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COMMENTS ON

MONETARY POLICY IN THE FACE OF SUPPLY SHOCKS: THE ROLE OF INFLATION EXPECTATIONS

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Supply shocks and inflation expectations in the Euro Area

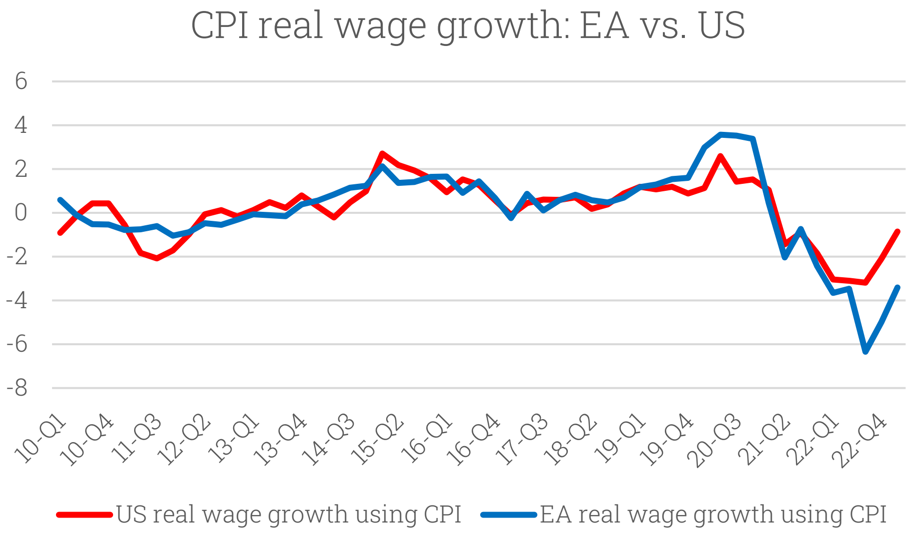
- BBCTLB discuss stylized monetary policy response to supply shocks and provide an extensive survey of the links between inflation expectations, monetary policy and supply shocks.
- Impact of shocks depends on their nature + (real) wage rigidity + financially constrained households.
- Expectations highly correlated with actual inflation, little influenced by monetary policy and uncertain impact on economy => expectations not appropriate target (and bad indicator?).

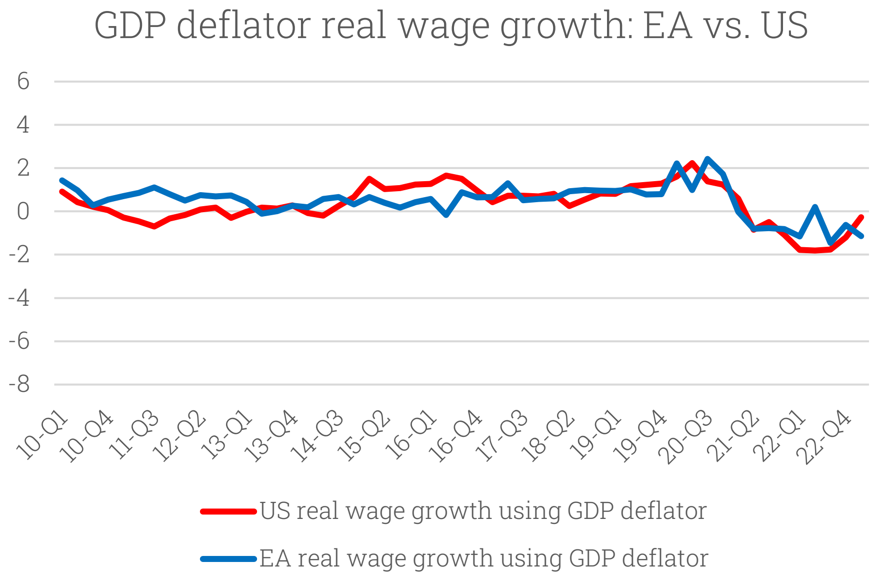
Supply shocks and inflation expectations in the Euro Area

Comments:

- Evidence of (real) wage rigidity and financially constrained households.
- What shock(s) does the EA face today? Mainly positive going forward?
- (Energy) supply shocks and expectations of inflation in the EA a complement.

Little sign of real wage rigidity, down by 3-6 %, CPI based, still down with GDP deflator (cost base).





