Restricting CEO Pay Backfires: Evidence from China

Kee-Hong Bae, Schulich School of Business, York University
Zhaoran Gong, Lingnan University
Wilson H.S. Tong, The Hong Kong Polytechnic University

CEO–worker pay gap

Should CEO pay be restricted?

- YES
  - Executive pay is excessive and unjustified by performance, and thus should be restricted.
  - Bebchuk and Fried 2003, 2004; Bebchuk 2007
- No
  - Pay limit causes unintended consequences and may create more problems in CEO pay than it solves.
  - Jensen and Murphy 1990; Kaplan 2007; Murphy and Jensen 2017

Evidence

- Little empirical evidence that examines the effect of directly limiting CEO pay.

Literature on pay restriction

- Dittmann, Maug and Zhang (2011)
- Thanassoulis (2012)
- Cadman, Carter and Lynch (2012)
- Cebon and Hermalin (2015)
- Dhole, Khumawala, Mishra and Ranasinghe (2015)
- Abudy, Amiram, Rozenbaum and Shust (2019)

2009 pay regulation in China

- Guideline to Further Regulate the Executive Compensation in Central State-Owned Enterprises (CSOEs)
  - September 16, 2009
  - Endorsed by the State Council
  - Jointly issued by six departments
    - The Ministry of Human Resources and Social Security
    - Ministry of Finance
    - State-owned Assets Supervision and Administration Commission
    - National Audit Office
    - the Ministry of Supervision
    - the Organization Department of the Communist Party of China

Google Trend

Ma Mingzhe's pay

- A huge public outcry triggered by the disclosure of CEO compensation by Ping An Insurance in March 2008.
- The CEO pay was 2,751 times the average national worker pay of the Chinese firms in 2007.

The Guideline

- The policy was issued as a comprehensive guidance on executive compensation.

- However, the regulation was to primarily restrict executive compensation by setting a cap on the pay gap ratio.
  - Total executive compensation should be ten to twelve times that of employees' compensation.
  - The exact formula was not known to the public.

Advantages

- Exogenous to firm performance
  - The endogeneity issue regarding CEO pay and firm performance is reduced.
- Applies to only centrally administered state-owned enterprises (CSOEs) but not to other firms.
  - Enables difference-in-difference (DiD) tests

Questions

- Does pay restriction reduce CEO pay?
- How does pay restriction affect CEO incentives?
- How does pay restriction affect firm performance?

