

# Do Financial Markets Really Discipline Governments? <sup>1</sup>

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## Abstract

This study examines whether fiscal policy can be held sustainable only through the disciplining effect of financial markets on government actions. I use data from ten OECD countries for both static and dynamic cross-sectional time-series estimations to study the reactions of the primary deficit on changes in financial market conditions as measured by changes in the government bond yield. It is found that financial markets do not have a sufficiently disciplining effect on governments.

## *Key words:*

Fiscal discipline, fiscal policy, financial markets, EMU, Stability and Growth Pact, public debt, sustainability

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## 1 Introduction

The debate over the fiscal framework of the European Economic and Monetary Union (EMU) has split the economic literature. It is both found to be economically sound and unsound, dead and alive, necessary and superfluous, and it is suggested that it be completely dismissed, substantially reformed, minorly altered or kept unchanged.<sup>1</sup>

Several reasons for the introduction of the Stability and Growth Pact have been put forth in the literature. Besides the aim to prevent the ECB or the EMU member states from having to bail out a fiscally troubled member state, the SGP intends to protect the ECB from inflationary pressure caused by excessive public spending,<sup>2</sup> and is meant to prevent interest rate spillovers among the members of the monetary union.

The political economy literature has identified a large number of reasons why suboptimally high public deficits and debt may be the outcome of the political process.<sup>3</sup> This spending bias can be augmented in a monetary union if deficits of individual countries do not only give rise to higher spreads on their own bonds, but cause a higher interest level within the whole union. Hence, governments do not incur the full cost of additional spending, as the cost is borne by the Union as a whole. As a consequence, higher financing costs lead to lower growth rates, inefficient intertemporal resource allocation and financial

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<sup>1</sup> see e.g. Brunila, Buti, and Franco (2001), Buti, Eijffinger, and Franco (2003), Fatás, von Hagen, Hughes Hallett, Strauch, and Sibert (2004), Begg and Schelkle (2004), Enderlein (2004) and de Haan, Berger, and Jansen (2004).

<sup>2</sup> see e.g. Sims (1994) and Woodford (2001).

<sup>3</sup> see e.g. Alesina and Perotti (1994) and Drazen (2000) for surveys.

instability (Beetsma and Bovenberg (1999), Beetsma and Bovenberg (2002), Schuknecht (2004)).

Economists that question the view that a fiscal rule is necessary to constrain fiscal policy in a monetary union do not argue that a certain spending bias does not exist, but postulate that financial markets can ensure sustainable fiscal policies. Their view is as follows. Given that the EMU leads indeed to more borrowing by some member countries, there is no reason why other EMU members should suffer as a result. If capital markets are efficient, over-borrowers can be identified and only the respective country will face higher interest payments, which in turn will restrain its fiscal policy.

In examining whether this theoretic reasoning holds empirically, two distinct aspects have to be investigated. First, financial markets must react significantly to changes in or to levels of public debt, and second, fiscal policy has to react in a sufficient way to changes in financial market indicators. While the literature finds some evidence for the first aspect, the evidence on the reaction of fiscal policy to financial markets is rather mixed. So far, it has been found that countries reduce their primary deficits as a reaction to high debt servicing costs.

Reactions of the financial markets, however, translate only slowly into higher debt servicing costs, as higher interest rates are only to be paid for newly issued debt. Hence, actual interest payments are adequate to measure long-term reactions of governments to financial market developments. However, inflationary pressure on the central bank and interest rate spillovers due to high capital demand are problems that occur in the short term. In this paper, I use the government bond yield as an indicator for higher interest rates in order to

test whether financial markets have a disciplining effect on governments also in the short run. Using this approach, I find that governments' reactions to financial market signals are not sufficient to ensure sound fiscal policies.

The structure of this paper is as follows: Section 2 reviews the literature, gives a definition of sustainability and derives the hypotheses. Section 3 presents the data used in this study, the empirical analysis is done in the fourth section. Section 5 concludes.

