Economics Letters 115 (2012) 392–395

Contents lists available at SciVerse ScienceDirect

Economics Letters

journal homepage: www.elsevier.com/locate/ecolet

Fiscal policy institutions and history☆

David Cuberes [a], Andrew Mountford [b,*]

[a] University of Sheffield, United Kingdom
[b] Royal Holloway, University of London, United Kingdom

ARTICLE INFO

Article history:
Received 6 December 2010
Received in revised form
9 December 2011
Accepted 17 December 2011
Available online 30 December 2011

JEL classification:
E61
E62

Keywords:
Fiscal policy
Discretion
Institutions
State capacity

ABSTRACT

This paper shows that historical variables can explain a significant part of discretionary government spending across countries. We argue that these results provide evidence in favor of Besley and Persson's (2009) hypothesis that institutional quality or state capacity is historically determined and further that institutional quality determines, in part, economic policy.

1. Introduction

This paper contributes to the empirical debate on the effects of fiscal policy by examining whether discretionary government spending can be explained by historical or exogenous variables related to an economy's institutional development. It then relates both predictable and unpredictable discretionary government spending to macroeconomic outcomes.

We find that a large part of discretionary government spending is predictable by historical and geographical variables. We then find that this predictable discretionary government spending is negatively associated with variables that are known to foster economic growth. We argue that these results provide evidence in favor of Besley and Persson's (2009) hypothesis that state capacity is historically determined and that state capacity affects economic policy. Nevertheless, it is still the case that unpredictable discretionary government spending is also negatively related to growth, in keeping with the seminal study of Fatás and Mihov (2003).

This paper makes interesting contributions to two related literatures. First, it provides evidence in support of Besley and Persson's (2009) formalization of Tilly's (1990) hypothesis that state capacity is historically determined, in part by the need to cope with external conflict. Besley and Persson (2009) argue that dealing with an external conflict is a public good, and therefore agents will choose to invest in building state capacity when there is likely to be a high demand for such public goods in the future. In this paper, we argue that one important dimension of state capacity is the control over government spending. If politicians find it easy to control government spending for their own ends, then they will be more able to misdirect resources away from public goods including those which are good for growth. We show that the degree of external historical conflict can significantly predict the level of discretionary government spending, and further that this predictable discretionary government spending is negatively associated with growth-enhancing variables. We corroborate these findings by looking at other exogenous/historical variables associated in the literature with institutional development: geographical variables and Acemoglu et al.'s (2001, 2002) historical colonial variables. We find that both colonial settler mortality and geographical variables can also explain the level of discretionary government spending in a way that is consistent with the hypothesis that institutional quality underpins the functioning of economic policy.

The paper is also intrinsically linked to the seminal paper of Fatás and Mihov (2003) and in general to the literature on the importance of economic policy for economic growth. There is a debate in this literature about whether economic policy is important in its own right or whether economic policy is itself the product of historically determined institutions (Acemoglu et al., 2003, 2009; Fatás and Mihov, 2008). The contribution of this paper

☆ We thank Markus Brückner, Eric Maskin, and an anonymous referee for their very helpful comments.

* Correspondence to: Royal Holloway, University of London, Egham TW20 0EX, Surrey, United Kingdom. Tel.: +44 1784443906.
E-mail address: A.Mountford@rhul.ac.uk (A. Mountford).

0165-1765/$ – see front matter © 2011 Elsevier B.V. All rights reserved.
doi:10.1016/j.econlet.2011.12.062

is to show that Fatás and Mihov's measure of fiscal discretion is, in part, explained by historical variables. However, our analysis also allows us to construct a tighter variable for fiscal discretion than Fatás and Mihov (2003), and this, much tighter, measure of discretionary fiscal policy is still negatively associated with growth-enhancing variables.

2. Is discretionary fiscal policy predictable?

2.1. Benchmark regressions

In this section, we show that the level of discretionary government spending in an economy is predictable by historical data and by geographical data using three datasets. The first is a dataset based on the historical level of external conflict in an economy following Besley and Persson (2009). The second dataset is a purely geographical dataset and the third is from Acemoglu et al.'s (2001, 2002) seminal work on the historical determinants of institutional quality.

Measurement and data.

