

CEO's Military Experience, Characteristics of Military Experience and Enterprise Budget Slack

Peng Liu, Tongxu Wang, and Yuxin Guo

Abstract—Based on the sample of Chinese A—share listed firms from 2011 to 2021, we study the influence of CEO's Military Experience on enterprise budget slack. The results show that firms with CEO of military experience have lower degree of budget slack. In the companies with the CEO who have military experience, the further research shows that the company has lower degree of budget slack with the CEO who has longer military experience, higher military rank in the army or smaller age of military service. This study supplements and expands the literature on economic consequences of CEO's military experience and influence factors of budget slack, which is of great significance to restrain budget slack of enterprise.

Index Terms—budget slack; military experience; informal institution; military years; military rank; military service age.

I. INTRODUCTION

Budget information plays a significant role in CEO's performance evaluation and salary incentive. To effectively stimulate CEO, the enterprise usually adopts budget salary contract in which CEO's salary closely connects specific budget goal [1]. The reasonable budget goal will effectively stimulate corporate executive. However, because the budget goal will directly influence the salary of corporate executive, the CEO will intervene the determination of budget goal and they expect slack budget goal that is favorable for them. Some scholars have verified that the slack budget goal in enterprise is common [1-2]. Onsi's survey shows that 80% of the department managers are willing to admit to obtain slack budget goal they will bargain with the senior managers [3]. Lukka considers that slack budget is determined by some managers using bargain and hiding personal information and the managers do not need full effort to achieve the goal [4]. Chow et al. consider that slack budget is lower than desired goal [5]. The slack budget will produce unfavorable outcomes for shareholders like managers' low effort level and so on [6].

Influence factors of budget slack has attracted considerable attention and the existing literature mainly fo-

cused on company internal factors [7-9]. Although the existing literature have conducted some fruitful work, they mainly focused on formal institution factors and ignored the informal factors which will play a significant role in economic activity especially in areas with incomplete formal institution. Considerable research has proved that. Chen Dong-hua et al. discover that religion has a positive impact on enterprise governance level [10]. Guan et al.'s research based on Chinese data shows that alumni relationships between executives and auditors will reduce audit quality and increase audit fees [11]. Although few documents have considered some informal institution factors like personal risk appetite, reputation and moral perception [12], but they ignored CEO's military experience. Considerable research has proved that military experience will have significant impact on CEO's value and CEO's military experience has a significant impact on his operating decisions at the company [13]. Therefore, we attempt to research the impact of CEO's military experience on budget slack.

We anticipate that CEO's military experience has inhibiting effect on budget slack. On one hand, CEOs with military experience has stronger sense of community which will produce lower agency costs and prompt them to choose compact budget goals. On the other hand, army life will strengthen spirit of adventure which also prompt persons with military experience to choose challenging compact budget goals.

To prove inhibiting effect of CEO's military experience on budget slack, we adopt empirical test method based on data of China's A-share listed companies from 2011 to 2021. The research results show that CEO's military experience has inhibiting effect on budget slack and conclusion is still tenable after robustness test. Further research shows that budget slack level will has a significant difference under different characteristics of military experience. That specifically shows that company of CEO's military experience whose army year is longer, army rank is higher, army age is younger has lower budget slack level.

The main research contribution of this paper has three aspects. Firstly, we further enrich the literature of budget slack's influence factors, especially in informal institution aspect. Secondly, we also supplement the literature of CEO's military experience consequence. The scholars have conducted some research of CEO's military experience consequence and they discussed the impact of CEO's military experience on enterprise earnings management, innovation and internal control [13-15]. We further expand this related literature. Finally, the conclusions will produce some policy suggestions. The research conclusions show that CEO's military experience have inhibiting effect on

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budget slack that enlightens enterprise to consider military experience factor while recruiting senior managers.

