

International Inflation Spillovers Through Input Linkages

Auer, Levchenko and Sauré

An Open Economy Model of Trend Inflation

Kamber and Wong

Discussion

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Outline

- ALS find that **PPI** inflations
 - are more “correlated” than cost spill overs would suggest => inflation is largely “global”
 - Common/global inflation is “sectoral”
- KW find that **trend CPI** inflation is essentially “domestic”
 - Deviations from trend is “sectoral”, i.e. oil
- 3 main comments
 - Is inflation is low today because of oil prices?
 - “Domestic” wage Phillips curves remain highly relevant
 - Openness/globalisation seem far less lowflationary than labor supply of elderly workers

Auer, Levchenko and Sauré

$$\text{PPI}_{(j,s,t)} = \mathbf{B} \text{PPI}_{(j,s,t)} + C_{(j,s,t)}$$

1. Estimate the part of PPI not mechanically due to the **input-output** spill-overs

$$C_{(j,s,t)} = (1 - \mathbf{B}) \text{PPI}_{(j,s,t)}$$

2. What is “**common**” across countries in $\text{PPI}_{(j,s,t)}$ and in $C_{(j,s,t)}$

$$\text{PPI}_{(j,t)} = \lambda_j \mathbf{F}_{(t)} + \varepsilon_{(j,t)} ; C_{(j,t)} = \mu_j \mathbf{G}_{(t)} + \zeta_{(j,t)}$$

3. $\text{Var}(\lambda_j \mathbf{F}_{(t)}) / \text{Var}(\text{PPI}_{(j,t)}) > \text{Var}(\mu_j \mathbf{G}_{(t)}) / \text{Var}(C_{(j,t)})$
implies amplification of the **input-output structure B**

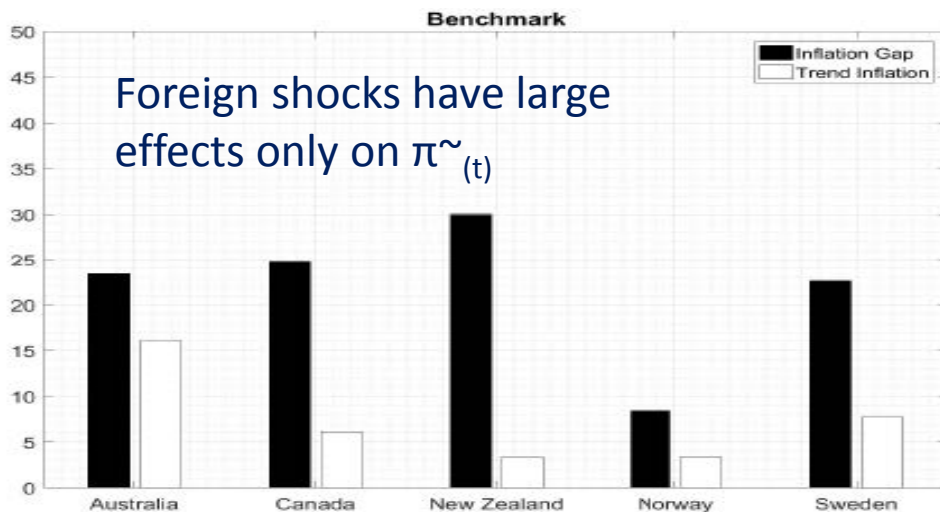
Result #1: inflation is “mechanically-structurally common-global”

Result #2: Once controlling for sectoral shocks the global factor account for a small share of the variance of inflation

