Discussion on

Causes and consequences of the decline in the price of oil since June 2014

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Outline

- The recent decline in the price of oil: drivers and magnitude

- Implications for the EU economy
  - Economic activity
  - Inflation
  - Monetary policy response

1. The recent decline in the price of oil: summary of the presentation

About 40% drop in the price of oil between June 2014 and December 2014,
which, importantly, has been disproportionate compared to the prices of other commodities

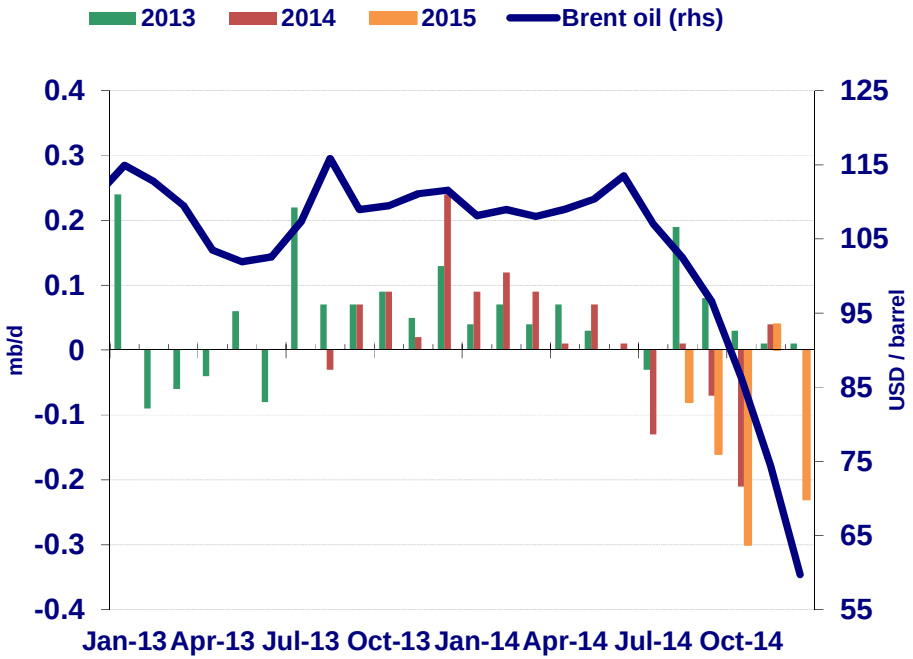
Point #1 : The drivers, according to Baumeister and Kilian (2015), based on a structural VAR model:

- **Global factors** (affecting oil and non-oil commodities) :
  - Stronger-than-expected weakening **in real activity**
- **Oil-specific factors**:
  - Positive surprises to the **supply of oil** (e.g. Iraq, Libya, etc.)
  - Negative surprise to storage demand due to lower oil price **expectation (lower demand/higher supply)**
  - **No special role for Saudi Arabia** (also in Belu Manescu and Nuno, 2015, forthcoming)

Which hit the oil market before and after June 2014

1. The recent decline in the price of oil:
an illustration

Revisions to oil demand



Sources: International Energy Agency and Bloomberg.

- Since July 2014, increasingly larger downward revisions to **oil demand projections** for 2014 and 2015
- While larger than usual, they don't seem to entirely justify the collapse in prices

1. The recent decline in the price of oil: a large unexpected component

According to the presentation, **of the total 49 USD/barrel decline in the oil price**

- **More than half** (27 USD/barrel) **was predictable** as of June 2014
  - owing to developments with oil supply (+) and real activity (-) as of June 2014
- Still, **a significant part** (22 USD/barrel) **was unpredictable**
  - related to surprises to the demand of oil (-) and storage (-) after June 2014

Point #2: **the price of oil is difficult to forecast**, and large forecast errors are not uncommon. **Why?**

1. The decline in the price of oil prices:
Role of shocks/changes to expectations

- The price of oil is **highly sensitive** to both **demand and supply shocks**
- In addition, **the supply side** is highly sensitive to **political instability** in OPEC producers
- Plus, as a **financial asset**, oil prices are affected by both ***current*** and ***expected*** **demand/supply conditions** (similar to stock prices)
- This **forward-looking behaviour** makes oil prices sensitive to **news**, hence they become volatile (like stock prices)