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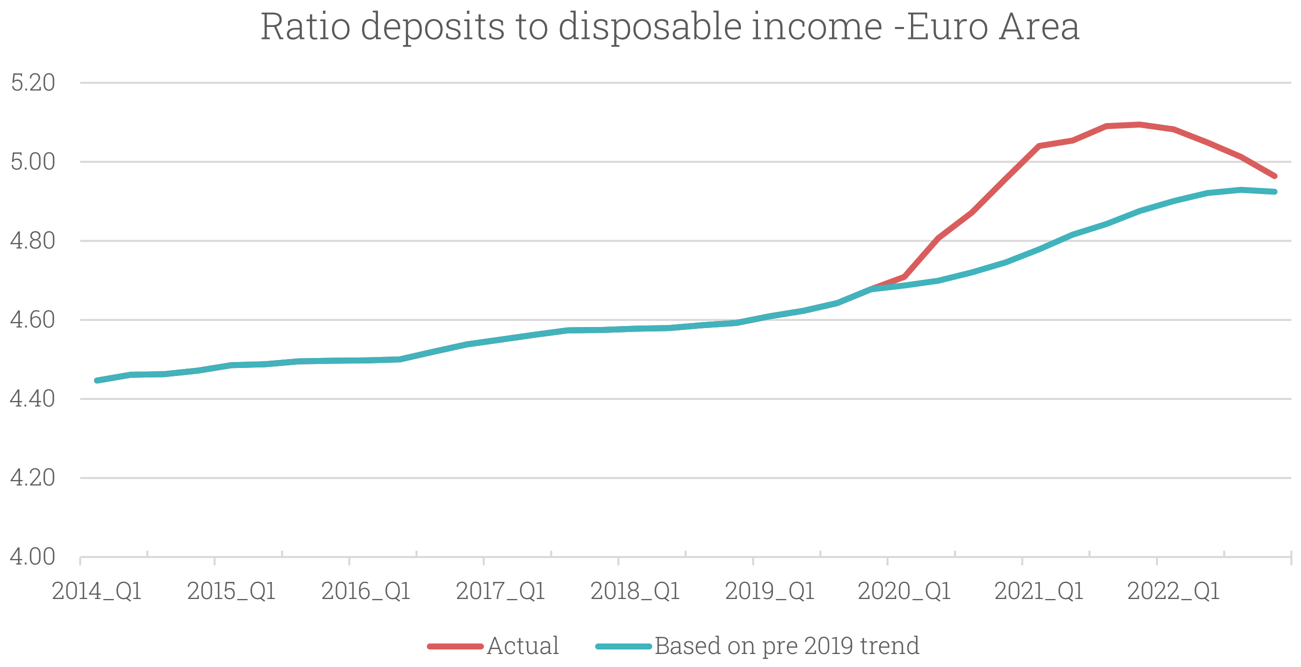
Financially constrained households? Large excess liquidity (up to 40 % of disposable income) in 2021/2 but most reabsorbed.



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What supply shocks? Energy and GVC

BBCTLB, and literature in general, usually focusses on permanent shocks.

- Natural given that monetary policy unlikely to react to temporary ones, moreover energy prices random walk (?)).

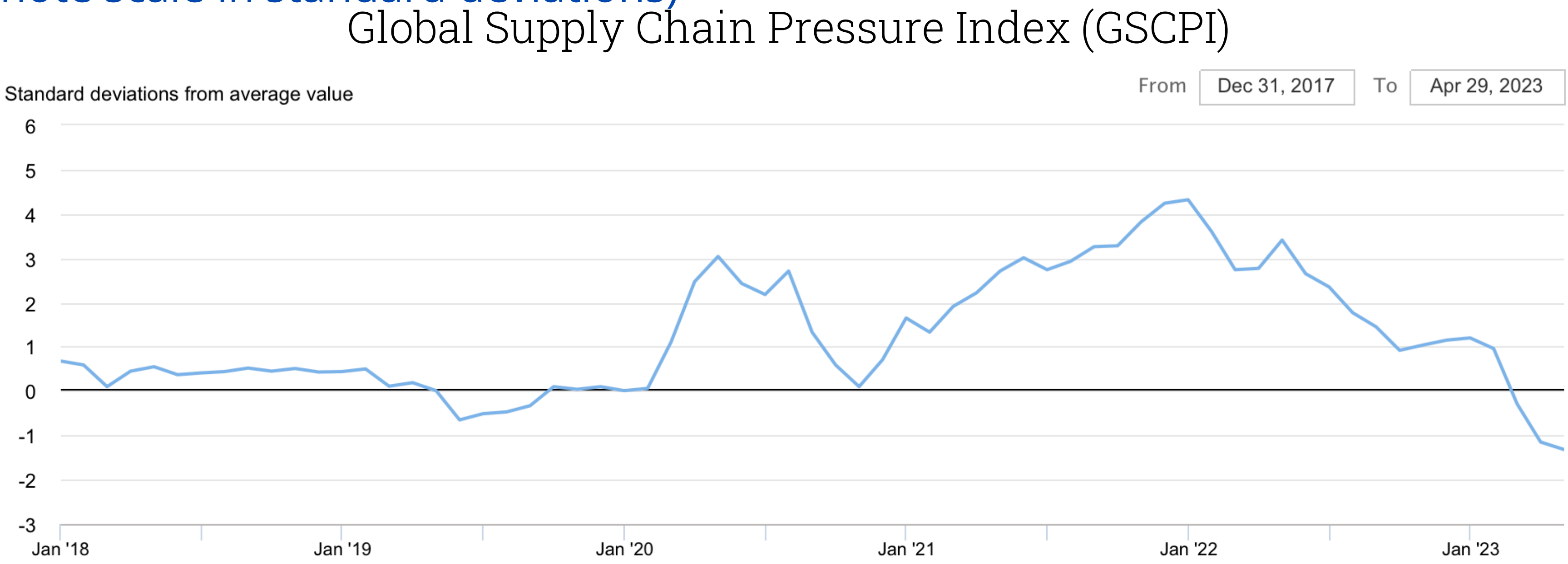
- But 2022 energy price shock turned out to be temporary (= two permanent ones of opposite sign?).

- Macroeconomic impact very different EA vs. US. (Interesting given similarity in inflation.)