## **2 Literature Review**

In examining the disciplining effect of financial markets on fiscal policy, two distinct aspects have to be investigated. First, financial markets must react significantly to changes in or levels of public debt, and second, fiscal policy has to react in a sufficient way to changes in financial market indicators.

In the growing literature on financial market monitoring of fiscal policy and the impact of deficits and debt on government financing conditions, some evidence on the first aspect has been found. Knot (1996) estimates an IS/LM model for the then European Monetary System (EMS) as a whole and for individual EMS countries, and finds that persistent deficits have put an upward pressure on long term interest rates. De Haan and Sturm (2000) look at the relationship between public debt ratios and sovereign credit ratings and find a significant effect of public debt on Moody's ratings. Similar results are found in Afonso and Strauch (2004), Ardagna, Caselli, and Lane (2004), Balassone, Franco, and Giordano (2004), Bernoth, von Hagen, and Schuknecht (2004) and Faini (2005). Evidence on the second aspect is rather mixed.

The Stability and Growth Pact was introduced for three main reasons. First, it is meant to prevent the ECB or the EMU member states from having to bail out a fiscally troubled member state that would have to default on its debt. Following Eichengreen and Wyplosz (1998), when the government of an EMU country gets into fiscal trouble, investors might fear suspension or modification of debt service and start to sell their bonds. The prices of the bonds consequently fall. Banks, which generally hold large amounts of sovereign bonds, lose a lot of capital, possibly violating the minimum capital requirements, which causes a bank run. Bond markets in other countries are negatively affected too, as investors in EMU debt become demoralized. To prevent a collapse of the banking system, the EMU member states or the European Central Bank would be forced to buy up the bonds of the government in distress. Alternatively, the ECB could be forced to inflate away the real value of the troubled country's debt. The cost of this bailout will eventually be borne by all EMU members. Such a bailout is formally forbidden by the Maastricht Treaty, but this is actually a time-inconsistent rule, as ex-post, a bailout, as argued by Beetsma (2001), might be the least costly response to a debt crisis.

In order to avoid default, the government's budget constraint, which requires that current spending on goods and services plus the cost of servicing current debt equals current tax revenues plus the issuance of new debt, must be fulfilled. This can be illustrated as follows. Assume that government borrowing takes the form of one-period bonds which pay an interest rate  $i_t > 0$  in period  $t$ . Government spending in period  $t$  is denoted by  $G_t$ ,  $T_t$  denotes tax revenues in period  $t$ , and  $B_t$  denotes government debt issued in period  $t$ . Then, the

government's budget constraint in period  $t$  is:<sup>4</sup>

$$G_t + (1 + i_t) B_{t-1} = T_t + B_t \quad (1)$$

Let  $g_t$ ,  $\tau_t$  and  $b_t$  be the ratios of government spending, tax revenues and debt issuance to GDP in period  $t$ . Debt issuance in period  $t$  equals total debt at the end of period  $t$ , as government debt is assumed to be issued as one-period bonds. Then, equation 1 can be rewritten as

$$d_t + \frac{1 + i_t}{1 + \hat{y}_t} b_{t-1} = b_t, \quad (2)$$

where  $d_t = g_t - \tau_t$  is the primary budget deficit ratio and  $\hat{y}_t$  is the growth rate of GDP. Equation 2 implies that the debt ratio increases if the government runs a deficit, and at the same time the nominal interest rates exceeds nominal GDP growth.