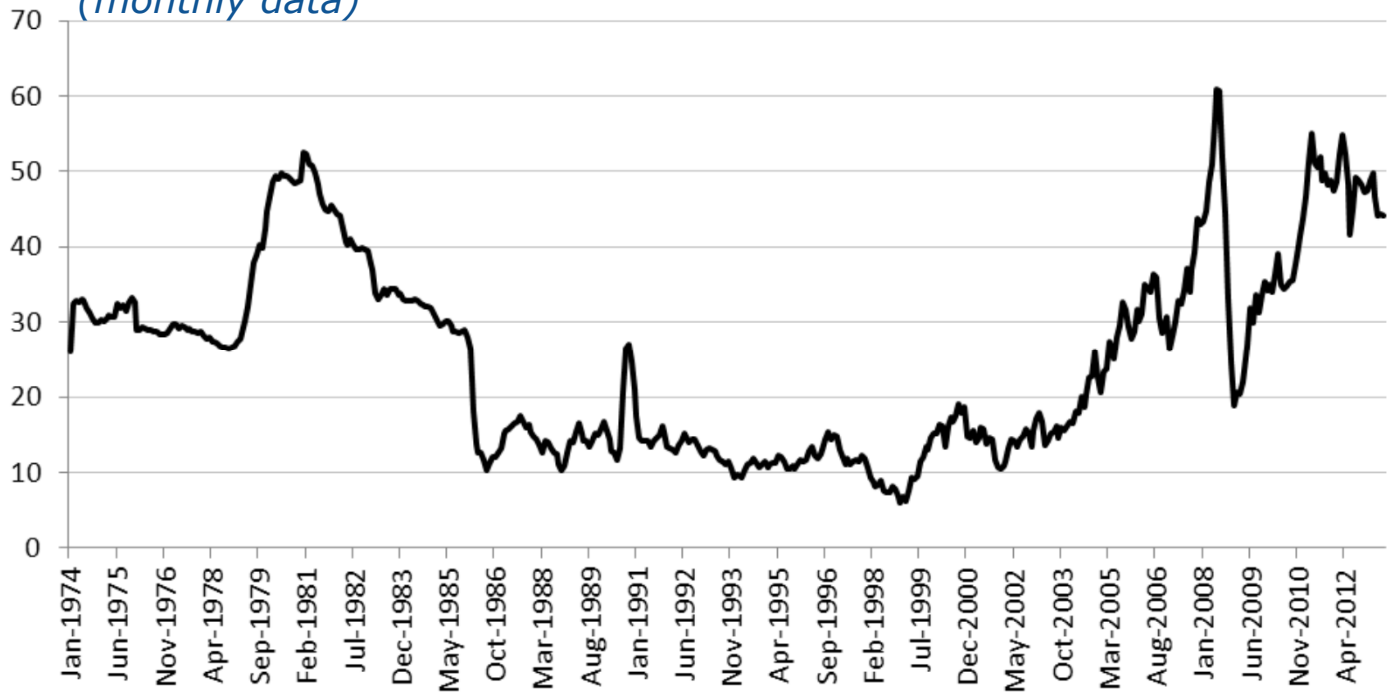
Point #3: **oil price volatility** of the observed magnitude is not unusual.

1. The decline in the price of oil prices:

Large oil price volatility is not unusual

Real Brent oil price

(monthly data)



Source: Energy Information Administration and FRED economic data

Notes: Last observation December 2012. Monthly data, the nominal Brent oil price in USD per barrel has been backcasted with the growth rate of the refiner`s acquisition cost of imported crude oil up to May 1987 and has been made real using US CPI, index 1982-84=100 (see Baumeister and Kilian, IER, 2014).

2. Implications for the EU economy: economic activity

Ultimately, it will depend on the mix of demand and supply shocks, since naturally, positive oil **supply shocks** are more **growth-enhancing** than negative demand shocks

The **positive impact on GDP 0.5% not so small** when compared to the 1.4% growth in real GDP in the EU in 2014 (EC 2015 Spring forecast).

- Could be **larger in the following years:** in ECB estimates*, a 50% permanent oil price drop would increase the **EA real GDP by 1.2%** over three years**.

