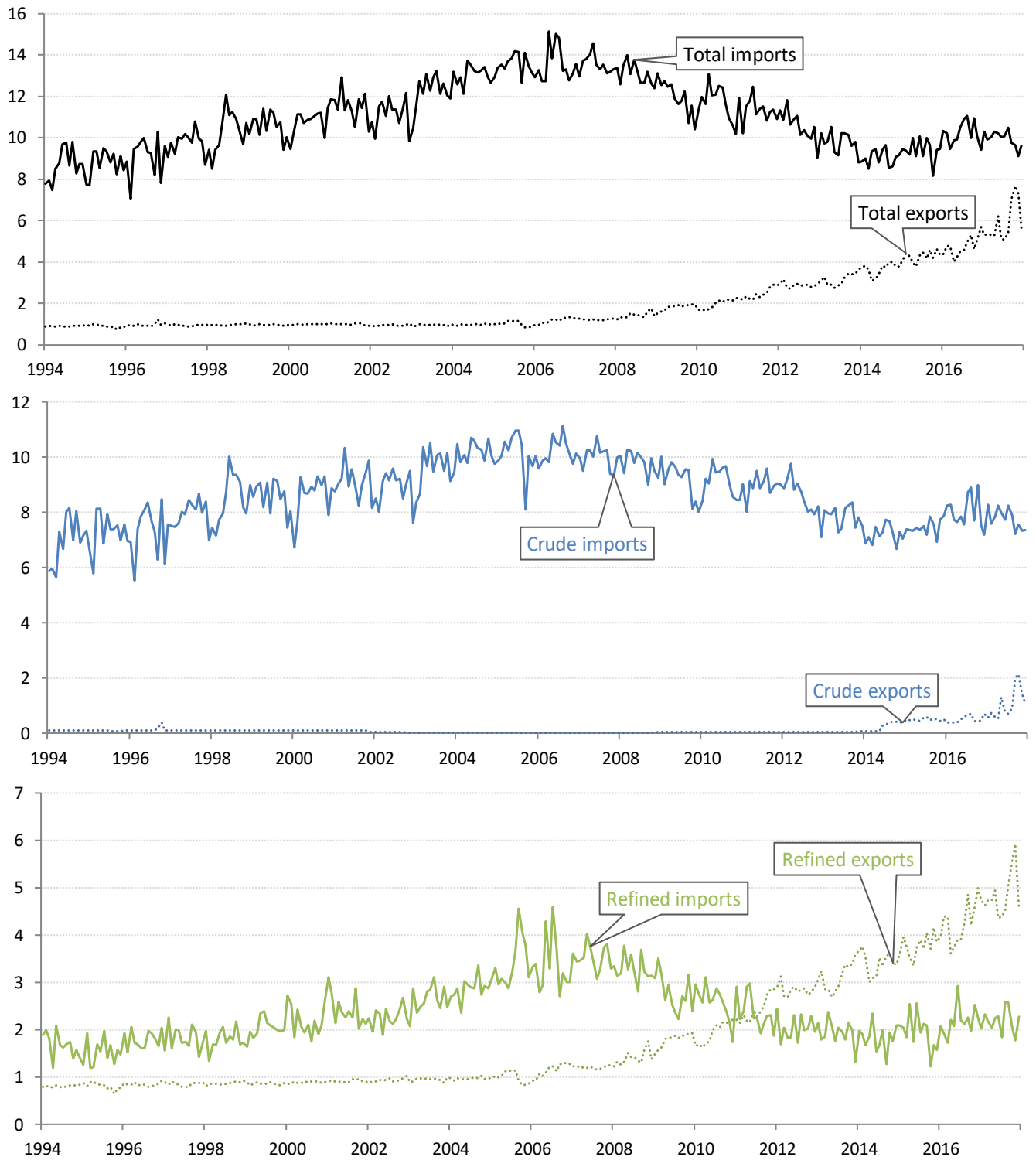
The world of oil consumption Millions of barrels/day ■ Recession



