China's Local Political Budget Cycles

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This article examines the political budget cycles in Chinese counties. The shift to a more performance-based cadre evaluation and mobility system during the reform era has created an incentive structure for local leaders to increase government spending at strategically important time points during their tenure to enhance the prospect of official promotion. Such expenditures help local leaders to impress their superiors with economic and political achievements, especially those visible and quantifiable large-scale development projects. At the same time, economic and fiscal decentralization increased the capacity of local leaders to influence government budget expenditures as the need rises. The hypothesized curvilinear relationship between a leader's time in office and increased spending was tested using a comprehensive data set of all Chinese counties from 1997 through 2002. The panel data analysis shows that growth in local government spending per capita is the fastest during a leader's third and fourth years in office.

Political business cycles have been the subject of a large and growing literature in political science and economics in the past few decades. In democratic regimes, political business cycles are largely driven by popular elections, a central institutional feature of democracy. Studies on Western democracies have shown both theoretically and empirically that governments are more likely to pursue expansionary monetary and fiscal policies immediately before and during election years. Some recent studies have also shown the effect of the electoral calendar on economic policy in new democracies emerging from communist rule. Elected officials in postcommunist countries strategically implement commercial reforms immediately after each election so as to allow sufficient time both for the short-term economic cost of reform to subside and for the long-term benefits of reform to materialize before voters go to the polls again (Frye and Mansfield 2004, 375).

Outside of Western democracies, scholars have also uncovered economic policy cycles in the former Soviet Union and in China that rhyme with national leadership succession or factional politics. In an authoritarian regime, there apparently is no such direct connection between the general population and the political elite as democratic elections. However, Bunce argued that Soviet leaders "would have at least tried to win the favor of the masses" (1980, 968) to preempt unrest and protest. Roeder (1985, 959) countered that Soviet leaders only had to satisfy a proximate electorate drawn from the uppermost reaches of the society. No matter how large the electorate is, there exists the possibility that at the top of authoritarian systems, national economic policy may synchronize with leadership succession or factional politics. Bunce argued that "the volatile nature of power at the apex of the Soviet system, the nature of the succession process, and the ideological propensity and the pronounced capacity to link political concerns with policy priorities would all seem to set in motion certain cyclical shifts in public policy priorities in the early rather than later years of an administration" (1980, 967). Roeder seems to disagree mostly on the timing of that policy shift, and thus the term "consolidation connection" rather than "succession connection" (1985, 974). In either case, a former Soviet leader "assumes different roles and advocates different priorities at different times" during his tenure (Bunce 1980, 967). Especially budget expenditures rhymed with the political life cycle of each generation of leaders.

In the Chinese context, economic conditions have undoubtedly been affected by national politics, and during the Maoist era in particular the effect could be rather dramatic. Economic policies associated with the Great Leap Forward produced an annual growth rate of 33% in gross

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The author would like to thank the four anonymous reviewers and the editor of *AJPS* and Professors Yu-Shan Wu, Yi-feng Tao, S. Philip Hsu, and Szu-chien Hsu for helpful comments. Any remaining errors are the author's own. The author acknowledges financial support from the Chiang Ching-Kuo Foundation for International Scholarly Exchange (USA).

American Journal of Political Science, Vol. 53, No. 3, July 2009, Pp. 621–632

 ISSN 0092-5853

social product in 1958, and the policy adjustments afterwards actually shrank the gross social product by 33% from 1960 to 1961 (State Statistical Bureau 1992, 49). A similarly drastic economic cycle of boom and bust also followed the political pendulum during the early years of the Cultural Revolution. In the post-Mao reform era, fiscal and monetary cycles have tended to rhyme with more institutionalized political events, such as the plenary sessions of the National Congress of the Chinese Communist Party and of the National People's Congress (Tao 2006, 165). Both sessions have been convened regularly every five years since the late 1970s and have been the only occasions of substantial turnover of the Central Committee of the Communist Party and of the national government, respectively.

Despite the fundamental political differences between democratic and authoritarian systems, two key common premises lie at the theoretical foundation of political business cycles in both settings. First, politicians' incentive structure regarding economic and fiscal policies is significantly affected by concerns over their future political career, even in the absence of competitive elections. Second, politicians have sufficient power and responsibility to execute economic or fiscal policy changes despite various institutional and political constraints. However, when applied to the local levels in China, both theoretical premises can become questionable. First, in a unitary communist system like China, local cadres are often assumed to be no more than mere puppets of the central party-state. Their political fate depends entirely on their loyalty or personal connection to party leaders at upper levels. Therefore, Chinese local officials should have no incentive at all to manipulate the local government budget or economy. All they have to do is to follow blindly commands and directives from above. Second, even if the local leaders wanted to influence the economic condition of their jurisdictions, they would have no means to achieve that, because the power to make decisions on economic or fiscal policies is completely centralized in China. While those assumptions have some plausibility, it will be argued in the next two sections respectively that local leaders in contemporary China have both the necessary incentive and sufficient capacity to implement economic and fiscal changes in their jurisdictions. The empirical implication is that Chinese local leaders strategically accelerate government spending at crucial moments during their tenure, specifically when their chances of promotion in the following year are the highest. The third section tests that hypothesis using a comprehensive panel data set of all Chinese counties from 1997 through 2002.