Governments cannot run Ponzi games in the long run; i.e. governments cannot run a policy that uses the issuance of ever increasing new debt to repay old debt and to finance interest payments. Algebraically, this can be written as:

$$\lim_{t \rightarrow \infty} \left( b_t \prod_{s=1}^t \frac{1 + \hat{y}_s}{1 + i_s} \right) = 0, \quad (3)$$

that is, the present discounted value of government debt, calculated over all future periods, must equal zero. If the current period is  $t = 0$ , combining equations 2 and 3 yields the government's intertemporal budget constraint

$$\sum_{t=1}^{\infty} \left( d_t \prod_{s=1}^t \frac{1 + \hat{y}_s}{1 + i_s} \right) + b_0 = 0 \quad (4)$$

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<sup>4</sup> The presentation follows Fatás, von Hagen, Hughes Hallett, Strauch, and Sibert (2004).

where  $b_0$  is the current debt ratio. For fiscal policy to be sustainable, sustainability being defined as the absence of default risk, this condition must be met. Equation 4 says that the present discounted value of primary deficits plus the value of current debt must be zero. This does also imply that running substantial deficits over a long time is consistent with sustainability, as long as these deficits can be compensated by future surpluses. De Haan and Sturm (2000) find evidence that financial markets contribute to fiscal discipline in this long-run sense. They use actual interest payments as a measure of financial market pressure on governments and find a significant reduction in primary deficits as a reaction to high debt servicing costs.<sup>5</sup> Actual interest payments are a measure for long run reactions, as higher interest rates are only to be paid for newly issued debt, and hence translate only slowly into high debt servicing costs due to the long term structure of government bonds.

The second rationale for the introduction of the Stability and Growth Pact was to prevent the generation of inflation due to excessive public spending. This happened for two reasons. First, the ECB should be protected from having to counteract high inflation in the union as a whole. Second, overspending in only some of the member states could contribute to heterogeneous inflation rates across EMU, which would highly complicate monetary policy. How excessive public spending can translate into higher inflation rates in the short to medium run is shown in Woodford (1994) and Sims (1994) who extend the analysis in Sargent and Wallace (1981). Sargent and Wallace (1981) show that as the government's intertemporal budget constraint must hold as an identity for all possible trajectories of primary budget balances, it is the behaviour of fiscal and monetary authorities that ultimately determines how this constraint will

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<sup>5</sup> See also Beetsma (2001).

be respected.

The intertemporal budget constraint of the government requires that the present value of future real primary balances and real money base creation must equal the real value of outstanding government debt. Formally, at any time  $t$  the equality

$$\frac{B_{t-1}}{P_t} = \sum_{i=0}^{\infty} \delta_i \left( \frac{T_{t+i}}{P_{t+i}} + \frac{\Delta M_{t+i}}{P_{t+i}} - \frac{G_{t+i}}{P_{t+i}} \right) \quad (5)$$

must hold, where  $B$  is the nominal stock of government debt,  $P$  is the price level,  $\Delta M$  is the creation of money base,  $\delta$  is the discount rate which depends on real interest rates and the growth rate, and  $T$  and  $G$  are government revenues in the form of taxes and government spending, respectively.

Equation 5 implies that if monetary authorities can credibly commit to a low rate of money supply growth, fiscal authorities will anticipate that fiscal imbalances will not be offset by inflation. Hence, credible inflation targets can create a hard budget constraint, as governments will have to run primary surpluses to repay debt.

In analyzing the links between inflation and the behaviour of fiscal and monetary authorities, the fiscal theory of the price level, developed by Woodford (1994) and Sims (1994), departs from the analysis of Sargent and Wallace (1981) in a crucial way. Following the fiscal theory of the price level, the intertemporal budget constraint will be respected even if the monetary or fiscal authorities do not actively follow policies to ensure compliance with the constraint. In case that both monetary and fiscal authorities act independently and stick to their behaviour, market forces will induce the price level to adjust, in the sense that government spending, through its effect on aggregate

demand, induces changes in the price level, and hence inflation. This short run effect of public spending on inflation, together with the third rationale for the SGP, the prevention of high interest rates, i.e. interest rate spillovers, due to excessively large demand for capital on financial markets, gives the reason why this paper studies the disciplining effect of financial markets on fiscal policy in the short run.