In this paper, we keep to established data sources and definitions of fiscal variables. Our data and our measure of discretionary fiscal policy (DFP) are the same as in Fatás and Mihov (2003) i.e., DFP is the variance of the residual from an estimated government spending rule. This measure of fiscal discretion is consistent with the theoretical discussion. While Besley and Persson's (2009) framework does not explicitly model the evolution of constraints on the ability of politicians to abuse state capacity, the logic of their argument follows through. The ability of politicians to use government revenues for their own ends is like a tax which reduces the return on investing in state capacity. As state capacity and the ability of the state to raise revenues grows, it is intuitive that state oversight and the control of government spending would also rise, thus limiting the ability of politicians to misdirect public funds. In this case, greater state capacity should be associated with smaller expected deviations from a fiscal rule, for example in a model where a government's ability to expropriate resources was stochastic and reduced by state capacity. In the simplest case where every year a government has a 50% chance of spending $\$a$ on its own supporters, where a is decreasing in state capacity, the expected level of discretionary spending is $\$a/2$ and the variance is $\$a^2/8$.

The regressions are run from 1960 to 2000 for the colonial and geographical datasets and from 1966 to 2000 for the conflict datasets.[1] *Conflict* is measured following Besley and Persson (2009) by calculating the proportion of time that a country was involved in an external military conflict between 1816, or the year of independence (if later), and 1965 using the Correlates of War (Version 4.0) and *UCDP/PRIO Armed Conflict* datasets.[2] Other data are obtained from the *World Bank Lost Decades: Social Indicators and Fixed Factors* dataset compiled by William Easterly (1998), from Acemoglu et al. (2001, 2002) and from the World Development Indicators (2009).

Predicting discretionary fiscal policy using historical conflict data.

Table 1a displays the results from our regressions of fiscal discretion on conflict. The estimates show that conflict is negatively associated with DFP across a variety of different specifications. This is consistent with the argument of Besley and Persson (2009). States that are more prone to conflicts were able to build up stronger government institutions which give government less discretion over fiscal policy. The results of the basic regression of DFP on conflict are shown in columns [1] and [2] for the entire sample and non-OECD countries, respectively. Columns [3] to [7] show that the results are quite robust to alternative specifications including legal frameworks and continental dummies.[3] The specification with both legal frameworks and continental dummies in the non-OECD sample, column [8], shows that the conflict coefficient becomes insignificant in a two-sided hypothesis test and only significant at the 90% level in a one-sided test. This loss of significance is caused by wars close to the independence date. If one argues that a country is only truly established when the initial disruption connected to its birth is over and so removes wars associated with independence, then a high level of significance returns. This is shown in column [9], where all wars starting in the five years following the year of independence are excluded from the sample.

Predicting discretionary fiscal policy using geographical data.

Table 1b displays the results from our regressions of fiscal discretion on geographical variables. This dataset is the largest cross section in our exercise, and it includes all the countries from the original Fatás and Mihov (2003) study. In this dataset, it is again the case that a significant part of discretionary fiscal policy can be explained, this time by exogenous geographical variables. The key geographical variables we use are the *absolute value of latitude* of an economy and whether the economy is *landlocked*. These variables have been used in the literature as proxies for European influence on an economy; see, e.g., Hall and Jones (1999). The results show that discretionary fiscal policy is negatively related to an economy's absolute latitude and positively related to an economy being landlocked, which are the correct signs for the institutional hypothesis.

Predicting discretionary fiscal policy using Acemoglu et al.'s historical colonial data

The work of Acemoglu et al. (2001, 2002) has been seminal in the analysis of the effects of institutional quality on economic performance. It is natural therefore to use their data to corroborate the above findings that low institutional quality is associated with high fiscal discretion. The key variable from Acemoglu et al.'s data set is the *mortality rate of colonial settlers*, which Acemoglu et al. argue is negatively associated with institutional quality. The results in Table 1c are consistent with our hypothesis. Settler mortality is positively related to the level of fiscal discretion in all specifications, including when we add continental dummies and urbanization as covariates.[4]

2.2. Discretionary fiscal policy and the macroeconomy

To show that higher predicted DFP is indeed a measure of low institutional quality rather than high institutional quality, we need to demonstrate that high levels of predicted DFP are associated with adverse economic outcomes. In Table 2, we show across all three datasets that predicted DFP is associated negatively with variables positively linked to growth (investment, and schooling)

[1] We choose 1966 as our initial year for the conflict dataset in order to increase the size of the conflict sample. The results are robust to using alternative initial years.

[2] We use conflicts recorded in either the *Correlates of War* and *UCDP/PRIO Armed Conflict* datasets and include any external war that is in either dataset and only give a zero conflict score to countries with no war in both datasets; see http://www.correlatesofwar.org/ and Gleditsch et al. (2002) for information on these datasets. The independence year is taken from the CIA The World Factbook https://www.cia.gov/library/publications/the-world-factbook/. Since the first year that the *UCDP/PRIO Armed Conflict* dataset starts collecting data is 1946, countries that became independent before 1946 and have zero conflicts in the *Correlates of War* database are not included the sample. However, the results are robust to a looser sample inclusion rule where such countries are included.