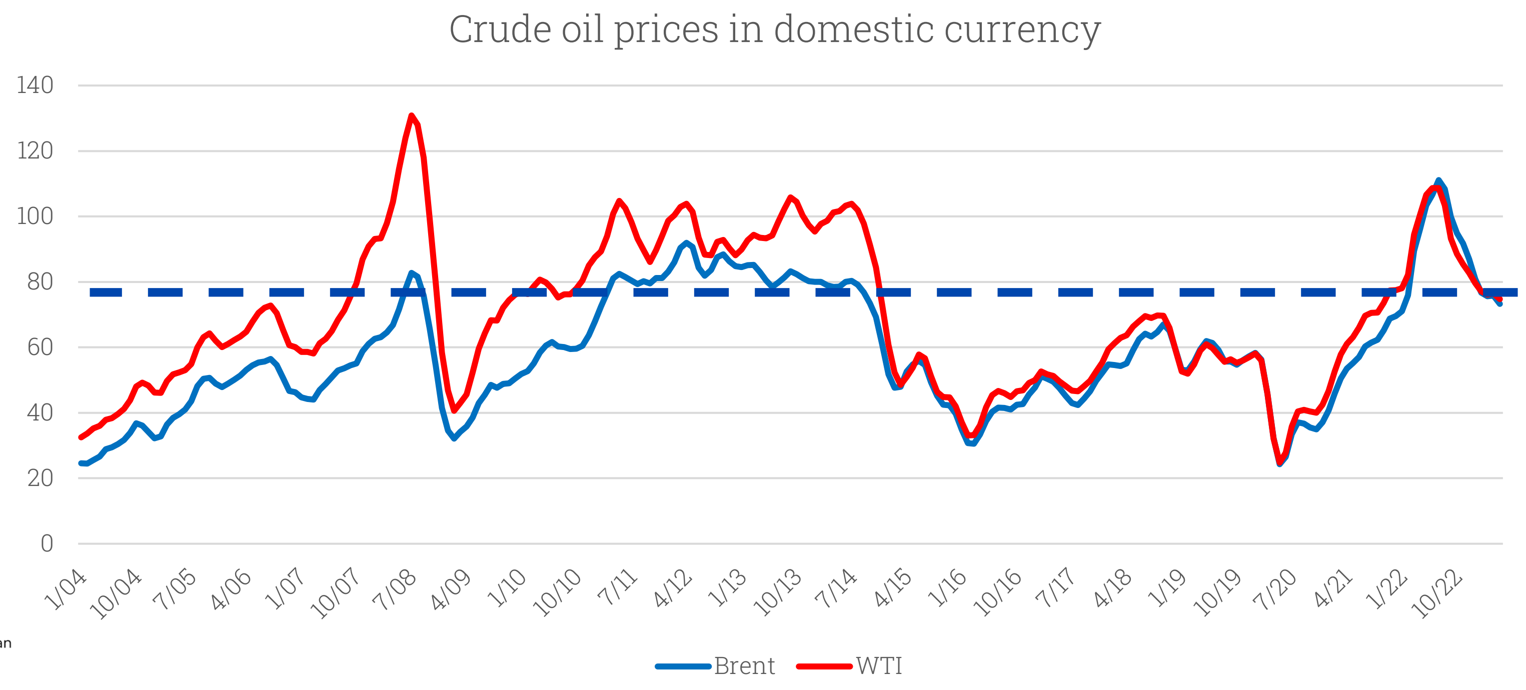
- Supply chain shock also ex ante likely to be temporary

Supply chain pressures are back to normal

(note scale in standard deviations)



Energy I: Oil prices back to pre-war levels (little inflation in past with similar spikes).



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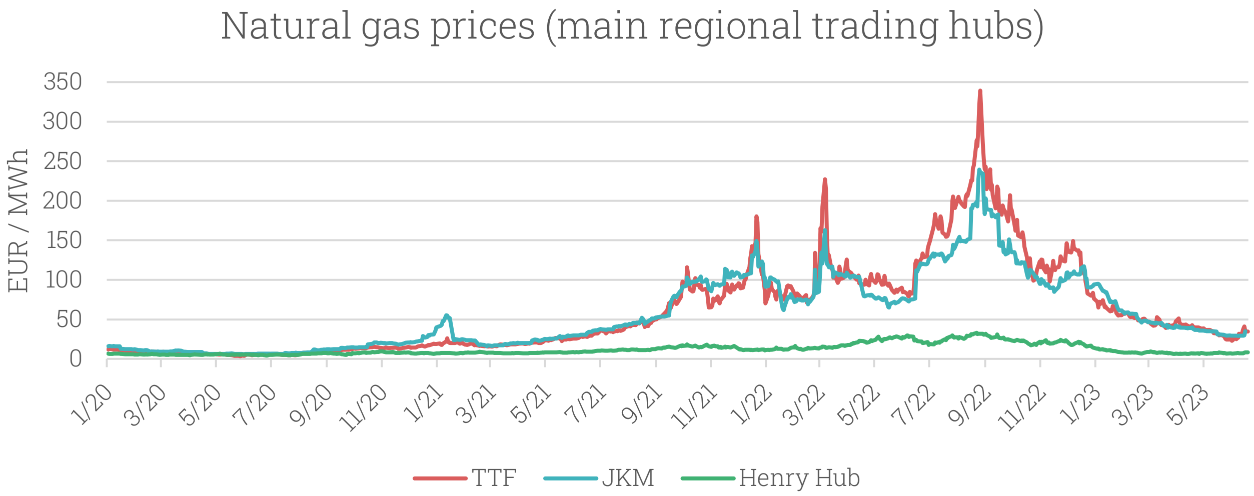
Energy II: Natural gas: Back to pre-war level, but still above pre-Covid averages,

Europe and Asia (JKM) spot prices linked, US (HH) much lower.