Sample

- All companies listed on the Shanghai and Shenzhen Stock Exchange

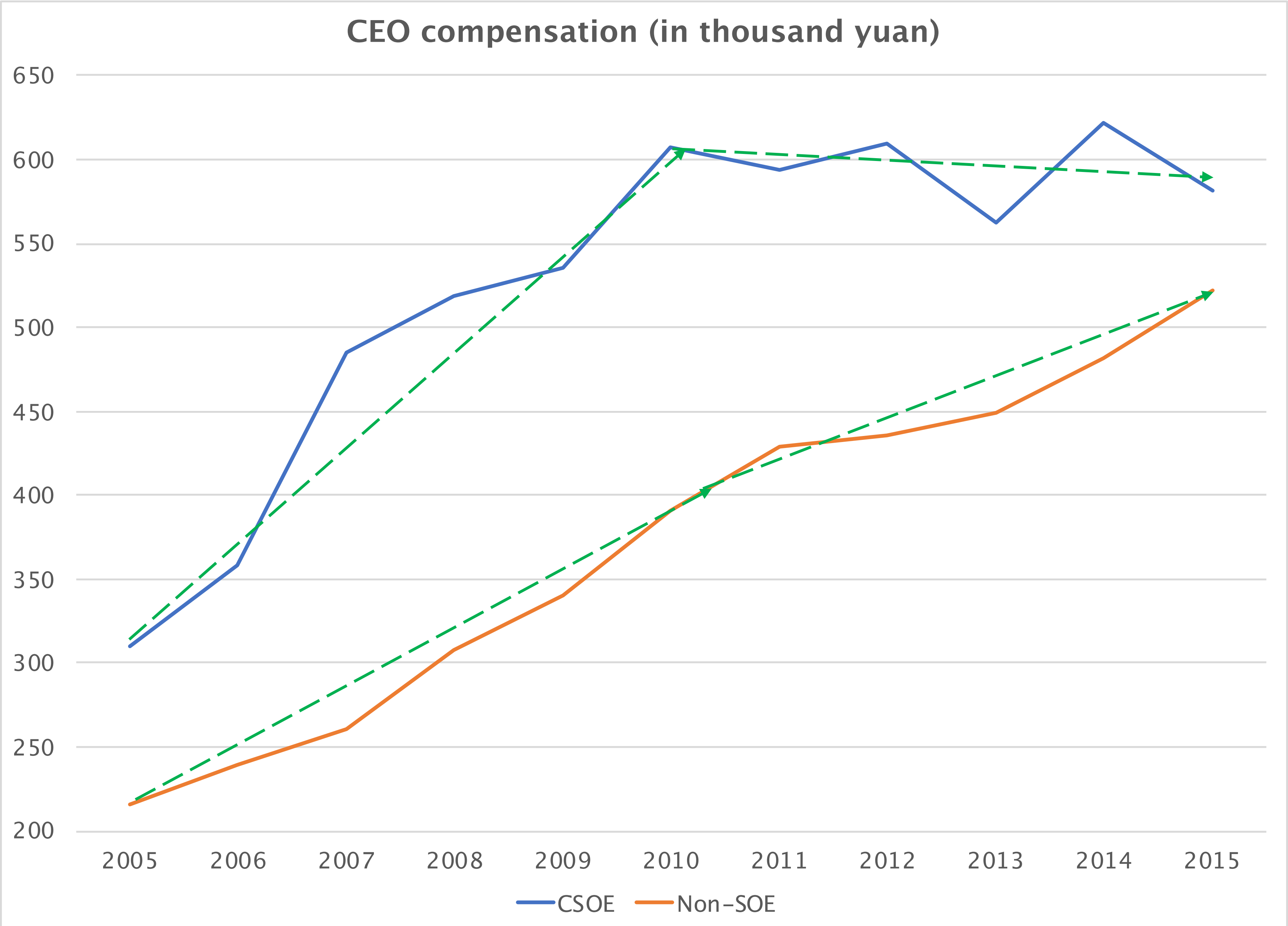
- China Securities Market and Accounting Research (CSMAR) database

- The sample period is from 2005 to 2015.

Outcome variable: CEO pay

- CEO compensation= salary + bonus

- We do not include incentive compensation.
  - Stock options have only been allowed since 2007 and require approval from the CSRC.
  - Very few firms adopt them (Firth, Fung and Rui 2006; Firth, Leung and Rui 2010).



CEO compensation (in thousand yuan)
650
600
550
500
450
400
350
300
250
200
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
CSOE
Non-SOE

Outcome variable: Perk

- Perk = the sum of six types of expenses
  - traveling, business entertainment, overseas training, board meeting, company car, and meeting expenses

