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Employment burden, government ownership and soft budget constraints: Evidence from a Chinese enterprise survey ☆

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Abstract

This paper investigates two competing theories of soft budget constraint (SBC), namely the ownership hypothesis and the policy burden hypothesis. While the ownership hypothesis attributes the SBC problem to government ownership, the policy burden hypothesis predicts that privatization would not eliminate the SBC problem, as long as the major policy burden – maintaining employment – is not removed from enterprises. Using a panel dataset from a survey of Chinese enterprises, I conduct empirical tests on these two competing hypotheses. I explicitly address endogeneity and data-censoring problems by using instruments and estimating a two-step tobit model. The test results support the policy burden hypothesis but not the ownership hypothesis. My finding emphasizes the importance of creating a sound social security system in the process of China's enterprise reform.

JEL classification: P31; G3; J23
Keywords: Soft budget constraint; Employment burden; Enterprise reform; Labor redundancy

1. Introduction

Although the soft budget constraint (SBC) has been discussed widely in the literature since Kornai's seminal work (Kornai, 1980), there exists no consensus on which factors are responsible for the prevalence of soft budgets in the enterprises of transition countries (Anderson, Korsun, & Murrell, 2000; Kornai, Maskin, & Roland, 2003; Lin and Li, 2006). This paper tests two competing theories of the SBC using firm-level data from China. These two theories are the ownership hypothesis and the policy burden hypothesis.

According to the policy burden hypothesis (Lin, Cai, & Li, 1998), various policy burdens, as legacies of pre-reform policies, are the causal factors of soft budgets in China's State Owned Enterprises (SOEs). Among these policy

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burdens, the most critical one is the employment burden. Before the economic reform, due to the lack of a social security system, SOEs played the role of providing social welfare to all workers. During the reform era, under pressure from the government, SOEs continue to offer pensions to retired workers and provide jobs for redundant workers. Retired and redundant workers pose a heavy burden and cause losses to enterprises. Informational asymmetries make it hard to distinguish between the losses due to this employment burden and the SOEs' own operational losses. As a result, government at different levels has to take measures to bear the losses, thus softening the budget constraints of those SOEs. Moreover, privatized enterprises may also bear such an employment burden due to government influence, thus they may also have soft budgets.

In contrast, the ownership hypothesis attributes the SBC problem to an enterprise's ownership type, claiming that government ownership is the causal factor of soft budgets (Li, 1992). Since the SBC was first analyzed as a phenomenon of socialist economies, many theoretical models are built with an implicit assumption of state ownership, thus failing to differentiate the policy burden as a separate reason for soft budgets. Since we usually observe state ownership and soft budgets together in many firms, it is no surprise to find a positive correlation between them. However, in order to conclude that there exists a causal relationship, one needs to control for factors that could also affect soft budgets, as well as to deal with possible endogeneity problems. Otherwise, the correlation may be purely due to omitted variables, such as the unobserved quality of firms.

In order to conduct tests on these two theories, variation of ownership and the employment burden is needed. Before 1995, there was little change to SOEs' ownership. Moreover, the reforms relevant to the employment decisions in SOEs remained very limited in scope (Bodmer, 2002). It was not until 1995 that radical forms of enterprise restructuring took place under the policy of "grasping the large and letting go the small" (*zhuada fangxiao*). Since then, many enterprises introduced private shares and started to lay off large numbers of workers. The Chinese word *gaizhi* is used to denote such radical enterprise reforms.[2] Many SOEs went through *gaizhi* during the sample period of 1995–2001, thus creating sufficient variation in ownership and the employment burden to conduct meaningful tests.

In my regressions, I include measures of both the employment burden and ownership on the right-hand side to estimate their effects on the soft budgets. This allows me to identify which one is the causal factor of soft budgets and to distinguish one hypothesis from the other. To handle the endogeneity problem of ownership and employment burden, I use a set of instruments that reflect the exogenous variation of privatization and employment policies. Since the dependent variable (measure of the soft budgets) equals zero in many cases, a two-step tobit model is adopted as an alternative specification to deal with this data-censoring problem. My test results generally support the policy burden hypothesis but not the ownership hypothesis. I also find that different measures of soft budgets respond in different ways to changes in the employment burden. These results are explained by analyzing the different incentives faced by the local and central government. Finally, I conduct several robustness tests.

The relationship among the employment burden, privatization and the SBC in China has attracted a lot of attention in recent years. Some researchers look at the determinants of privatization, such as Guo and Yao (2005), Bai, Lu, and Tao (2005) and Brandt, Li, and Roberts (2005); others investigate the causes of employment adjustment in SOEs (Dong and Putterman, 2003) or in the public sector (Dong and Xu, 2006). However, these papers do not answer the question "what is the causal factor of the soft budgets". For example, Dong and Putterman (2003) summarize that "overstaffing of SOEs has been commonly understood as a by-product of soft budget constraints". In other words, they assume the soft budgets to be the reason for employment redundancy. Thus, they neglect the fact that the existence of any soft budgets cannot be taken for granted and needs to be explained. Bai et al. (2005) raise the question of whether stability concerns are at the root of the soft budgets, but do not provide an answer. Thus, the determinants of soft budgets in Chinese enterprises remain an important research topic.

Among studies that investigate the causal factors of soft budgets, Anderson et al. (2000) survey Mongolian enterprises and show that government ownership, especially central government ownership, leads to soft budgets. Frydman, Gray, Hessel, and Rapaczynski (2000) look at central and eastern European firms and conclude that privatization is necessary to harden budget constraints. These two papers, like most others, do not examine the policy burden issue.[3] Although Li and Liang (1998) estimate the effect of redundant employment on soft budgets, they do not answer whether it is the ultimate causal factor of the SBC problem. In fact, studies discussing the policy burden

[2] Literally, *gaizhi* means transformation of (ownership) system; practically, *gaizhi* includes many types of reform, not all of which contain privatization. For detailed description of *gaizhi* in China, see Garnaut, Song, Tenev, and Yao (2004).

[3] See Djankov and Murrell (2002) for a broad survey of the empirical SBC literature.