

The Effect of Unlimiting Bankers' Incentive Pay on Bank's Risk Profile and Value

David De Angelis Hitesh Doshi Mark Liang Vijay Yerramilli

C. T. Bauer College of Business
University of Houston

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Background: **Policy debate** on restricting bankers' incentive pay

Proponents point to the great financial crisis, and blame high-powered compensation packages for excessive risk-taking by bankers.

- These concerns led to new restrictions on bankers' incentive pay.
- **EU's 2013 "bonus cap" regulation** (CRD-IV): *variable-to-fixed pay ratio at EU banks must not exceed 100% (or 200% subject to shareholder approval).*

Opponents argue that restrictions make it harder to attract high-quality talent, thus hurting bank value.

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Opponents argue that restrictions make it harder to attract high-quality talent, thus hurting bank value.

However, **no direct empirical evidence** to support either argument.

Theories of labor market competition for banker talent ([Thanassoulis, 2012](#); [Acharya et al., 2016](#)) also cast doubt on these arguments.

Background: Debates around UK's attempts to repeal the bonus cap

"Let's not have a short memory! We all saw during the crisis that the risks of financial instability were ultimately borne by taxpayers, not only in the UK. We saw for instance that remuneration of bankers set the wrong incentives and allowed excessive risk-taking."- Michel Barnier, EU's Chief Brexit Negotiator

"Decisions about pay are a matter for shareholders and not politicians."- British Bankers Association

"These changes are good for banks, but not for bankers" said one senior dealmaker at a European bank. "Our people don't want compensation to change – fixed allowances have been good to us."

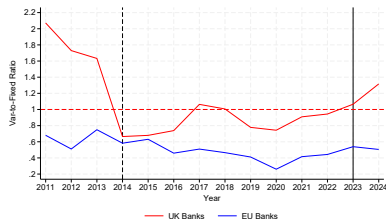
Research Questions:

- Does deregulation of banker compensation lead to higher risk?
- What is the effect on bank shareholder value?
- What is the effect on the compensation structure of bankers?

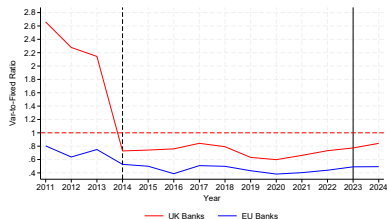
Empirical Strategy: Quasi-natural experiment framework which exploits recent banker pay deregulation in the UK.

- UK's **"bonus cap removal"**: Announced Oct 24, 2023; effective Oct 31, 2023.
- Exogenous and positive shock to the variable pay of UK bankers ("treated"), while EU banks are still subject to the bonus cap ("control").
- Unique, hand-collected data on compensation of *material risk takers* (MRTs) of UK and EU banks at both senior and non-senior management levels.

Pay Regulation and Banks' Variable-to-Fixed Ratio



(a) Senior Managers



(b) Non-senior Managers

- EU's bonus cap was **strictly binding at UK banks** for both senior managers and non-senior managers in 2014; this constraint is removed in 2023.
- **Note:** EU's bonus cap **wasn't binding for EU banks** on average outside of UK!

Preview: Treatment effects of UK's bonus cap removal

No significant increase in credit risk or tail risk of UK banks.

- Contrary to policymakers' fears! Possible that tighter post-crisis banking regulations limit risk-taking by bank executives/traders.

Significant increase in systematic risk (beta) and leverage of UK banks.

- Consistent with differential risk-taking incentives associated with variable pay (Armstrong and Vashishtha, 2012).

Preview: Treatment effects of UK's bonus cap removal

No significant increase in credit risk or tail risk of UK banks, but significant increase in their systematic risk (beta) and leverage.

Surprisingly, **no increase in equity values** of UK banks!

- We attribute this to intensification of labor market competition for UK banks.

Significant increase in per-person pay of senior managers at UK banks, driven by increases in **variable pay** and **variable-to-fixed ratio**.

Persistence in “bonus culture”: UK banks with high variable-to-fixed pay in 2013 revert to high variable-to-fixed pay after UK's bonus cap removal!