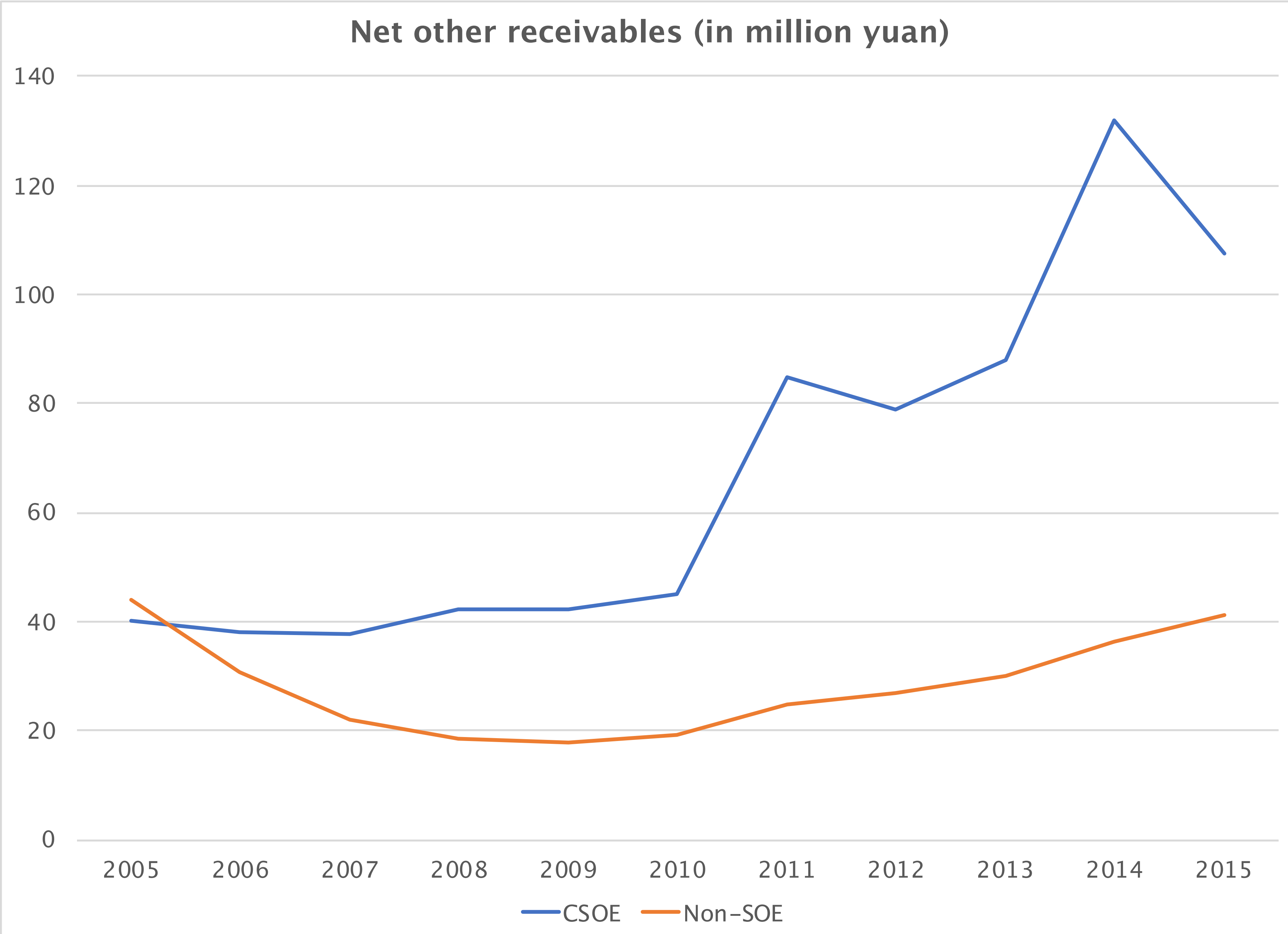
- Perk is often granted as allowances and unused part could be even pocketed by executives themselves (Firth, Leung and Rui 2010).


Perks per paid executive (in thousand yuan)
3000
2500
2000
1500
1000
500
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
CSOE
Non-SOE

Outcome variable: Tunneling

- Tunneling = expropriation of firm resources to benefit insiders
  - Johnson, La Porta, Lopez-de-Silanes, Shleifer 2000
  - Bae, Kang, and Kim 2002

- Net other receivables
  - intercorporate loans by controlling shareholders to siphon funds from firms.
  - Jiang, Lee and Yue 2010; Busaba, Guo, Sun and Yu 2015; Liu, Luo and Tian 2015; Liu, Miletkov, Wei and Yang 2015; Li, Liu, Ni and Ye 2017