If, as opponents of fiscal rules in EMU argue,<sup>6</sup> financial markets are able to discipline governments, the empirical analysis in the following should yield the following results: First, primary deficits should depend in a significantly negative way on government bond yields, and second, the reactions of fiscal policy should be large enough to ensure sustainability.

### 3 The Data

The data set consists of annual observations for 10 OECD countries (namely Austria, Belgium, Canada, Denmark, Italy, Japan, the Netherlands, Spain, Sweden, and the United States) for the period of 1980-1996. The end date 1996 was chosen as to avoid a bias in the data, which might be caused by the governments' attempt to fulfill the EMU's Maastricht convergence criteria in 1997, and the regulations of the Stability and Growth Pact thereafter. The data on the government bond yield (percent per year) was taken from the International Financial Statistics database of the IMF. In order to measure short term financial market pressure on governments I use three variables. First, I use the change in the government bond yield. The second variable chosen was

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<sup>6</sup> See e.g. Buiter, Corsetti, and Roubini (1993)

the difference to the Swiss government bond yield, the third variable is the change in the difference to the Swiss government bond yield. The latter two variables are used in order to control for changes in the market interest rate. Ideally, I should have chosen the difference to and change in the difference to corporate bond yields. However, data on this is only available for the United States in the form of Moody's corporate bond yield averages. Hence, I chose Switzerland as a country with prudent government finances and extremely low default risk as a reference point. In order to control for the influence of the business cycle on the budgetary outcome, I introduce the change in the unemployment rate as an explanatory variable. Data on unemployment and government deficits was taken from the OECD Economic Outlook 77 online database. The openness indicator, constructed by de Haan and Sturm (2000), uses data from the Dutch central bank, and gives the difference between on-shore and offshore interest rates. Such differences indicate formal or informal restrictions on capital movements, which need to be controlled for in the empirical analysis.

#### **4 Empirical Analysis**

This section presents the analysis of the data described above. The first part of this section reports the results of the unit root tests for the different yield variables and the results of the fixed effects panel estimations. The second part presents the results of the dynamic Arellano-Bond panel estimations.

#### *4.1 Static Panel Estimation*

This section considers a static model with the primary deficit (PRIMDEF) as the dependent variable. As explanatory variables, I use the change in the unemployment rate (UNEMPDIFF) and the openness indicator (OPEN) as used by de Haan and Sturm (2000) in each of the regressions. The right hand side variables that reflect the financial markets' assessment of sovereign credit risk are the change in the government bond yield (YIELDDIFF), the change in the difference to the Swiss government bond yield (DYIELDSUI) and the lagged versions thereof (YIELDDIFFLAG and DYIELDSUILAG), as well as the difference to the Swiss government bond yield (DIFFYIELDSUI) and its lagged version (DIFFYIELDSUILAG).

In the sample used for this study, the series YIELD and DIFFYIELDSUI might be suspected to follow a unit root process. Hence, unit root tests are presented for these two variable. The tests were performed with EVIEWS 5.1, the lag length was chosen automatically following the Schwarz criterion. To control for individual fixed effects, individual intercepts were included in the tests. Tables 1 and 2 present the results of the various tests. In the case of YIELD (1), all tests that have a unit root process as the null hypothesis and assume individual unit root processes do not reject this null hypothesis, while the test that has the absence of a unit root process as the null does reject its null hypothesis. The tests that have a common unit root process as the null hypothesis do reject. Hence, there is strong evidence that the variable YIELD follows a unit root process with individual unit root processes. This is, however, not a problem for the following analysis, as it is rather the change in the government bond yield that can be interpreted as a short-term signal

from the markets than the absolute yield level, i.e. the variable of interest is the first difference of YIELD, which is YIELDDIFF in this sample. Repeating the above tests using this variable shows that first-differencing removes the unit root process in this case, as all tests with a unit root as the null reject, and the Hadri test that has the absence of a unit root process as the null hypothesis does not reject.

