

Web appendix for Planning to cheat: EU fiscal policy in real time

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Revision for:

Economic Policy

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Part A: Decomposition of implementation error

Decomposition of implementation error in x , where x is τ (revenues as share of GDP) or g (government spending as share of GDP):

$$\begin{aligned}
 & (x_{t+1}^{t+1} - x_{t+1}^t) \\
 &= x_{t+1}^{t+1} \frac{1+r_{t+1}^{x,t+1}}{1+yn_{t+1}^{t+1}} - x_t^t \frac{1+r_{t+1}^{x,t}}{1+yn_{t+1}^t} = x_{t+1}^{t+1} \frac{1+r_{t+1}^{x,t+1}}{1+yn_{t+1}^{t+1}} - (x_t^{t+1} + x_t^t - x_t^{t+1}) \frac{1+r_{t+1}^{x,t}}{1+yn_{t+1}^t} \\
 &= (x_t^{t+1} - x_t^t) \frac{1+r_{t+1}^{x,t}}{1+yn_{t+1}^t} + x_{t+1}^{t+1} \left(\frac{1+r_{t+1}^{x,t+1}}{1+yn_{t+1}^{t+1}} - \frac{1+r_{t+1}^{x,t}}{1+yn_{t+1}^t} \right) \\
 &= \underbrace{\frac{1+r_{t+1}^{x,t}}{1+yn_{t+1}^t} (x_t^{t+1} - x_t^t)}_{\text{Base effect}} + \underbrace{\frac{x_{t+1}^{t+1}}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)} (r_{t+1}^{x,t+1} - r_{t+1}^{x,t})}_{\text{Revenue/Expenditure growth effect}} \\
 &\quad - \underbrace{\frac{x_t^{t+1}}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)} (yn_{t+1}^{t+1} - yn_{t+1}^t)}_{\text{Denominator effect}} + \underbrace{\frac{x_t^{t+1} (r_{t+1}^{x,t+1} yn_{t+1}^t - r_{t+1}^{x,t} yn_{t+1}^{t+1})}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)}}_{\text{Residual}}
 \end{aligned}$$

Here, $r_{t+1}^{x,t}$ is the planned growth rate of total nominal revenues (if $x=\tau$) or total nominal spending (if $x=g$) between periods t and $t+1$. Further, $r_{t+1}^{x,t+1}$ is corresponding actual growth rate over the same period as measured end of period $t+1$; yn_{t+1}^t is the projected nominal income growth rate (as defined in the main text) and yn_{t+1}^{t+1} is the actual nominal income growth rate (as defined in the main text). Subtracting the last line of the decomposition for spending from that of revenues (and neglecting the difference in residuals, which are generally very small in any case) yields (as an approximation):

$$\begin{aligned}
& (\tau_{t+1}^{t+1} - \tau_{t+1}^t) - (g_{t+1}^{t+1} - g_{t+1}^t) \\
& \simeq \underbrace{\frac{1+r_{t+1}^{\tau,t}}{1+yn_{t+1}^t}(\tau_{t+1}^{t+1} - \tau_{t+1}^t) - \frac{1+r_{t+1}^{g,t}}{1+yn_{t+1}^t}(g_{t+1}^{t+1} - g_{t+1}^t)}_{\text{Base effect}} \\
& + \underbrace{\frac{\tau_t^{t+1}(r_{t+1}^{\tau,t+1} - r_{t+1}^{\tau,t}) - g_t^{t+1}(r_{t+1}^{g,t+1} - r_{t+1}^{g,t})}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)}}_{\text{Revenue/Expenditure growth effect}} - \underbrace{\frac{(yn_{t+1}^{t+1} - yn_{t+1}^t)}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)}(\tau_{t+1}^{t+1} - g_{t+1}^{t+1})}_{\text{Denominator effect}}
\end{aligned}$$