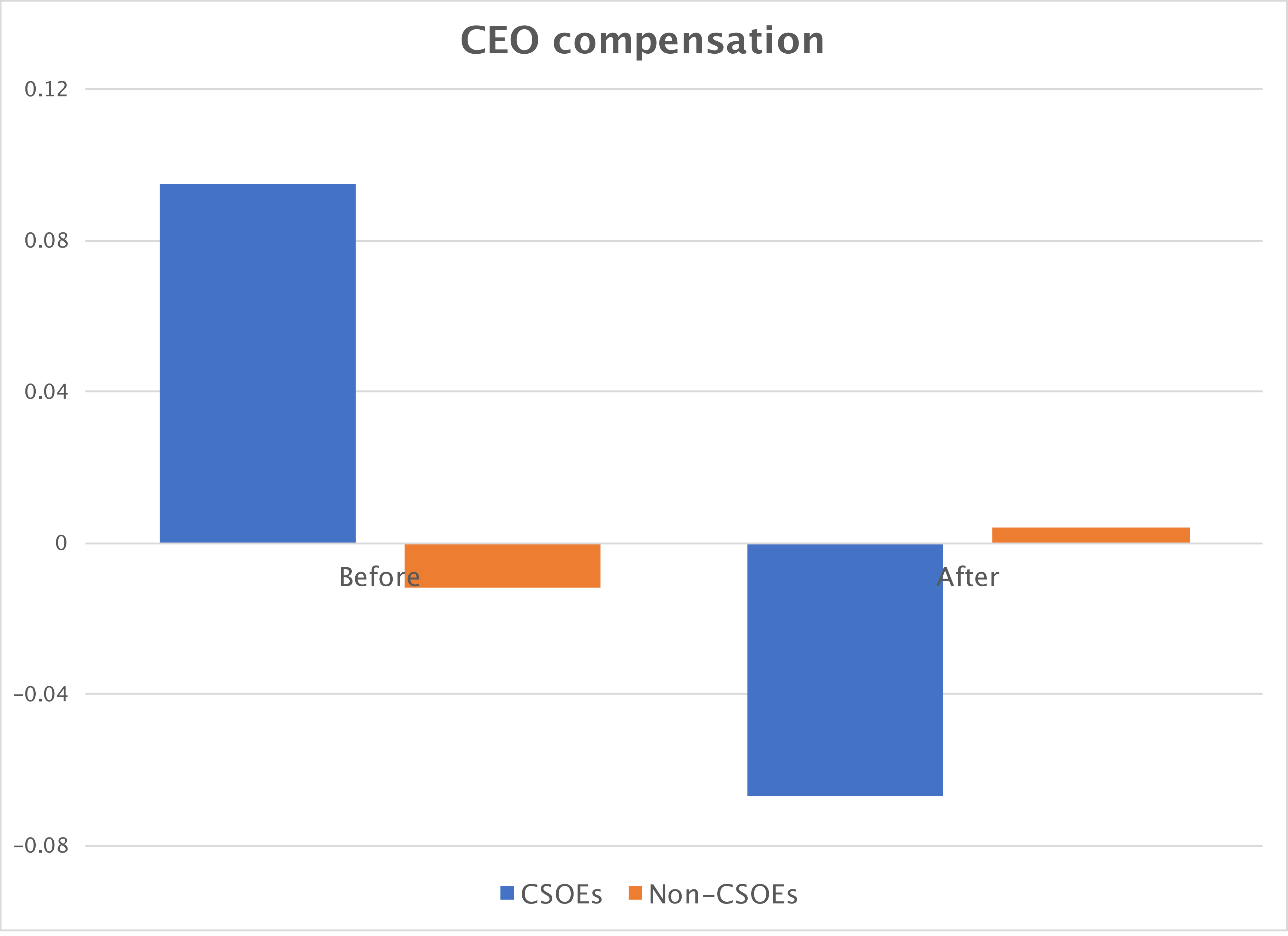
Net other receivables (in million yuan)
140
120
100
80
60
40
20
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
CSOE
Non-SOE