II. LITERATURE REVIEW

(1) Budget Slack Influence Factors Literature Review

Enterprise budget slack is impacted by many factors. The existing literature mainly explored the factors from enterprise internal aspect. The involved factors include enterprise internal control status, state of property right, Compensation plan determination status and internal governance. Liu Hao et al. discovered that enterprise internal control quality has a positive effect on budget slack [7]. Pan Fei et al.'s research shows that as state-owned enterprise is interfered seriously by government, the government will ignore the role of budget goal in performance evaluation. That will cause state-owned enterprise to have higher level of budget slack [8]. The research conducted by Zheng Shi-qiao et al. shows that information asymmetry and remuneration plan will affect budget slack [9]. Some scholars focused on enterprise internal governance factors and discovered that Embedding of Party organizations can restrain budget slack [16]. A small amount of literature study the impact of informal institution factors like personal risk preference, reputation, moral perception, differences survey on budget slack [12].

Although the existing literatures have conducted some productive work, they still have some shortcoming.

Firstly, the existing literature mainly concerned formal institution factors and ignored informal institution aspect. The relevant research has proved that informal institution will play a significant role in economic activity.

Secondly, although a small amount of literature explored the impact of some informal institution factors on budget slack, they neglected CEO's military experience. The relevant literatures have confirmed that CEO's military experience has critical effect on his operating decisions in enterprise. Therefore, we attempt to explore the impact of CEO's military experience on budget slack.

(2) Consequence of CEO's Military Experience Literature Review

The research has proved that CEO's military experience has decisive impact on his operating decisions. Quan Xiao-feng et al. find that the corporation of CEO with military experience has higher level of earning management [13]. They also prove that CEO's military experience has positive effect on enterprise innovation [14]. Meanwhile, scholars detected that CEO's military experience can improve enterprise internal control quality [15].

Considering the importance of budget slack, the existing research tentatively does not provide the evidence to reflect the impact of CEO's military experience on budget slack. Hence, we attempt to explore their relationship.

III. THEORETICAL ANALYSIS AND RESEARCH HYPOTHESIS

Impact of CEO's military experience on budget slack mainly reflects the flowing two aspects. Firstly, the military experience shapes people to have an important quality that willing to sacrifice and willing to give [17]. Meanwhile, the military experience provides another noble quality that strong sense of community [18]. These noble qualities will

prompt military executives to choose compact budget goals more favorable for the benefit of shareholders and overall enterprise.

Secondly, the military experience shapes the military executives to gain overconfident and aggressive character. Soldiers born between 1904 and 1930 generally consider military experience as turning points in life. Meanwhile, they universally possess overconfidence and arrogance [19-21]. Wansink et al. also find that the militaries who have world war II experience show higher risk preference after retirement [22]. The research conducted by Killgore et al. shows similar conclusion [23]. Malmendier et al. reveal that the military executives tend to choose aggressive finance choices like high leverage feature in financing decision-making [24]. Lai Li et al. revealed similar conclusions that the China's military executive also shows aggressive finance decisions like higher debt level, shorter debt maturities, lower cash holdings level [25]. Because the military executives possess arrogant and adventurous feature, they will choose compact budget goal more difficult to achieve. Hence, we propose the following research hypothesis.

H1: CEO's military experience will have inhibiting effect on budget slack.

IV. RESEARCH DESIGN

(1) Variables and Models

To test H1, we use the following regression model:

$$SLACK_{it} = \beta_0 + \beta_1 Army_{it} + \sum \beta_m Control_{m,it} + \gamma_t + \gamma_i + \varepsilon_{it} \quad (1)$$

The level of slack is measured by the model designed by Pan Fei et al. that $slack_t$ is equal to $1 - [(revenue\ budget\ of\ period\ t - real\ revenue\ of\ period\ t - 1) / real\ revenue\ of\ period\ t - 1 - industry\ revenue\ growth\ rate\ of\ period\ t - 1]$. The computational formula clearly shows that the level of budget slack is higher when amount of $slack_t$ is bigger. The main explanatory variable $army_{it}$ is binary variable that when CEO has military experience, it is equal to 1, and otherwise it is equal to 0. Besides, we choose some control variables include enterprise scale, asset liability ratio, profitability, listing age, nature of property right, board size, executive power. Meanwhile, we also control year fixed effects and industry fixed effects. The definitions and detailed measurement methods of the above variables are shown in table I.