The denominator effect is essentially a “second-order” term and is also generally small (e.g. a growth projection mistake of 1% and a deficit of 3% imply that this term is equal to 0.0003). Hence, we have that:

$$\begin{aligned}
& s_{t+1}^{t+1} - s_{t+1}^t \\
& \simeq \underbrace{\frac{1+r_{t+1}^{\tau,t}}{1+yn_{t+1}^t}(\tau_{t+1}^{t+1} - \tau_{t+1}^t) - \frac{1+r_{t+1}^{g,t}}{1+yn_{t+1}^t}(g_{t+1}^{t+1} - g_{t+1}^t)}_{\text{Base effect}} \\
& + \underbrace{\frac{\tau_t^{t+1}(r_{t+1}^{\tau,t+1} - r_{t+1}^{\tau,t}) - g_t^{t+1}(r_{t+1}^{g,t+1} - r_{t+1}^{g,t})}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)}}_{\text{Revenue/Expenditure growth effect}}
\end{aligned}$$

where we have in the mean time used that $s = \tau - g$. Finally, if $r_{t+1}^{\tau,t} = r_{t+1}^{g,t} = yn_{t+1}^t$, we can further simplify the preceding expression to:

$$\begin{aligned}
& (s_{t+1}^{t+1} - s_{t+1}^t) - (s_t^{t+1} - s_t^t) \\
& \simeq \underbrace{\frac{1}{(1+yn_{t+1}^{t+1})(1+yn_{t+1}^t)} \left[\tau_t^{t+1}(r_{t+1}^{\tau,t+1} - r_{t+1}^{\tau,t}) - g_t^{t+1}(r_{t+1}^{g,t+1} - r_{t+1}^{g,t}) \right]}_{\text{Revenue/Expenditure growth effect}}
\end{aligned}$$

where the left-hand side can be rewritten as our implementation error. The first term in the square brackets on the second line is the prediction error in the growth rate of revenues in percentage points of GDP, while the second term is the prediction error in the growth rate of spending in percentage points of GDP. Obviously if the planned/projected

growth rates of revenues, spending and nominal GDP differ, the approximation becomes coarser, but should still remain rather accurate, because the additional inaccuracies are again products of percentage point differences.

Part B: Average implementation errors at the individual country level

Table B1: Average implementation errors at the individual country level

| | $ersur_t^{t+1}$ | $ersur_t^{t+2}$ | $ersur_t^{t+3}$ | $erspend_t^{t+1}$ | $erspend_t^{t+2}$ | $erspend_t^{t+3}$ | $errev_t^{t+1}$ | $errev_t^{t+2}$ | $errev_t^{t+3}$ |
|----|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| AT | -0.072 (0.18) | -0.31 (0.28) | -0.29 (0.24) | 0.27 (0.23) | 0.48 (0.31) | 0.44*** (0.15) | 0.18 (0.20) | 0.19 (0.36) | 0.10 (0.24) |
| BE | -0.19 (0.12) | -0.35*** (0.13) | -0.43*** (0.11) | 0.12 (0.19) | 0.14 (0.25) | 0.17 (0.26) | -0.013 (0.17) | -0.14 (0.27) | -0.32 (0.27) |
| DE | -0.31 (0.29) | -0.52 (0.33) | -0.43 (0.35) | 0.37 (0.27) | 0.49* (0.29) | 0.29 (0.27) | 0.061 (0.26) | -0.031 (0.22) | -0.14 (0.32) |
| DK | -0.089 (0.18) | -0.35* (0.18) | -0.30 (0.30) | -0.19 (0.16) | -0.30 (0.19) | -0.30 (0.22) | -0.24 (0.15) | -0.64*** (0.18) | -0.59** (0.24) |
| EL | -0.24 (0.27) | -0.014 (0.48) | 0.050 (0.56) | 0.35 (0.37) | 0.20 (0.61) | 0.12 (0.56) | 0.11 (0.31) | 0.014 (0.34) | 0.32 (0.40) |
| ES | 0.16 (0.12) | 0.050 (0.21) | -0.13 (0.26) | 0.11 (0.10) | 0.27** (0.14) | 0.36** (0.17) | 0.24** (0.12) | 0.30*** (0.11) | 0.24** (0.10) |
| FI | 0.11 (0.35) | -0.063 (0.48) | -0.86** (0.38) | 0.35 (0.30) | 0.12 (0.36) | 0.49 (0.40) | 0.40** (0.20) | 0.10 (0.26) | -0.36** (0.17) |
| FR | -0.31* (0.18) | -0.46** (0.19) | -0.61*** (0.23) | 0.63** (0.26) | 0.64*** (0.24) | 0.66*** (0.24) | 0.30 (0.21) | 0.17 (0.14) | 0.019 (0.15) |
| IE | 0.11 (0.49) | -0.33 (0.53) | -1.14** (0.56) | 0.25 (0.43) | 1.02** (0.46) | 1.66*** (0.46) | 0.067 (0.42) | 0.71* (0.41) | 0.59 (0.37) |
| IT | -0.53*** (0.19) | -0.53 (0.34) | -0.46 (0.35) | 0.81*** (0.30) | 0.91*** (0.33) | 1.03** (0.41) | 0.27* (0.16) | 0.42* (0.25) | 0.57*** (0.20) |
| LU | -1.50*** (0.56) | -2.10*** (0.64) | -2.43*** (0.76) | 1.55** (0.76) | 2.09** (0.97) | 2.07* (1.21) | -0.43 (0.36) | -0.11 (0.38) | -0.40 (0.43) |
| NL | -0.10 (0.19) | -0.30* (0.17) | -0.41* (0.22) | 0.20 (0.27) | 1.03*** (0.22) | 0.87*** (0.26) | 0.18 (0.21) | 0.70* (0.40) | 0.57 (0.37) |
| PT | -0.54 (0.35) | -0.54 (0.49) | -0.66 (0.56) | 0.46 (0.32) | 1.20*** (0.35) | 1.00*** (0.31) | 0.20 (0.25) | 0.63 (0.38) | 0.31 (0.37) |
| SE | 0.30 (0.20) | -0.41 (0.38) | -0.76* (0.39) | -0.011 (0.27) | -0.000 (0.31) | 0.29 (0.33) | 0.31 (0.19) | -0.40 (0.28) | -0.50** (0.20) |
| UK | -0.46** (0.23) | -0.74*** (0.23) | -0.64** (0.32) | 0.43* (0.23) | 0.67*** (0.19) | 0.70** (0.30) | -0.20 (0.28) | -0.071 (0.27) | 0.35 (0.40) |