Source: DOE EIA Short Term Energy Outlook, TrendMacro calculations

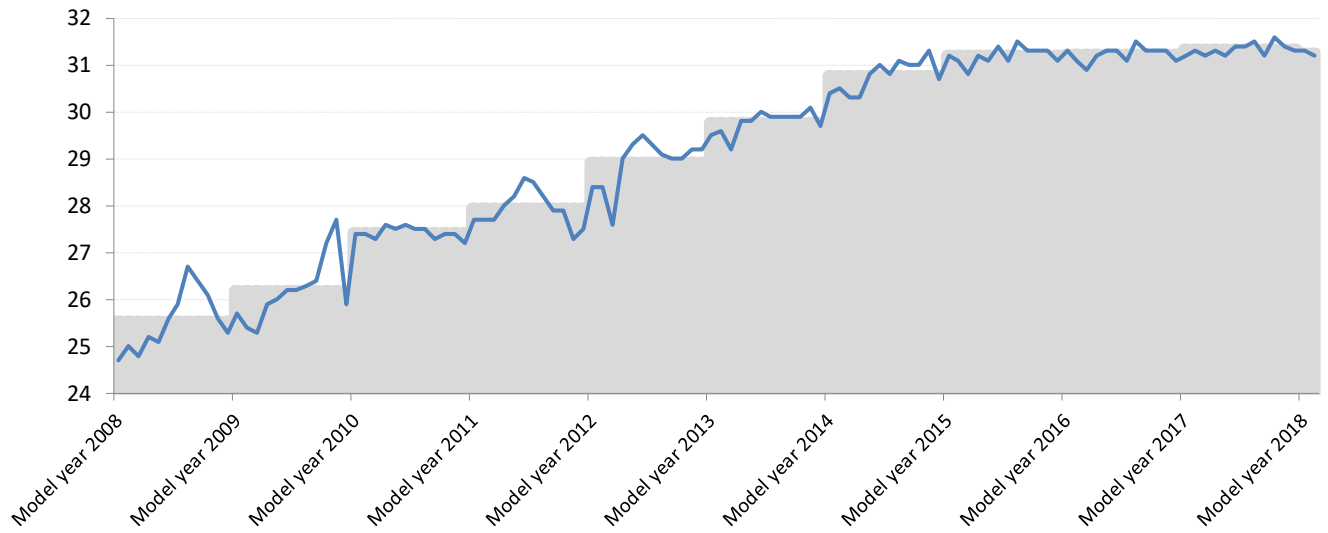


# US petroleum imports and exports Millions of barrels/day



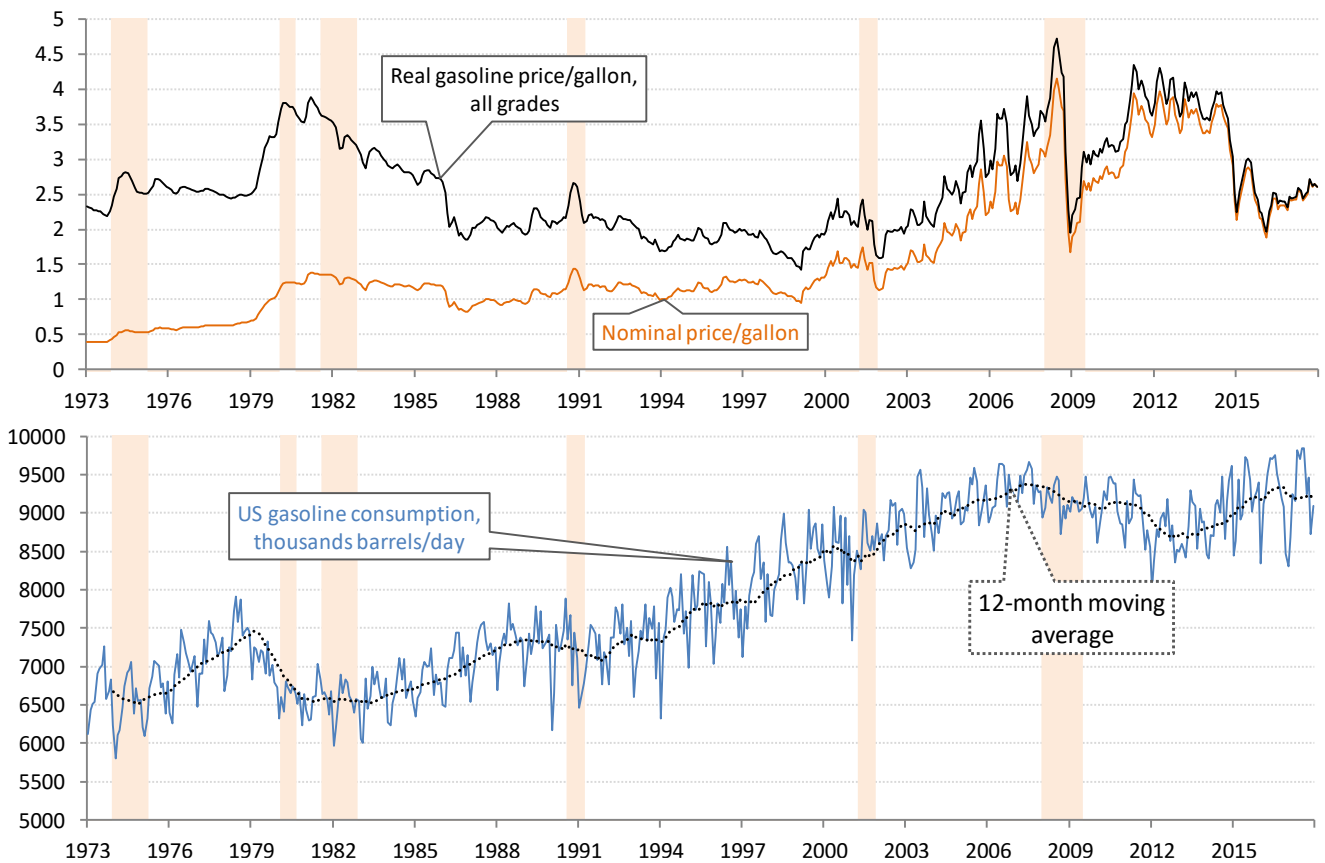
Source: DOE Weekly Petroleum Status Report, TrendMacro calculations