(2) Sample Selection and Descriptive Statistics

The A-share listed companies in Chinese mainland from 2011 to 2021 are selected as the research samples.

The relevant financial data required in this paper mainly come from the CSMAR database. The data of the company's senior executives' military experience were manually collected and sorted out through annual reports, search engines, the company's official website, and media reports. Meanwhile, the budget data are manually collected from the annual reports of enterprises. Referring to the existing literature, we processed the initial data as follows: exclusion of financial companies, ST companies and companies without relevant financial data and CEO background information.

Descriptive statistics of the main variables is shown in

table II. It clearly shows that the degree of budget slack varies greatly among different firms and the proportion of enterprises with senior executives having military experience in the sample enterprises is relatively low. Meanwhile, different companies vary in size, debt capacity and profitability and most of the enterprises in the research sample are private enterprises.

V. EMPIRICAL RESULTS

(1) Basic Empirical Results

Table III reports the regression results of Hypothesis 1. The regression results show that the regression coefficient of Army is significantly negative at the level of 1% supporting hypothesis 1 that senior executives' military experience has an inhibitory effect on corporate budget slack.

(2) Robustness Test

In order to ensure the reliability of the benchmark regression results in this paper, this paper conducts robustness tests from the following aspects.

a. Replacement of Explained Variable

Further considering the robustness of the relationship between senior executives' military experience and enterprise budget slack, this paper adopts the variable substitution method to replace the explained variable, and adopts the model designed by Liu Hao et al. to remeasure the explained variable. The calculation is divided into two steps. In the first step, the model of Pan et al. (2008) is used to calculate. $slack_t = 1 - [(revenue\ budget\ in\ period\ t - actual\ operating\ income\ in\ period\ (t-1)) / actual\ operating\ income\ in\ period\ (t-1) - growth\ rate\ of\ industrial\ operating\ income\ in\ period\ (t-1)]$; In the second step, if the value of $slack_t$ is < 1 , the value of $slack_t$ is 0, indicating that the tight budget; If ≥ 1 , the value of $slack_t$ is 1 representing slack budget. Under the new measurement method, model 1 is transformed into the following form:

After replacing the explained variables, the regression results of Hypothesis 1 are shown in Table IV. The coefficient of senior executives' military experience is still significantly negative, so hypothesis 1 is verified again, and the previous research results are robust. b. PSM

The mean and median tests of the treatment group (the sample group with senior executives' military experience) and the control group (the sample group without military experience) indicate that there is a large difference between the control variables of the two groups of samples. If there are problems such as wrong model or omitted variables, such differences will lead to that the results are not robust. Therefore, we performed propensity score matching between the control and treatment groups to ensure comparability between the two groups. Specifically, we first use army variable as the dependent variable, and all control variables in model (1) as explanatory variables to conduct logit regression and calculate the propensity score value. Secondly, one-to-one matching is conducted between the treatment group and the control group according to the propensity score value, and the samples without matching are deleted. Finally, the matched samples are put into model (1) for regression again. The results are shown in Table V, and the regression results are consistent

with the previous ones, further supporting the main hypothesis of this paper.

(3) Further Analysis

In order to further deepen the research on the senior executives' military experience, we focus on the sub-samples of senior executives with military experience, and analyze how the years of senior executives' military service, the military ranks they were awarded when they joined the military, and whether they joined the military at a young age affect enterprises' budget slack, so as to provide supplementary evidence for the relationship between senior executives' military experience and enterprises' budget slack.

The longer the senior executives have been in the army, the higher the military rank awarded is when they are in the army, and the younger they are in the army, the more affected they are by the military values, and the more obvious and significant the inhibitory effect on the budget slack is expected to be. The three subdivided characteristics of senior executives' military experience are measured by variables ARMY-YEAR, ARMY-RANK, and ARMY-YOUNG. ARMY-YEAR is measured by the length of senior executives' military service. ARMY-RANK is used by the highest rank before the executive transfer, and it is 1 for a soldier, 2 for a lieutenant, 3 for a school officer, and 4 for a general officer; ARMY-YOUNG takes the value of 1 when the executive joins the military at the age of less than 18, and otherwise it is 0.

