

What Governments Maximize and Why: The View from Trade

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Abstract

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Abstract

Policy making power enables governments to redistribute income to powerful interests in society. However, some governments exhibit greater concern for aggregate welfare than others. This government behavior may itself be endogenously determined by a number of economic, political and institutional factors. Trade policy, being fundamentally redistributive, provides a valuable context in which the welfare mindedness of governments may be empirically evaluated. This paper investigates quantitatively the welfare mindedness of governments and attempts to understand these political and institutional determinants of the differences in government behavior across countries.

Keywords: & , (.)3(7)-373.94.9282 . -3194 3 357.41 , 357.41

1. Introduction

A & p ? p & ? p

. ? , ? ? f f

. f & & f ? ? , p ?

. & f ? ? , p ? f f ? ? ?

. f p ? ? p , f & & ?

. p ? f f p p & & ?

. f f p f ? & &

. ff ? ? ? & & ? ? , p ? &

. f ?

p ? p fi p & f ? ? ?

. f p & ?

. & p f , ? fi ? p ? & ff

. p & , & p ? ?

. ? & 776 ? 4(6()-21.4()1010.4()1)-(. 4

... f . A , ... p
... p ? , ... ? ? ... p f
... f p ? - ... 8? 8. - ... p ? ... 8.
... f ? -? 8. 8. ... ? ... 8. ... p ?
8?

... f f f ? 8. , 8. ... 8. ... ?
... ? 8. ... p ? ... ? f .
... f ? 8. 8? p , ... , p ... 8.
... f , p , J p ...

... f ?
... p ? 8? f ? ? p
... 8. 8. , p ? ? ? ... p.
... ? ? ? f . p ? , p 8 -
... f f . p p f p p 8. f ,
... ? ? f f . ? p 8? ? p
... 8. , f - ... p 8?

... p ? f p ?
(8. f) p 8? ? ? f , ' ? ?
f f . ? ? p f 8. (8.),
... ? f . ? ? p f 8. f 8.
p ff ? ? ? ? ? f 5(p)-9.8(18.886)11.228()9.3(51()-3 3()-1 51()

2. What Governments Maximize: Theory

(1994, (1999).
 $n + 1$
 i

$$U = c_0 + \sum_{i=1}^n u_i(c_i), \quad (1)$$

$i, s_i, p_i, s_i(p_i) = u(d$

$$W = l + \sum_{i=1}^n \pi_i(p_i) + \sum_{i=1}^n t_i^s M_i(p_i) + \sum_{i=1}^n s_i(p_i)$$

(8) $t_i = (p_i - p_i^0)/p_i^0$ i, p_i p_i^0 X_i/M_i $e_i = -M_i \cdot p_i/M_i$ $(t_i > 0)$ X_i e_i (8).

3. What Governments Maximize: Comparative estimates of a

(8) a (8).

$$\frac{t_i}{1+t_i} \cdot e_i \cdot \frac{M_i}{X_i} = \frac{1}{a} \quad i = 1, \dots, n. \tag{9}$$

ff . . . (? p) . ? 28 3- 8. 1988-2000 p .⁷
- ? ? 8. f ? ? 8. ffi-
? f ? f ? 8. p .
8. 8: p 8. f 8?
(? . . . , 2007). p ? f ? ? 8.
6- 8. 8: ? p p ? , ? . . . (2004).⁸
? f ? , . . .
8. 8. 8. 8. -? ? (8. 1986; . . .
p . 2000).⁹ ? f 8. ? 8. ? 8. , p , . . .

A p . . f. & f & & . . , ? . . p & . . . f . . -
▲ p . . (. . . . 1999, p . . 2000, 2002,
? . . 2004, ? 2002), & f a , & . .
(p ? & a' . . ? ? & . .) . . & . . (. . . . -

f p ? ? sp . & , . & ? ?
p ? . & f p . f ? . & ? ff
p & ? f f p . . p . &
? . pp p . , & . p ? , . pp . & ? f p
. & .

4.1 Lobbying and Electoral Competition

(1987), (1994), (1996).
f f p p ? : A& -
f f p p ? 8p ? 8
ff f p8
? 8? A& - p
? , f8 ? p ? 8? p p f
? f ? f 8? f 8? -
? ? a p p 8 , ?
p (? f 96)

96 , ? f , f 8 f f
p f ? () p ? p f ? p () ? ? ?
f p (, ?) f , , 8?
f 8? p ? p p 8 p p
f ? ff ? ? p p

A p ? ? f s . f a f s s? s . . f p f
s p s (5), ? p ? .

Ω_i

ϕ^A 0.5. &
 ϕ^A
 ϕ^A
 $\phi^A = 1$,
 W_i &
 W_i &
 W_i &

Hypothesis 1: A a'

α W (11). (12)
 $a \rightarrow 0$. $\alpha \rightarrow 1$. &
 α
 A
 B (.
 W_i
 t_i^*
 t_i^* .¹³
 α ,
 i ,
 (12).

