# MEASURING INSTITUTIONAL CHANGE THROUGH THE ROLE OF THE STATE IN THE RUSSIAN BANKING INDUSTRY

**ANDREI VERNIKOV**
**INSTITUTE OF ECONOMICS, RUSSIAN ACADEMY OF SCIENCES, MOSCOW**

EAEPE Conference (Budapest, October 21, 2017)

# Motivation and objective



- Institutions are understood here as humanly devised constraints (North, 1990), rules of conduct that make economic agents act in a certain way.
- Motivated by literature on:
  - Institutional change and its measurement (Veblen; North; Voigt; Buchanan et al.; Polterovich; Kleiner; Kirdina)
  - Government banking (LaPorta et al. 2002; Sapienza 2004; Dinç 2005; Fungáčová et al. 2013; Berkowitz et al. 2014; Carvalho 2014; Bertay et al. 2015).
- Objective: To test a set of metrics reflecting ownership change and institutional change (if any)
- Case: Commercial banking sector in Russia
- Contribution to the literature:
  - Differentiate between structural change and institutional change
  - Suggest novel measures of institutional change.

# How to gauge institutional change?

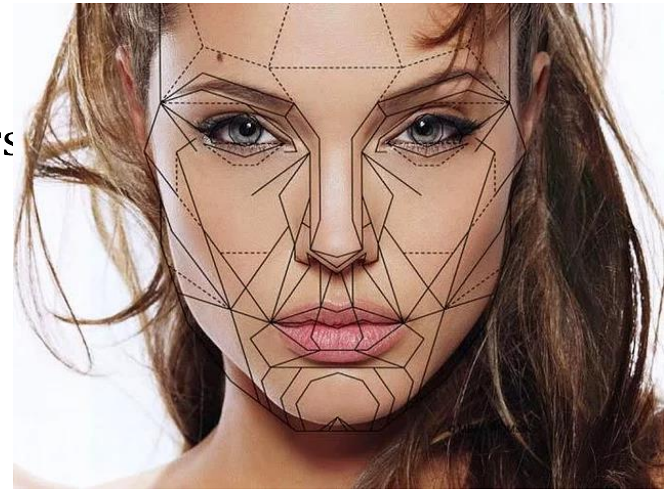


- Resistance to measurement
  - Voigt S. How (not) to measure institutions // *J. Inst. Economics* (2013)
  - Baranov A., Malkov E., Polischuk L. et al. How (not) to measure Russian regional institutions // *Russian J. of Economics* (2015).
- Can institutional change be proxied by structural change?
  - Institutional change reflects a shift in the relative power of institutions which, in turn, depends on the number of economic agents who abide by it and on the volume of resources (land, material or financial) that are used accordingly (Kirdina, 2013).
  - One can assume that a changing relative importance of different types of agents signals a change in the relative power of respective institutions. Public ownership is associated with institutions of a centralized redistributive economy; whereas private ownership -- with institutions of market economy.
  - But: The share of public banks can precede or follow institutional change in the banking industry (the case of China vs. CEE).

# Alternative way of gauging institutional change



- Image recognition and detection
  - Detect a combination of features and parameters presumably inherent to a particular qualitative phenomenon
  - Look for a qualitatively different banking industry
  - No regression analysis
  - No reliance on expert opinion about the ‘quality’ of institutions in Russia. No indices, scores, ratings nor rankings. No ‘transition indicators’ (EBRD 2001).



- Data
  - Period: 1991-2016
  - No. of observations: 408
  - Data sources: Central Band of Russia, Rosstat, own calculations

# Indicators of structural change in the Russian banking sector



- Number of banks with a valid license
- Number of state-controlled banks (where > 50% of equity belongs to public entities)
- Share of state-controlled banks in the total number
- Share of state-controlled banks in total assets of the banking sector
- Share of the core state-controlled banks in total assets of the banking sector
- Share of state-controlled banks in total lending to non-financial companies
- Share of core state-controlled banks in total lending to non-financial companies
- Share of state-controlled banks in total household deposits
- Share of the major state-controlled bank (Sberbank) in total household deposits