Point #4: The **impact** is likely to be **heterogeneous across EU economies** (function of oil dependency and energy intensity, but also flexibility of the economy)

- ECB estimates* for the EA countries would suggest that **Belgium, Germany, Italy or Greece would gain most** while **Luxembourg, France and Ireland would gain least** over three years**

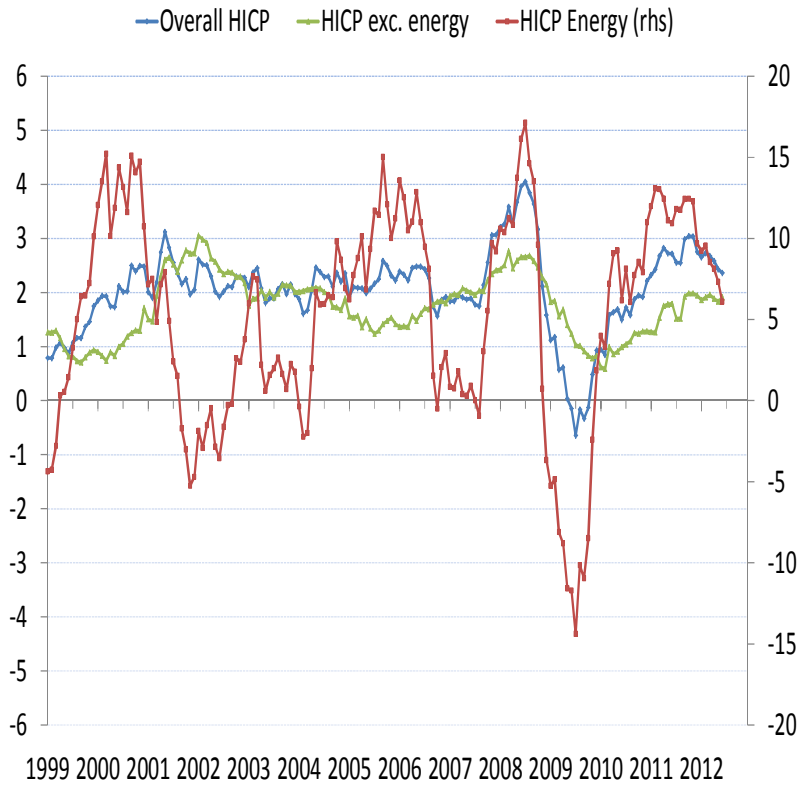
* Energy markets and the euro area Macroeconomy, ECB, June 2010

** Subject to many caveats: The model assumes symmetry between oil price increases/decreases, no distinction between oil demand/supply shocks, no response in policy or in inflation expectations

2. Implications for the EU economy:
Inflation

- **Impact on inflation**: first-round and second-round effects
- **Point # 5: First-round effects**: while unavoidable, they only generate a change in the oil price level, **no lasting inflationary** impact
  - Direct: on energy prices
  - Indirect: via producer prices (e.g. chemicals, transport) on the price of final goods
- **Second-round effects**: capture reaction of wage and price-setters to the first-round effect of a price shock, **may affect inflationary expectations**

(Annual percentage change)



Source: ECB Structural Issues Report, 2010.

Note: Latest observation refers to August 2012.

2. Implications for the EU economy:
monetary policy

- **Point#6**: **Monetary policy reaction effective, only if evidence of second round effects**
- But, second-round effects difficult to quantify!
- Plus, with nominal interest rates are at the ZLB in many developed economies, conventional monetary policy tools not available
- **ECB's unconventional policy measure** in **January 2015** seems to have restored inflation expectations at a level below, but close to, 2%.

Longer-term inflation expectations
(percentages)

Source: ECB Economic Bulletin, March 2015.
Note: Cut-off date 14 April 2015.

Summary

1. Demand and supply drivers of the recent oil price decline, no role for Saudi Arabia
2. Large oil price forecast errors are not uncommon
3. The recent oil price volatility not unusual by historical standards
4. The GDP impact likely to be heterogeneous across EU countries
5. Impact on inflation: first and second-round effects …
6. … only second-round effects can be addressed with a monetary policy response