As changes in the government bond yield reflect changes in the total interest demanded by financial markets, it is also necessary to check whether governments react to the level of and changes in the markup over the market interest rate. In order to check whether governments adjust their policies to this assessment, it is necessary to control for changes in the market interest rate. Therefore, I use the difference of a country's government bond yield to the yield of Swiss government bonds (DIFFYIELDSUI). The results of the unit root tests for this variable are shown in Table 2. The results suggest that there could be a unit root in DIFFYIELDSUI. As unit root test for panel data do generally have low power, I have decided to use this variable for the analysis anyway. However, one should keep the results of the unit root tests in mind when interpreting the results of the panel estimations. First-differencing DIFFYIELDSUI gives the change in the difference to the Swiss government bond yield (DYIELDSUI). This variable is used in addition to YIELDDIFF in order to assess fiscal policy reactions to changes in markups. Running the unit root tests on this variable shows that there is no unit root in this variable.

#### 4.1.1 Fixed Effects Estimation

While the test against fixed effects suggests a fixed effects specification for all six variables, the Breusch-Pagan and Hausman tests suggest the use of a random effects specification. In order to avoid biased estimation results, I follow the fixed effects approach in the following.

The model estimated has the primary deficit (*PRIMDEF*) as the dependent variable. In analogy to de Haan and Sturm (2000), I use as explanatory variables the change in the unemployment rate (*UNEMPDIFF*) and the openness index (*OPEN*) in each equation I estimate, and one measure for the change in default risk in each equation. The variables used to measure short-term reactions are the change in the government bond yield (*YIELDDIFF*), the lagged version of this variable (*YIELDDIFFLAG*), the change in the difference of a country's government bond yield to the swiss government bond yield (*DYIELDSUI*) and the one-period lag of this variable (*DYIELDSUILAG*). The variables used to detect mid-term fiscal policy reactions are the difference to the swiss government bond yield (*DIFFYIELDSUI*) and its one-period lag (*DIFFYIELDSUILAG*). The lagged variables are included as governments might not be able to fully respond to signals sent by the financial markets within a fiscal year, because a substantial part of the budget is predetermined and can only be changed in the plannings for the next fiscal year. The variable *UNEMPDIFF* was chosen as a proxy for the influence of the business cycle, e.g. through automatic stabilizers, on the government budget. Hence, the equation estimated is (suppressing indices):

$$PRIMDEF = a_0 + a_1 UNEMPDIFF + a_2 MARKET + a_3 OPEN + \epsilon,$$

where *MARKET* stands for one of the six measures mentioned above. The re-

sults of the fixed effects estimations are shown in Table 3. In all regressions, the estimated coefficient of UNEMPDIFF is significant and of the expected negative sign. In all but one estimation (significance there only at the 15% level), openness is also found to have a significant influence on the budget deficit. More open economies thus seem to have a tendency to have lower budget deficits. The findings concerning the variables UNEMPDIFF and OPEN are rather robust, as the estimated magnitude of the effect of either effect remains approximately constant in the estimations. A deterioration in the business cycle that leads to a one percentage point change in the unemployment rate is estimated to lead to a rise in the primary deficit in the range between .84 and .90 percentage points.

The results for the yield variables are quite interesting. The variables that measure short-term changes in the financial market are found to be insignificant in the determination of fiscal policy. The other two variables which measure the markup of a country's government bond yield over the Swiss government bond yield, are significant at the six and four percent levels, respectively. However, it is found that a rise in the difference to the Swiss government bond yield raises the primary deficit. Here, I suspect that we might have a case of reverse causality, i.e. that higher deficits lead to relatively higher bond yields, and not vice versa.

