

# **Institutions and Social Capital in Collective Property Management: Economic Analysis of Homeowners Associations**

Ekaterina Borisova, Anatoly Peresetsky,  
Leonid Polishchuk,

*Higher School of Economics, Moscow*

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# Issues and analytical perspectives

- Performance measurement in non-profit sector
- Interplay between institutions and social capital: substitutes or complements
- Collective action in common property management

# Pros and cons of community self-management

Communities have stronger incentives and informational advantages over governments in managing common assets ...

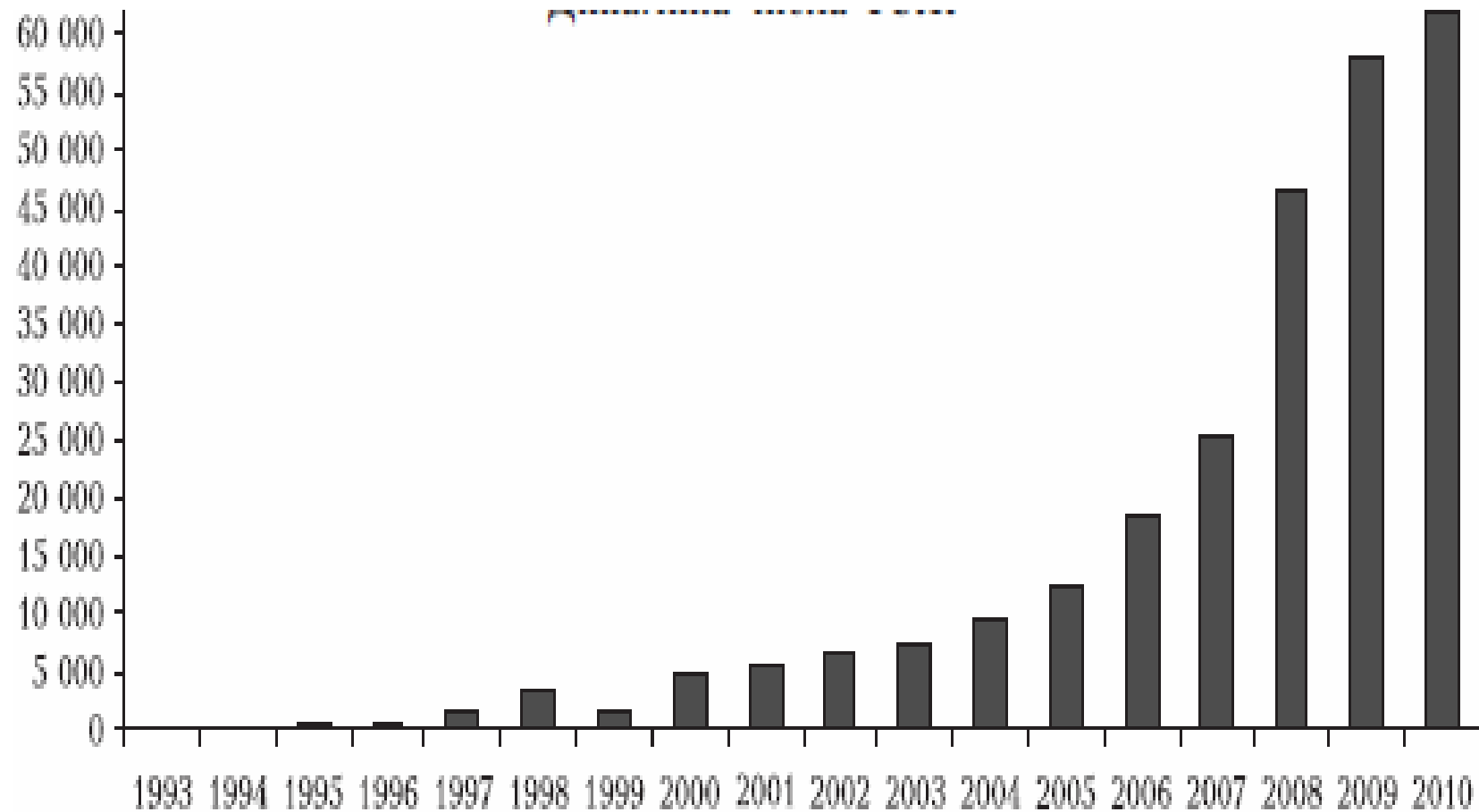
... but are confronted with a collective action problem

# Homeowners associations in residential housing reform

Homeowners associations implement collective ownership and management of housing infrastructure

Their creation completes privatization of residential housing in Russia initiated in the early 1990s

# HOA dynamics in Russia



# Pitfalls of collective privatization

- Highly uneven performance
- Widespread capture and misuse
- Distrust in HOA
  - lack of understanding
  - unpredictable liabilities
  - unsettled land issues
- Mistrust among tenants, lack of leadership and capacity for self-organization

# **Society's ability to operate an institution**

Social capital and institutional reform in residential housing complement each other similarly to other kinds of reforms (such as government decentralization) divesting power to communities

# HOAs as a self-organization litmus test

Confluence of favorable conditions (design principles) for successful self-organization:

- immediate and powerful material incentives
- relatively small, stable and compact group with clear boundary rules
- opportunities for frequent face-to-face communication
- internal rules of organization and electable governance
- support from the government



# HOA and New Institutional Economics

- Property rights theory
- Collective action problem
- Public goods and commons
- Social capital
- Boundaries of organization
- Collective choice
- Common agency
- Institutional capture

# Model

Public decision-making without proper representation:

$$\max_{0 \leq z \leq z^*(\mu)} \left\{ \frac{z^*(\mu) - z}{\alpha} + \mu f(z) \right\}$$