Contribution

A clean quasi-natural experiment framework to identify effects of incentive pay on bank risk and shareholder value.

- **Free of “confounding effects”** surrounding EU’s bonus cap ([Colonnello et al., 2023](#)) or UK’s 2010 remuneration code ([Kleymenova and Tuna, 2021](#)).

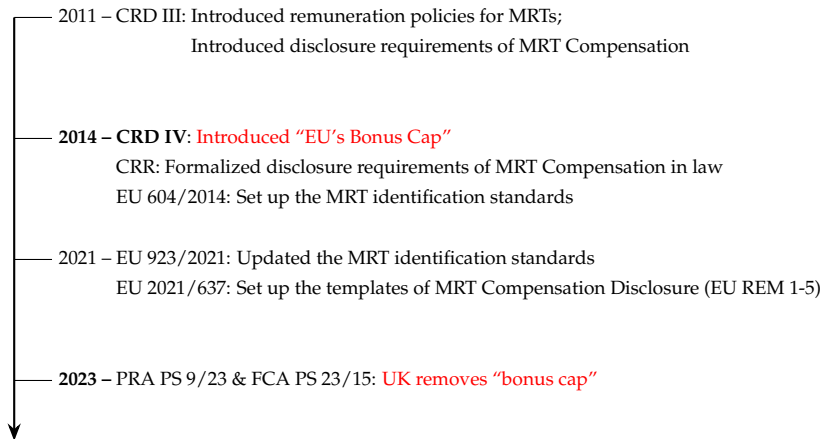
Unintended labor market effects of regulating banker pay.

- Consistent with theoretical predictions in [Thanassoulis \(2012\)](#), [Acharya et al. \(2016\)](#), and [Bénabou and Tirole \(2016\)](#).
- Unlike past studies, we examine changes in compensation of all MRTs and not just top executives.

Evidence of **persistence in bank “bonus culture”**

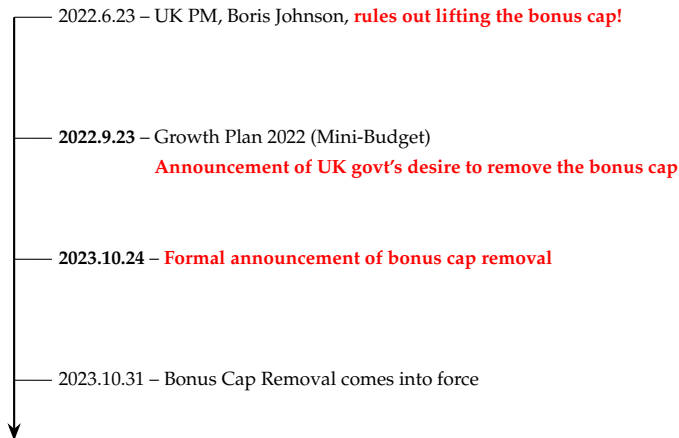
- Reminiscent of persistence in bank risk culture ([Fahlenbrach et al., 2012](#)) and corporate capital structures ([Lemmon et al., 2008](#)).

Compensation Regulations on Material Risk Takers



Timeline of UK's Bonus Cap Removal

Post-BREXIT push to remove bonus caps



Sample Construction

Treatment Sample: UK banks (regulated by PRA)

- We begin with UK banks that issue CDS (“**CDS Sample**”)
- A subset of these are publicly listed (“**Stock return sample**”)
- Obtain remuneration info for all parent banks in the CDS sample (“**remuneration sample**”)

Control Sample: EU banks identified using NAICS codes 522 or 551111

Group	CDS Sample	Stock Return Sample	MRT Remuneration Sample
UK Banks (Treated)	16	6	8
EU Banks (Control)	48	29	34
Total	64	35	42

Markit: CDS spreads of various maturities

Bloomberg: Stock returns

Capital IQ: Bank financial information (quarterly)

Hand-collect information on MRT remuneration (annual) from Pillar 3 Report or Remuneration Report.