Univariate DiD tests

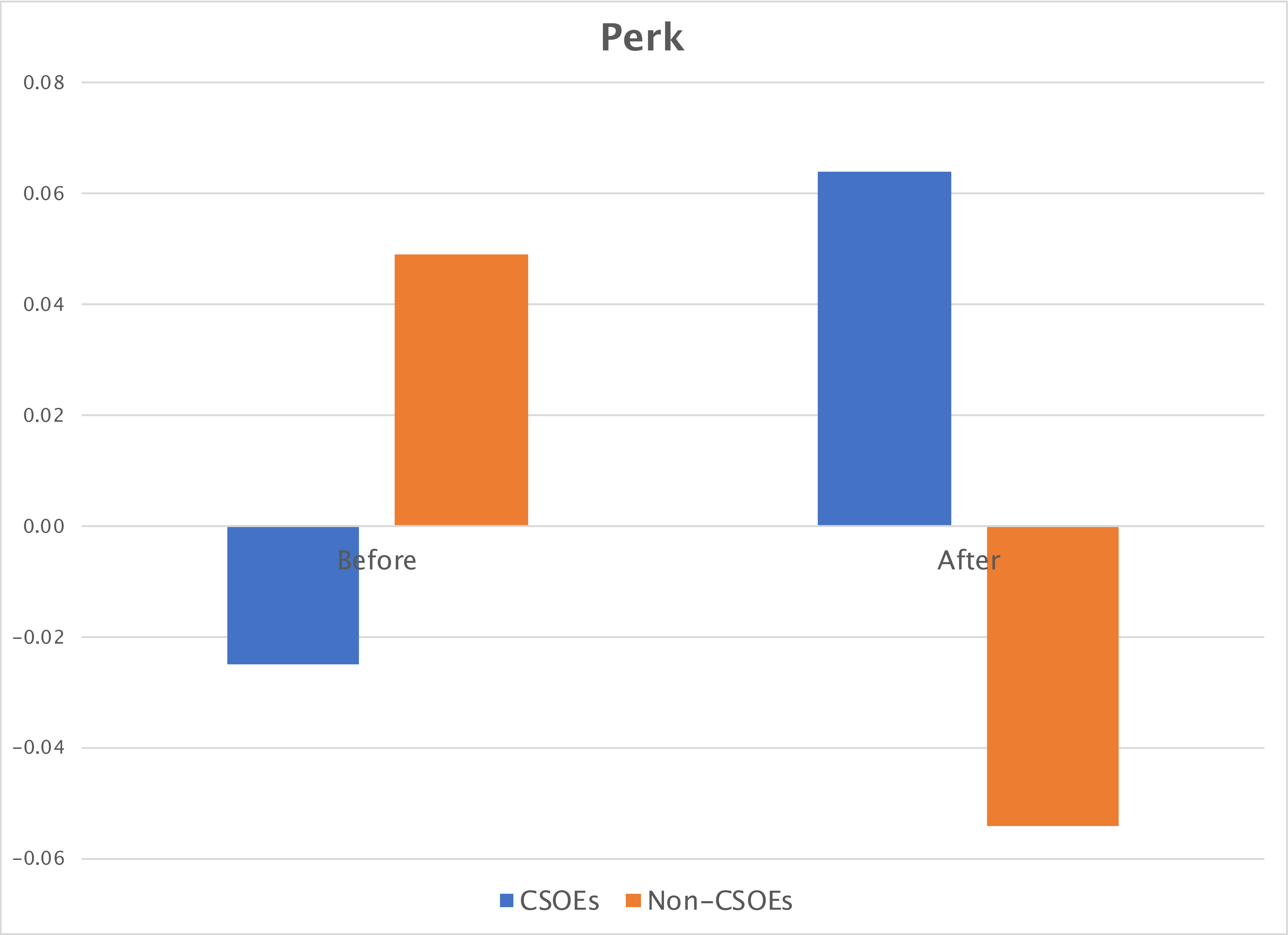
- We run the regression of outcome variable on firm and year fixed effects.

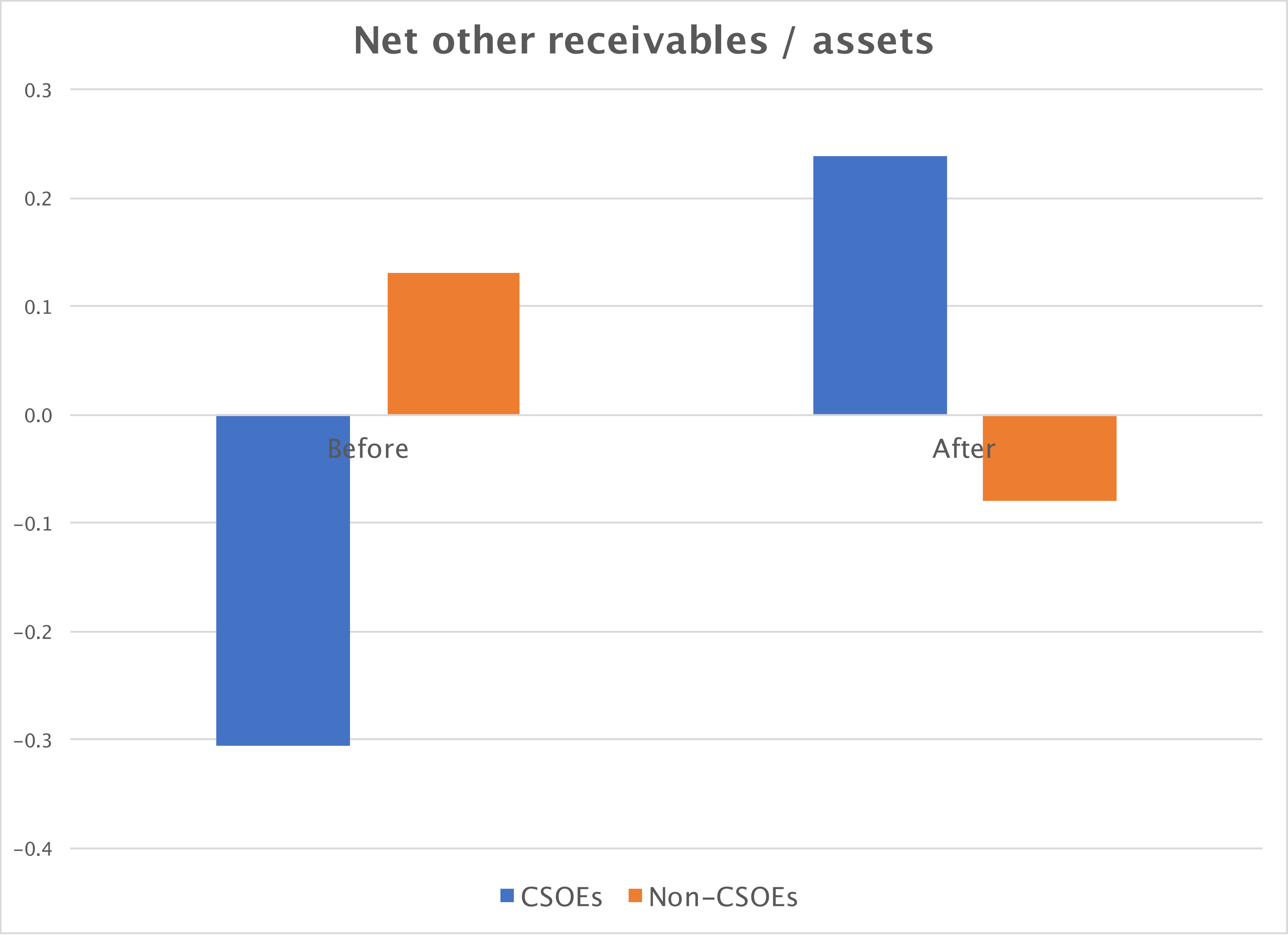
- We compute average residual compensation during the sub-periods of 2005-2008 and 2010-2015, respectively, for each firm.