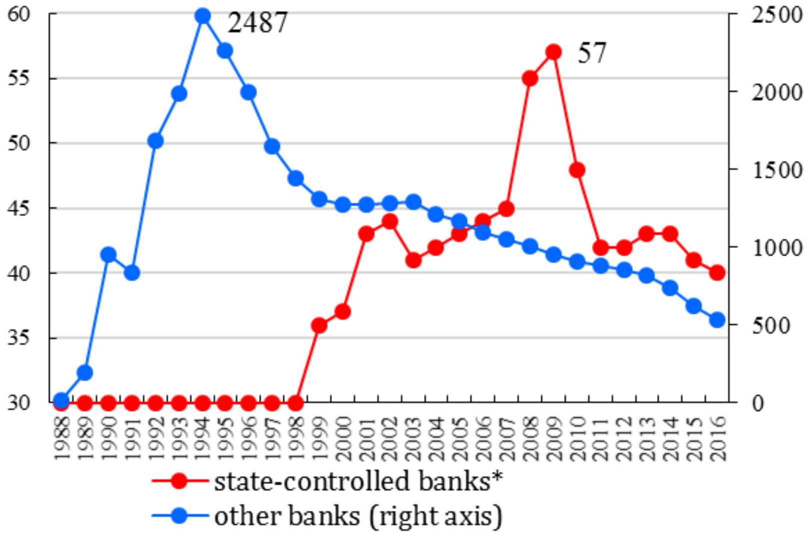
# Indicators of institutional change in the Russian banking sector

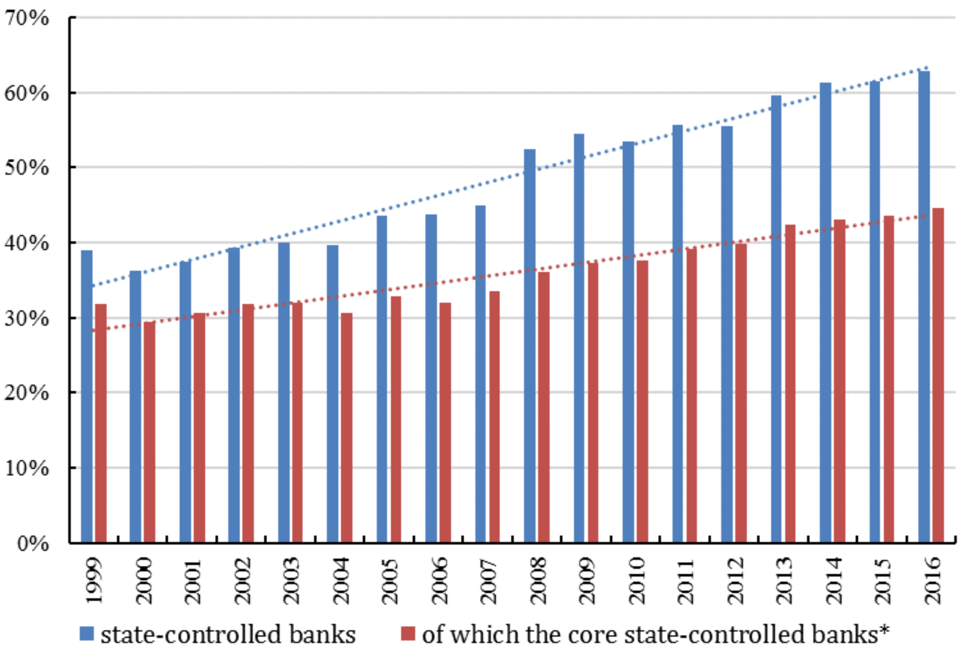


- Loans-to-deposits ratio (LDR)
- Banks' propensity to lend (LTA)
- Banks' propensity to lend long-term
- Return on equity (ROAE) of banks
- Return on equity (ROAE) of banks except Sberbank
- Return on equity (ROAE) of Sberbank
- Share of bank loans within all sources of investment into fixed assets
- Share of banks in the total amount of profit earned by the corporate sector
- Share of banks except Sberbank in the total amount of profit earned by the corporate sector
- Return on assets (ROAA) of banks compared to non-financial companies
- Bank wage handicap