Hypothesis 2: a ,

f
 f
 A
 f
 W
 $a \rightarrow 0$. $f \rightarrow$

\dots , \dots $\&$ $_f$ \dots ff \dots $\&$
 $(\dots _f \dots _f \dots _f \dots _f \dots _f)$, \dots $\&$ $_f \dots$ $_f t_i^*$
 $\&$ \dots $\&$ $_f$:

Hypothesis 3: \dots $\&$ $_f$ \dots ff $_f$ \dots $\&$ \dots $_f \dots _f$
 $_f$ \dots $_f$, \dots $a, \dots _f$.

\dots , $_f$ \dots $\&$ $_f$ $_f$ \dots t $_f$

fp& ? p .& .& ? f p .&
a. A ? f & f .& a
? p f .& p .& f ? ? ?

α_i is the probability that a legislator from district i is chosen to represent the district. The diversity across districts in the parameters α_i , β_i , and ϕ_i then underlies each legislator's parameter. This may well determine which legislators are in the winning coalition (that is, which are the cheapest for the agenda setter to buy off), but the fact still remains that competition among legislators will lead to the same policy.

Lobbies

()

-

Checks and Balances

national

¹⁷The model may be extended to incorporate the two-party electoral competition model in determining the legislator chosen to represent a district. Then, the diversity across districts in the parameters α , β , and ϕ then underlies each legislator's parameter. This may well determine which legislators are in the winning coalition (that is, which are the cheapest for the agenda setter to buy off), but the fact still remains that competition among legislators will lead to the same policy.

¹⁸The legislative bargaining game now has two additional steps added to the front of the earlier sequence: xxx

¹⁹Persson, Roland and Tabellini (1997) give deeper meaning to what it means for the executive to wield checks and balances. Their mechanism is separation of powers. Further, separation of powers works to produce welfare-oriented

, ? f ? p f ,
 & ? ? p , ? ?
 ? . & ? p ? & ?
 ? . p f p f & f
 f , ?? & ' ? &
 & ? p & p f
 p ? p f ? ? fi p f

Hypothesis 5:

? & p , ? ?
 f p p ? p f
 & fi p & , f & ? ? p f
 ? & . A & f ? p ? f p & p

... 8. fi . p .²²

Hypothesis 7:

... 8. fa . . f p . f 78.

... f ? ? ? ? 1 (? ?) 7(? ?
? 75% f ?) ? ? ? ? ? ? ? ? (? =2)

... (... f 8??) ...
... (...) ... /
... f 8?? ...
... f 8?? ...
... 1997).²⁷

д рд. д . д . ? д д . ?
? ? д . ф д ? , д ? д .
А д д . (2000, 1) ф . ? ?
д д . ? д . д д ф д ? ? ,
? д д . д ? д . д
(2000). д ? ? д д . д ? д . ? . ()
фд ? , () д . ? ? ?

? & p d&. & ? ? . . . ?? p
?
& p d&. & & &
& p d&.

f & ? ? ? f p p ? p
(p f p 3) & ? f-
p p p p p p p 30
& 1 f f f f f f
, f p ? , ? ?

д р? ф? д д р . р . р () д р? ф .
 , . р д . ф ? д . р . р ф

fi. p, & (A p 7), & p ? fi? &? f? ?
 A p f & . & . fi ,
 A p f , ? p f ?& . & .
 & . p . f , A p & 1,
 & 0. ? , A v, &
 ?& . p ?
 & 1 f ?& . f p
 A v & 0.
 p & p , & ? & p .
 A , & ? f & ?& . & & ?
 f f? , p ? ? A p A v
 pp -0.50. , f A A v
 & f

5.2: Results

1 p ? p ? f & ? f p fff ?
 ? p & f a' & ? -
 ? ? fi f & -f & & p p , ?
 ?& f ? ff& ? &? f
 A & f p & p p p f p & ,
 fp & p& . p f A v 13.4% f A A
 61.7% ? p . 36% f ? &
 p ? & () . p
 p f f .003? (p &?) 6.867? (& p &?),
 f2.1? ? & ? ? &

404.0_f 37.8 (J p).
 (1965) a' ? f
 3 f p f ?
 fa ? p -
 fa (?) f p f &
 f pp & p
 f ? (a) fi , &
 ? & & ? f
 fi ? & & p ? ? -
 f pp - & ,³⁷ & R- &
 & fi & p
 & p p & p & ? f p ? & ? ,
 fi ? ? f f & ? f - ? f
 p p ? & p ? fi?
 ? ffi? , ? p p plus . & ? & p f