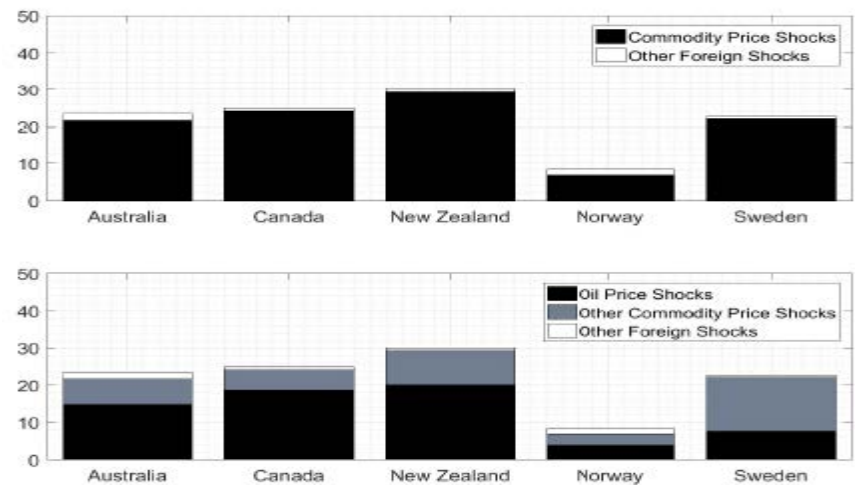
Kamber and Wong

1. $\pi_{(t)} = \tau_{(t)} + \pi^{\sim}_{(t)}$, $\tau_{(t)}$ = inflation trend
2. $[\tau_{(t)} \pi^{\sim}_{(t)} \dots u_{(t)} \dots]$ modelled as a two blocks FAVAR that includes domestic and international variables

Result # 1:

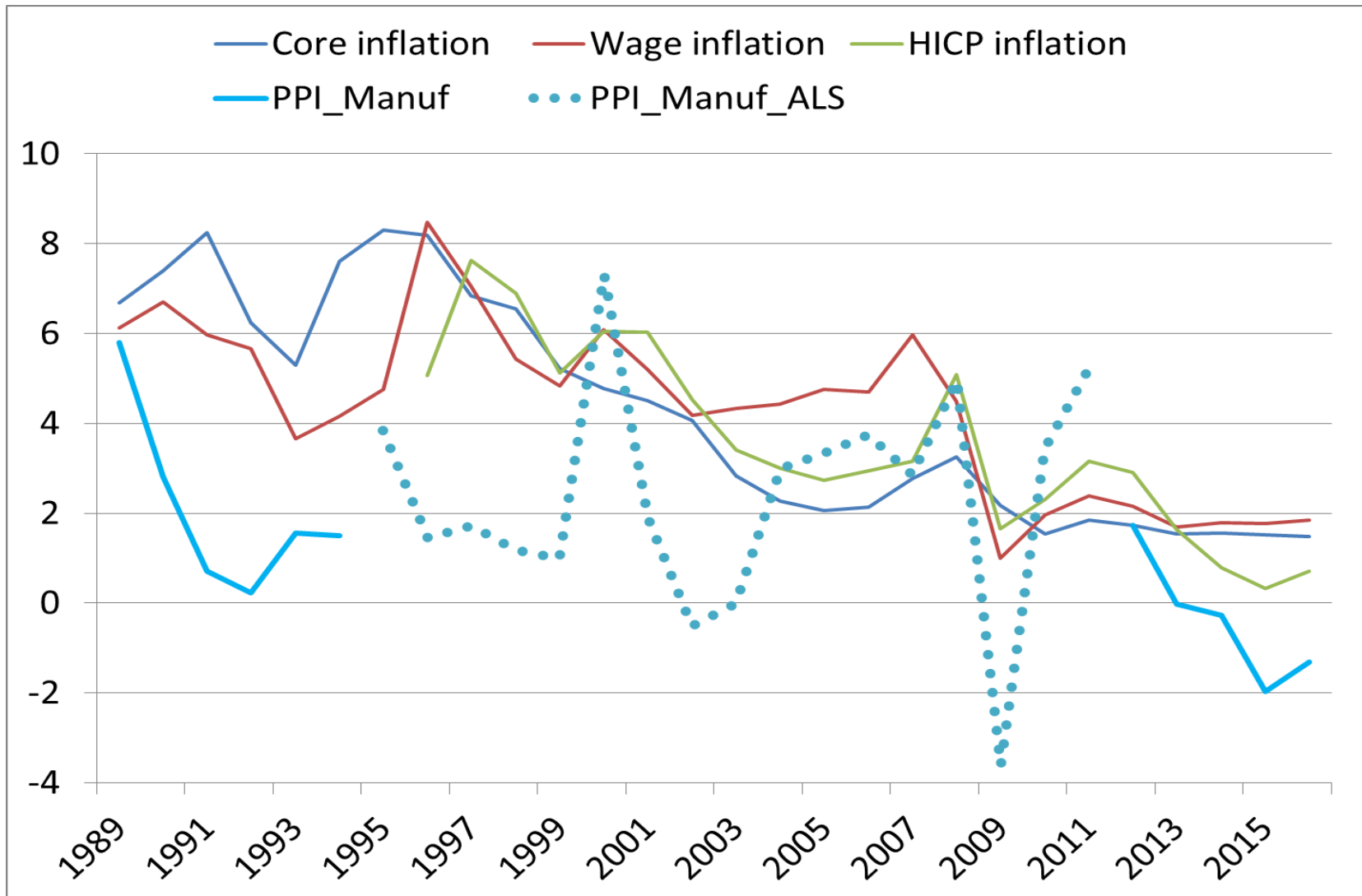


Result # 2: Oil dominates $\pi^{\sim}_{(t)}$



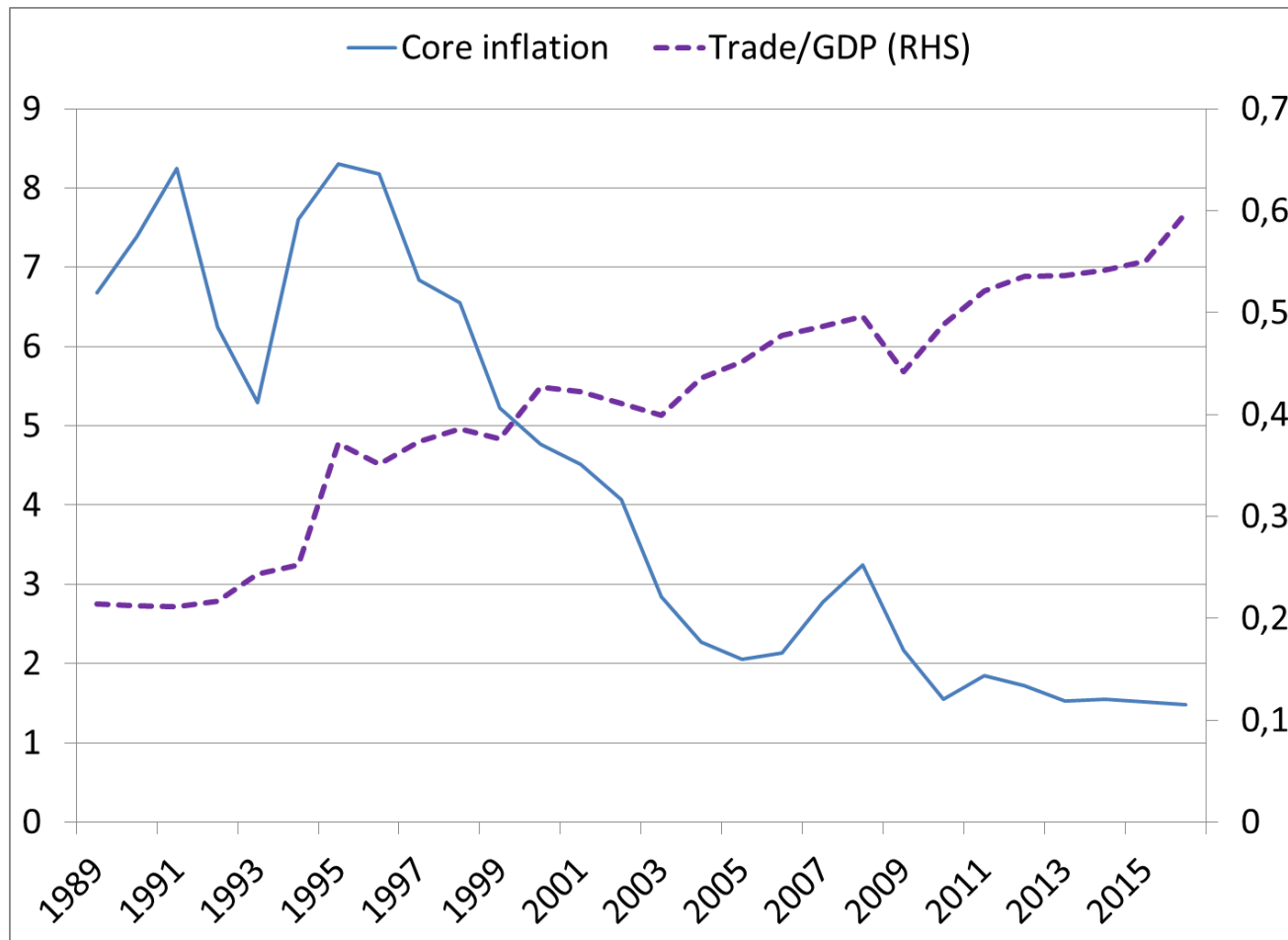