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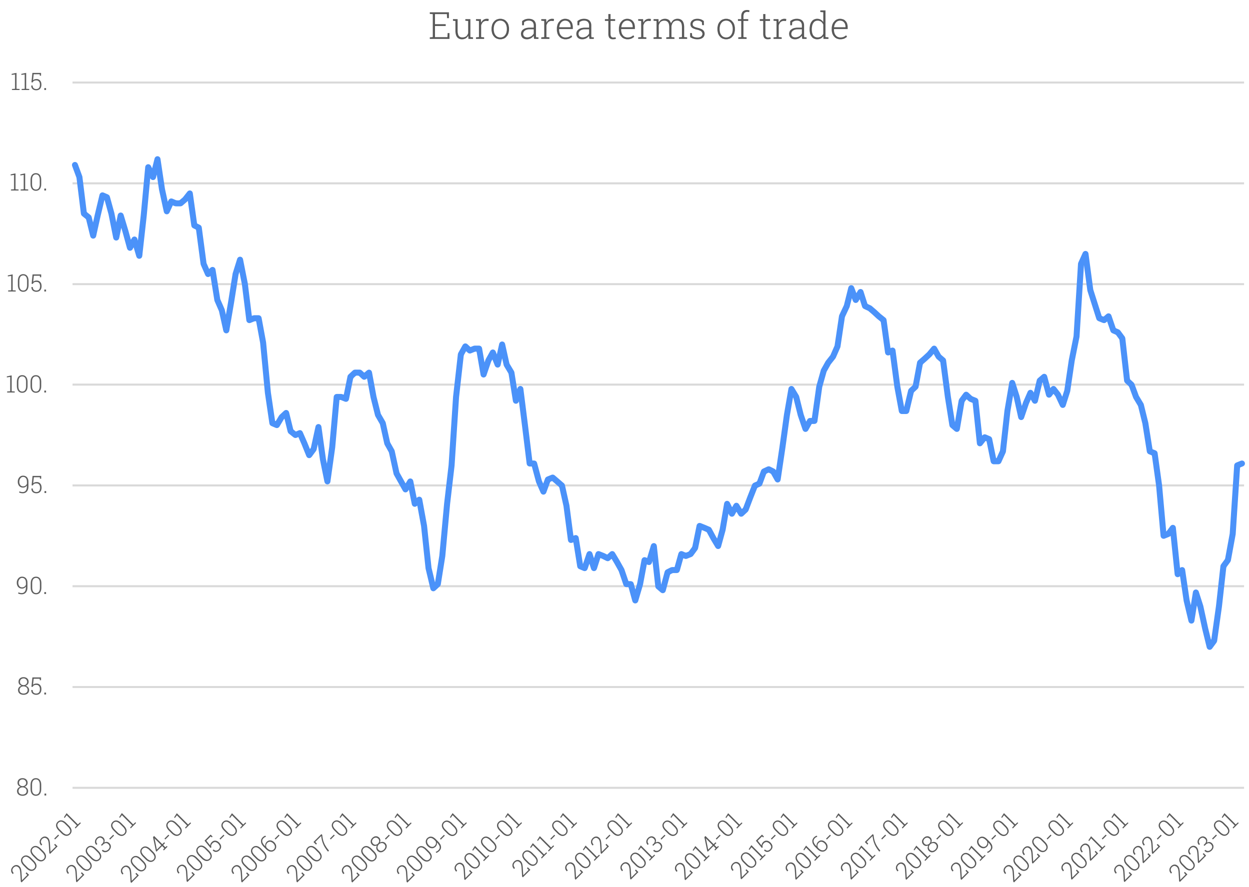
— Source: Alessandro Liscai, TTF (EUR/MWh) JKM (USD/MMBtu) Henry Hub (USD/MMBtu) .

Impact of energy price hike: major loss of terms of trade for EA, but temporary

- EA ‘peak to trough’ 15 percentage points * trade in goods = 20 % of GDP => maximum income loss of 3 % of GDP => deflationary.
- 2/3rds already recovered => next year positive impulse to demand.
- US: substantial gain => support demand (unless reversed).