#### *4.2 Dynamic Panel Estimation*

Many items of a government budget are determined for several periods in advance. Hence, there might be some inertia in the adjustment of public finances in response to financial markets. To control for this inertia, I conduct

dynamic panel estimation using the Arellano-Bond linear dynamic panel estimator. In this setup, lagged values of the dependent variable (PRIMDEF) are introduced on the right hand side in addition to the explanatory variables used in the static fixed effects estimations in the previous section. I use the one-step procedure with two lags of the dependent variable. The setup with two lags was chosen, as the coefficient of the two-period lag turned out to be significant in the two-lag version of the estimations, but the introduction of a three-period lag caused the coefficient of the two-period lag to become insignificant. The results of the Arellano-Bond estimations are presented in Table 4.

The high significance of the lags of the primary deficit that is found in all regressions suggests that there is a substantial amount of inertia in the adjustment of public finances. This effect is actually so important that the variable OPEN and the constant turn out to be insignificant. The findings concerning the business cycle effect on the budget are largely unaltered. The change in unemployment is found to be significant in all six estimations, though the effect is slightly smaller now (between  $-.598$  and  $-.688$ ). The result that there seems to be no reaction by governments to financial market developments is found in four of the six regressions. The lagged change in yield and the difference to the Swiss government bond yield are found to be significant at the five and ten percent levels, respectively. The estimated coefficients are also of the correct sign, i.e. positive, which means that the primary deficit is lowered when markets signal higher risk. The magnitude of the fiscal policy adjustments is however fairly small, and the adjustment itself is rather slow. Where the risk variables are found to be significant, the effect is a reduction of the deficit by around 0.16 percentage points for every one percentage point change in yield

or one percentage point difference in yield to Swiss bonds.

## 5 Conclusion

In this paper I have examined whether financial markets have a disciplining effect on governments' fiscal policies. Using data for 10 OECD countries, it is concluded that governments do not lower primary deficits in response to financial market developments. This result holds for all regressions done in a static setup, and in four out of six estimations done with dynamic estimation setup. Where there are found significant reactions of fiscal policy to changing financial market conditions, the adjustments are both rather slow and of a very small magnitude.

These results are quite remarkable, as I have used a setup similar to the one in de Haan and Sturm (2000) in the static estimations, who come to the opposite conclusion. The difference between my dataset and the one used in de Haan and Sturm (2000) is the time horizon. While they use actual interest payments in their estimations, which reflect long term developments, I concentrate on different yield variables to study short term reactions. Using actual debt servicing cost implies that the full effect of the market's risk assessment comes to the fore only in the long run as higher interest rates are only to be paid for newly issued debt, while the interest payments for the outstanding debt are fixed. However, fiscal policy reactions in the long run might be caused by other factors than market signals, such as public pressure or the feeling of policy-makers that high interest payments tie their hands. In this study, it is shown that governments do not directly react to signals from the financial market, at least not in the short run. Hence, I conclude that fiscal policy rules are

a necessary feature of a monetary union, as financial markets do not have a sufficiently disciplining effect on the fiscal behaviour of governments.

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Table 1

Unit Root Test (YIELD)				
Method	Statistic	Prob.	Cross-sections	Obs.
Null: Unit root (assumes common unit root process)				
Levin, Lin, Chu t*	-1.396	0.081	10	156
Breitung t-stat	-3.270	0.001	10	146
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	0.413	0.660	10	156
ADF - Fisher $\chi^2$	16.099	0.710	10	156
PP - Fisher $\chi^2$	5.671	0.999	10	160
Null: No unit root (assumes common unit root process)				
Hadri Z-stat	7.178	0.000	10	170

Table 2

Unit Root Test (DIFFYIELDSUI)				
Method	Statistic	Prob.	Cross-sections	Obs.
Null: Unit root (assumes common unit root process)				
Levin, Lin, Chu t*	-2.583	0.005	10	157
Breitung t-stat	-0.334	0.369	10	147
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	0.477	0.684	10	157
ADF - Fisher $\chi^2$	12.584	0.895	10	157
PP - Fisher $\chi^2$	10.708	0.953	10	160
Null: No unit root (assumes common unit root process)				
Hadri Z-stat	6.411	0.000	10	170