# HOA vs. municipal management: choosing the second-best



# Hypotheses

- Performance of HOA depends on tangible and intangible assets – physical and social capital
- Specific forms of social capital are relevant for HOA performance
- Transmission mechanisms linking social capital and HOA performance involve HOA governance

# **Data: the tale of two cities**

2008 survey of 82 HOAs, 40 of them in Moscow – capital megapolis city, and the rest in Perm – large industrial city in the Northern Urals

# Individual data

Performance assessment: overall satisfaction with HOA work and satisfaction with main services of HOA

HOA governance: assessment of overall board performance, transparency and accountability of board work

Socio-economic and demographic characteristics of tenants: age, gender, education, income, and duration of tenancy

Social cohesion of tenants: trust, mutual assistance and support, interaction, and socializing in everyday life

Contributions to HOA in cash and in kind: payment discipline; participation in tenant meetings; volunteering)

Ability to reach an agreement over HOA operations

# HOA at large

- Age and material conditions of the building
- Year HOA was formed
- Origin of HOA (created by tenants or established by third parties – local governments, management companies, developers etc.)
- Percentage of privately owned units
- Retaining services of management company

# Social capital I: Generic social capital

- Can you count on neighbors' support?
- How often you help your neighbors and how often were helped by them?
- How many neighbors and how well do you know?
- Other proxies:
  - voluntary work in HOA
  - duration of tenancy in the building



# **Social capital II – technical civic competence**

Technical civic competence underpins the ability to operate HOA

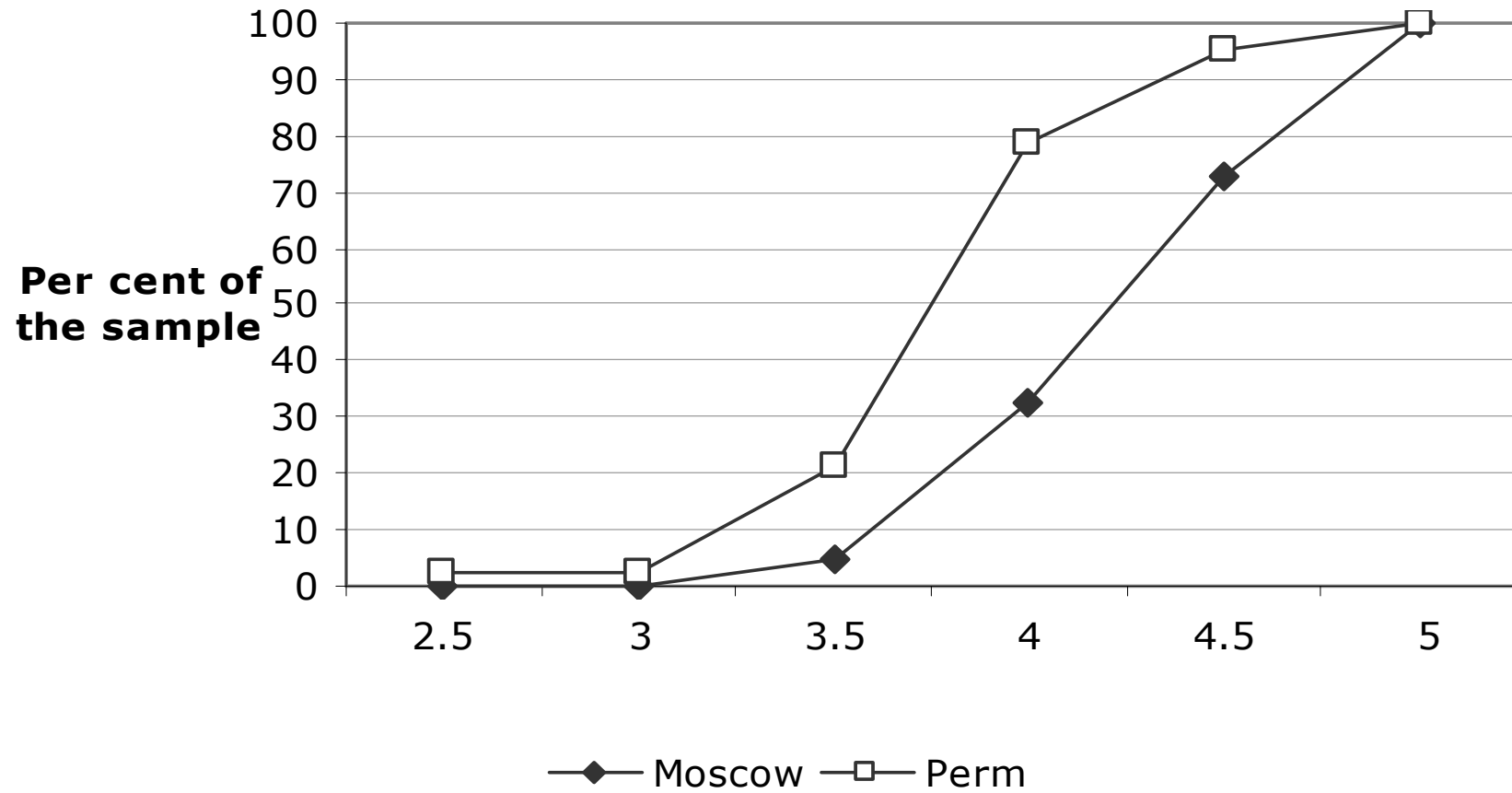
- participation in HOA decision-making
- ability to have one's voice heard in the process
- ease of reaching an agreement among tenants on HOA matters