Trending variables of interest

OECD cross-country means



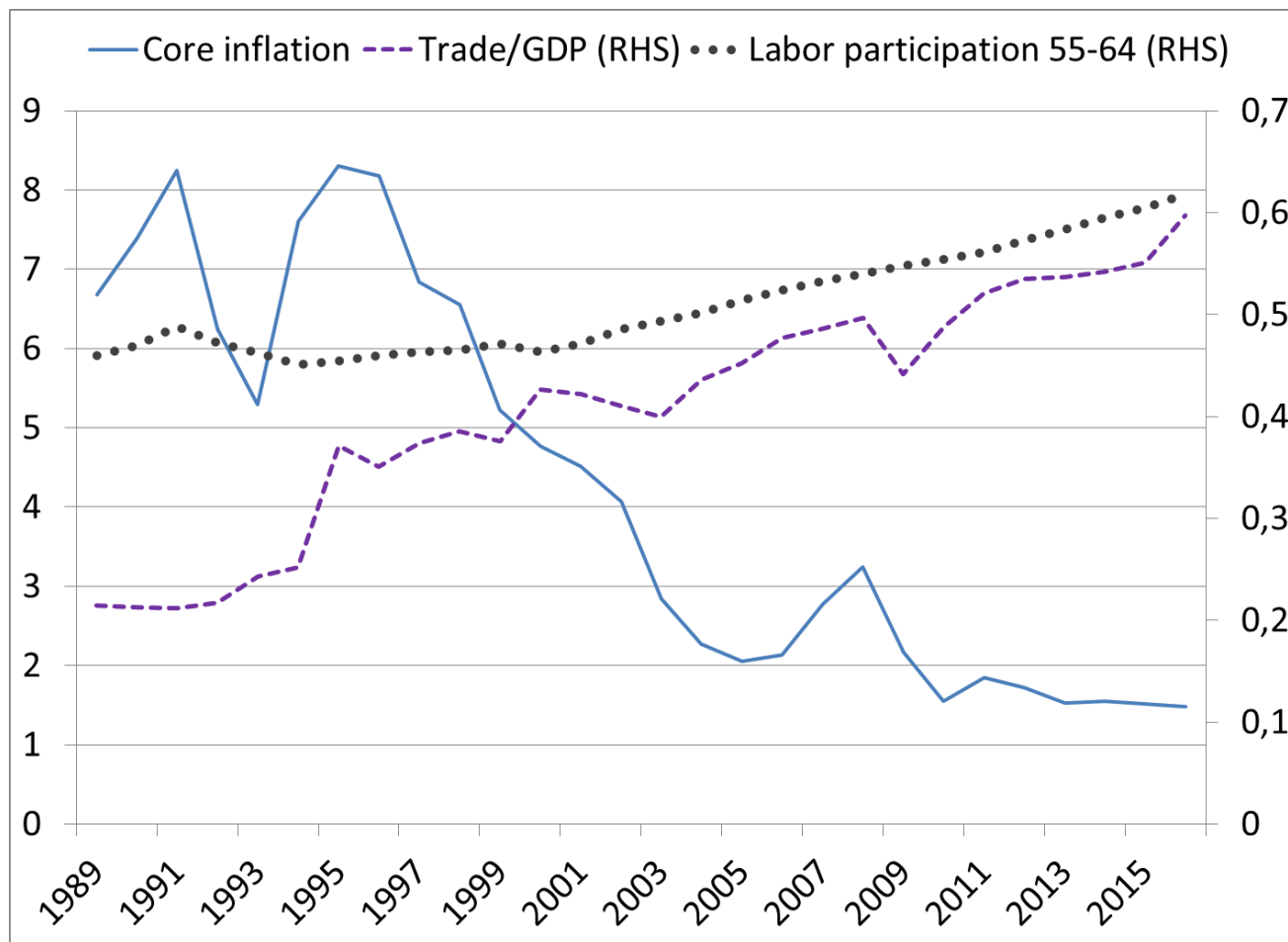
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