Euro area terms of trade
115.
110.
105.
100.
95.
90.
85.
80.
2002-01
2003-01
2004-01
2005-01
2006-01
2007-01
2008-01
2009-01
2010-01
2011-01
2012-01
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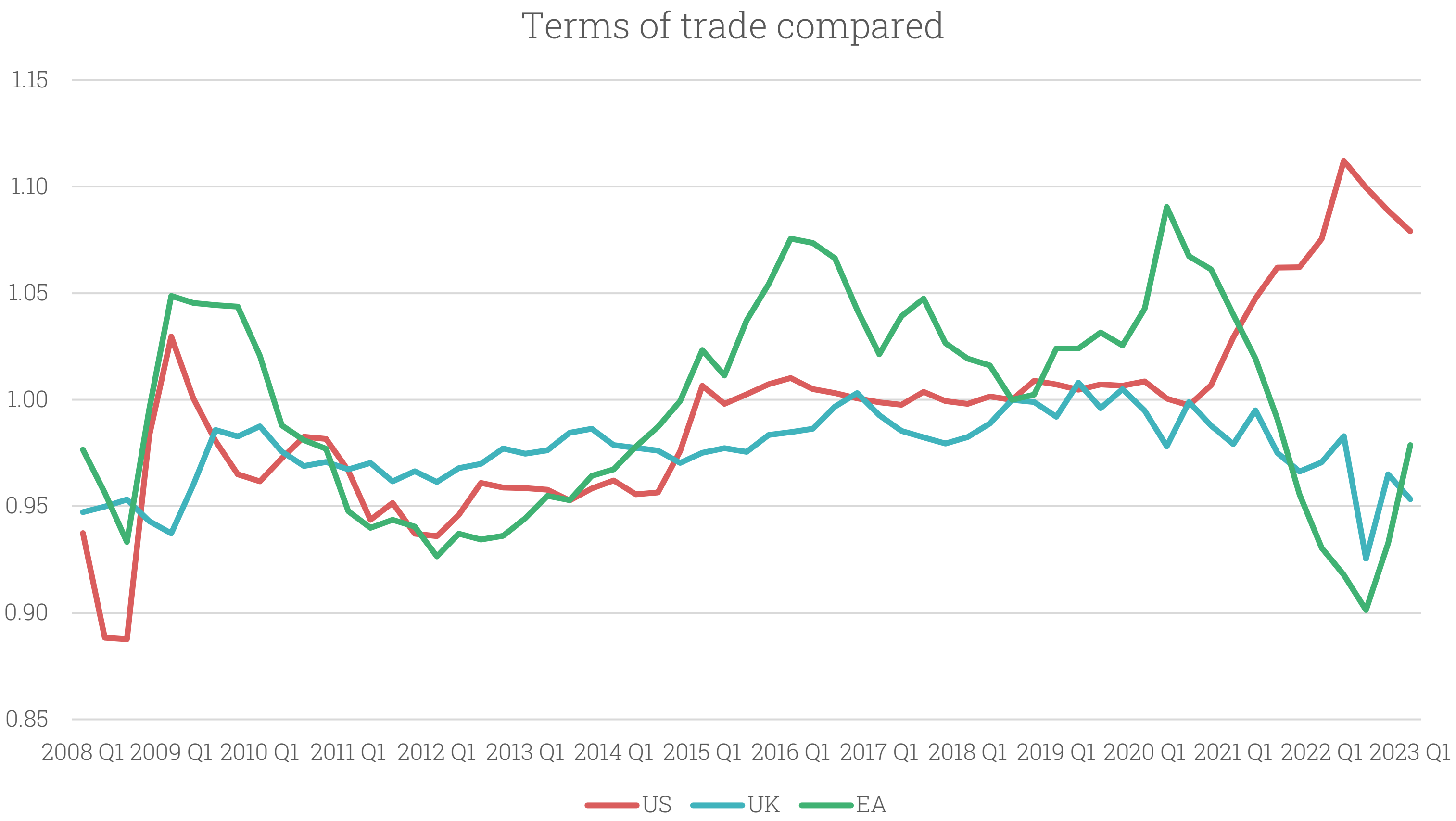
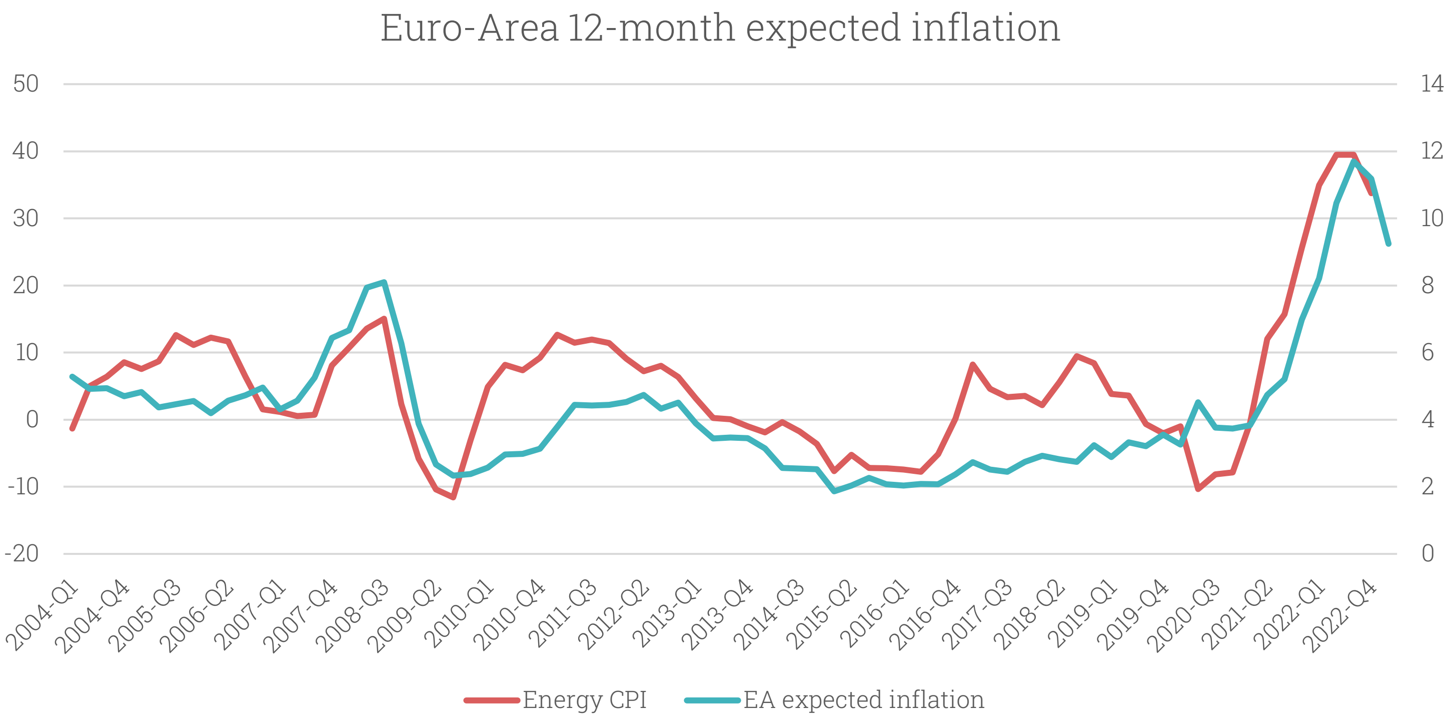
2022-01
2023-01