# Cross-correlations of social capital

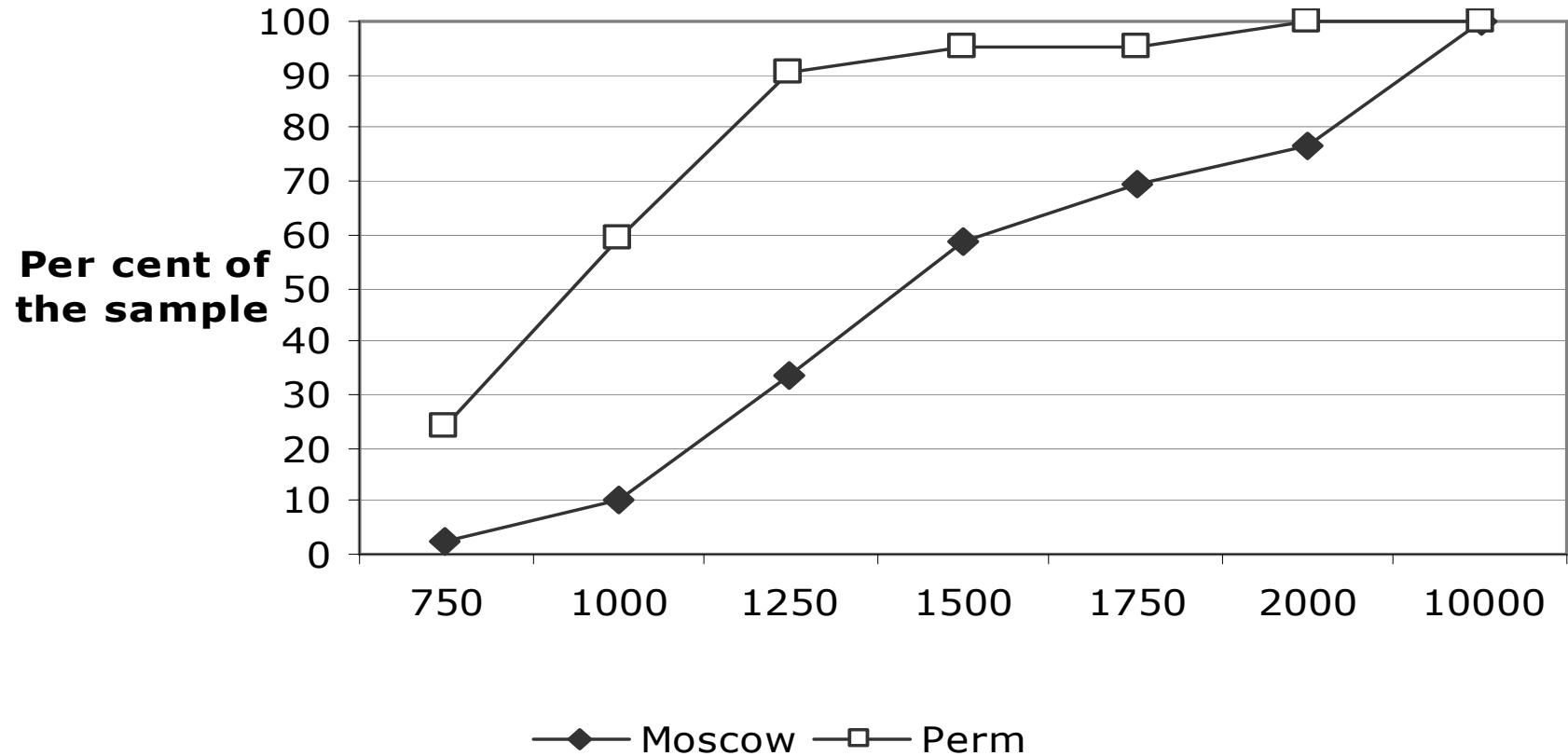
Components of generic social capital are positively and statistically significantly correlated with each other, which is an indication that these are indeed various dimensions of the same 'commodity'

Generic social capital and technical civic competence are disparate characteristics of tenant communities, largely uncorrelated with each other.