## Guzzle that gas! New-car fleet fuel-efficiency by MPG



Source: University of Michigan, TrendMacro calculations

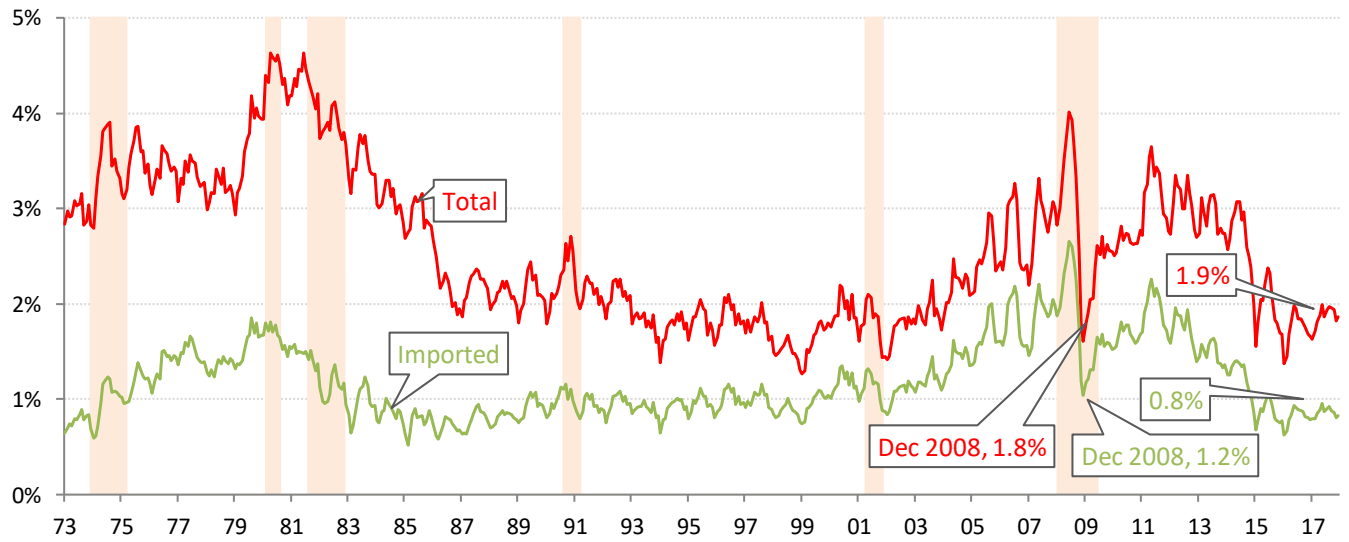
## US gasoline: paying a lot, using a lot