- Disclosure format for MRT remuneration was standardized only in 2021
- Examples: 2014 HSBC; 2021 HSBC; Reclassification of MRTs

Empirical Specification

Effects on bank risk measures and equity value

Market prices should adjust when UK's bonus cap removal can be clearly anticipated or formally announced

- 2022Q3: **First announcement of intention** to remove bonus cap
- 2023Q3: **Formal announcement of repeal** of bonus cap

DiD Regression:

$$y_{i,c,t} = \alpha + \beta_1 \times \text{Treat}_i \times \text{Post}_1 + \beta_2 \times \text{Treat}_i \times \text{Post}_2 + \delta_i + \gamma_t + \psi \cdot X_{c,t} + \epsilon_{i,t}$$

- Bank-quarter panel data from 2021Q1 to 2024Q4
- $y_{i,c,t}$: A measure of risk or stock return performance for bank i in quarter t
- Treat_i dummy identifies UK banks (equals 0 for EU banks)
- **Two time dummies:** Post_1 identifies period between 2022Q3 and 2023Q3 (inclusive); and Post_2 identifies the post-2023Q3 period
- Dynamic DiD to estimate quarter-by-quarter effects

CDS Spreads

Dep Variable = Log(CDS Spread) for different maturities

	(1) 1-year	(2) 3-year	(3) 5-year	(4) 7-year	(5) 10-year
Treat×Post1	0.071 (0.119)	0.019 (0.091)	0.006 (0.074)	0.001 (0.062)	0.005 (0.057)
Treat×Post2	0.062 (0.093)	-0.007 (0.070)	-0.022 (0.058)	-0.022 (0.051)	-0.018 (0.050)
Log 5-year country-average Spread	0.200 (0.153)	0.143 (0.126)	0.123 (0.107)	0.118 (0.095)	0.118 (0.088)
Constant	-4.947*** (0.652)	-4.688*** (0.537)	-4.436*** (0.453)	-4.267*** (0.403)	-4.134*** (0.374)
Bank FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.8494	0.8679	0.8812	0.8926	0.8955
Observations	1007	1007	1007	1007	1007

No significant change in CDS spreads of UK banks after either announcement.

Stock Market Risk Measures

	(1) Beta	(2) Idiosyncratic Volatility	(3) Total Volatility	(4) ES	(5) VaR
Treat×Post1	0.228*** (0.060)	-0.009 (0.008)	-0.008 (0.010)	-0.000 (0.003)	0.003 (0.002)
Treat×Post2	0.215** (0.097)	-0.000 (0.013)	0.001 (0.014)	-0.000 (0.004)	0.002 (0.003)
Market Volatility	3.674*** (1.202)	0.424** (0.193)	0.680** (0.259)	0.221** (0.095)	0.179** (0.069)
Constant	0.664*** (0.098)	0.096*** (0.016)	0.100*** (0.021)	0.022*** (0.008)	0.014** (0.006)
Bank FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.5477	0.4853	0.5279	0.4299	0.5764
Observations	560	560	560	560	560

Significant increase in systematic risk (*beta*) of UK banks, which is consistent with predictions of [Armstrong and Vashishtha \(2012\)](#)

... but **no change in idiosyncratic/total volatility or tail risk!**

Stock Returns and Sharpe Ratio

	(1) Cumulative Return	(2) Average Return	(3) Sharpe Ratio
Treat×Post1	-0.022 (0.025)	-0.020 (0.025)	-0.093 (0.160)
Treat×Post2	0.007 (0.036)	0.007 (0.032)	0.177 (0.209)
Market Return	0.703*** (0.138)	0.648*** (0.134)	3.973*** (0.814)
Constant	0.052*** (0.005)	0.052*** (0.004)	0.439*** (0.029)
Bank FE	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes
AdjR ²	0.2564	0.2245	0.3479
Observations	560	560	560

No increase in stock returns or Sharpe ratio, despite the greater flexibility in setting compensation structures.

Potential negative effects of deregulation? One candidate is intensification of labor market competition among banks ([Thanassoulis, 2012](#)).