[3] We include different dummies for African, Asian, and European countries. We also use dummies for British, French, and German legal systems.

[4] In columns [2] and [4] we exclude the US, Canada, Australia, and New Zealand which is the equivalent of looking at non-OECD economies in this sample.

Table 1a
Discretionary fiscal policy and conflict-legal origins data.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Conflict	−2.78***	−2.1**	−2.76***	−1.89*	−1.36**	−1.61*	−1.4**	−1.54	−2.89**
	(0.66)	(0.91)	(0.64)	(0.95)	(0.55)	(0.94)	(0.61)	(0.96)	(1.14)
Legal origins	No	No	Yes	Yes	No	No	Yes	Yes	Yes
Continental dummies	No	No	No	No	Yes	Yes	Yes	Yes	Yes
R-square	0.28	0.2	0.44	0.28	0.58	0.34	0.63	0.35	0.4
Countries	All	Non-OECD	All	Non-OECD	All	Non-OECD	All	Non-OECD	Non-OECD
Wars	All	All	All	All	All	All	All	All	No indep wars
Number of observations	70	55	70	55	70	55	70	55	55

The dependent variable is DFP for the period 1966–2000. All the specifications include a constant term. Robust standard errors in parentheses.
** denotes significant at the 5% level.
*** denotes significant at the 1% level.

Table 1b
Discretionary fiscal policy and geographical data.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Latitude	−0.03***	−0.02***	−0.01**	−0.007	−0.03***	−0.01***	−0.01**	−0.007
	(0.003)	(0.005)	(0.005)	(0.006)	(0.003)	(0.005)	(0.005)	(0.006)
Landlock					0.29**	0.41***	0.19*	0.29**
					(0.13)	(0.1)	(0.11)	(0.11)
Continental dummies	No	No	Yes	Yes	No	No	Yes	Yes
R-square	0.48	0.15	0.6	0.32	0.5	0.25	0.6	0.36
Countries	All	Non-OECD	All	Non-OECD	All	Non-OECD	All	Non-OECD
Number of observations	91	72	91	72	91	72	91	72

The dependent variable is DFP for the period 1960–2000. All the specifications include a constant term. Robust standard errors in parentheses.
** denotes significant at the 5% level.
*** denotes significant at the 1% level.

Table 1c
Discretionary fiscal policy and Acemoglu et al.'s colonial data.

	[1]	[2]	[3]	[4]	[5]	[6]
Log mortality	0.29***	0.21***	0.33***	0.23***	0.51***	0.55***
	(0.05)	(0.04)	(0.06)	(0.04)	(0.1)	(0.12)
Urbanization	No	No	No	No	Yes	Yes
Continental dummies	No	No	Yes	Yes	No	Yes
R-square	0.39	0.24	0.4	0.24	0.43	0.46
Countries	All	Non-US/CAN/AUS/NZ	All	Non-US/CAN/AUS/NZ	All	All
Number of observations	52	48	52	48	36	36

Note: the dependent variable is DFP for the period 1960–2000. All the specifications include a constant term. Robust standard errors in parentheses.
*** denotes significant at the 1% level.

Table 2
Correlations between DFP and growth determinants.

	Conflict dataset			Geography dataset			Colonial dataset		
	DFP	DFP predicted	DFP_unpredicted	DFP	DFP predicted	DFP_unpredicted	DFP	DFP predicted	DFP_unpredicted
DFP	1			1			1		
DFP predicted	0.79	1		0.78	1		0.63	1	
DFP_unpredicted	0.61	0	1	0.63	0	1	0.77	0	1
Initial GDP	−0.74	−0.76	−0.22	−0.7	−0.74	−0.19	−0.7	−0.66	−0.02
Primary schooling	−0.39	−0.64	0.18	−0.47	−0.64	0.03	−0.47	−0.27	0.08
Secondary schooling	−0.55	−0.49	−0.26	−0.43	−0.3	−0.31	−0.43	−0.7	−0.13
Investment	−0.56	−0.64	−0.09	−0.58	−0.6	−0.18	−0.58	−0.55	−0.02
Total fertility rate	0.77	0.82	0.19	0.74	0.8	0.18	0.74	0.73	0.04

and associated positively with total fertility rate which is negatively linked to growth. Note that it is still the case that unpredictable DFP is also negatively correlated to most of the variables that are known to be detrimental to growth, in keeping with the original study of Fatás and Mihov (2003). Of course the data cannot distinguish the precise mechanism behind this relationship, i.e., whether economic policy is an ultimate or just a proximate cause of poor growth, only that the data is consistent with the hypothesis that economic policy is proximately determined by institutional quality and that institutional quality may ultimately be derived from history or geography.