Source: DOE EIA Weekly Petroleum Status Report, Weekly Retail Gasoline Survey, TrendMacro calculations

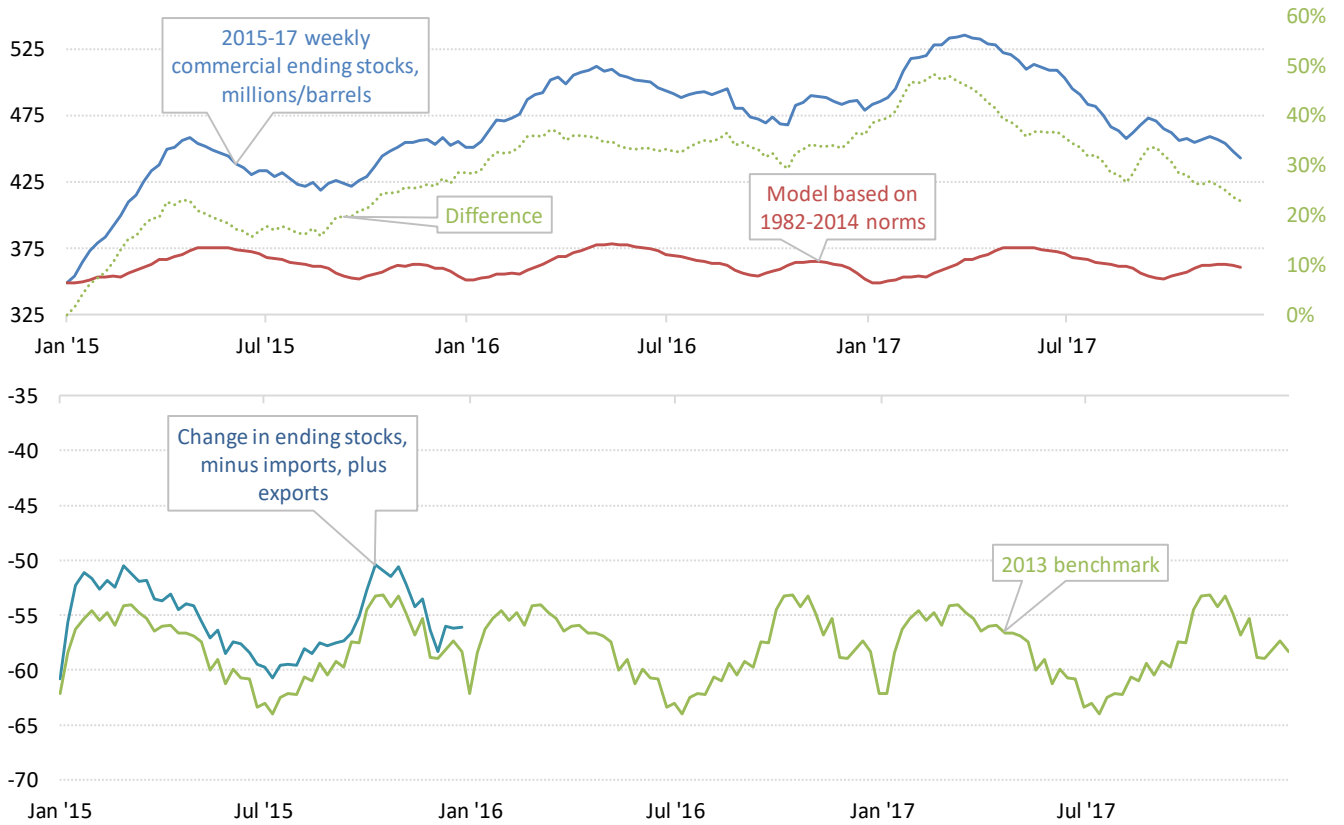
## The rubber meets the road: US gasoline spending as share of GDP

Recession



Source: BEA, DOE EIA, TrendMacro calculations

## The mirror of apparent demand: long-term US storage dynamics



Source: DOE EIA Weekly Petroleum Status Report, TrendMacro calculations