Changes in Compensation of MRTs

UK banks can change the compensation of their MRTs only after UK's bonus cap removal goes into effect on Oct 31, 2023

Compensation information is available only at **annual frequency**, and compensation disclosure format was standardized only in 2021

DiD Regression:

$$y_{i,t} = \alpha + \beta \times Treat_i \times Post + \delta_i + \gamma_t + \epsilon_{i,t}$$

- Bank-year panel data from 2022 to 2024, with 2023 as omitted year
- $y_{i,t}$: A measure of compensation for bank i in year t
- $Treat_i$ dummy identifies UK banks (equals 0 for EU banks)
- $Post$ dummy identifies 2024
- **Separate regressions for three categories of MRTs**: top managers, other senior managers, and non-senior managers

Compensation of **Top Managers**

	(1) log_fixed(pp)	(2) log_var(pp)	(3) log_total(pp)	(4) total(pp)	(5) Var-to-Fixed Ratio
Treat×Post	-0.018 (0.052)	0.276*** (0.096)	0.171* (0.084)	2.427** (0.925)	0.762*** (0.247)
Constant	0.954*** (0.005)	0.824*** (0.009)	1.347*** (0.008)	3.699*** (0.090)	0.871*** (0.024)
Bank FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.9277	0.9469	0.9370	0.9172	0.8224
Observations	72	72	72	72	72

Significant increase in variable and total compensation per person, and the **var-to-fixed ratio** of top managers at UK banks. [Go to plot](#)

17% increase in total compensation (pp) \Rightarrow increase of \$2.427 million!

Compensation of **Other Senior Managers**

	(1) log_fixed(pp)	(2) log_var(pp)	(3) log_total(pp)	(4) total(pp)	(5) Var-to-Fixed Ratio
Treat×Post	0.056* (0.028)	0.159* (0.092)	0.137* (0.072)	0.690** (0.299)	0.152 (0.157)
Constant	0.524*** (0.003)	0.400*** (0.010)	0.751*** (0.008)	1.424*** (0.032)	0.623*** (0.017)
Bank FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.9850	0.9626	0.9802	0.9705	0.8834
Observations	66	66	66	66	66

Increase in both fixed and variable compensation per person of other senior managers at UK banks, but no significant change in var-to-fixed ratio.

Compensation of **Non-senior Managers**

	(1) log_fixed(pp)	(2) log_var(pp)	(3) log_total(pp)	(4) total(pp)	(5) Var-to-Fixed Ratio
Treat×Post	0.025* (0.014)	0.031* (0.016)	0.043** (0.020)	0.082** (0.032)	0.034 (0.037)
Constant	0.249*** (0.001)	0.169*** (0.002)	0.375*** (0.002)	0.493*** (0.003)	0.540*** (0.004)
Bank FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.9834	0.9846	0.9880	0.9869	0.9694
Observations	72	72	72	72	72

Small increase in fixed and variable compensation per person of non-senior managers at UK banks; no significant change in var-to-fixed ratio.

Bank “Bonus Culture” and Reaction to Bonus Cap Removal

Sort UK banks into **two groups**– **High** and **Low**– based on their **var-to-fixed ratio in 2013** (i.e., before EU’s bonus cap)

Panel A: Top Managers					
	(1) Log Fixed(pp)	(2) Log Var(pp)	(3) Log Total(pp)	(4) Total(pp)	(5) Var-Fixed Ratio
Treat×Post×High	-0.014 (0.071)	0.409*** (0.112)	0.277** (0.111)	3.737** (1.520)	1.213*** (0.186)
Treat×Post×Low	-0.022 (0.066)	0.176 (0.111)	0.090 (0.090)	1.445* (0.826)	0.424 (0.298)
Constant	0.954*** (0.005)	0.824*** (0.008)	1.347*** (0.007)	3.699*** (0.080)	0.871*** (0.019)
High-Low	0.007 (0.088)	0.232 (0.145)	0.187 (0.128)	2.292 (1.702)	0.789** (0.331)
Bank FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.9254	0.9479	0.9371	0.9248	0.8416
Observations	72	72	72	72	72

UK Banks with high var-to-fixed ratio in 2013 are more likely to revert to high var-to-fixed ratio for their top managers in 2024