Notes: Figures for means are in percent; standard errors are reported underneath the means. Because the variances of the implementation errors differ across countries, the estimations are based on weighted least squares. Further, * = significance at the 10% level; ** = significance at the 5% level; *** = significance at the 1% level. Country codes: AT = Austria, BE = Belgium, DE = Germany, DK = Denmark, EL = Greece, ES = Spain, FI = Finland, FR = France, IE = Ireland, IT = Italy, LU = Luxemburg, NL = Netherlands, PT = Portugal, SE = Sweden, UK = United Kingdom.

Part C: Political variables

Table C1: Coefficient estimates of political variables in Budgeting and Implementation Stages

| (1) | (2) | (3) | (4) | (5) |
|--|---|---------------|--------------------|--------------------|
| Political variable | Description | Source | Plan | Implement. |
| <i>Captures possibility of losing office</i> | | | | |
| $ELECT_t$ | Dummy is 1, if election in t , and 0, otherwise | EJPR | -0.089 (0.089) | -0.44*** (0.14) |
| GOV_NEW_t | New party composition of cabinet (0 = no change; 1 = change over last year) | CPDS + update | 0.31*** (0.096) | -0.23 (0.17) |
| GOV_CHAN_t | Number of changes of government in year t | CPDS + update | 0.13 (0.08) | -0.46*** (0.12) |
| <i>Captures support for government</i> | | | | |
| GOV_TYPE_t | Type of govt. from single party majority (low) to caretaker (high) | CPDS + update | -0.021 (0.052) | -0.02 (0.09) |
| <i>Captures party fragmentation of government</i> | | | | |
| NMC_t | Number of members of cabinet | EJPR | 0.0064 (0.010) | 0.009 (0.022) |
| NPC_t | Number of parties in cabinet | EJPR | 0.050 (0.046) | -0.002 (0.098) |
| <i>Captures left-right orientation of government</i> | | | | |
| GOV_RIGHT_t | Right-wing parties as % of total cabinet posts | CPDS + update | 0.0004 (0.001) | 0.004 (0.003) |
| GOV_CENT_t | Centre parties as % of total cabinet posts | CPDS + update | -0.003 (0.002) | -0.002 (0.004) |
| GOV_LEFT_t | Left-wing parties as % of total cabinet posts | CPDS + update | 0.0008 (0.001) | -0.001 (0.002) |
| GOV_PARTY_t | Cabinet composition right (low) – left (high) | CPDS + update | 0.018 (0.034) | -0.06 (0.06) |
| GOV_GAP_t | Ideological gap new cabinet minus old one (ΔGOV_PARTY_t) | CPDS + update | 0.056 (0.049) | -0.19** (0.085) |

Notes: Columns (4) and (5) report the coefficient of the political variables added one-by-one to the baseline specification of the planning (Table 4, Column (1)) and implementation stages (Table 4, Column (4)). Heteroskedasticity and serial correlation consistent standard errors are in brackets below the point estimates, * = significance at the 10% level, ** = significance at the 5% level, *** = significance at the 1% level.