2.3. Accounting for possible measurement error

As in Fatás and Mihov (2003), there is the possibility that DFP is subject to measurement error. In our regressions, DFP is the dependent variable, which is usually felt to be less of a problem than measurement error in an explanatory variable; see Wooldridge (2002). Nevertheless, to test the robustness of the results to poor measurement among economies with weaker institutions we re-estimate the model after excluding economies with the worst – below the 10th percentile – institutional variables from the sample, i.e., excluding the economies with the lowest

Table 3
Robustness to excluding the weakest 10% institutions from the sample.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Conflict	−1.21*	−1.24	−2.58**				
	(0.61)	(0.9)	(1.07)				
Latitude				−0.01**	−0.007		
				(0.006)	(0.007)		
Landlock				0.16	0.27**		
				(0.11)	(0.12)		
Log mortality						0.44***	0.32***
						(0.08)	(0.08)
Continental dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Legal origins	Yes	Yes	Yes	No	No	No	No
R-square	0.61	0.28	0.36	0.59	0.34	0.43	0.23
Countries	All	Non-OECD	Non-OECD	All	Non-OECD	All	Non-US/CAN/AUS/NZ
Wars	All	All	No indep wars				
Number of observations	63	48	48	81	62	46	42

Note: the dependent variable is DFP for the period 1966–2000 in columns [1] and [2] and DFP for the period 1960–2000 in columns [3]–[6]. All the specifications include a constant term. Robust standard errors in parentheses.
* denotes significant at the 10% level.
** denotes significant at the 5% level.
*** denotes significant at the 1% level.

10% of numbers of conflicts from the conflict dataset, the lowest 10% of values of absolute latitude from the geography dataset, and the highest 10% values for settler mortality from the colonial dataset. As there are more than seven economies with zero conflict in the sample, of these we chose to exclude those with the highest level of DFP, as this is least favorable for our results. The results are presented in Table 3, and they show that the results are indeed quite robust to the exclusion of economies with the weakest institutions. As in Table 1a, in the conflict sample, the non-OECD sample loses significance but this returns if wars close to independence are excluded.

3. Conclusions

In this paper, we have documented the following empirical finding: the deviations of an economy from a government spending rule can be explained by exogenous variables thought to be related to an economy's institutional development. Furthermore, these deviations are shown to be linked with poor macroeconomic outcomes. Thus economies with exogenous variables that predict good institutions tend to have a lower degree of discretionary fiscal policy. The paper therefore provides evidence consistent with the hypothesis that economic policy is proximately determined, in part, by institutional quality and that institutional quality may ultimately be derived from history or geography.

References

Acemoglu, D., Johnson, S., Robinson, J., Thaicharoen, Y., 2003. Institutional causes, macroeconomic symptoms: volatility, crises and growth. Journal of Monetary Economics 50, 49–123.
Acemoglu, D., Johnson, S., Robinson, J., Yared, P., 2009. Reevaluating the modernization hypothesis. Journal of Monetary Economics 56, 1043–1058.
Acemoglu, D., Robinson, J.A., Johnson, S., 2001. The colonial origins of comparative development: an empirical investigation. American Economic Review 91, 1369–1401.
Acemoglu, D., Robinson, J.A., Johnson, S., 2002. Reversal of fortune: geography and institutions in the making of the modern world income distribution. Quarterly Journal of Economics 117, 1231–1294.
Besley, T., Persson, T., 2009. The origins of state capacity: property rights, taxation, and politics. American Economic Review 99 (4), 1218–1244.
Correlates of War (Version 4.0) (2010), http://www.correlatesofwar.org/.
Easterly, W.R., 1998, The Lost Decades: developing Countries' Stagnation in Spite of Policy Reform 1980–1998 Dataset World Bank, http://econ.worldbank.org/.
Fatás, A., Mihov, I., 2003. The case for restricting fiscal policy discretion. Quarterly Journal of Economics 118 (4), 1419–1447.
Fatás, A., Mihov, I., 2008. Policy Volatility, Institutions and Economic Growth. mimeo.
Gleditsch, N.P., Wallensteen, M., Eriksson, M.S., Strand, H., 2002. Armed conflict 1946–2001: a new dataset. Journal of Peace Research 39 (5), 615–637.
Hall, R.E., Jones, C.I., 1999. Why do some countries produce much more output per worker than others? Quarterly Journal of Economics 114 (1), 83–116.
Tilly, C., 1990. Coercion, Capital and European States, AD 990–1992. Blackwells.
Wooldridge, J.M., 2002. Econometric Analysis of Cross Section and Panel Data. MIT Press.
World Development Indicators, 2009, The World Bank, http://data.worldbank.org/products/data-books/WDI-2009.