Incentivization or expropriation? All ESOPs are not created equal

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Research question

- Why do Chinese listed firms adopt Employee Stock Ownership Plans (ESOPs)?
  - Firms claim to adopt ESOPs to improve employee incentives;
  - Other motives identified by literature: tax benefit, takeover defense, cash conservation;
  - No previous study has identified tunneling risk for ESOPs.
- Tunneling: controlling shareholders expropriating minority shareholders
- But, it is costly to tunnel by swindling employees.

Could controllers tunnel through ESOPs in China?

- Chinese A-share market
  - Concentrated ownership and weak investor protection
  - Tight control on IPOs, especially before June, 2019 (opening of the STAR Market for science and technology firms)
  - Valuable “shells”, or Chinese A shares with zero or minimal intrinsic value
- Controllers of empty shells
  - Divert corporate assets through intercorporate loans and other channels
  - Then, manage earnings upward to inflate firm valuation
  - Finally, announce ESOP adoption and cash out when stock prices are high

What kind of controllers are more likely to tunnel?

- Why do firms ever become empty shells in China?
- Wedge between controllers' $R_{tunneling}$(net return) & $R_{investing}$ (net return)
  - Weak investor protection: high $R_{tunneling}$;
  - High leverage: low firm growth rate and $R_{investing}$;
  - Previous tunneling: low firm growth rate and $R_{investing}$;
  - High CC_separation: high $R_{tunneling}$ and low $R_{investing}$;
  - Low salary: more likely to be in low-growth industries-low $R_{investing}$.

How to identify controllers of empty shells and healthy firms?

- Genuine incentivization motive: higher likelihood of productivity increase after ESOP adoption
  - Productivity measure: TFP, DEA efficiency
- Tunneling motives: employees and minority investors lose, controllers gain
  - In 1-3 years after ESOP adoption, productivity and market cap decreases, financial distress risk increases
    - Shareholder value for 2 years: BHAR, delisting risk
  - Within weeks after ESOP adoption announcements, stock prices increase and the controllers sell their shares in the firms soon afterward
    - Short-term stock performance: CAR
    - Controllers' likelihood of equity sales within 1 month of ESOP adoption announcements

Incentivization or expropriation

- Explanatory variables
  - DID test: PostESOP
  - Tunneling proxies: CC_separation, Other receivables/assets, Accounting accruals, Non-recur income/profits, Leverage
  - Incentivization proxies: Salary_Nonmgt, Salary/employee_nonmgt
  - Other tunneling tactics: ESOP_Leverage, ESOP_participation, Log(ESOP_participants)
  - Why employees get swindled: Sentiment
- Control variables
  - Year, Log(age), Log(size), Log(sales), Capital/Labor, R&D/Sales, Ad/Sales, Industry

Data

- Sample ESOPs: adopted from July 10, 2014, to April 27, 2018;
- Sample: 559 ESOP-adopting firms and 1523 control firms
  - ESOP and financial data from the Wind Financial Terminal, and firm ownership data from the CSMAR database;
  - Exclude financial firms, firms listed after 2011/12/31, those that issued B- or H-shares;
  - Control firms: from Propensity Score Matching (PSM).
- Observation period: 2 years before and 2 years after ESOP adoption announcements

Main findings

- ESOP adoptions improve the productivity and shareholder value of Chinese listed firms with high salaries;
- ESOP adoption negatively affects the performance of firms with high leverage, intercorporate loans, and separation of ownership and control, resulting in high delisting risk;
  - These firms tend to be smaller and announce ESOP adoption when market sentiment is high;
  - Their controlling shareholders tend to use earnings management, leveraged ESOPs, and ESOPs with high participation rates to inflate the stock prices and then cash out soon after ESOP adoption announcements, siphoning billions of RMB from minority investors.

How does ESOP adoption affect productivity?

	I	II	III	IV	V	VI	VII	VIII
Dependent variable	DEA efficiency				TFP			
PostESOP	**-0.013***	-0.011	0.019	-0.021**	**-0.136****	-0.095	-0.025	-0.148**
	(0.007)	(0.008)	(0.014)	(0.011)	**(0.061)**	(0.061)	(0.084)	(0.062)
PostESOP× Other receivables/assets		**-0.085**				**-1.822**		
		(0.140)				**(1.556)**		
PostESOP× Leverage			**-0.001****				**-0.002**	
			(0.000)				**(0.002)**	
PostESOP× Salary/employee_nonmgt				**0.067**				
				(0.073)				
PostESOP× Salary_Nonmgt								**0.006****
								(0.002)
Control variables added								

How does ESOP adoption affect productivity?

	I	II	III	IV	V	VI	VII	VIII
Grouping criteria	Salary/employee_nonmgt		Other receivables/assets		CC_separation			
Level	High	Low	High	Low	High	Low	High	Low
PostESOP	**-0.003**	**-0.018****	0.060***	-0.019	**-0.024****	**-0.005**	-0.088	-0.158***
	(0.012)	**(0.009)**	(0.020)	(0.019)	**(0.010)**	**(0.011)**	(0.098)	(0.054)
PostESOP× Leverage			**-0.002*** **	**0.000**				
			(0.000)	**(0.000)**				
PostESOP× Salary_Nonmgt							**-0.026**	**0.005****
							(0.017)	**(0.003)**
Control variables added								

Are investors better off after ESOP adoption?

	I	II	III	IV	V	VI
Dependent variable		BHAR			Delisting risk	
Other receivables/assets×Leverage	-4.538*			90.134*		
	(2.462)			(50.203)		
Salary_Nonmgt		0.002***			-0.000	
		(0.000)			(0.002)	
Accounting accruals×CC_separation			-0.077**			0.872**
			(0.035)			(0.370)
Control variables added						

Are investors better off after ESOP adoption?