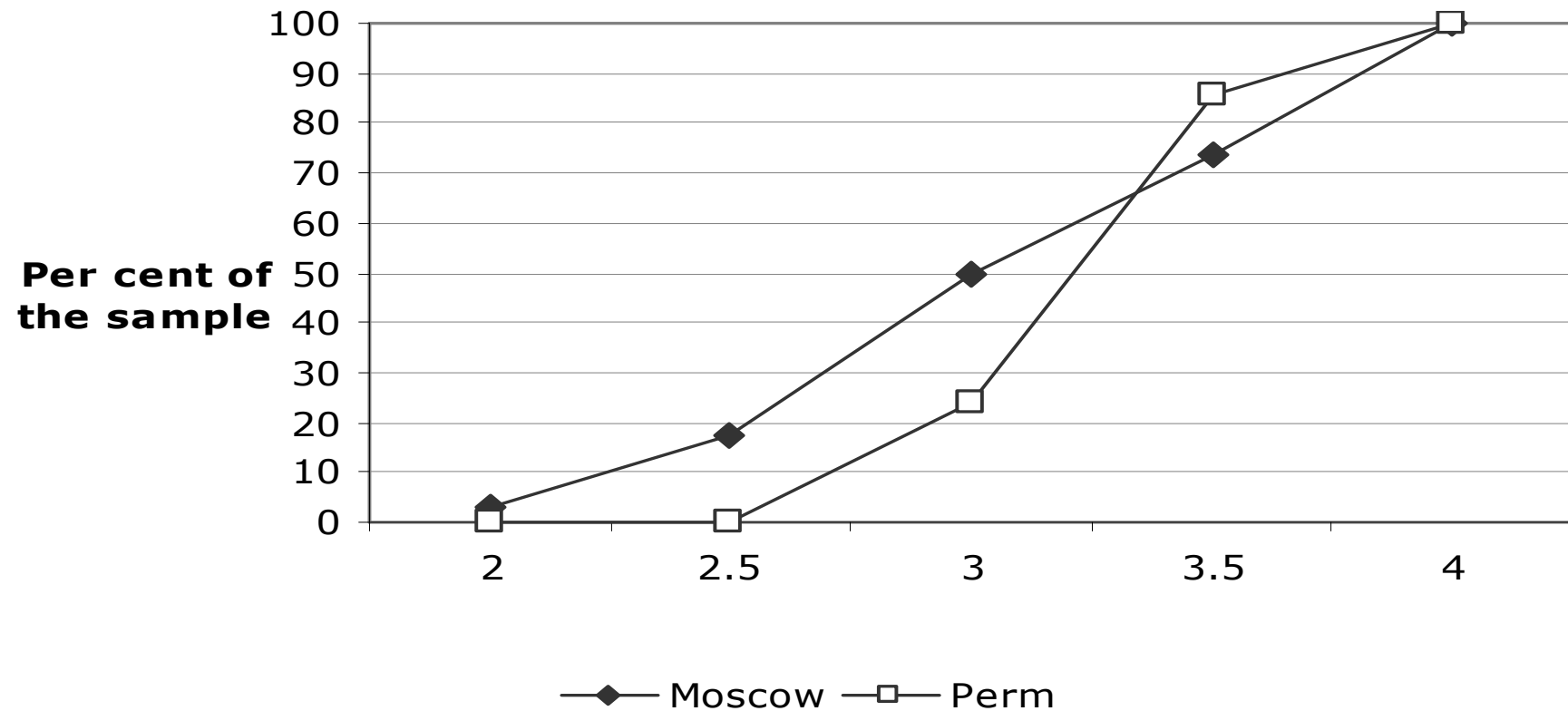
# Performance of HOAs



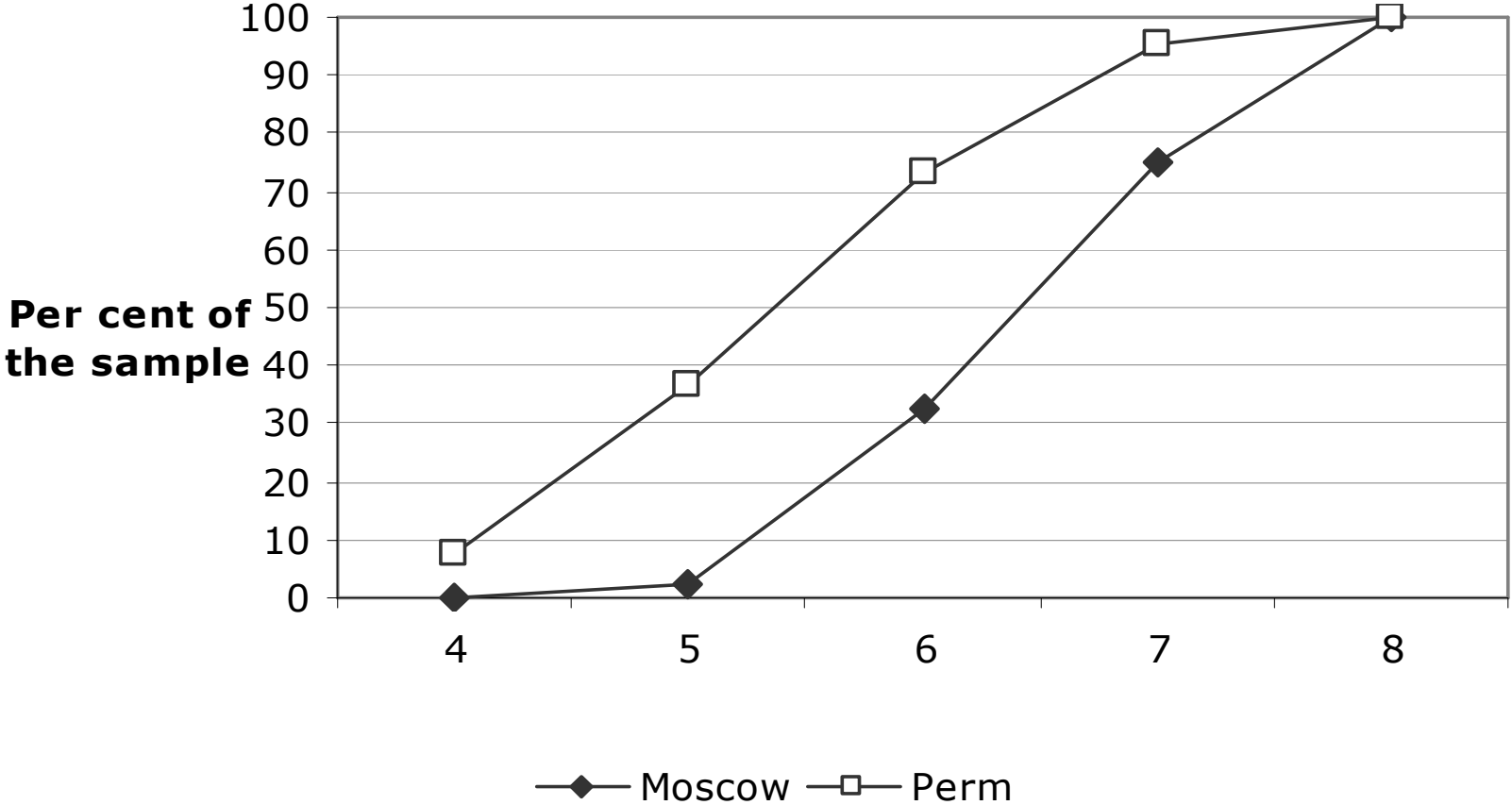
# Operating costs



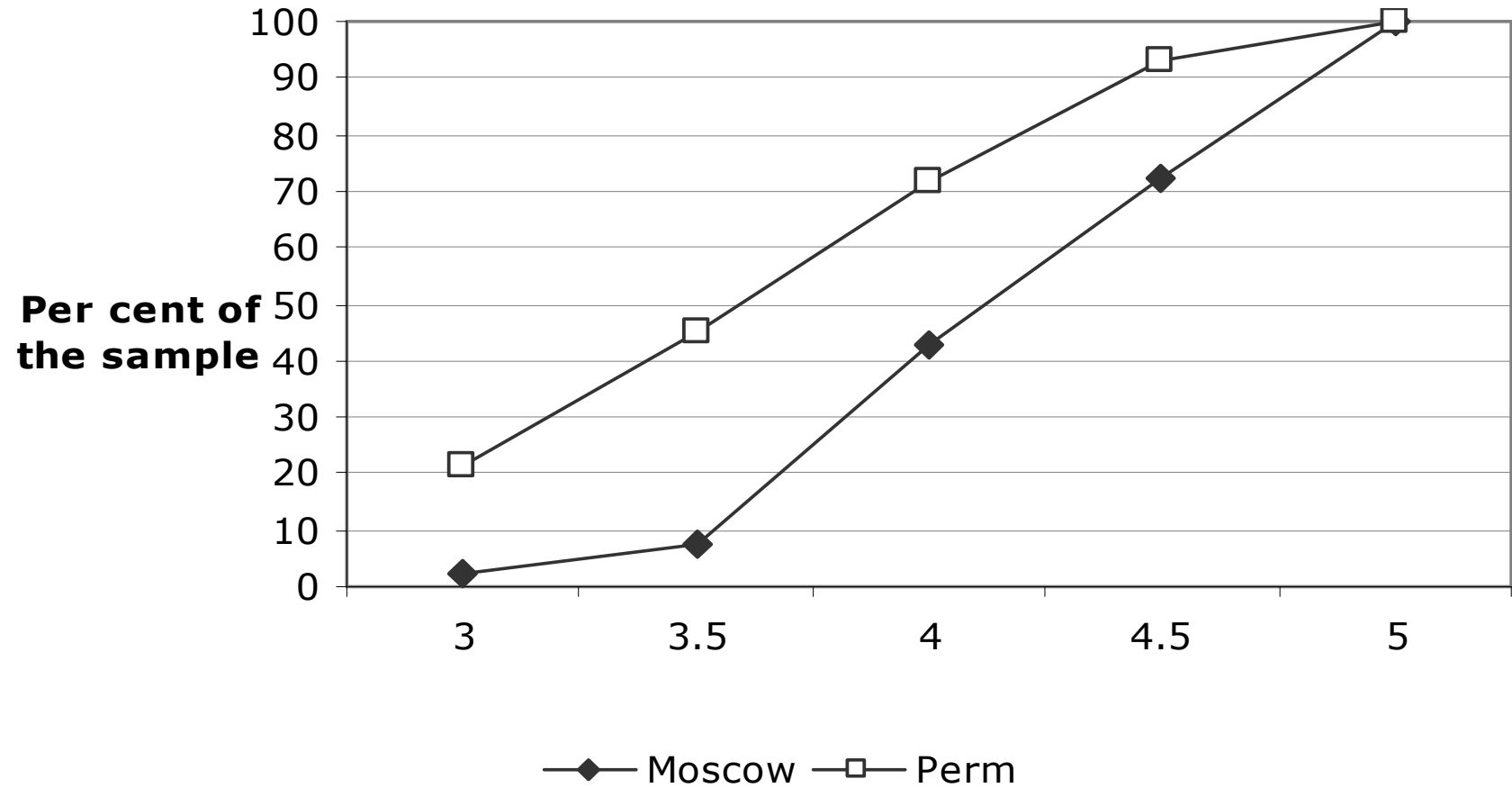
# Stocks of generic social capital



# Stocks of technical civic competence

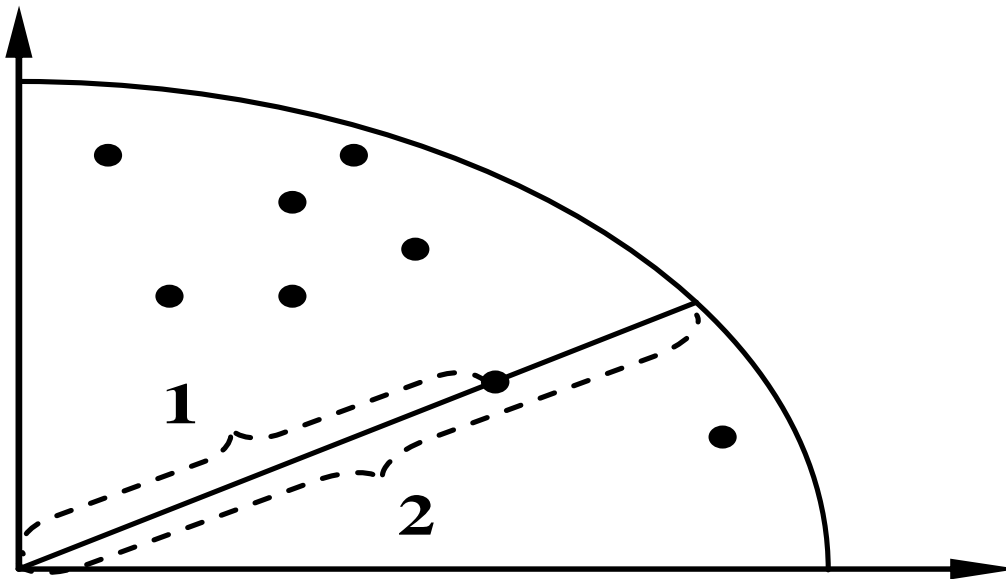


# Board performance



# Performance assessment by stochastic frontier

Stochastic frontier measures performance as the relative distance to an econometrically reconstructed “possibility frontier” where HOA potential is fully utilized.