Incentives for Local Political Budget Cycles

Ultimately local officials in China owe their political career to the party committee at the next higher level rather than to the general public in their jurisdiction. Unlike their counterparts in a democracy who have to face voters in regular elections and thus can become the scapegoat or beneficiary of various local economic conditions, Chinese local leaders are effectively shielded from such downward accountability to the ordinary masses. In the Chinese system, the names of local leaders are on the nomenklatura controlled by the party committee at the next higher level rather than on the ballot cast by voters. Therefore, the incentive structure of local leaders depends crucially on what the party committees want instead of on what the people want. While a voter in democracies may judge leaders retrospectively according to personal or national economic well-being, the party-state in China may judge local leaders retrospectively according to the economic and political achievements that those leaders have made. Since the Chinese communist party shifted the focus of its work from class struggle to economic construction in December 1978, its right to rule has been based increasingly on the claim of an exclusive ability to make China rich and strong rather than on the ideological commitment to orthodox socialism. In a survey conducted in Zhejiang Province in 1997, 70% of the 228 party and government cadres interviewed agreed or "basically agreed" that "it does not matter whether to adopt socialism or capitalism as long as the nation is rich and strong" (Wang 1999, 71). The party's obsession with economic growth has been translated into its greater emphasis on the "zhengji" (political achievement) of local leaders, which may be more truthfully phrased as "economic achievement" in the post-Mao era. In order to create an incentive structure conducive to economic development, the regime has made serious efforts to institutionalize the linkage between local leaders' career advancement and their economic performance. Since 1979, the party's central committee and central organization department have promulgated a series of party regulations, guidelines, and other important documents that place prominent emphasis on actual performance measures in the evaluation and political mobility of party cadres and government officials (Central Committee 1995, 2002; Central Organization Department 1979, 1988, 1998). Indeed some empirical evidence of the economic accountability of Chinese provincial officials has started to emerge (Guo 2007, 379). In his comprehensive study of Chinese provinces from 1949 to 1998, Bo (2002, 139) found that in the reform era those provincial leaders with worse economic growth or fiscal contribution are more likely to be demoted or retired. Li and Zhou similarly found that from 1979 to 1995 "the promotion (termination) probability of provincial leaders increases (decreases) with the average performance" (2005, 1756) measured in annual GDP growth rate.

Although leadership turnover remains essentially political in the communist nomenklatura system, reforms in the post-Mao era have also held local leaders responsible for the economic conditions of their jurisdiction. More specifically, the "cadre responsibility system" was introduced from the provincial level down in the mid-1980s and governs job assignment, performance appraisal, and remuneration (O'Brien and Li 1999, 172). A direct and perhaps unintended consequence of the cadre responsibility system is that local leaders now pay more attention to the more quantifiable and easily measurable targets such as economic growth and development projects, at the expense of other less quantifiable performance measures. A persistent craze among local governments during the reform era is the building of large-scale development projects so that the leaders can impress their superiors with their economic achievements. "Now that economic development has been made the focus of all work, ambitious cadres often champion development projects" (O'Brien and Li 1999, 175). Such projects are nicknamed "zhengji gongcheng" (political achievement projects) or more bluntly "leader promotion projects" (Yang 2003, 22). As an indication of their prevalence, the *People's Daily*, the official national newspaper of the Chinese Communist Party, has published over 400 articles on the so-called "political achievement projects" since 2000.