Table 3

## Fixed-effects GLS regression

	Coefficient	Std. Err.	z	Prob.
UNEMPDIFF	-.842	.204	-4.12	0.000
YIELDDIFF	-.235	.156	-1.51	0.134
OPEN	-1.669	.477	-3.50	0.001
constant	.521	.290	1.80	0.074
UNEMPDIFF	-.891	.207	-4.30	0.000
YIELDDIFFLAG	-.171	.153	-1.11	0.268
OPEN	-1.472	.532	-2.77	0.006
constant	.458	.294	1.56	0.122
UNEMPDIFF	-.904	.201	-4.50	0.000
DYIELDSUI	.103	.165	.62	0.536
OPEN	-1.529	.473	-3.23	0.002
constant	.421	.287	1.47	0.145
UNEMPDIFF	-.891	.209	-4.26	0.000
DYIELDSUILAG	.119	.167	.71	0.479
OPEN	-1.401	.528	-2.65	0.009
constant	.408	.289	1.41	0.161
UNEMPDIFF	-.869	.199	-4.37	0.000
DIFFYIELDSUI	-.209	.113	-1.85	0.066
OPEN	-.841	.564	-1.49	0.138
constant	1.137	.497	2.29	0.023
UNEMPDIFF	-.844	.200	-4.21	0.000
DIFFYIELDSUILAG	-.199	.099	-2.01	0.046
OPEN	-1.007	.506	-1.99	0.048
constant	1.209	.499	2.42	0.017

Table 4

Arellano-Bond dynamic panel-data estimations				
	Coefficient	Std. Err.	z	Prob.
PRIMDEF(-1)	.989	.077	12.90	0.000
PRIMDEF(-2)	-.288	.080	-3.60	0.000
YIELDDIFF	-.056	.100	0.57	0.572
UNEMPDIFF	-.611	.135	-4.51	0.000
OPEN	0.057	.377	0.15	0.879
constant	.041	.033	1.23	0.219
PRIMDEF(-1)	1.018	.077	13.24	0.000
PRIMDEF(-2)	-.299	.079	-3.79	0.000
YIELDDIFFLAG	.168	.088	1.92	0.055
UNEMPDIFF	-.598	.127	-4.69	0.000
OPEN	0.269	.375	0.72	0.472
constant	.048	.032	1.48	0.138
PRIMDEF(-1)	.990	.077	12.90	0.000
PRIMDEF(-2)	-.284	.080	-3.56	0.000
DYIELDSUI	.010	.100	0.10	0.920
UNEMPDIFF	-.634	.129	-4.92	0.000
OPEN	0.091	.377	0.24	0.809
constant	.042	.034	1.26	0.209
PRIMDEF(-1)	.998	.077	12.94	0.000
PRIMDEF(-2)	-.293	.080	-3.65	0.000
DYIELDSUILAG	-.072	.098	-0.74	0.461
UNEMPDIFF	-.615	.130	-4.72	0.000
OPEN	0.150	.374	0.40	0.688
constant	.048	.034	1.44	0.149
PRIMDEF(-1)	.977	.077	12.62	0.000
PRIMDEF(-2)	-.255	.082	-3.11	0.002
DIFFIELDSUI	.158	.099	1.59	0.111
UNEMPDIFF	-.677	.131	-5.17	0.000
OPEN	-0.144	.398	-0.36	0.716
constant	.086	.043	2.01	0.045
PRIMDEF(-1)	.980	.077	12.68	0.000
PRIMDEF(-2)	-.259	.082	-3.15	0.002
DIFFIELDSUILAG	.129	.096	1.33	0.182
UNEMPDIFF	-.688	.134	-5.13	0.000
OPEN	0.020	.377	0.05	0.957
constant	.089	.047	1.88	0.060