# Public banks






* pre-1998 data are unavailable

* Sberbank of Russia, VTB, and Rosselkhozbank, without subsidiaries

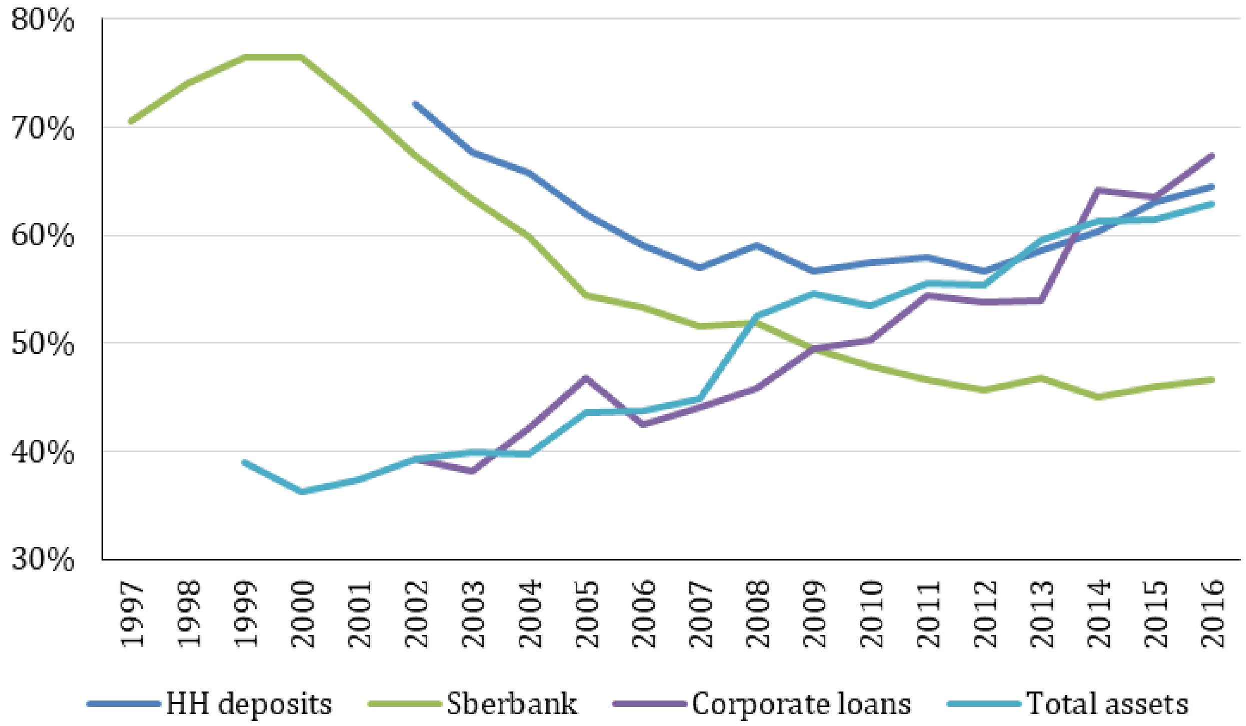
**A.** The number of state-controlled banks in Russia

**B.** The share of state-controlled banks in total assets

Source: author’s calculation from data from CBR, RIA Rating Agency [http://riarating.ru/] and [www.kuap.ru]

