

## Taxability and Government Support of Business Activity

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### Definitions

*Taxability*: The ease with which the state can extract revenues from firms, both as taxes and as owner's share of profits.

- examples: small firms vs. large firms, private firms vs. state firms

*Government Support of Business Activity*: Actions which improve the climate for business and thus business profitability.

- examples: control of corruption, contract enforcement

### The Basic Story

- 1) Politicians are interested in tax revenues.
  - 2) Economic sectors differ in their taxability.
- ➔ Politicians will have an incentive to support business activity which is more taxable.

Example: A regional governor shelters large state firms from bribe-seeking bureaucrats because these firms provide needed revenues, but provides no protection to small private firms which are hard to tax.

### The Basic Story, cont.

#### Ex ante

Politician decides how much support to provide, and to whom

#### Ex post

Firms provide revenues (valued by politician)

- In principle, politician and firms could agree on trade of support for revenues. Both would be better off.
- In practice, various contracting failures (unobservability of revenues, absence of third party to enforce agreement, collection-action problems) make such agreements difficult to negotiate and enforce.
- Thus, politician provides support *ex ante* based on taxability of firms (sectors) *ex post*.

## The Basic Story, cont.

The taxability argument says that the following two statements, often heard in conversations with entrepreneurs in postcommunist countries, are not unrelated:

- 1) “Corruption and overregulation are killing my business.”
- 2) “Good entrepreneurs know how to avoid paying taxes.”

## Taxability: Variation Across Firms

BEEPS Survey: 3762 firms surveyed in 1999 in 23 postcommunist countries on government-business relations, including:

- degree to which revenues reported to tax authorities (≈ taxability for private firms)
- extent (or lack) of government support

### Determinants of Revenue Reporting

- small, new firms especially hard to tax in former Soviet Union
- sectoral differences: transportation, personal-service firms report less

**Determinants of Revenue Reporting - OLS Regressions**  
(Significance levels: 10% - \*, 5% - \*\*, 1% - \*\*\*)

	Dependent Variable: Percent of Revenues Reported to Tax Authorities					
	Estimated coefficient	Robust std. error	Estimated coefficient	Robust std. error	Estimated coefficient	Robust std. error
De novo firm	3.40**	1.35			1.68	1.43
<b>De novo * CIS</b>	<b>-6.79***</b>	<b>1.74</b>			<b>-3.67*</b>	<b>2.10</b>
CIS	-1.11	1.31	-14.05***	2.59	-9.58**	3.80
Log employment	2.90***	0.36	1.84***	0.36	2.11***	0.43
<b>Log employment * CIS</b>			<b>2.35***</b>	<b>0.58</b>	<b>1.70**</b>	<b>0.70</b>
Degree of competition	-4.06***	0.62	-3.97***	0.62	-4.09***	0.62
Transportation sector	-4.13**	2.02	-3.82*	2.01	-4.18**	2.02
Personal-service sector	-3.09	2.12	-3.31	2.12	-3.24	2.11
Wholesale sector	-1.75	1.47	-1.52	1.46	-1.65	1.47
Other sector	-1.33	3.31	-1.07	3.26	-1.26	3.27
Retail sector	0.23	1.47	0.53	1.46	0.37	1.47
Construction sector	0.82	1.55	0.65	1.54	0.64	1.55
Resource sector	0.97	1.54	0.42	1.55	0.50	1.55
Business-service sector	1.91	1.96	1.50	1.98	1.71	1.97
Finance sector	9.67***	2.46	10.14***	2.45	9.90***	2.46
Constant	80.95***	2.76	86.72***	2.68	85.15***	3.11
N		3371		3388		3371
R <sup>2</sup>		.066		.066		.068

Notes: Omitted category for sector dummies is manufacturing sector. Town-size dummies also included in all regressions.

## Determinants of Government Support in Postcommunist States

### Measures of Government Support (or lack thereof)

- bribe payment (quantitative and qualitative measures)
- time spent with government officials
- contract and property-rights enforcement
- subjective evaluation of government support

### Impact of Taxability

- firms reporting more revenues receive more support
- increasing revenue reporting from 50% to 100%:
  - reduces bribe payment from 3.6% to 2.2% of revenues
  - increases proportion saying government is helpful by 18 %
- state firms also receive more support (except for time spent with government officials)

## Basic Institution → Formalization

### Basic Intuition

The more taxable is business activity, the more politicians have an incentive to support it.

Empirical evidence supportive of basic intuition.

### Formalization

Different ways to formalize and build upon basic intuition. (Sharpens intuition, provides additional ways of looking at data.)

- 1) factors of production (labor, capital) mobile across sectors which differ in taxability
- 2) politicians interested in tax revenues specifically because tax revenues pay for things voters want

## Formalization I: Factor Mobility

Assumptions: Revenue-maximizing politicians, factors of production (labor, capital) mobile across two sectors which differ in taxability.