Terms of trade compared
1.15
1.10
1.05
1.00
0.95
0.90
0.85
2008 Q1
2009 Q1
2010 Q1
2011 Q1
2012 Q1
2013 Q1
2014 Q1
2015 Q1
2016 Q1
2017 Q1
2018 Q1
2019 Q1
2020 Q1
2021 Q1
2022 Q1
2023 Q1
US
UK
EA

Sticky inflation with temporary shocks

- Temporary shock (to supply chains and energy) should lead price level unchanged in long run (inflation first positive then negative).
- Sintra 2022, DKSY: Supply shocks explain 40-50% of inflation in Eurozone; with rapid impact on the way up. Also on the way down?
- But price level at least 15 % higher by end-2024.
- Must have major asymmetries. But which ones? Real wage rigidity so far not a problem. Also, no need for nominal wages to fall.
- Could shifts in expectations be responsible? (Sintra 2022 Panel)

Expectations and energy prices



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Expectations and energy prices: Long-term expectations flat (Reis, Sintra 2022)

Expectations and energy prices in the EA

Results from small VAR with energy prices exogenous (expectations (household and professional forecasters) , policy rate, core CPI and real GDP, quarterly data from 2004 – See Galeone and Gros, 2023.

Energy price shocks:

- Increase inflation expectations and drive ECB shadow rate,
- small impact on core.
- Little visible impact of expectations on inflation (negative for growth).

N.b. EA results should be comparable to BBCTLB for UK because similar energy dependence and similar degree of openness (goods = 20 % of GDP).

Conclusion

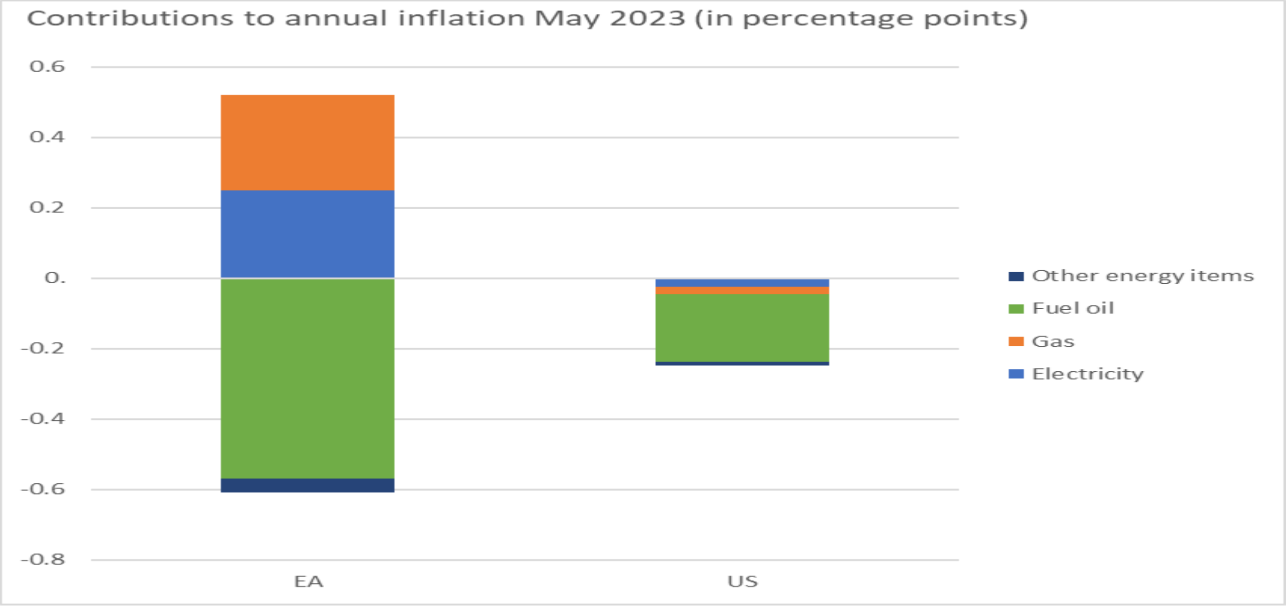
- With both (supply chains and energy) back to pre-war, next year should be opposite of 2022.
- Energy price shock (for EA) larger than in past, but not totally unprecedented.
- Energy price shocks major driver of short-term inflation expectations (long-term ones less affected).
- Expectations have little effect on economy (BBCTLB).
- Energy price shocks little impact on core inflation

=> present high level of core inflation difficult to explain with supply shocks which turned out to have been temporary.

Background material

- Contribution of fuel to energy price CPI, US versus EA.
- ‘The price ‘of natural gas, spot versus actual cost.
- Various indicators of supply chain shock
- Baltic Dry was higher in 2008.
- Container cost from China to EU and US spike, but remain low the other way round.

Components of HICP energy price inflation in early 2023: US versus EA, fuel negative in both cases.