- Free-rider problem in numerous-employee firms
  - Numerous employee firms are in the top quartile in terms of the number of employees before ESOP adoption (Threshold: 3835 employees for the sample of ESOP firms v.s. 3939 employees for the sample of ESOP and PSM firms).

	I	II	III	IV
Dependent variable	Delisting risk		BHAR	
Grouping criteria	Salary_Nonmgt		Employees	
Level	High	Low	Numerous	Not-so-numerous
Accounting accruals×CC_separation	**0.624**	**0.952***		
	(0.705)	**(0.512)**		
Salary_Nonmgt			**-0.000**	**0.002*****
			(0.002)	**(0.000)**
Accounting accruals	-3.426	-9.928**		
	(4.774)	(3.887)		
CC_separation	0.040	-0.010		
	(0.031)	(0.033)		
Control variables added				

How do they tunnel?

	I	II	III	IV	V	VI
Dependent variable	CAR				Logit(Equity sales)	
CC_separation×Leverage	0.007*					
	(0.005)					
Leverage×Non-recur income/profits		0.080***				
		(0.030)				
Accounting accruals			0.003***			
			(0.001)			
Private enterprise×ESOP_Leverage				0.164***		
				(0.049)		
ESOP_Leverage×ESOP_participation					1.576**	
					(0.803)	
Log(ESOP_participants)×Non-recur income/profits						0.513*
						(0.305)
Control variables added						

What strategies tunneling controllers use?

- Dependent variable: Log $\frac{Equity\ sales}{1-Equity\ sales}$

	I	II	III	IV	V	VI	VII	VIII
Grouping criteria	Accounting accruals		ESOP_participation		Other receivables/assets		Leverage	
Level	High	Low	High	Low	High	Low	High	Low
CAR	**2.867*** **	**0.459**	**3.712*** **	**0.246**	**2.406*** **	**0.523**	2.652***	2.010**
	(1.022)	**(1.056)**	**(1.019)**	**(0.984)**	**(0.869)**	**(1.197)**	(0.975)	(0.828)
Accounting accruals×CAR							**67.235*** **	**10.146**
							(16.980)	**(19.336)**
Control variables added								

What strategies tunneling controllers use?

	I	II	III	IV	V	VI
Dependent variable	BHAR			DEA efficiency	TFP	Tobin's Q
Accounting accruals	**-0.007*** **			-0.004	0.029***	0.684
	(0.002)			(0.005)	(0.006)	(0.449)
Private enterprise×ESOP_Leverage		**-0.343*** **				
		(0.123)				
ESOP_participation×CC_separation			**-0.009** **			
			(0.004)			
PostESOP×Accounting accruals				**-0.075**		
				(0.062)		
PostESOP×Accounting accruals					**-0.160*** **	**-0.646** **
					(0.058)	**(0.272)**
Control variables added						

Why do tunneling controllers successfully mislead investors and employees?

- Does size matter?

	I	II	III	IV	V
Dependent variable	CAR	Logit(Equity sales)		BHAR	
Employees		Numerous	Not-so-numerous	Numerous	Not-so-numerous
Log(size)	-0.037***				
	(0.011)				
CAR		0.324	1.611**		
		(2.109)	(0.636)		
Accounting accruals				1.660	-0.006***
				(2.042)	(0.002)
Control variables added					

Does size matter?

	I	II	III	IV	V	VI
Dependent variable	DEA efficiency		TFP		Tobin's Q	
Employees	Numerous	Not-so-numerous	Numerous	Not-so-numerous	Numerous	Not-so-numerous
PostESOP	-0.012	-0.016**	-0.136	-0.148**	0.129**	0.143
	(0.010)	(0.007)	(0.088)	(0.068)	(0.063)	(0.111)
Control variables added						

- In contrast to Kim and Ouimet (2014)
  - Dependent variable: industry-adjusted Q

	(1)	(2)	(3)	(4)	(5)	(6)
Firm Employment Sample	All	All	Not-So-Numerous	Numerous	Numerous	Not-So-Numerous
ESOP	0.13***	0.23***	0.21**	0.12	0.09	0.13**
	(0.05)	(0.08)	(0.10)	(0.15)	(0.10)	(0.06)
ESOPg5		–0.17*	–0.20*	0.02		
		(0.09)	(0.11)	(0.17)		

Are employees rational?

Dependent variable: delisting risk

	I	II	III	IV	V	VI	VII	VIII
Grouping criteria	Accounting accruals		Leverage		Salary_Nonmgt		CC_separation	
Level	High	Low	High	Low	High	Low	High	Low
Sentiment×Equity sales	1.004***	0.293	0.826*	-0.223				
	(0.235)	(0.295)	(0.438)	(0.158)				
Sentiment×Other receivables/assets					2.862	3.077**	4.773**	-2.045
					(6.950)	(1.346)	(2.107)	(4.199)
Control variables added								

How much do they tunnel?

- Total abnormal change in market cap:
  - -81.19 billion RMB for firms with high Other receivables/assets and Accounting accruals;
  - -82.83 billion RMB for firms using leveraged ESOPs.
- Cash out by selling stocks
  - 74 controllers sold their shares for a total of 8.78 billion RMB within 1 month of the announcements;
  - Each cashing out 118.66 million RMB on average;
  - Occur in most of the firms that are designated ST/*ST or delisted within 3 years after ESOP adoption.