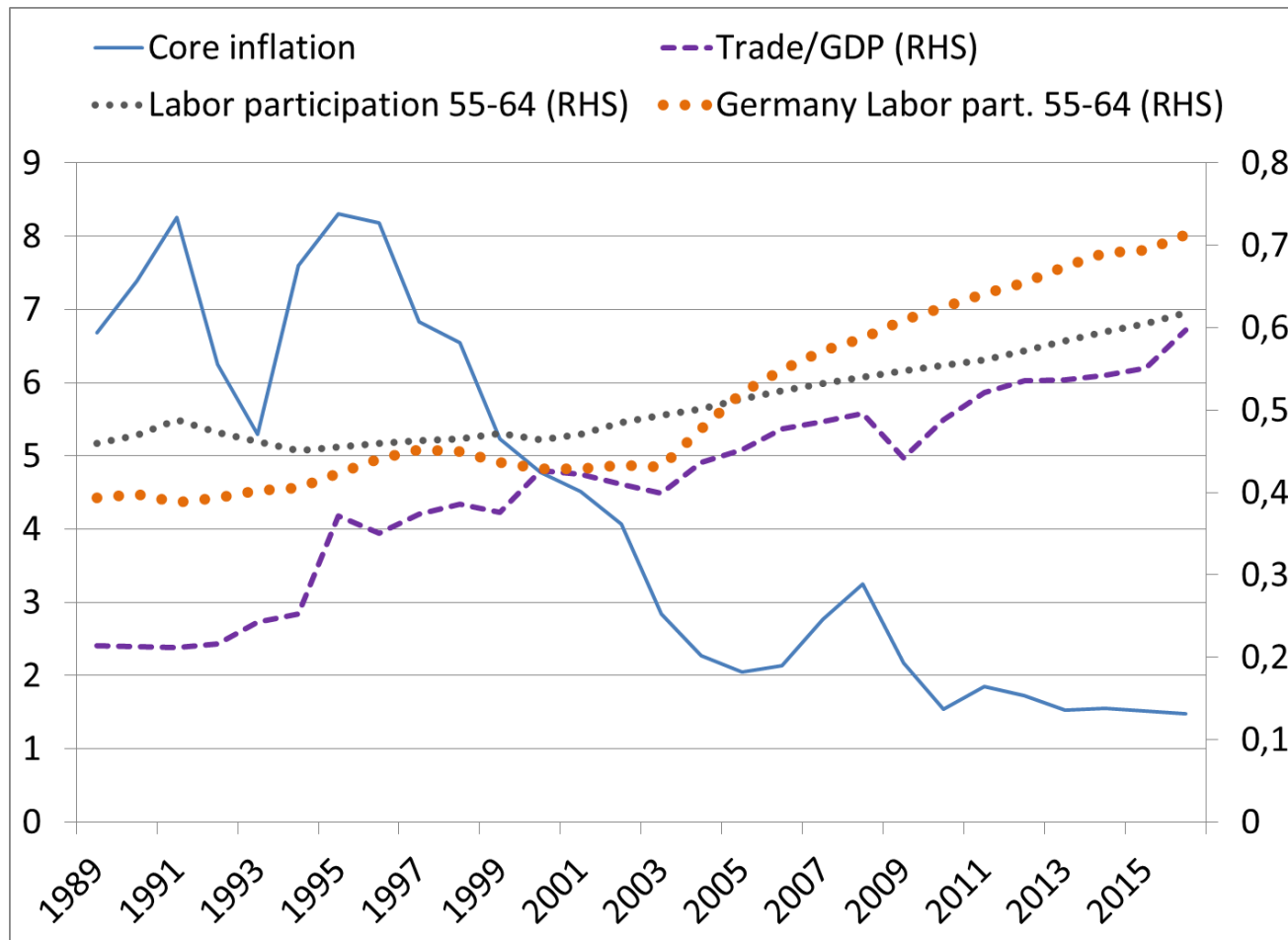
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Wage Phillips curves

