ON THE PREDICTABILITY OF GDP REVISIONS IN THE NETHERLANDS

Author: Olivier Roodenburg
Presentation: Ard den Reijer

De Nederlandsche Bank – Amsterdam

Needed: A Real Time Database for the Euro-Area
Brussels, 13 June 2005

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INTRODUCTION

- **Estimation process Statistics Netherlands (CBS)**

- **6 vintages of quarterly National Accounts data, excluding structural revisions (ESA 95)**

- **Since May 2005, 6 vintages are published on www.cbs.nl**
  - **From 1990Q1 onwards-**
  - **For GDP, its expenditure components (C,I,I^g,G,Ex,Im)**
  - **Value added disaggregated in 10 production categories**

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GDP REVISIONS IN G-7 COUNTRIES

- **Study is based on an article written by Faust, Rogers and Wright (JMCB)**
  - In Canada, the UK and the US preliminary announcements pessimistic
  - Evidence for the predictability for the UK, Italy and Japan

- **Extend to Dutch data**
  - GDP growth rates from CBS run from 1986Q1 till 2002Q4 (68 quarters)
  - revisions of flash estimates (forecasting practice)
  - Robustness check with extended regression

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GDP REVISIONS

- **Very short-term revision**

  revision between the preliminary and the revised estimate after 1 quarter

- **Short-term revision**

  revision between the preliminary and the revised estimate after 24 months

- **Long-term revision**

  revision between the preliminary and the final figure, in our case 2002.4

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SUMMARY OF THE REVISIONS

	SA q-o-q	SA y-o-y	NSA y-o-y
Very short-term revision			
Mean	-0.02	-0.13	0.04
t-value	-0.46	-1.49	1.79
Short-term revision			
Mean	0.09	0.34	0.26
t-value	1.15	2.72*	3.81*
Long-term revision			
Mean	0.09	0.38	0.47
t-value	0.92	2.86*	4.92*

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THE ECONOMETRIC MODEL

- **Relationship between the revised data and preliminary data x_t^p is given by the equation**

$$r_t = \alpha + \beta x_t^p + u_t$$

where $r_t \equiv x_t^f - x_t^p$ and x_t^f denotes the final data

- **Mincer-Zarnowitz: hypothesis test of unbiasedness of the revised data**

$$H_0 : \alpha = \beta = 0$$

RESULTS: VERY SHORT-TERM REVISION

	SA,q-o-q	SA,y-o-y	NSA,y-o-y
α	0.02	0.06	-0.02
β	-0.07	-0.08	0.01
δ_1			0.04
δ_2			0.01
δ_3			0.11*
$\overline{R}^2$	0.02	0.01	0.00
F	1.50	1.98	2.58
p-value	0.23	0.15	0.03

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SHORT TERM: G7 COUNTRIES STUDIED BY FRW

	CA	FR	GER	IT	JA	UK	US	NL
α	0.29* (3.00)	0.02 (0.26)	0.31* (2.15)	0.19* (2.72)	0.26* (4.46)	0.27* (4.26)	0.07 (1.68)	0.34* (3.66)
β	-0.30* (-2.97)	0.01 (0.07)	-0.76* (-4.15)	-0.27* (-2.49)	-0.25* (-4.94)	-0.32* (-6.15)	-0.01 (-0.37)	-0.4 (-4.68)
F	9.50	0.10	18.50	7.90	25.80	43.00	3.90	10.95
p	0.01	0.94	0.00	0.02	0.00	0.00	0.14	0.00
$\overline{R}^2$	0.23	-0.03	0.44	0.20	0.27	0.26	-0.01	0.31

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LONG TERM: G-7 COUNTRIES STUDIED BY FRW

	CA	FR	GER	IT	JA	UK	US	NL
α	0.44* (4.94)	0.12 (1.32)	0.28* (2.90)	0.34* (4.88)	0.33* (4.25)	0.44* (6.11)	0.17 (2.28)	0.53* (5.78)
β	-0.39* (-4.80)	-0.24 (-1.78)	-0.48* (-4.29)	-0.64* (-6.54)	-0.41* (-7.18)	-0.52* (-8.55)	-0.1 (-1.16)	-0.78* (-11.25)
F	26.70	3.30	18.70	49.40	57.40	83.30	7.60	63.75
p	0.00	0.20	0.00	0.00	0.00	0.00	0.02	0.00
$\overline{R}^2$	0.27	0.07	0.40	0.62	0.42	0.52	0.02	0.61

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EXTENDED MODEL WITH SEASONAL DUMMIES

- **Not-seasonally adjusted data contains a seasonal pattern**
- **The extended model becomes**

$$r_t = \alpha + \beta x_t^p + \sum_{i=1}^{k} \gamma_i r_{t-i} + \sum_{j=1}^{l} \phi_j x_{t-j}^p + \delta_1 D_1 + \delta_2 D_2 + \delta_3 D_3 + u_t^*$$

- **The extended Mincer-Zarnowitz test**

$$H_0 : \alpha = \beta = \gamma_1 = \ldots = \gamma_k = \phi_1 = \ldots = \phi_l = \delta_1 = \delta_2 = \delta_3 = 0$$

- **Qualitative conclusions confirmed!**

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CONCLUSION

- **Tendency for pessimism in Dutch GDP announcements**
  - Especially for two year horizon and longer
  - 0,35 pp from vintage 3 to vintage 6 during 1991-2000 CBS (2003)
- **(Extended) Mincer-Zarnowitz establishes result**
  - Predictability of SA short and long term revisions of q-o-q-GDP growth rates
- **Results comparable to G7 excluded France and US**

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