$\Delta = 1,$? δ f ? δ ? δ
 δ ρ δ (δ , f ? δ ? ? ρ f δ)
 f f). f f ? ? ? f
 ρ f , ? δ f ρ δ .
 δ ρ ρ , δ , ? δ ff ? ? ?
 δ ($\Delta = 1$) f $-f$ - ff 180.9%
 ρ ? δ δ ? ? ff f ? δ ?
 ff ? ? ? f δ δ .
 $\Delta = 1$ f ? δ .

f ? δ δ f ? ? ? ρ , f ? ? ρ ρ
 ρ f f ? ρ ? ρ ? ff ?
 ρ f f ? f ? δ , ? ? ρ ? f -
 f ? δ δ ff ? , ? f ?
 ρ ρ ? ρ ? ρ ? ff ?
 ρ ? δ , ? δ ? ? f ? ? ρ
 ρ a 157.6% ? δ ? f δ
 ρ ? ? f δ (ρ)
 a 36.8% δ 3()22.97()0.2 91.4()1

A δ f p δ δ a p δ
 2. $?$ f ff $?$ $?$ 3 p δ $-f$ $?$ $ffi?$
 δ $?$ p ff $?$ f $?$ $ffi?$ p $?$
 δ f p $?$ f p
 $?$ A δ δ $?$ δ f f $?$ $ffi?$
 $?$ p $?$ A A ff $?$ a δ f
 p δ p p f $?$ a A δ
 ff $?$ $?$ δ f
 ff δ $?$ $fi?$ 2
 $?$ $fi?$ $?$ $ffi?$ p $?$ δ

Sensitivity Analysis

p δ f f $?$ δ
 δ (f) f $?$ δ f A δ p (a)
 p f $(p$ $?$ f δ $)$ δ
 δ δ f δ δ
 $??$ δ $?$ δ p δ δ
 δ p 5

$?$ a p p δ f
 p p δ f δ
 $?$ f (a) ⁴⁰ δ p $?$ δ f 6
 ff $?$ f δ f $?$ $ffi?$ A δ
 p $?$ ff f A δ p
 $?$ $fi?$ ff f A δ p
 $?$ $fi?$ p δ f $?$ δ $?$
 δ A δ p $?$ $fi?$ δ
 pp

a' f p $?$ δ f δ

⁴⁰The standard errors of $\ln(\)$ were computed using the delta method. Note that the heteroskedastic regression presumes that the only source of error is the measurement error in $\ln(\)$.

A ν ... ? δ - ρ f ρ ? δ , ... ? ff ? ? .
A ν μ ? μ ? δ - ρ , ? ρ ?
 f ff ? ρ , δ , f ρ f ?
 μ δ (A μ =1) a 65.1% f ρ ? δ
(1) . ? ?
 ρ ? ρ ? ff ? f ?
 δ ? $similar$ (A ν =1) a 92.8% higher
 $\rho\rho$ ρ ? ff ρ ? f
 f ? .41 ? ρ δ ? δ ? f
? ... δ ?

(70).⁴² ? &? p f & . fi , M A & , . f
any

A Rawlsian Extension

... of ... ? ... ? ... f ... ?

f p ? ... p ? f ... ? & p ?

? ... ? ... f ... f ... , p ? ?

? ... ? (... 1985; ... 2002; ? p ?

... ?) ... , p ...

f ... ? p ... ? , & ... ?

f a' . **■** , **■** **■** 8.

8pp p 8 ?8 ? ? p (8) ,

8pp p f ?8 ? ? p .

f ? p ? ? f ? ? a' . 8 ,

p ? p ? fi? (15) 8 . a'

? f 8? 8 . p 8 . p p p . - ,

f 8 . 8 . 8 . f , 8 . p ? 8?

U 8 ? ? . f a .

fp f(15) 8 . ? f 8 .

p p 8? 8 . p .

A2

ff ? f ? . 8 .

References

- Arrow, K. J. 1963. *Social Choice and Individual Values*. New York: Wiley.
- Arrow, K. J. 1987. "The Limits of Organization," *Public Choice* 54: 123-139.
- Arrow, K. J. 1985. *The Political Economy of US Import Policy*. Cambridge, MA: Ballinger.
- Arrow, K. J. 2000. "The Limits of Organization: A Revisited," *Public Choice* 105 :79-101.
- Arrow, K. J. 2000. "The Limits of Organization: A Revisited," *American Economic Review* 90: 135-139.
- Arrow, K. J. 1994. "The Limits of Organization: A Revisited," *American Political Science Review* 88: 33-47.
- Arrow, K. J., J. A. 1989. "The Limits of Organization: A Revisited," *American Political Science Review* 83: 1181-1206.
- Arrow, K. J., J. A. 1987. "The Limits of Organization: A Revisited," *The American Economic Review, Papers and Proceedings* 77: 303-309.

Survival. A:

8., 2002. : A
." *Journal of International Economics* 58: 107-133.