# The market share of public banks

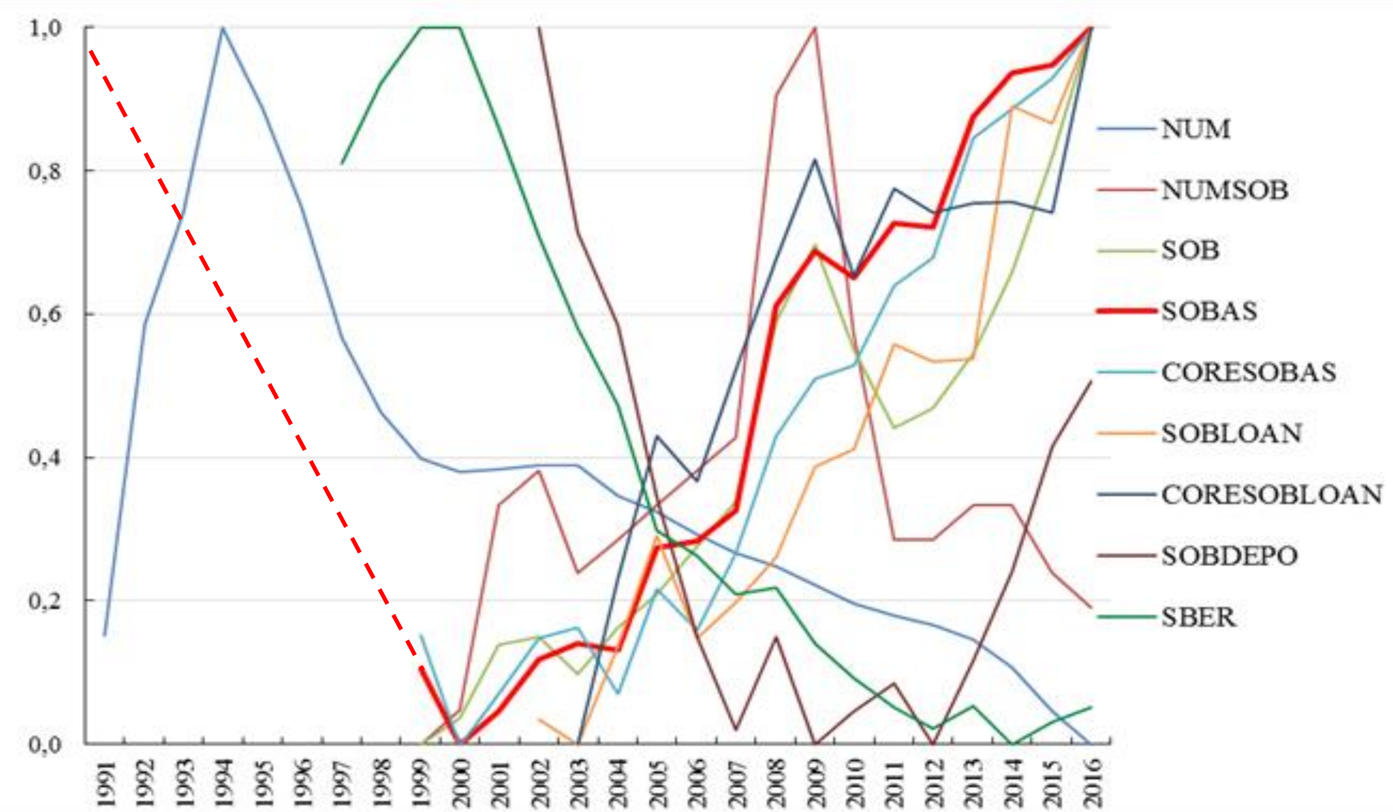





The effects of deposit insurance are gradually waning

# Ownership change

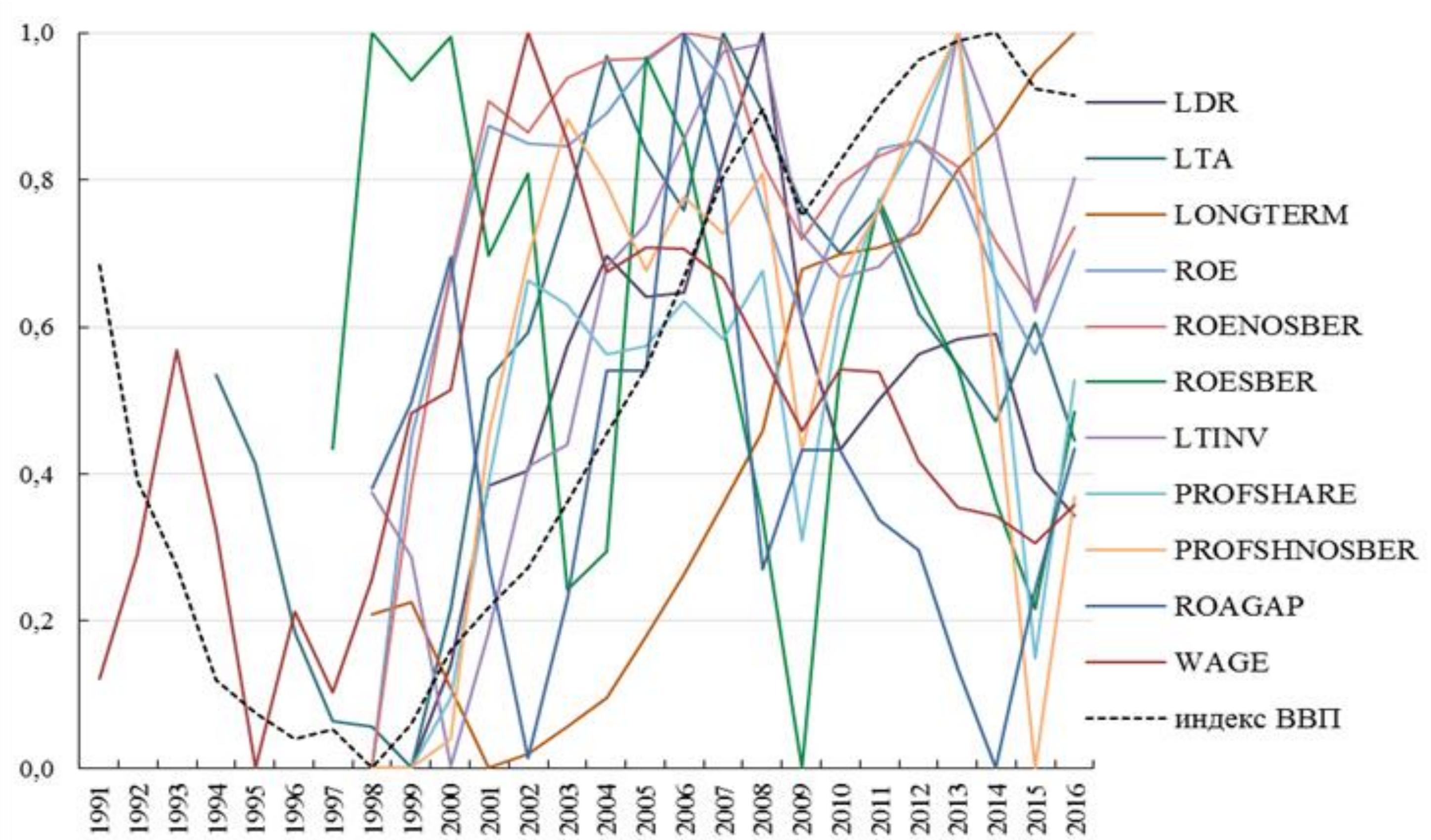





The share of public banks in total assets of the banking sector (SOBAS) is a proxy for ownership change

# Institutional change (?)





# Ownership change Vs. Institutional change



## Indicators that evolved +/- consistently with SOBAS*

- LTA – loans-to assets (banks' propensity to lend)
- LONGTERM – banks' propensity to lend long-term
- ROE – return on average equity
- ROENOSBER – return on average equity (without Sberbank)
- LTINV – share of bank loans within all sources of investment into fixed assets
- WAGE - bank wage handicap

## Indicators that evolved inconsistently with SOBAS*

- LDR - Loans-to-deposits ratio
- PROFIT - share of banks in the total amount of profit earned by the corporate sector
- ROAGAP - return on average assets of banks compared to non-financial companies