Part D: Overall budget sensitivities based on estimates for budget components

We can write the relevant system in the format:

$$g = \alpha_1 \tau + \beta_1 y + \gamma_1 q$$

$$\tau = \alpha_2 g + \beta_2 y + \gamma_2 q$$

where g , τ , y and q are variables and q is a set of additional controls, such as GOV_NEW_t . Solving this system yields:

$$g = \frac{\beta_1 + \alpha_1 \beta_2}{1 - \alpha_1 \alpha_2} y + \frac{\gamma_1 + \alpha_1 \gamma_2}{1 - \alpha_1 \alpha_2} q \quad \text{and} \quad \tau = \frac{\beta_2 + \alpha_2 \beta_1}{1 - \alpha_1 \alpha_2} y + \frac{\gamma_2 + \alpha_2 \gamma_1}{1 - \alpha_1 \alpha_2} q.$$

For the case of the *planning* stage regressions, we have $g = g'_{t+1} - g'_t$, $\tau = \tau'_{t+1} - \tau'_t$, $y = y'_{t+1}$ and q is GOV_NEW_t and other variables. Hence, using $s'_{t+1} - s'_t = (\tau'_{t+1} - \tau'_t) - (g'_{t+1} - g'_t)$, we have

$$s'_{t+1} - s'_t = \frac{\beta_2(1 - \alpha_1) + \beta_1(\alpha_2 - 1)}{1 - \alpha_1 \alpha_2} y'_{t+1} + \frac{\gamma_2(1 - \alpha_1) + \gamma_1(\alpha_2 - 1)}{1 - \alpha_1 \alpha_2} (GOV_NEW_t).$$

Further, $\alpha_1 = 0.950216$, $\alpha_2 = 1.043289$, $\beta_1 = -0.566935$, $\beta_2 = 0.579731$, $\gamma_1 = -0.247417$, $\gamma_2 = 0.254578$. Substituting these numbers yields (rounded):

$$s'_{t+1} - s'_t = 0.50 y'_{t+1} + 0.23 (GOV_NEW_t).$$

$ersur_t^{t+1}$

For the case of the *implementation* stage regressions, we have $g = erspend_t^{t+1}$, $\tau = errev_t^{t+1}$, $y = y_{t+1}^{t+1} - y_{t+1}^t$ and q is a vector containing $INFL_{t+1}^{t+1} - INFL_{t+1}^t$, GOV_GAP_t , $ELECT_t$ and GOV_CHAN_t . Further, $\alpha_1 = 0.790892$, $\alpha_2 = 0.654104$, $\beta_1 = -0.360515$, $\beta_2 = 0.215703$, $\gamma_{1,INFL} = -0.231214$, $\gamma_{2,INFL} = 0.059139$, $\gamma_{1,GOVGAP} = 0.190010$, $\gamma_{2,GOVGAP} = -0.174765$, $\gamma_{1,ELECT} = 0.293178$, $\gamma_{2,ELECT} = 0$, $\gamma_{1,GOVCHAN} = 0$ and $\gamma_{2,GOVCHAN} = -0.218736$. Using $ersur_t^{t+1} = errev_t^{t+1} - erspend_t^{t+1}$ and substituting, we obtain:

$$ersur_t^{t+1} = 0.35 (y_{t+1}^{t+1} - y_{t+1}^t) + 0.19 (INFL_{t+1}^{t+1} - INFL_{t+1}^t) - 0.21 (GOV_GAP_t) - 0.21 ELECT_t - 0.09 (GOV_CHAN_t)$$