- We then conduct DiD test before and after regulation between CSOE and non-CSOE.



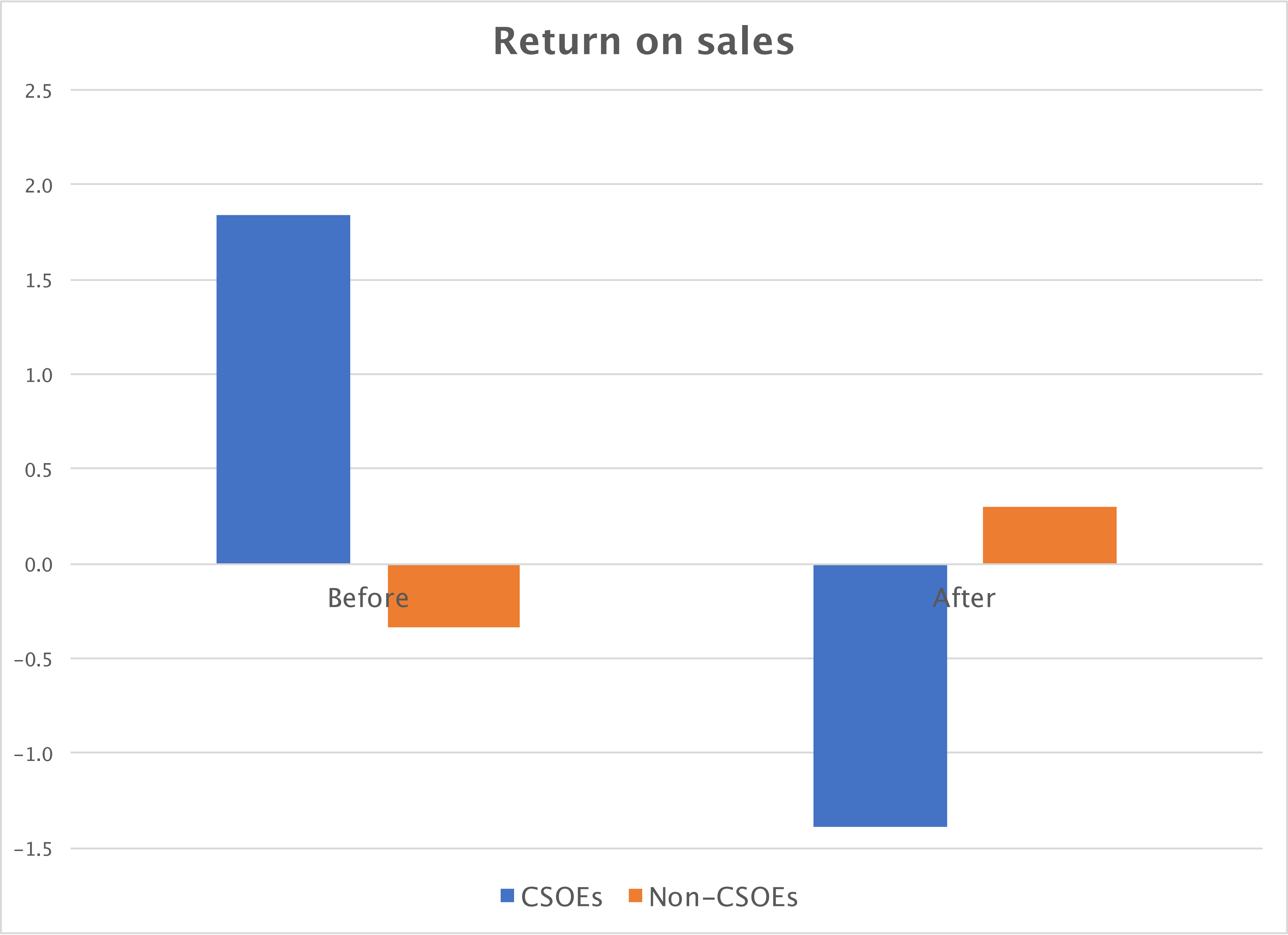
CEO compensation
0.12
0.08
0.04
0
−0.04
−0.08
Before
After
CSOEs
Non-CSOEs