* SOBAS - share of state-controlled banks in total assets of the banking sector

# Correlation between indicators

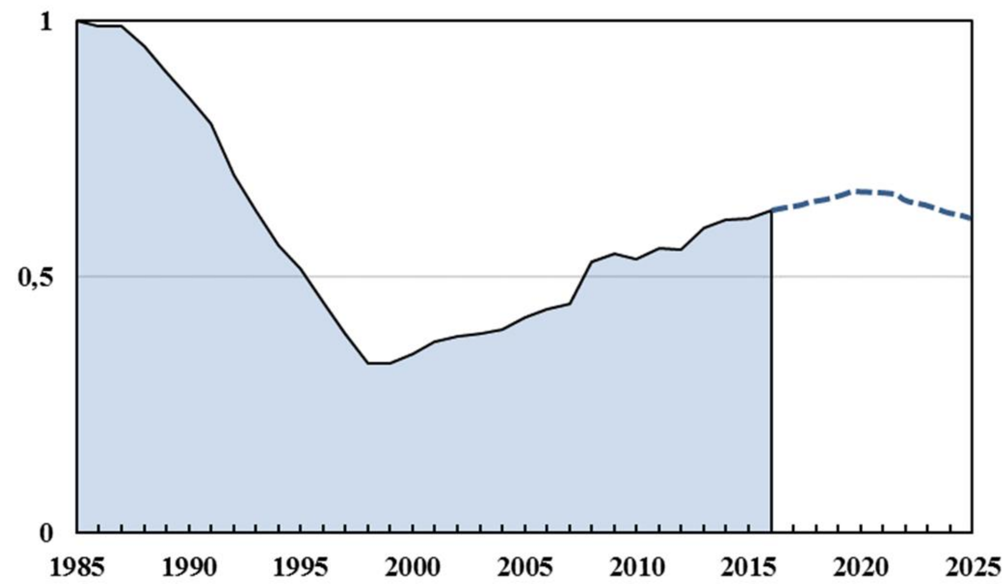


| | NUM | NUMSOB | SOB | SOBAS | CORESOBAS | SOBLOAN | CORESOBLOAN | SOBDEPO | SBER | LDR | LTA | LONGTERM | ROE | ROENOSBER | ROESBER | LTINV | PROFIT | PROFITNOSBER | ROAGAP | WAGE | GDP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUM | 1,00 | | | | | | | | | | | | | | | | | | | | |
| NUMSOB | -0,20 | 1,00 | | | | | | | | | | | | | | | | | | | |
| SOB | **-0,95** | 0,43 | 1,00 | | | | | | | | | | | | | | | | | | |
| SOBAS | **-0,97** | 0,34 | **0,94** | 1,00 | | | | | | | | | | | | | | | | | |
| CORESOBAS | **-0,97** | 0,19 | **0,92** | **0,98** | 1,00 | | | | | | | | | | | | | | | | |
| SOBLOAN | **-0,95** | -0,04 | **0,84** | **0,92** | **0,94** | 1,00 | | | | | | | | | | | | | | | |
| CORESOBLOAN | **-0,88** | 0,27 | **0,89** | **0,91** | **0,85** | 0,77 | 1,00 | | | | | | | | | | | | | | |
| SOBDEPO | 0,57 | -0,42 | -0,56 | -0,58 | -0,45 | -0,42 | **-0,75** | 1,00 | | | | | | | | | | | | | |
| SBER | **0,86** | -0,47 | **-0,82** | **-0,88** | **-0,81** | **-0,84** | **-0,92** | **0,84** | 1,00 | | | | | | | | | | | | |
| LDR | -0,13 | 0,66 | 0,23 | 0,21 | 0,08 | -0,31 | -0,33 | -0,30 | -0,54 | 1,00 | | | | | | | | | | | |
| LTA | -0,36 | 0,57 | 0,13 | 0,06 | -0,05 | -0,60 | -0,58 | -0,09 | -0,61 | **0,88** | 1,00 | | | | | | | | | | |
| LONGTERM | **-0,95** | 0,25 | **0,92** | **0,98** | **0,97** | **0,92** | **0,92** | -0,64 | **-0,82** | 0,07 | 0,04 | 1,00 | | | | | | | | | |
| ROE | -0,15 | 0,07 | -0,28 | -0,29 | -0,33 | -0,66 | -0,60 | 0,10 | -0,36 | 0,57 | **0,75** | -0,10 | 1,00 | | | | | | | | |
| ROENOSBER | -0,19 | 0,22 | -0,17 | -0,22 | -0,28 | **-0,78** | **-0,74** | 0,16 | -0,41 | 0,68 | **0,81** | -0,07 | 0,99 | 1,00 | | | | | | | |
| ROESBER | 0,36 | -0,56 | -0,56 | -0,47 | -0,43 | -0,21 | -0,05 | 0,02 | 0,47 | -0,43 | -0,39 | -0,44 | -0,12 | -0,26 | 1,00 | | | | | | |
| LTINV | -0,62 | 0,53 | 0,61 | 0,64 | 0,55 | 0,27 | 0,42 | -0,73 | **-0,85** | **0,76** | 0,61 | 0,58 | 0,35 | 0,38 | -0,42 | 1,00 | | | | | |
| PROFIT | -0,38 | 0,28 | 0,21 | 0,34 | 0,30 | -0,12 | -0,02 | -0,15 | -0,64 | 0,61 | 0,62 | 0,27 | 0,70 | 0,70 | -0,21 | 0,66 | 1,00 | | | | |