Part E: Relationship of fiscal components with national fiscal institutions

Table E1: Relationship of fiscal components with national fiscal institutions

| | Spending Plan | | | | | |
|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | OLS | | WLS | | WLS - excluding UK | |
| Constant | 2.78*** (0.36) | 2.37*** (0.31) | 2.78*** (0.42) | 2.21*** (0.37) | 2.70*** (0.38) | 2.61*** (0.33) |
| <i>MTBF</i> | -1.40** (0.46) | | -1.53** (0.56) | | -1.54** (0.53) | |
| <i>FISRUL</i> | | -1.32* (0.70) | | -1.23 (0.87) | | -2.19*** (0.70) |
| | Revenue Plan | | | | | |
| | OLS | | WLS | | WLS - excluding UK | |
| Constant | -2.78*** (0.39) | -2.31*** (0.33) | -2.83*** (0.47) | -2.38*** (0.41) | -2.78*** (0.46) | -2.72*** (0.40) |
| <i>MTBF</i> | 1.44** (0.49) | | 1.62** (0.62) | | 1.63** (0.60) | |
| <i>FISRUL</i> | | 1.32* (0.74) | | 1.60* (0.90) | | 2.39** (0.77) |
| | Spending Error | | | | | |
| | OLS | | WLS | | WLS - excluding UK | |
| Constant | 0.56** (0.22) | 0.51** (0.24) | 0.75** (0.25) | 0.25 (0.34) | 0.61*** (0.17) | 0.66** (0.22) |
| <i>MTBF</i> | -0.55 (0.33) | | -0.71** (0.27) | | -0.62** (0.22) | |
| <i>FISRUL</i> | | -0.72 (0.61) | | -0.25 (0.69) | | -1.13** (0.46) |
| | Revenue Error | | | | | |
| | OLS | | WLS | | WLS - excluding UK | |
| Constant | -0.24 (0.14) | -0.18 (0.14) | -0.45** (0.18) | -0.18 (0.14) | -0.38** (0.13) | -0.34** (0.11) |
| <i>MTBF</i> | 0.28 (0.20) | | 0.53** (0.21) | | 0.49** (0.16) | |
| <i>FISRUL</i> | | 0.31 (0.37) | | 0.25 (0.41) | | 0.72** (0.23) |

Notes: the dependent variable is measured in %-points of GDP, while *MTBF* and *FISRUL* are measured on a 0 – 1 scale, with 1 representing the highest degree of tightness of the institutional arrangement. Robust standard errors are in brackets below the point estimates. Further, * = significance at the 10% level, ** = significance at the 5% level, *** = significance at the 1% level. OLS = Ordinary Least Squares. WLS = Weighted Least Squares. Weights are based on the precision (reciprocal of standard error) of the estimated fixed effects.

Part F: Relationship stock-flow adjustment and national fiscal institutions

Table F1: Relationship between stock-flow adjustment and national fiscal institutions

| | Dependent variable: average over countries of $sfa_{t+1}^{t+1} - sfa_{t+1}^t$ | | | | | |
|---------------|---|-------------------|--------------------|--------------------|--------------------|--------------------|
| | OLS | | WLS | | WLS - Ex. UK | |
| Constant | 0.78*** (0.10) | 0.70*** (0.10) | 0.63*** (0.15) | 0.52*** (0.10) | 0.72*** (0.12) | 0.66*** (0.13) |
| <i>MTBF</i> | -0.69** (0.24) | | -0.61*** (0.15) | | -0.66*** (0.12) | |
| <i>FISRUL</i> | | -0.90** (0.33) | | -0.73*** (0.17) | | -1.02*** (0.31) |
| | Dependent variable: fixed effect of regression Column (2), Table 7 | | | | | |
| | OLS | | WLS | | WLS - Ex. UK | |
| Constant | 1.09** (0.39) | 0.58 (0.46) | 0.74* (0.39) | 0.41 (0.23) | 0.83** (0.37) | 0.32 (0.27) |
| <i>MTBF</i> | -1.17** (0.51) | | -0.78* (0.40) | | -0.84** (0.37) | |
| <i>FISRUL</i> | | -1.08* (0.57) | | -0.73 (0.44) | | -0.53 (0.52) |

Notes: see notes of Table E1.