Perk
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
Before
After
CSOEs
Non-CSOEs


Net other receivables / assets
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
Before
After
CSOEs
Non-CSOEs

Outcome variable: Performance

- Return on sales (assets) = operating profits over sales (assets).
  - Subject to less managerial discretion than net profit (Firth, Fung and Rui 2006).


Return on sales
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
Before
After
CSOEs
Non-CSOEs

Regulation effect or crisis effect?

- Crisis effect
  - CSOEs suffered more from the global crisis of 2008.
  - The performance decline led to pay cut.
  - The pay cut in turn encouraged CEOs to consume more perks and tunnel more resources.

- Our findings are consistent with crisis-caused performance declines by CSOEs.

Tests of crisis effect

- If crisis-caused performance drops incentivize managers to tunnel more firm resources, we would expect to see a more significant increase in perks and net other receivables from the CSOEs with poorer performance.

Variables	Log(CEO compensation)		Log(perks / number of paid executives)		Log(net other receivables)	
	(1)	(2)	(3)	(4)	(5)	(6)
D_CSOE×After2008	-0.011		-0.016		0.093	
	(-0.308)		(-0.237)		(1.629)	
D_CSOE×After2009	-0.168***		0.211**		0.162**	
	(-4.282)		(3.008)		(2.580)	
Performance_High×After2008		-0.044		0.147		0.252**
		(-0.585)		(1.236)		(2.327)
Performance_Low×After2008		-0.260**		0.155		0.210
		(-3.060)		(1.648)		(1.588)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	12421	12421	817	817	11541	11541
Adjusted R^2	0.670	0.670	0.903	0.902	0.756	0.756
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Regulation effect vs. crisis effect

- Performance declines caused by financial crisis do not appear to cause change in perk consumption and tunneling.

- Rather, pay cut causes increase in perk and tunneling, which in turn destroys firm performance.

Robustness tests

- Tests of parallel trend assumption
- Alternative control sample of LSOE
- Size-year or industry-year fixed effects
- Top 3 executive compensation
- Entertainment and travel costs as a proxy for perk consumption
- Related party transactions as a proxy for tunneling
- Exclude financial firms
- CEO turnovers

Conclusion

- Edmans, Gabaix and Jenter (2017)
  - "Social pressure to lower pay ratios is likely to induce unintended consequences that will make CEO pay less sensitive to firm performance and reduce shareholder value."
- We provide supporting evidence.
  - CEO pay limit backfires.
  - CEOs with pay cut consume more perks and tunnel more firm resources, which in turn hurt firm performance.

Limitation

- Our findings using CSOEs may not be generalizable to other countries, given the unique political and economic system in China.

- Abudy, Amiram, Rozenbaum and Shust (2019)
  - Conduct event study on Israeli financial firms subject to pay limit.
  - Document positive market reaction.