8., 2005. : A
." *Review of Economics and Statistics* 87: 59-72

? ,, 2002, : A
American Economic Review 92: 1702-1710.

, . . (.), 2001. :
.

8. 2008. *International Marketing Data and Statistics*.

8. 2004. *Latin America Marketing Data and Statistics*.

,, 1996. , 1972-1994: ? , " *NBER Working Paper*
5515.

8., 2002. ,10.9(1 -1.65

850.

... .. 1996.
Review of Economic Studies 63: 265-286.

... .. 1999.
American Economic Review

... .. J. . 2002.
.. ..

¿ . ¿” *International Organization* 56(3): 477-513.

, **A** ., . & ., 2005. . ? ¿. ¿ . ¿
¿ & . *International Organization* 59(1): 157-193.

, ., 1999. & . & ? : **A** - &
¿ . ¿ . ,” *American Economic Review* 89: 1116-1134.

, , **A** & . & 2002. ? ¿ . ¿ . ¿
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..., 1999. *American Political Science Review* 93 (3): 591-608.

..., 1995. *British Journal of Political Science* 25(3): 289-325.

World Development Indicators. ...

Table 1.1: Estimates of a

Country	ccode	$1/a$	$se(1/a)$	a
1 Argentina	ARG	0.19	0.02	5.25
2 Austria	AUS	0.11	0.01	8.79
3 Bangladesh	BGD	6.34	2.27	0.16
4 Bolivia	BOL	1.47	0.20	0.68
5 Brazil	BRA	0.04	0.00	24.91
6 Chile	CHL	0.21	0.02	4.83
7 China	CHN	0.12	0.01	8.33
8 Cameroon	CMR	3.31	2.54	0.30
9 Colombia	COL	0.13	0.01	7.88
10 Costa Rica	CRI	0.50	0.07	1.98
11 Germany	DEU	0.09	0.01	11.55
12 Denmark	DNK	0.12	0.01	8.10
13 Ecuador	ECU	0.81	0.14	1.23
14 Egypt	EGY	0.80	0.18	1.24
15 Spain	ESP	0.07	0.00	15.16
16 Ethiopia	ETH	5.92	2.26	0.17
17 Finland	FIN	0.09	0.01	10.57
18 France	FRA	0.09	0.01	10.96
19 U.K.	GBR	0.08	0.01	11.86
20 21				
Guatemala	GTM	0.65	0.08	1.53
22 Hongkong	HKG	0.00		inf.
23 Hungary	HUN	0.25	0.02	3.96
24 Indonesia	IDN	0.38	0.09	2.62
25 India	IND	0.37	0.05	2.72
26 Ireland	IRL	0.29	0.04	3.50
27 Italy	ITA	0.07	0.01	13.42
28 Japan	JPN	0.03	0.00	37.81
29 Kenya	KEN	1.16	0.33	0.86
30 Korea	KOR	0.06	0.00	16.15
31 Sri Lanka	LKA	1.08	0.18	0.93
32 Latvia	LVA	0.17	0.01	5.75
33 Morocco	MAR	0.87	0.14	1.14
34 Mexico	MEX	0.77	0.07	1.29
35 Malawi	MWI	3.93	1.17	0.25
36 Malaysia	MYS	0.32	0.02	3.13
37 Netherlands	NLD	0.35	0.05	2.85
38 Norway	NOR	0.24	0.05	4.22
39 Nepal	NPL	15.56	5.66	0.06
40 Pakistan	PAK	1.35	0.31	0.74

Country	ccode	$1/a$	$se(1/a)$	a
41 Peru	PER	0.21	0.03	4.85
42 Phillipines	PHL	0.35	0.03	2.84
43 Poland	POL	0.13	0.01	7.48
44 Romania	ROM	0.11	0.01	9.25
45 Singapore	SGP	0.00	0.00	404.29
46 Sweden	SWE	0.08	0.03	12.28
47 Thailand	THA	0.94	0.17	1.06
48 Trinidad and Tobago	TTO	0.90	0.16	1.11
49 Turkey	TUR	0.07	0.00	14.53
50 Taiwan	TWN	0.12	0.01	8.53
51 Uruguay	URY	0.28	0.02	3.62
52 United States	USA	0.04	0.01	26.14
53 Venezuela	VEN	0.18	0.01	5.41
54 South Africa	ZAF	0.19	0.02	5.13

Notes:

1. Hong Kong has zero tariffs. In the runs with 54 obs. (full sample) HKG's a is set to 10000.

1

2

3

Table 2:

Source	Variable	Description	Mean	sd	Min	Max
	<i>a</i>	<i>a</i>				

Table 5:

a

N

R2

Note:

t

N
 R^2
Note:
 t

Table 3.

t-

Note:

country

ccode

a

a^{R1}

N