Part G: Relationship between fiscal stages and institutions including delegation

Table G1: Relationship between fiscal stages and institutions including delegation

| | Planning | | | | | |
|---------------|-------------------------------------|-------------------|-------------------|-----------------|----------------------|------------------|
| | Dependent: f.e. Column (2), Table 4 | | | | | |
| | OLS | | WLS | | WLS - excluding U.K. | |
| Constant | -0.78 (0.50) | -0.36 (0.47) | -0.85* (0.46) | -0.28 (0.46) | -0.85* (0.47) | -0.71 (0.45) |
| <i>MTBF</i> | 1.37** (0.53) | | 1.56** (0.55) | | 1.55** (0.56) | |
| <i>FISRUL</i> | | 1.10* (0.60) | | 1.09 (0.64) | | 1.82** (0.69) |
| <i>DEL</i> | -0.60** (0.27) | -0.41 (0.35) | -0.78** (0.29) | -0.60 (0.35) | -0.75** (0.31) | -0.31 (0.30) |
| | Implementation | | | | | |
| | Dependent: f.e. Column (5), Table 4 | | | | | |
| | OLS | | WLS | | WLS - excluding U.K. | |
| Constant | -0.42 (0.33) | -0.15 (0.39) | -0.82** (0.34) | 0.01 (0.41) | -0.75 (0.30) | 0.51* (0.24) |
| <i>MTBF</i> | 1.06** (0.37) | | 1.22** (0.42) | | 1.14** (0.38) | |
| <i>FISRUL</i> | | 0.92 (0.58) | | 0.42 (0.68) | | 1.24* (0.68) |
| <i>DEL</i> | -0.84*** (0.23) | -0.70** (0.28) | -0.44* (0.24) | -0.37 (0.28) | -0.38 (0.24) | -0.15 (0.20) |

Notes: see notes to Table E1. *DEL* takes the value 1 (0) if the country follows (does not follow) a delegation approach.

Part H: First-stage regressions for instruments

Table H1: Test of strength of lagged output as instrument for projected output

| | Dependent variable: y_{t+1}^t | | |
|------------------------------|---------------------------------|--------------------|---------------------|
| | (1) | (2) | (3) |
| s_t^t | 0.067 (0.051) | 0.14*** (0.049) | 0.11** (0.058) |
| SGP_t^t | -0.046 (0.099) | 0.032 (0.11) | 0.013 (0.10) |
| d_t^t | 0.00018 (0.0075) | 0.0046 (0.0079) | -0.0024 (0.0088) |
| y_t^t | 0.57*** (0.063) | 0.53*** (0.051) | 0.50*** (0.072) |
| GOV_NEW_t | -0.27*** (0.090) | -0.21** (0.099) | -0.21** (0.092) |
| g_t^t | | | 0.0038 (0.031) |
| τ_t^t | | -0.0055 (0.031) | |
| $g_t^t - g_{t-1}^t$ | | | -0.044 (0.054) |
| $\tau_t^t - \tau_{t-1}^t$ | | 0.037 (0.048) | |
| Estimation method | OLS | OLS | OLS |
| Fixed Effects | Y | Y | Y |
| Time Effects | Y | Y | Y |
| R ² | 0.90 | 0.90 | 0.89 |
| Sample vintage ($t+1=...$) | 1999-2008 | 1999-2008 | 1999-2008 |
| N | 138 | 138 | 129 |

Notes: Column (1) refers to the regression in Column (2) of Table 4, Column (2) refers to the regression in Column (1) of Table 5, and Column (3) refers to the regression in Column (3) of Table 5.

Table H2: Test of strength instrument for planned revenue and spending adjustments

| | Dependent variable: | |
|------------------------------|---------------------------|---------------------|
| | $\tau_{t+1}^t - \tau_t^t$ | $g_{t+1}^t - g_t^t$ |
| | (1) | (2) |
| s_t^t | -0.29*** (0.064) | 0.013 (0.063) |
| SGP_t^t | 0.075 (0.14) | -0.17 (0.15) |
| d_t^t | -0.014 (0.010) | -0.0043 (0.010) |
| y_t^t | 0.21*** (0.066) | -0.060 (0.071) |
| GOV_NEW_t | -0.016 (0.13) | -0.12 (0.12) |
| g_t^t | | -0.084** (0.035) |
| τ_t^t | -0.095** (0.040) | |
| $g_t^t - g_{t-1}^t$ | | 0.16** (0.066) |
| $\tau_t^t - \tau_{t-1}^t$ | 0.12* (0.062) | |
| Estimation method | OLS | OLS |
| Fixed Effects | Y | Y |
| Time Effects | Y | Y |
| R ² | 0.62 | 0.59 |
| Sample vintage ($t+l=...$) | 1999-2008 | 1999-2008 |
| N | 129 | 128 |

Notes: Column (1) refers to the regression in Column (1) of Table 5, and Column (2) refers to the regression in Column (3) of Table 5.