- Reminiscent of persistence in bank risk culture ([Fahlenbrach et al., 2012](#)) and corporate capital structures ([Lemmon et al., 2008](#))

Bank Fundamentals

	(1) Log Assets	(2) Leverage	(3) Tier1 Ratio	(4) ROA	(5) ROE
Treat×Post1	0.030 (0.030)	0.721** (0.320)	-1.049* (0.545)	-0.041 (0.092)	-0.311 (1.216)
Treat×Post2	0.046 (0.033)	0.654 (0.392)	-1.330** (0.625)	-0.155 (0.100)	-1.828 (1.362)
Constant	5.937*** (0.003)	92.588*** (0.038)	17.421*** (0.063)	0.679*** (0.010)	9.051*** (0.134)
Bank FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes
AdjR ²	0.9968	0.9245	0.8666	0.4847	0.4317
Observations	723	723	603	696	714

Increase in leverage and decrease in Tier-1 ratio of UK banks right after UK govt's announcement of intent to remove bonus cap.

Concluding Remarks

We use UK's bonus cap removal to identify effects of bankers' incentive pay on bank risk and shareholder value.

No change in credit risk or tail risk of UK banks, but we find an increase in systematic risk and leverage.

No increase in shareholder value of UK banks!

Analysis of changes in MRT compensation point to:

- Intensification of labor market competition among UK banks.
- Strong persistence in bank-specific bonus culture.

Thank you!

References I

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- Lemmon, M. L., M. R. Roberts, and J. F. Zender (2008). Back to the beginning: Persistence and the cross-section of corporate capital structure. *Journal of Finance* 63, 1575–1608.
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2021 HSBC MRT Compensation Disclosure

Additional regulatory remuneration disclosures

This section provides disclosures required under the Hong Kong Ordinances, Hong Kong Listing Rules and the Pillar 3 remuneration disclosures.

For the purpose of the Pillar 3 remuneration disclosures, executive Directors and non-executive Directors are considered to be members of the management body. Members of the Group Executive Committee other than the executive Directors are considered as senior management.

MRT remuneration disclosures

The following tables set out the remuneration disclosures for

individuals identified as MRTs for HSBC Holdings.

Remuneration information for individuals who are only identified as MRTs at HSBC Bank plc, HSBC UK Bank plc or other solo-regulated entity levels is included, where relevant, in those entities' disclosures.

The 2021 variable pay information included in the following tables is based on the market value of awards. For share awards, the market value is based on HSBC Holdings' share price at the date of grant (unless indicated otherwise). For cash awards, it is the value of awards expected to be paid to the individual over the deferral period.

Remuneration awarded for the financial year (REM1)

		Supervisory function	Management function	Other senior management	Other identified staff
Fixed remuneration	Number of identified staff	14.0	2.0	22.9	1,020.7
	Total fixed pay (\$m)	7.2	6.9	48.9	619.6
	Of which: cash-based (\$m) ¹	7.2	3.1	48.9	619.6
	Of which: shares or equivalent ownership interests (\$m) ²	—	3.8	—	—
	Of which: share-linked instruments or equivalent non-cash instruments (\$m)	—	—	—	—
	Of which: other instruments (\$m)	—	—	—	—
	Of which: other forms (\$m)	—	—	—	—
Variable remuneration ³	Number of identified staff	14.0	2.0	22.9	1,020.7
	Total variable remuneration (\$m) ^{4,5}	—	15.1	76.3	637.5
	Of which: cash-based (\$m)	—	1.8	27.1	307.2
	Of which: deferred (\$m)	—	—	16.2	161.6
	Of which: shares or equivalent ownership interests (\$m) ²	—	13.3	49.2	318.1
	Of which: deferred (\$m)	—	11.5	38.3	178.2
	Of which: share-linked instruments or equivalent non-cash instruments (\$m)	—	—	—	8.8
	Of which: deferred (\$m)	—	—	—	4.7
	Of which: other instruments (\$m)	—	—	—	—
	Of which: deferred (\$m)	—	—	—	—
	Of which: other forms (\$m)	—	—	—	3.4
	Of which: deferred (\$m)	—	—	—	2.1
Total remuneration (\$m)		7.2	22.0	125.2	1,257.1

1 Cash-based fixed remuneration is paid immediately.

2 Paid in HSBC shares. Vested shares are subject to a retention period of up to one year.

3 Variable pay awarded in respect of 2021. In accordance with shareholder approval received on 23 May 2014 (98% in favour), for each MRT the variable component of remuneration for any one year is limited to 200% of fixed component of the total remuneration.