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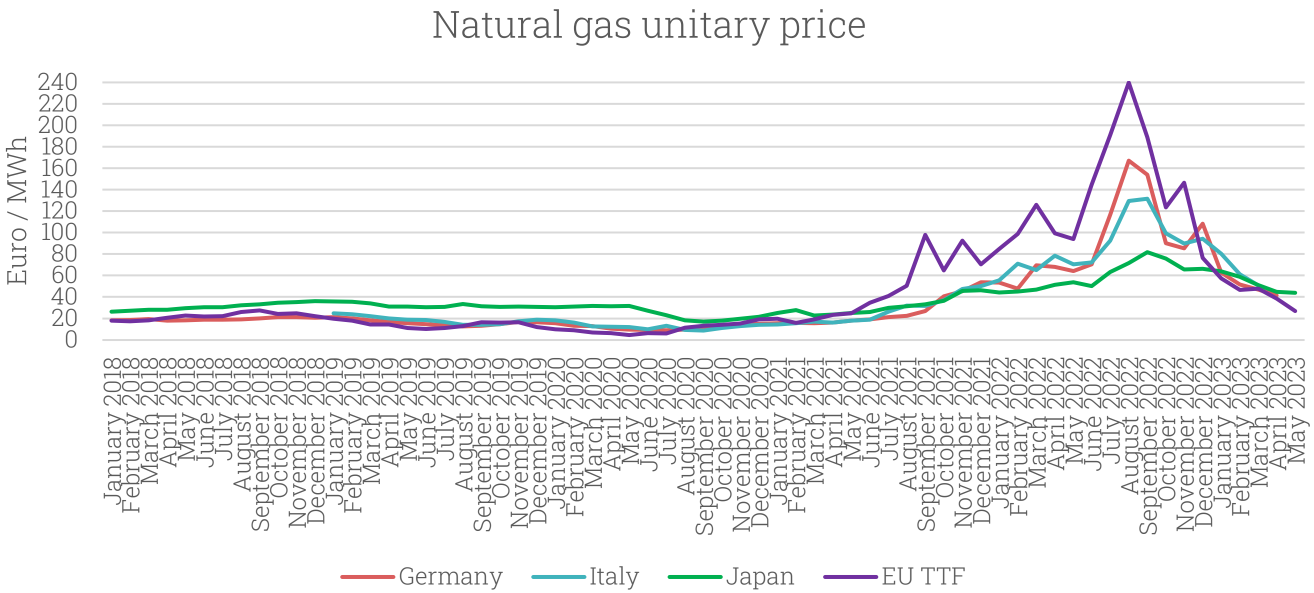
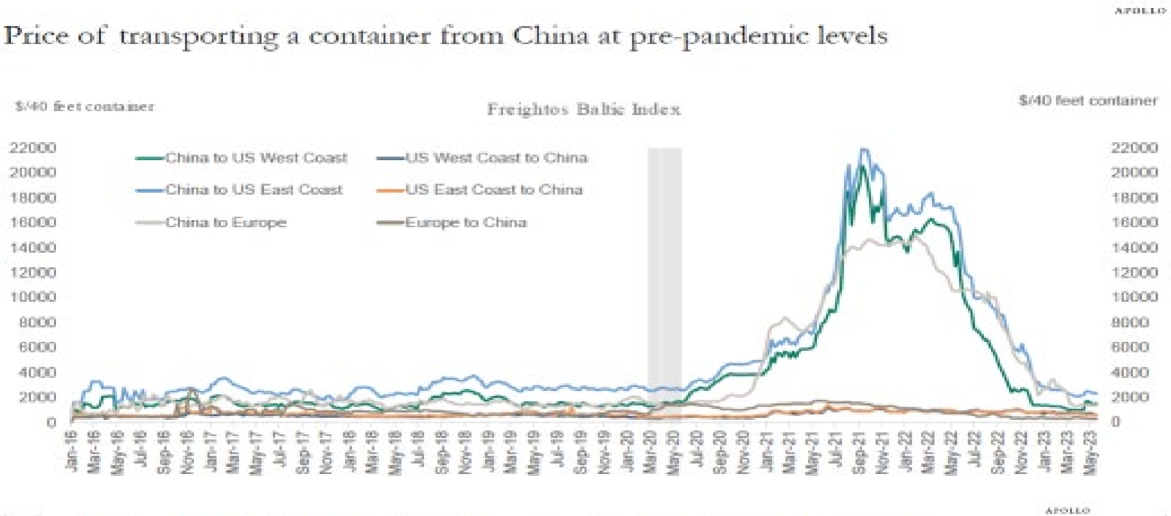
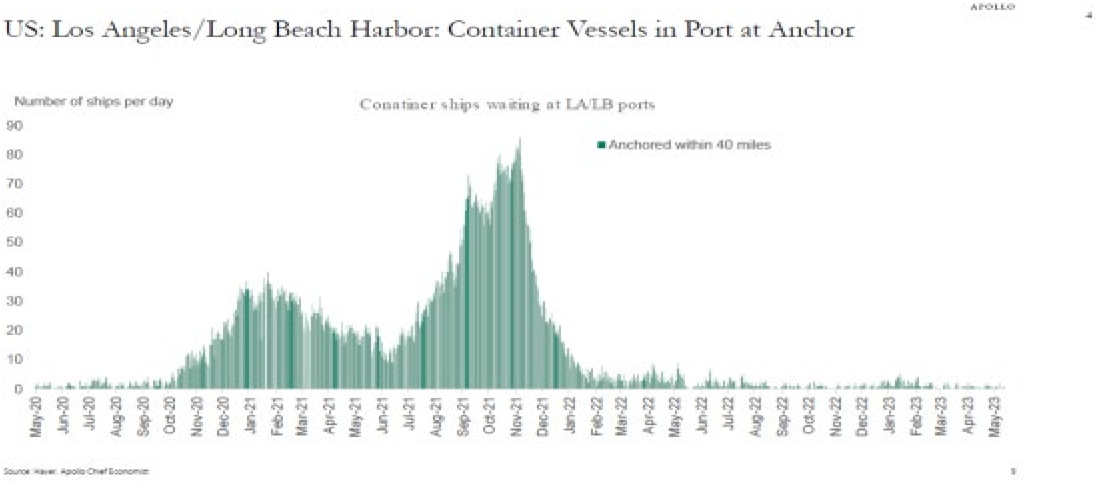
Natural gas: spot (TTF) versus unit cost: During crisis TTF > cost, now inverse



Source: Alessandro Liscai, national statistical offices.