It may seem puzzling why such excessive spending by local leaders on "political achievement projects" would be tolerated and even rewarded by upper-level party committees. First of all, local leaders' superiors benefit from such projects too, for which they can take credit and use to impress in turn their superiors at the provincial or national levels. Moreover, the rationale behind "political achievement projects" from the perspective of higher leaders should be placed in the context of asymmetric information. The relationship between Chinese local leaders and their superiors resembles a standard principal-agent problem in which the talent, competence, and even effort of the agents are not directly observable (Stiglitz 2002, 465). In a democracy, voters "cannot directly observe the incumbent policymaker's quality; instead, they extract information about her quality from observed economic outcomes" (Lohmann 1998, 2). In the Chinese context, the superiors do not have complete information on local leaders' quality, and continuous monitoring or inspection of their subordinates' effort would be too costly. Not only are large-scale development projects more visible and quantifiable, but they are also a more reliable and direct measure of agents' effort and competence than economic indicators are. From the superiors' standpoint, precisely because large development projects are so costly they indicate the desirable competence, ingenuity, and/or diligent effort of local leaders to extract more resources from local people and businesses to help pay for them. In addition, local cadres "visiting ministries to lobby for money [for projects] has become a reasonable activity that [their superiors] tacitly approve of and even solemnly stipulate in official documents with red headings as an important criterion in examining the capability and talent of local cadres" (Peng 2006, 9).

From the perspective of local leaders, it is rational to exert effort on improving their performance measures according to the classic career-concerns model. Specifically, Holmström (1999) formalized the idea in a theoretical model that under incomplete information career concerns induce efficient managerial behavior. "The key insight of the career concern model is that, even in the absence of monetary incentives, an agent of uncertain talent expends effort in order to convince the relevant 'labour market' of her high talent; a high performance raises the perception of her ability and translates into future job opportunities within or outside the organization" (Dewatripont, Jewitt, and Tirole 1999, 201). That insight can be generalized to the Chinese setting to model the behavior of promotion-seeking local officials, whose talent is incomplete information to their immediate superiors, the equivalence of decision makers in the relevant "labor market." One implication of Dewatripont, Jewitt, and Tirole's findings is that in "a multitask context . . . the agent can end up focusing on the set of tasks the market expects her to focus on" (1999, 201), which for Chinese local leaders means visible and quantifiable economic performance measures. That also seems to conform to anecdotal evidence of where Chinese local leaders exert most of their effort. A telling example is the experience in the United States of Li Qun, then mayor of the county-level city of Shouguang in Shandong Province. When asked by the mayor of New Haven, Connecticut, about the differences between their jobs, he said: "The biggest difference is that you do not seem to manage the economy much. When I was mayor of Shouguang my main effort was on grasping the economy, everything from fiscal growth to enterprise profit, peasant income, private economy, structural adjustment . . ." (Song and He 2003).

If visible, quantifiable economic performance measures such as development projects can boost the prospect of official promotion, it is natural to expect that Chinese local leaders will try all out to help their political career. However, timing is a crucial consideration here that leads to political cycles in public finance decisions. Whereas in a democracy, one "purpose of a political business cycle is to signal competence to voters" (Alt and Lassen 2006, 530), the Chinese nomenklatura system coupled with incomplete information and retrospective economic accountability create incentives for local officials to produce political budget cycles to signal competence to party committees at upper levels. Specifically, we would expect local leaders to accelerate government spending at certain points during their tenure to maximize their chances of being promoted. Rapid growth in government spending on large development projects is costly and may be unsustainable, and local leaders have to schedule carefully such periods of high performance at crucial moments during their time in office. It would be unwise to increase government spending too fast in a leader's first couple of years in office, because a promotion is unlikely to happen so early during his or her tenure and such effort would be wasted. Besides, high growth in the early years makes it more difficult to produce impressive performance measures in later years that would help the leader to get a promotion.

It would be equally unwise to accelerate government spending too late, that is, after a leader has stayed in the same position for a long period of time. In that case, the leader may never get a promotion and will probably retire as a county-level cadre eventually, and so any effort to improve performance measures so late in his or her tenure would also be wasted. As the leader grows older in the position, age will start to become an obstacle to official promotion. In the reform era the party has taken to task the old system of lifelong official careers (zhongshenzhi) and emphasized promotion of younger cadres (Deng [1980] 1993, 323). At the same time, a mandatory cadre retirement system has been installed at all levels (Manion 1993). By the late 1990s, most of the 720,000 middle-aged and young cadres promoted to leadership positions at the county level or above had to be replaced (He 2004, 6). Top county leaders have to retire at the age of 55, and only cadres below 45 can be on the reserve list for leading positions above the county level (Zhong 2003, 112). In January 2006, the central organization department of the Chinese Communist Party specifically emphasized that "the main body of chief party and government leaders at the county level should be around the age of 45" (Xinhua News Agency 2006, 4). Even a county leader in his or her early 40s would have to try all out to be promoted as soon as possible lest he or she become too old to be eligible and ultimately end his or her political career at the county level. Therefore, the incentive to impress superiors with visible and quantifiable performance measures should peak at the point in a leader's tenure when he or she is just about to be considered for promotion. After that, if the leader still stays in the same position without being promoted, his or her incentive should no longer grow with time. To be clear, other, noncyclical incentives may still persist for local officials to maintain high levels of spending even when promotion is out of the question, such as to use large, expensive projects to create rent-seeking opportunities for family members and friends (Ji 2006).