# Estimation technique

Translog model was estimated by the maximum likelihood method:

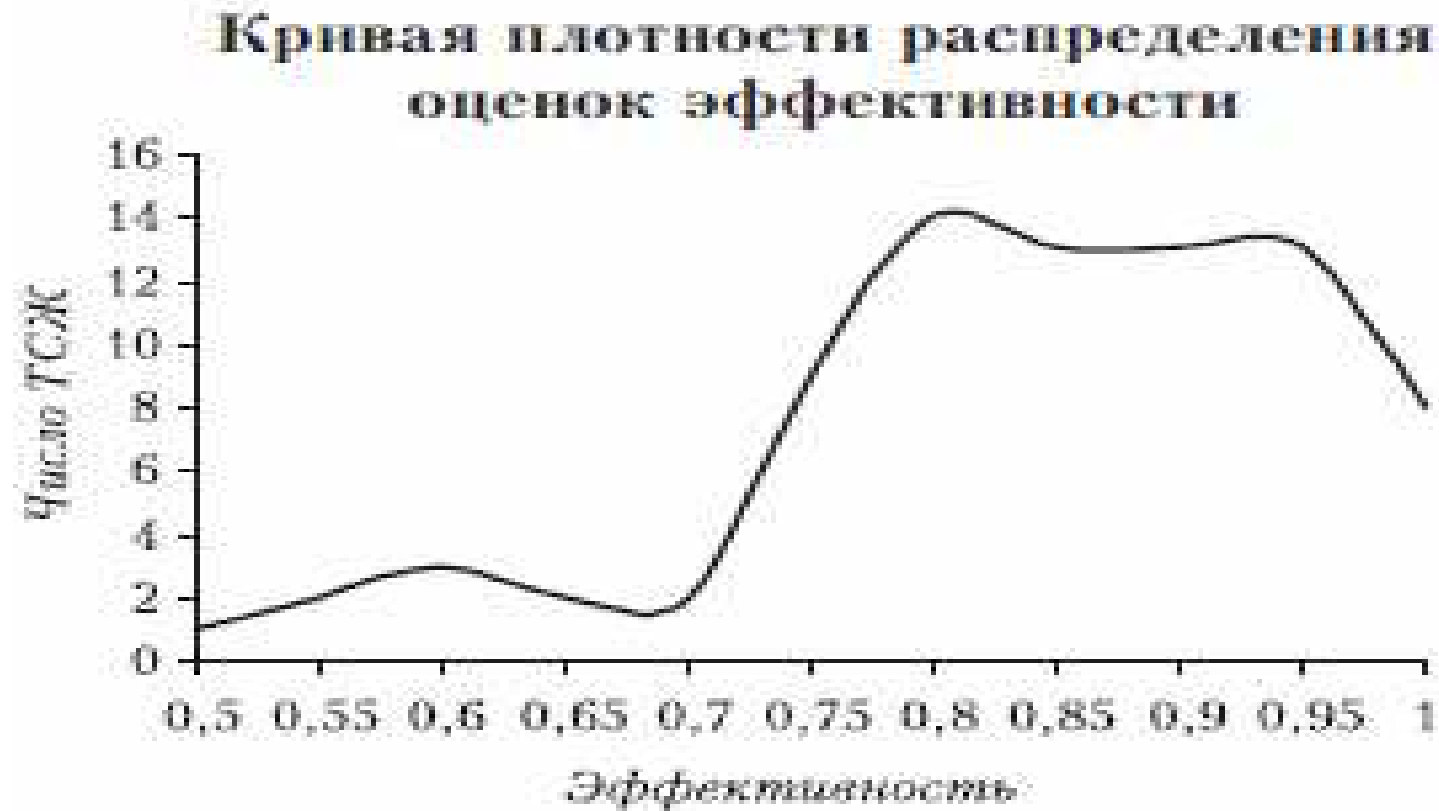
$$\ln y_{Ni} = \tilde{\alpha}_0 + \sum_{n=1}^{N-1} \tilde{\alpha}_n \ln \frac{y_{ni}}{y_{Ni}} + \sum_{n,m=1}^{N-1} \tilde{\beta}_{nm} \ln \frac{y_{ni}}{y_{Ni}} \ln \frac{y_{mi}}{y_{Ni}} + \gamma \ln x + \sum_{n=1}^{N-1} \tilde{\delta}_n \ln \frac{y_{ni}}{y_{Ni}} \ln x + c_i + u_i + v_i.$$