Effects of openness and labor supply

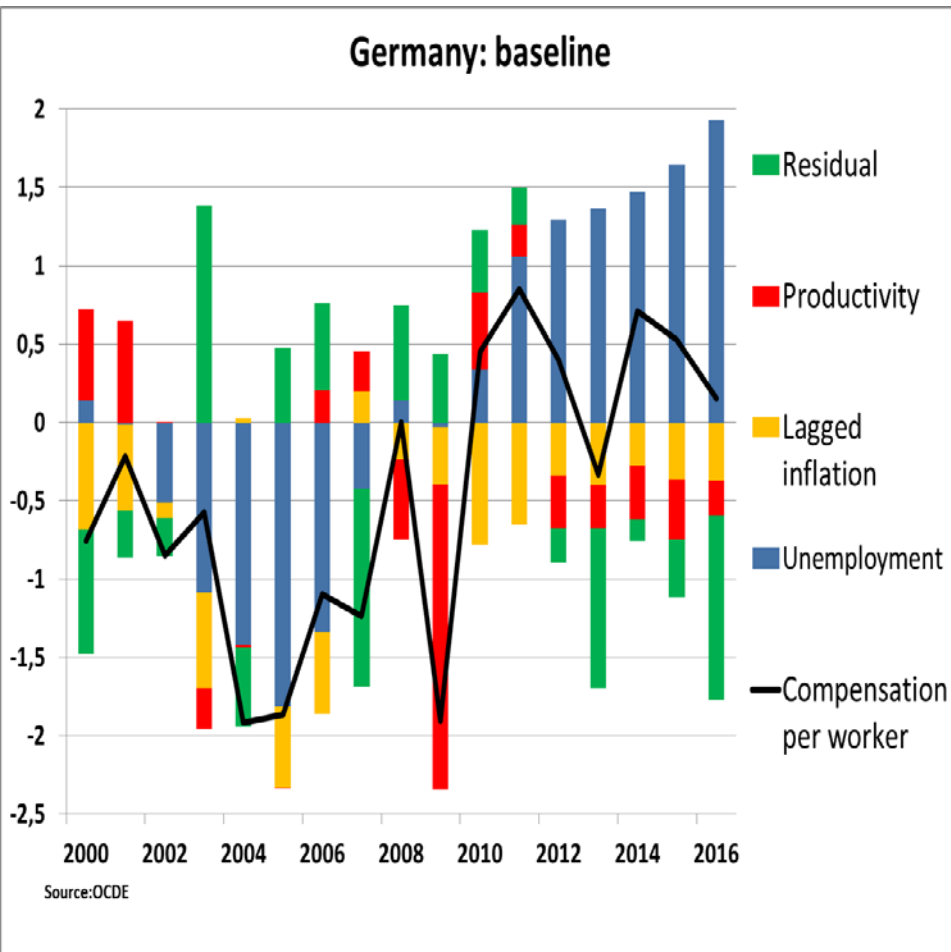
25 OECD countries 1996-2016

	Coef	Student T.	Coef	Student T.	Coef	Student T.
Lagged core inflation	0,61	10,0	0,43	5,2	0,41	5,0
Lagged NRJ inflation	0,21	1,7	0,21	1,7	0,18	1,4
Productivity	0,41	7,3	0,39	6,5	0,35	5,7
Unemployment	-0,57	-12,1	-0,59	-11,5	-0,60	-11,7
Openness			-4,90	-2,4	-1,51	-0,6
Labor participation >55 years					-0,07	-2,4
# countries	25		25		25	
# observations	461		416		416	