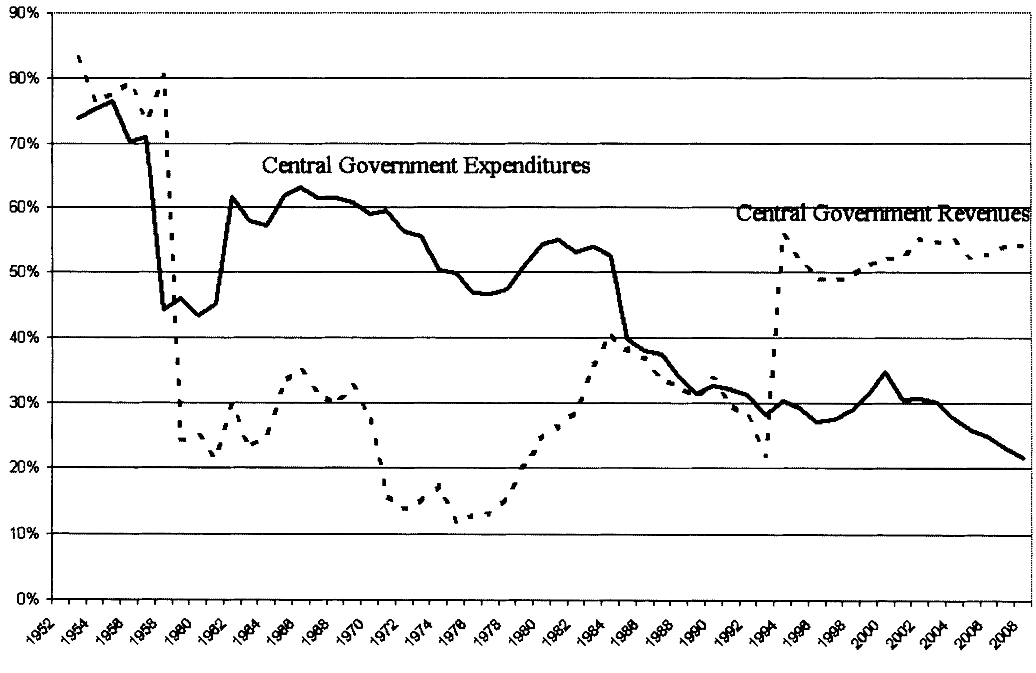
It is actually no easy task to figure out after how many years in office a county leader is most likely to be considered for promotion, and therefore the exact time when the incentive for spending is the highest, even though the relevant stipulations in party and state constitutions are clear and simple. According to Article 106 of the state constitution and Article 26 of the party constitution, respectively, the term of office of the local territorial chief executives and party secretaries should all be five years. In practice, however, the observed term in office is often shorter than the constitutionally stipulated five years because county leaders can leave their post prematurely for any of a variety of reasons. Some are transferred to other counties, some retire because of old age or poor health, and some are removed following a corruption scandal. Especially the "ganbu yidi jiaoliu" (cadre exchange to other localities) system involved 96% of county party secretaries and 97% of county chief executives from 1995 to 2001 (Zhang and Shan 2001, 4). However, transfers, retirements, and persecution are normally beyond the control of county leaders and thus should not affect their incentive structure. What is within their control and part of their incentive is to accelerate government spending at the crucial point in the expected "normal" career path when the party committees at upper levels are about to make personnel decisions concerning them. If the expected "normal" advancement cycle of a county leader's political career generally corresponds to the constitutionally stipulated term of five years, we would expect the incentive for accelerated government spending to be the highest in the fourth year in office. Some might argue that because county leaders do not know in advance exactly when they may be rotated or replaced, they would not be able to time their budget cycles accordingly. However, what is being argued clearly here is that leaders can still act strategically even under that uncertainty. Later in this article the actual pattern of local leaders' time in office in the empirical data may help shed some light on the formation of the leaders' expectations.