| PROFITNOSBER | -0,13 | 0,35 | -0,03 | 0,07 | 0,00 | -0,53 | -0,43 | -0,05 | -0,49 | 0,72 | 0,74 | 0,02 | **0,75** | **0,76** | -0,23 | 0,60 | **0,94** | 1,00 | | | |
| ROAGAP | 0,22 | -0,12 | -0,27 | -0,37 | -0,44 | -0,39 | -0,32 | -0,36 | 0,14 | 0,03 | 0,14 | -0,27 | 0,18 | 0,14 | 0,33 | 0,01 | -0,25 | -0,10 | 1,00 | | |
| WAGE | -0,23 | -0,03 | -0,70 | **-0,77** | **-0,78** | **-0,89** | **-0,88** | 0,66 | 0,16 | 0,14 | 0,56 | -0,72 | 0,63 | 0,62 | 0,17 | -0,21 | 0,24 | 0,43 | 0,10 | 1,00 | |
| GDP | **-0,81** | 0,46 | **0,85** | **0,91** | **0,84** | **0,81** | **0,89** | **-0,81** | **-0,97** | 0,54 | 0,62 | **0,84** | 0,38 | 0,42 | -0,44 | **0,83** | 0,65 | 0,48 | -0,16 | 0,10 | 1,00 |

# Findings



- Structural change reversed its direction after 1998. Crisis was a trigger, but there were deep systemic factors as well.




- One cannot recognize the image of a banking sector immanent to a centralized state-controlled economy. The mode of operation of the banking industry remains largely that of a market-like economy:
  - Lending does not immediately follow political guidelines;
  - Public banks pretend to be ‘ordinary market players’, pursue financial efficiency and disregard social priorities. Is it a good thing or a bad thing?

# Implications



- Research implications:
  - The form of ownership is an unreliable proxy for institutional change because ownership change can be misaligned with the mode of functioning of the banking sector;
  - Additional proxies of institutional change are warranted. Ample room for meso-economic analysis.
- Policy implications:
  - Corporate governance in public banks must be improved in order to restrain managerial opportunism and to align bank activity with national objectives and priorities;
  - second-tier public banks must be sorted out.

# Thank you!

**Andrei Vernikov**
vernikov@inecon.ru

Full paper:
Vernikov A. Measuring institutional change: the case of the Russian banking industry // *Journal of Institutional Studies*. 2017. Vol.9. No.2. P.119-136.
DOI 10.17835/2076-6297.2017.9.2.119-136. http://hjournal.Ru/files/JIS_9_2/JIS_9.2.Pdf

In Russian:
Верников А.В. Структурные или институциональные сдвиги? Попытка измерения на примере банковского сектора // MPRA Working Paper No. 79978 (2017). https://mpra.ub.uni-muenchen.de/79978/