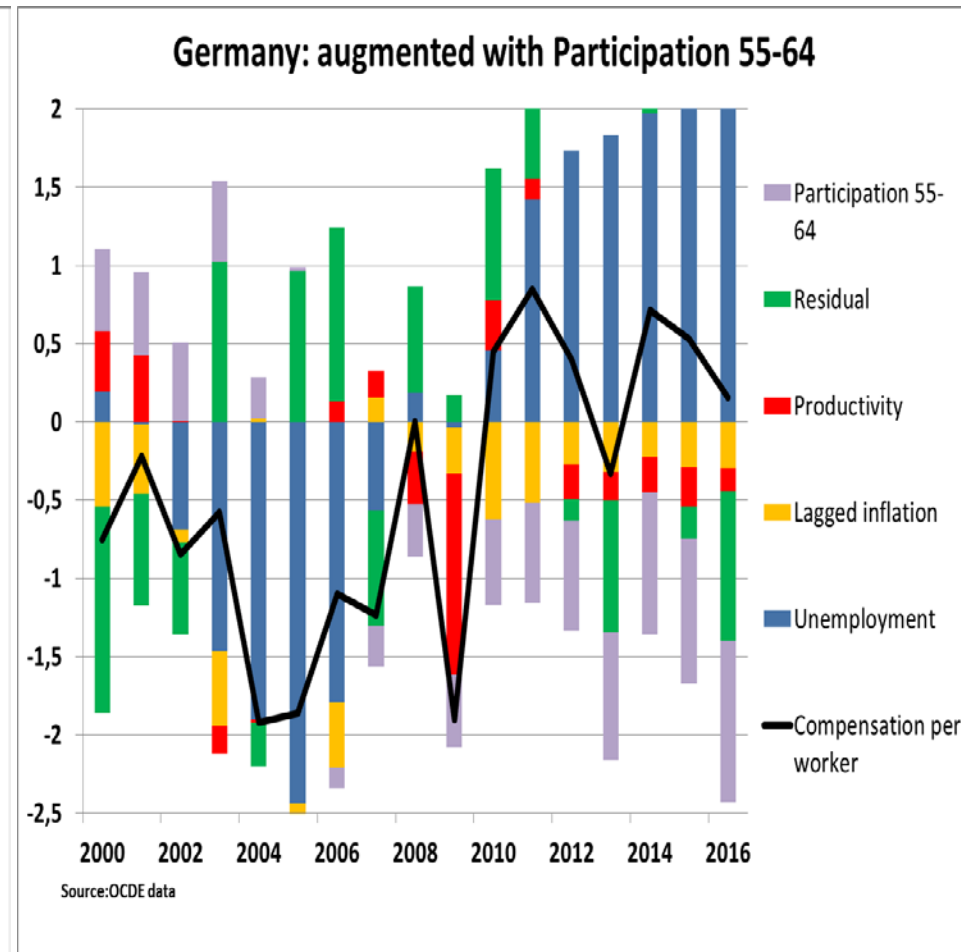
8 EA countries (DE, FR, IT,ES, NL, BE, AT, FI) 1996-2016

	Coef	Student T.	Coef	Student T.	Coef	Student T.
Lagged HICP inflation	0,39	3,3	0,36	2,8	0,27	3,3
Lagged NRJ inflation	0,19	1,8	0,26	2,6	0,25	2,5
Productivity	0,31	4,7	0,28	4,5	0,26	3,9
Unemployment	-0,33	-8,7	-0,28	-8,1	-0,29	-8,5
Openness			1,69	0,9		
Labor participation >55 years					-0,02	-1,9
# countries	8		8		8	
# observations	155		147		147	

Low wage inflation and labor supply



2012-2016 mean residual = -0,6%



2012-2016 mean residual = -0,4%

Policy implications

- Both papers concur that sectoral/oil prices are key to spur common inflation across countries
 - ALS : little trend in the period under review
 - KW : trend inflation is domestic
- Is globalisation pushing inflation down?
 - Perhaps through lower oil prices
 - Whose effects should be temporary
 - Good news: structural reforms have triggered a deflationary labor supply shock (older + part-timer see IMF WEO)
 - Persistent **yet transitory** effect
 - In the euro area, where participation above 50 has increased the most, this is a material increase in capacity and slack