4 The Group has used the discount rate under PRA remuneration rule 15.13 for 15 individuals for the purpose of calculating the ratio between fixed and variable components of 2021 total remuneration.

5 13 identified staff members were exempt from the application of the remuneration structure requirements for MRTs under the PRA and FCA remuneration rules. Their total remuneration is \$4.2m, of which \$3.6m is fixed pay and \$0.6m is variable remuneration.

2014 HSBC MRT Compensation Disclosure

Remuneration – fixed and variable amounts – Group-wide

	2014			2013		
	Senior management ¹	MRTs (non-senior management)	Total	Senior management ¹	Code Staff (non-senior management)	Total
Number of 2014 MRTs/2013 Code Staff	98	1,080	1,178	66	264	330
	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
Fixed						
Cash-based	64.1	517.0	581.1	52.6	101.1	153.7
Shares-based	51.8	88.7	140.5	–	–	–
Total fixed	115.9	605.7	721.6	52.6	101.1	153.7
Variable²						
Cash	18.5	138.9	157.4	19.0	60.1	79.1
Non-deferred shares ³	18.5	132.0	150.5	18.9	56.5	75.4
Deferred cash	24.9	119.5	144.4	26.6	79.3	105.9
Deferred shares	41.5	126.4	167.9	72.4	92.8	165.2
Total variable pay⁴	103.4	516.8	620.2	136.9	288.7	425.6

1 Definition of senior management for 2014 includes members of the Group Management Board, Group General Managers and non-executive Directors. For 2013, this includes members of the Group Management Board and Group General Managers only.

2 Variable pay awarded in respect of performance in the years 2013 and 2014.

3 Vested shares, subject to a six-month retention period.

4 In accordance with shareholder approval received on 23 May 2014, for each MRT the variable component of remuneration for any one year is limited to 200% of fixed component of total remuneration of the MRT.

Go back

Reclassification of MRTs

MRT Compensation Disclosure of BBVA in 2016 and 2021:

2016

Thousands of Euros

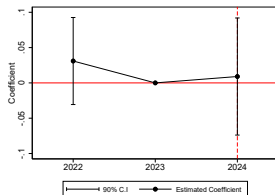
Remuneration for Identified Staff in 2016 (1)	Executive Directors	Non-executive directors	Other senior executive	Rest of Identified Staff	Total Identified Staff
Total fixed remuneration paid in 2016 (2)	4,929	3,924	11,779	200,894	221,526
Total variable remuneration paid in 2016	5,655	-	10,866	126,350	142,871

2021

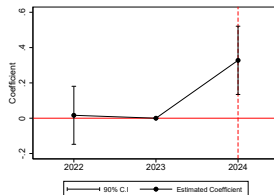
	MB Supervisory function ⁽¹⁾	MB Management function ⁽¹⁾	Other senior management ⁽¹⁾	Other identified staff
Number of identified staff	13	2	16	301
Total fixed remuneration ⁽²⁾	4,395	6,843	17,844	122,280
Of which: cash-based	4,293		16,433	
(Not applicable in the EU)				
Of which: shares or equivalent ownership interests	-	-	-	-
Of which: share-linked instruments or equivalent non-cash instruments	-	-	-	-
Of which: other instruments	-	-	-	-
(Not applicable in the EU)				
Of which: other forms	102	486	1,409	10,455
(Not applicable in the EU)				

Go back

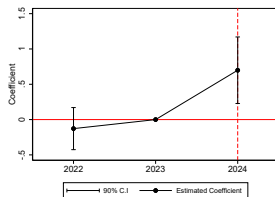
Compensation of Top Managers



(a) Fixed(pp)



(b) Variable(pp)



(c) Var-Fixed Ratio

Go Back