Table VI shows the regression results of the segmentation characteristics of military experience and enterprise budget slack. The regression results show that for executives with military experience, the longer the years of military service are, the higher the military rank is, and the younger the age is when they join the army, the lower the company's budget slack level is, which supports the previous expectation.

VI. CONCLUSIONS AND IMPLICATIONS

Using sample of Chinese A-share listed companies in Shanghai and Shenzhen from 2011 to 2021, this paper empirically examines the impact of senior executives' military experience on corporate budget slack. The results show that: a. senior executives' military experience has a significant inhibitory effect on corporate budget slack; b. the longer the senior executive has been in the military, the higher the military rank is before the transition, and the younger the senior executive has been in the military, the lower the degree of budget slack is in the company.

This paper studies the influencing factors of enterprise budget slack from the perspective of informal institutions, which further expands the literature on the influencing factors of enterprise budget slack and has certain policy implications. We find that senior executives' military experience has a significant impact on restraining corporate budget slack, which suggests that enterprises can take personal early experience into consideration in the selection of management teams.

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TABLE I
VARIABLE SELECTION AND DEFINITION

Variable Types	Variable Name	Symbol	Variable Definition
Explained Variable	Budget Slack	Slack	Calculation based on the model of Pan Fei et al.
Explaining Variable	Military Experience	Army	An executive with military experience is assigned a value of 1, otherwise value is 0
	Enterprise Size	Size	Natural logarithm of the firm’s total assets
	Asset Liability Ratio	Lev	Gross liability/ Total assets
	Profitability	Roa	Net profit/ Total assets
	Listing Age	Age	The number of years the company has been listed
	Nature of Property Right	State	If the actual controller is state-owned, the value is 1, otherwise, the value is 0
Control Variables	Board Size	Board	$\ln (1+ \text{Number of directors})$
	Executive Power	Dual	Value is 1 if the chairman and the general manager are the same person, otherwise, the value is 0
	Year Dummy Variable	Year	Year Dummy Variable
Industry Dummy Variable	Industry	Industry Dummy Variable	

TABLE II
DESCRIPTIVE STATISTICS

Variable	Mean Value	Standard Deviation	Median	Min	Max	N
Slack	0.606	0.816	0.786	-0.226	1.245	11935
Army	0.053	0.227	0.000	0.000	1.000	11935
Size	21.918	1.095	21.775	19.907	25.112	11935
Lev	0.399	0.189	0.386	0.056	0.821	11935
Roa	0.041	0.060	0.043	-0.253	0.181	11935
Board	2.235	0.177	2.303	1.793	2.775	11935
Dual	0.703	0.456	1.000	0.000	1.000	11935

TABLE III
BENCHMARK REGRESSION RESULTS

Dependent Variable: SLACK	
Army	-0.183*** (3.230)
Controls	YES

TABLE IV
REPLACING THE EXPLAINED VARIABLE

Variables	SLACK
Army	-0.138*** (3.258)
Controls	YES

TABLE V
PROPENSITY SCORE MATCHING (PSM) REGRESSION RESULTS

Variables	SLACK
Army	-0.149*** (2.791)
Controls	YES
Year effect	YES
Industry effect	YES
Adj-R ²	0.236
N	1276

TABLE VI
CHARACTERISTICS OF MILITARY EXPERIENCE AND ENTERPRISE BUDGET SLACK

Dependent Variable: SLACK			
Army-year	-0.047** (2.369)		
Army-rank		-0.207** (2.001)	
Army-young			-0.010** (2.407)
Controls	YES	YES	YES
Year effect	YES	YES	YES
Industry effect	YES	YES	YES
Adj-R ²	0.238	0.249	0.213
N	11935	11935	11935