# **Stochastic frontier in non-profit performance measurement**

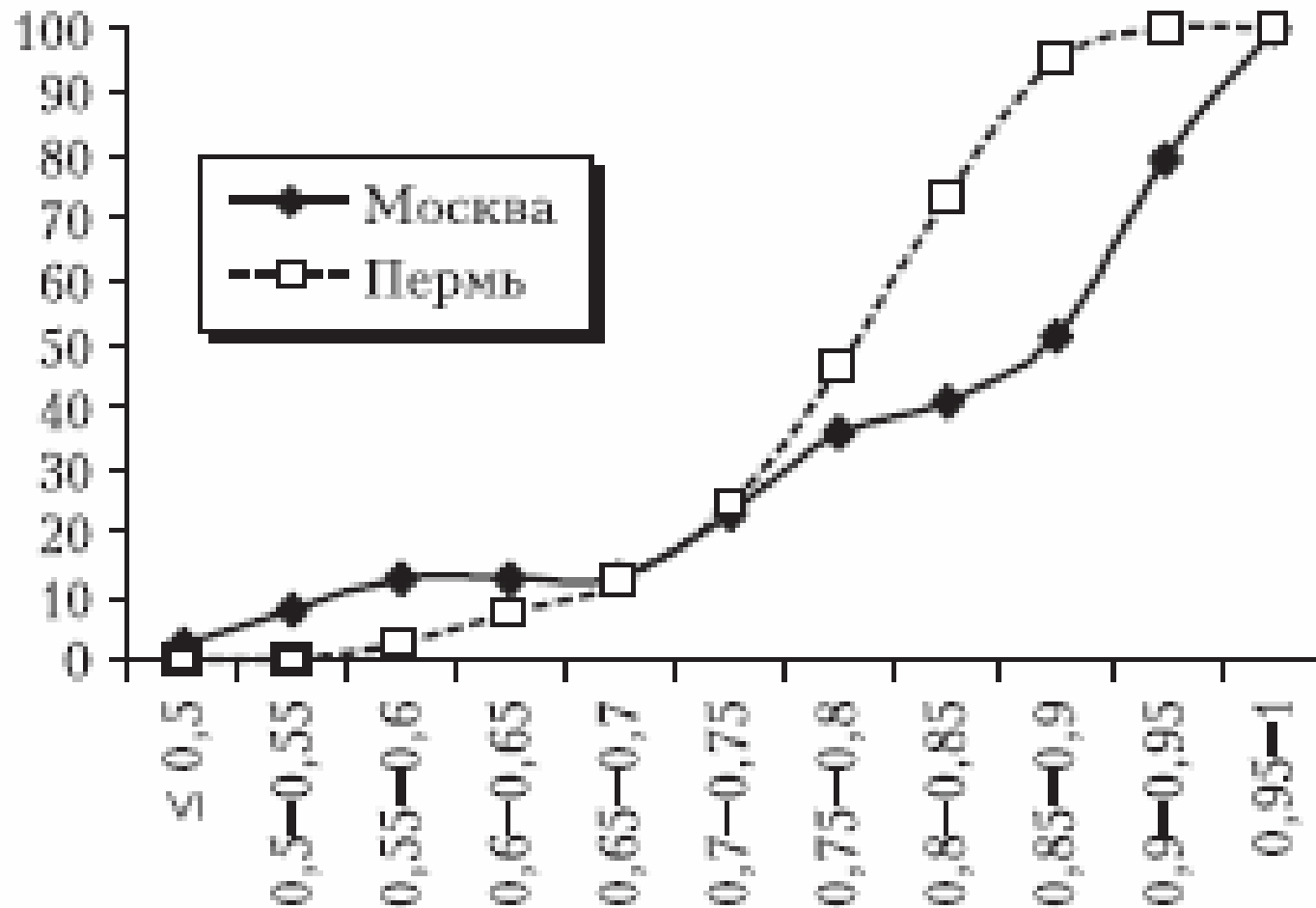
Stochastic frontier-based approaches produce indexes that are relative to highest achievable outcomes revealed by a large number of observations, which compensates for otherwise unavailable market information.

Such methods don't impose weights allowing them to be determined endogenously (thus reflecting varying preferences of particular groups of stakeholders and clients).

# Performance variations



# Moscow vs. Perm



# Explaining performance

	(1) Core factors	(2)	(3)	(4)	(5) Full list of factors
<b>Building age</b>	<b>-0.544***</b>	<b>-0.537***</b>	<b>-0.557***</b>	<b>-0.572***</b>	<b>-0.664***</b>
<b>Technical competence</b>	<b>0.416***</b>	<b>0.414***</b>	<b>0.420***</b>	<b>0.399***</b>	<b>0.425***</b>
<b>Generic social capital</b>	<b>0.175*</b>	<b>0.169*</b>	<b>0.167*</b>	<b>0.182*</b>	<b>NS</b>
<b>Origin</b>	<b>0.194**</b>	<b>0.193*</b>	<b>0.200**</b>	<b>0.231**</b>	<b>0.210**</b>
<b>Size</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>
<b>% private ownership</b>	<b>0.195**</b>	<b>0.191**</b>	<b>0.190**</b>	<b>NS</b>	<b>0.145*</b>
<b>Inequality</b>		<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>
<b>Participation in meetings</b>			<b>NS</b>	<b>NS</b>	<b>NS</b>
<b>Social inclusion</b>				<b>-0.195*</b>	<b>NS</b>
<b>Payment discipline</b>					<b>NS</b>
<b>R-squared</b>	<b>0.50</b>	<b>0.50</b>	<b>0.51</b>	<b>0.54</b>	<b>0.71</b>
<b>Adj. R-squared</b>	<b>0.45</b>	<b>0.44</b>	<b>0.44</b>	<b>0.46</b>	<b>0.64</b>
<b>Observations</b>	<b>67</b>	<b>67</b>	<b>66</b>	<b>66</b>	<b>49</b>

# Tangible and intangible assets

- Physical capital and technical civic competence are most significantly related to HOA efficiency:

*One standard deviation of building's age translates in 2/3 standard deviation of HOA performance. Increase of technical civic competence of tenants by one standard deviation improves performance by 39 per cent of standard deviation.*

- Significance and explanatory power of generic social capital are significantly weaker.

# Origin as signal

Creation of HOA by tenants is a strong predictor of good performance. Voluntary and conscious decision to establish an HOA is a credible signal of availability of required social capital

# Private ownership matters

The share of privately owned units is another predictor of successful performance.

Municipal government's proxy representation on non-owners works does not contribute to efficiency.