Different indicators GVC disruption all point in same direction





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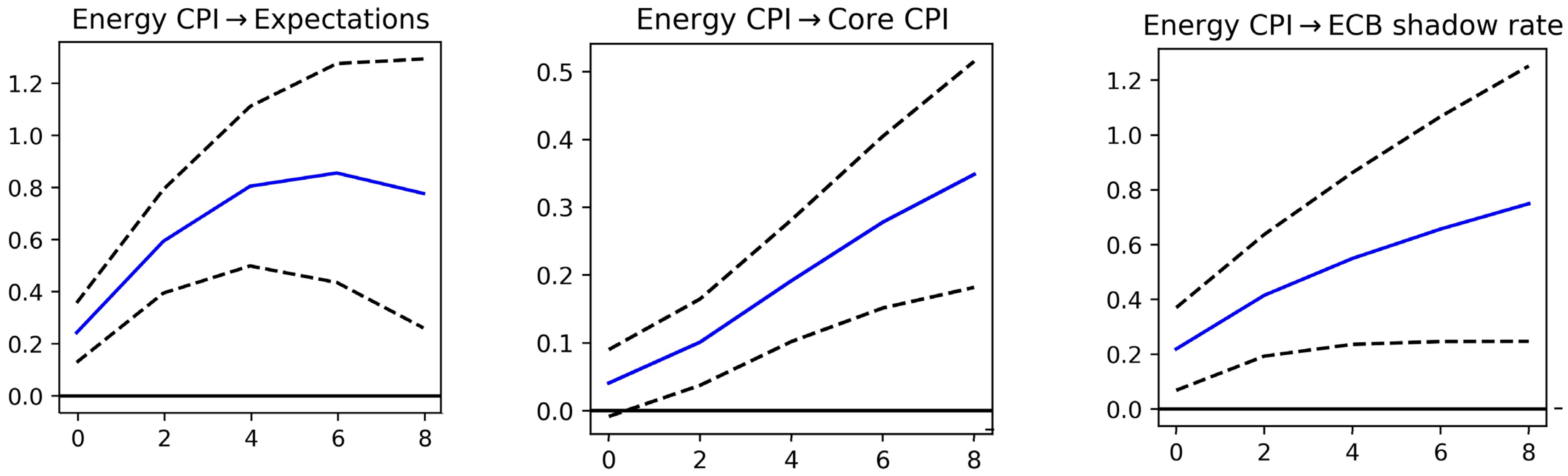
Small VAR for Euro Area (with Pietro Galeone, IEP)

- Ordering in VAR:
- energy prices exogeneous, next expectations (can jump, with two variants household and professional forecasters), then policy rate that can also adjust freely, then core CPI that adjusts more slowly since backwards measured over 12 moths and finally real GDP.
- quarterly data from 2004 with two periods: 2004-2019Q4 and 2004-2022Q4.

Sample results (impulse response functions) Consumer expectations and HICP energy



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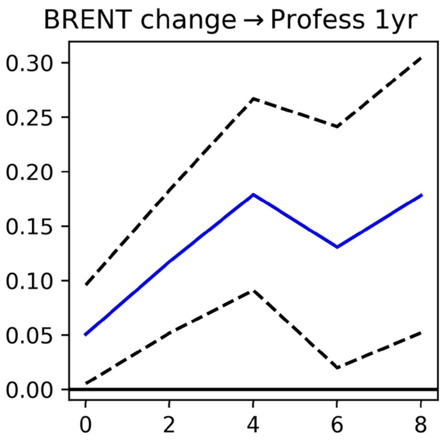
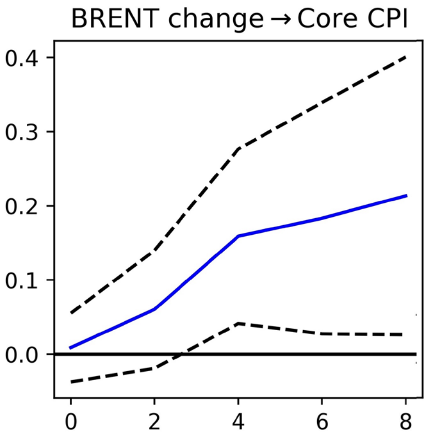
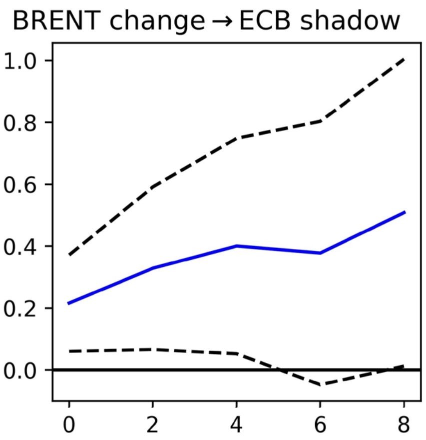
- Energy HICP shocks increase expectations, core inflation and ECB shadow rate; impact of expectations on GDP initially negative as in BBCTLB (not shown).
- Alternative ordering confirms most results.

Sample results (impulse response functions) Professional forecasters and Brent







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- Brent impacts professional forecaster and policy rate, smaller impact on core.
- Impact of ECB shadow rate on core CPI not significant (not shown)