Result: Factor mobility exaggerates the impact of differences in taxability:

- governments choose to support a sector because of its taxability and size
- factors choose to locate in a sector because of government support and taxability

Empirical Implication: Countries should sort themselves into two groups:

- 1) support and labor/capital in low-taxability sector
- 2) support and labor/capital in high-taxability sector

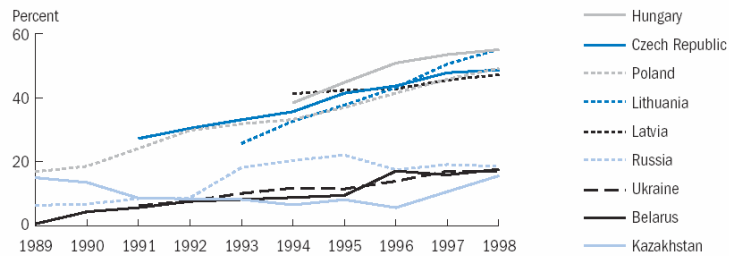
## The “Great Divide”

Differences in government support, factor allocation in postcommunist countries:

- Eastern Europe (high taxability overall, small differences in taxability between sectors): Labor migration out of old state sector, government support of new private economic activity
- Former Soviet Union (low taxability overall, large differences in taxability between sectors): Little growth of new private business, little government support of new private economic activity

FIGURE 4.2.

Share of Employment in Small Enterprises, 1989–98



Source: World Bank database on SMEs.

## Formalization II: Electoral-Competition Model

### Motivation

Tax revenues matter to politicians for various reasons. One reason they matter is that they pay for redistributive transfers or public goods, the provision of which influences the politician's chances of being reelected.

### Type of Model

A *retrospective-voting* (performance-based voting) model.

More specifically: A "career-concerns" model, a la Holmstrom.

A politician provides support before an election because he hopes to influence voters' perceptions of his competence. Voters care about competence because their post-election utility is higher with a competent politician.

Note: Not an adverse-selection model (no asymmetric information) but a moral-hazard model (voters observe support with noise).

## Sectors and Profits

- Three groups of voters: taxpayers in low-taxability sector, taxpayers in high-taxability sector, and recipients of government transfers
- $\pi_{ist} = (e_{st} + \theta_s)$  = profits of individual  $i$  in sector  $s$  at time  $t$
- $e_{st}$  is political *support* provided by politician in support of sector  $s$  at time  $t$ ; this support is costly to the politician
- $\theta_s$  is politician's *competence* in supporting sector  $s$ ; unknown to politician and voters when support chosen in period 1; distributed independently across politicians and sectors
- Critically, if politician in period 1 also in power in period 2, has same competence  $\theta_L$  and  $\theta_H$
- Voters observe only *performance*, which is the sum of support and competence; hence, politician has an incentive to provide more support to try to appear more competent

## Elections

- Two periods: election period, and post-election period
- A politician receives exogenous utility  $R$  each period he is in power
- Voters decide whether to reelect incumbent at end of first period
- Voters vote based on perceptions of incumbent's competence in supporting two sectors; if incumbent defeated, replaced by challenger with unknown competence  $\theta_L$  and  $\theta_H$
- Voters' perceptions of incumbent's competence imputed from observed performance (competence + support) and from beliefs about what support politician has provided

## Taxability and Voter Preferences

- Two sectors of taxpayers differ in their exogenous taxability:  $T_L < T_H$
- Taxpayers receive utility from post-tax profits; taxability reduces extent to which taxpayers care about competence
- Recipients receive utility from transfers paid for with tax revenues; taxability increases extent to which recipients care about competence
- In addition to material preferences, voters have "ideological" preferences over candidates, where  $\delta_i$  represents a voter's additional utility if challenger elected, i.e. voter  $i$  will vote for incumbent if:  
$$E(\text{profits/transfers} \mid \text{incumbent}) \geq E(\text{profits/transfers} \mid \text{challenger}) + \delta_i$$
- Within each sector  $s$ ,  $\delta_i$  distributed over  $[-1/(2\gamma_s), 1/(2\gamma_s)]$ , so that  $\gamma_s$  represents the degree to which voters value post-tax profits/transfers over other ("ideological") concerns

## Electoral Model: Equilibrium and Key Result

Politician provides costly support to each sector in election period in attempt to win reelection, with allocation of support across sectors influenced by degree of taxability of sectors.

Electoral returns not like monetary returns: Roughly speaking, total returns capped in electoral model: thus, only *relative returns* matter. In revenue-maximization models, *absolute returns* matter.

Example (not my model): Politician needs 50% of vote to win. "Buys" votes with taxes. Will allocate support across sectors (based on relative taxability) so that can most cheaply get necessary 50%.

Two sectors each taxable at 20% vs. each taxable at 40%:  
- electoral model: no difference  
- revenue-maximization model: more support at 40%  
(Policy implication.)

## Testing the Electoral Model

Empirical Implication: In electoral model, absolute differences in taxability matter less in relative terms when overall taxability high.

- e.g., relative difference greater if two sectors taxable at 15% and 20% than if 35% and 40%

Results: (BEEPS data again) In "free" countries, differences in taxability matters less, the higher overall taxability. In "partially free" and "not free" countries, no effect.

Interpretation: Politicians in more democratic countries motivated by revenue concerns for electoral reasons; those in less democratic countries motivated by revenue concerns for other reasons.

### **Electoral Model: Other Results**

- 1) The size of the recipient population does not matter for allocation of government support.

What matters is the government's "power to tax." For given level of taxability, more recipients implies less for each recipient. Attention shifts to other issues.

Empirics: Level of support independent of size of pension-age population.

- 2) The extent to which (and even whether) the high-taxability sector is favored depends on the degree to which recipients care about transfers ( $\gamma_R$ ), vs. taxpayers care about post-tax profits ( $\gamma_H = \gamma_L = \gamma$ ).

If transfers or public goods are not highly valued relative to other policies, the low-taxability sector may be favored, as politician caters to voters as taxpayers (rather than voters as recipients).