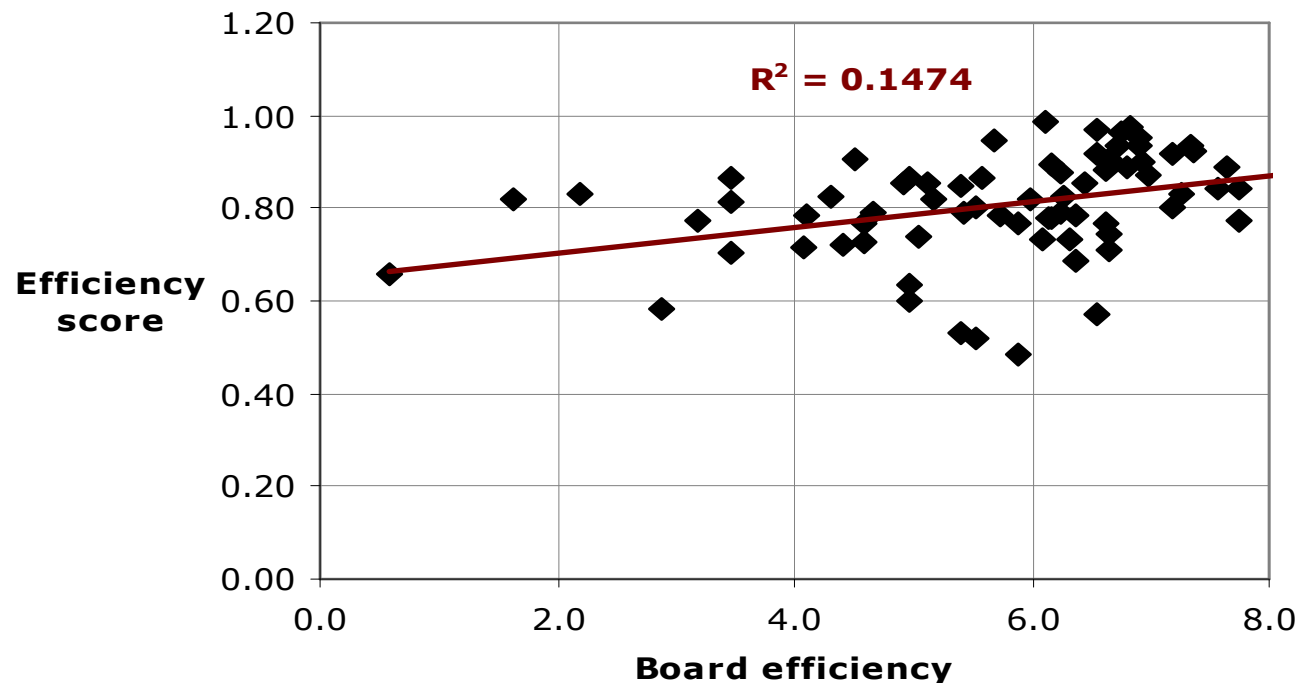


# Size does not (significantly) matter

Positive effect of the economy of scale and  
negative one – of rising transaction costs in  
collective action – cancel off each other.

# Role of governance

HOA performance and quality of governance are strongly and statistically significantly correlated with each other.



# Factors of good governance

## Работа правления и социальный капитал

	Работа правления
Специфический социальный капитал	0,652*** (0,0752)
Общий социальный капитал (ожидание помощи от соседей)	0,229 (0,182)
Константа	0,378 (0,698)
$R^2$	0,524
Число наблюдений	75

# **Social capital and accountable governance**

Technical civic competence has a strong and highly significant impact on board performance.

Generic social capital has no significant impact on quality of HOA governance

# Vertical channel at work

## Эффективность ТСЖ, социальный капитал и работа правления

	Оценки эффективности
Специфический социальный капитал	0,043*** (0,013)
Работа правления (остатки регрессии)	0,017 (0,020)
Константа	0,563*** (0,076)
$R^2$	0,139
Число наблюдений	79

# **No *dues ex machina* in HOA governance**

If technical civic competence is entered in regression *alongside* board performance score, the latter loses its significance “in the shadow of social capital”.

It would be unrealistic to expect that a lack of tenants’ capacity to operate HOA could be made up by good governance *dues ex machina* – without social capital at the grassroots there is no force for such substitution.

# **Generic social capital and unaccountable governance**

For HOAs with governance efficiency below median generic social capital becomes significant for HOA performance, as tenants are resorting to more primordial alternatives.

For HOAs with governance efficiency above the median well-functioning board idles generic social capital, and only technical civic competence matters.

# Contribution of management companies: revealed preferences refuted

Вклад управляющих компаний в эффективность ТСЖ

	Оценки эффективности
Наличие управляющей компании	-0,0838*** (0,0281)
Возраст дома	-0,003430*** (0,000678)
Размер дома	0,0000490* (0,0000282)
Специфический социальный капитал	0,0432*** (0,0137)
Общий социальный капитал (ожидание помощи от соседей)	0,0511* (0,0267)
Город	-0,0130 (0,0284)
Константа	0,471*** (0,122)
$R^2$	0,510
Число наблюдений	72



# Management companies as a capture tool

Out of 52 HOAs in the sample that were established by tenants, only 6 (12%) retain services of management companies

Out of 29 HOAs pre-set by developers or municipal governments, 11 (38%) work with management companies

Russia experiences a “twin deficit” of capacity for self-organization and competition among housing maintenance providers

# Conclusions

Without proper social capital, institutions for collective governance in residential housing could turn into non-performing empty shells prone to capture.

HOA governance is as good as tenants' social capital. Hopes for good governance when society is passive find no support in data

Design of institutions to govern urban commons requires flexibility and attention to social conditions and capacities