Capacity for Local Political Budget Cycles

While the incentives for strategically timed high growth in government spending clearly exist, another necessary condition for local political budget cycles is for local leaders in China actually to have sufficient control over local government spending. As a unitary system, China does not have a constitutionally guaranteed division of power between the central and local governments. However, even during the Maoist era, as a central planned command economy, China was already a less centralized system than the former Soviet Union and other European socialist countries. Although there has been a recent debate about the causal link between decentralization and economic successes in the post-Mao reform era, both sides recognize the fact that substantial political and fiscal decentralization did take place (Cai and Treisman 2006; Jin, Qian, and Weingast 2005). As Figure 1 shows, the central government's share of total expenditures hovered above 50% in the early 1980s, but has never surpassed 35% since 1988. In other words, the four subnational levels (province, prefecture/city, county/city district, and township) account for around 70% of total government expenditures. The 2008 budget ratified by the first session of the 11th National People's Congress set the central government expenditures at 1.3 trillion yuan, while subnational governments are budgeted to spend 4.8 trillion yuan (Ministry of Finance 2008), which brings down the central government's share in total government expenditures to the lowest level at least since 1953. Chinese local governments nowadays clearly assume an unprecedented large proportion of government spending responsibilities and day-to-day control over various economic activities. According to Professor Du Gangjian of the State School of Administration, "except for foreign affairs, military, and national defense, there is virtually no difference between the power that [county leaders] have and the power of the center" (Dong, Zhang, and Zhang 2005).

Figure 1 also shows that on the revenue side, fiscal decentralization was reversed in 1994. In that year the Chinese government implemented a tax-sharing system reform that raised the central government's share of total revenues to a level unprecedented since the Great Leap Forward while spending responsibilities remain highly decentralized. To make up for the discrepancy the central government more than quadrupled the amount of various subsidies to subnational governments from 54 billion yuan in 1993 to 239 billion yuan in 1994. Since then the central government's subsidies have grown more than sevenfold, to a record 1.8 trillion yuan in 2007 (Ministry of Finance 2008). The 1994 fiscal reform ushered in

FIGURE 1 Central Government's Share in Total Revenues and Expenditures, 1953–2008



Data source: Ministry of Finance 2006, 2008.

over a decade of ongoing institutional changes in China that have gradually subjected various local government functions to increasingly strict centralized supervision and vertical management (Mertha 2005, 801). The 1994 tax-sharing system reform itself "signaled a retreat from the emphasis on decentralization that had prevailed for more than a decade and was evidently a key element of the new focus on strengthening central control of the organizational hierarchy" (Yang 2004, 74).

Those fiscal and institutional reforms have obviously put more constraints on the budgetary discretion of local leaders. However, those leaders should still have more than sufficient power and influence to implement political budget cycles, especially at the county level. First, the 1994 tax-sharing system reform never recentralized local government spending (Wong 2007, 16). Actually the central government's share in total government expenditures even decreased from 30% in 1994 to less than 22% in the 2008 budget. Second, the ballooning central subsidies since the 1994 reform have not taken away local leaders' discretion over budgetary spending. To be clear, a large part of subnational governments' budgetary needs is now met by various subsidies from the central government. However, only a small proportion of those subsidies are in the form of earmarked subsidies that can only be used for stipulated purposes such as infrastructure, public health, and so on. In 2003, for instance, only 19% of all central subsidies to subprovincial governments in China were earmarks (Ministry of Finance 2005, 7). Most central subsidies are lump-sum tax rebates or transfer payments with few strings attached as to the specific use by local governments. The scale and priorities of local government spending is still largely the responsibility of local leaders. Moreover, although local leaders do lobby diligently for more earmarks from upper-level governments, most subsidies, such as tax rebates and general transfer payments, are based on predetermined formulas or amounts and thus immune from those lobbying efforts (Guo 2008, 76). Some might argue that county officials are spending more in some years because their superiors allow them to spend more. That is certainly true considering the growing dependence of local governments since 1994 on fiscal transfers from upper levels, discussed earlier in this article. However, what is being argued clearly here is that is only part of the story and that growing quantity of subsidies does not necessarily take away local leaders' budgetary spending authority. Therefore in the statistical analysis later in this article the effect of fiscal transfers will be controlled for. Finally, fiscal decentralization of expenditures never promoted public participation in or improved the transparency of local budgetary processes in China. Government budgets remain extremely general and sketchy, making a thorough examination impossible, and there is no legal sanction against the governments doing this (Yang 2004, 235). Moreover, local people's congresses normally meet for only a few days in the spring, which is both too late and too short to supervise the local budget for that year.

It should also be noted here that while the party secretary and the chief executive are the two top leaders in a county, they serve somewhat different roles. The secretary of the county party committee is clearly the "first hand" in a county, exerting especially political leadership and personnel control through the nomenklatura system over subordinate party and government cadres. The chief executive of a county is the top administrator in the county government who is in charge of the day-to-day management of government functions, such as agriculture, industry, education, etc. In terms of the retrospective economic accountability, both the party secretary and the chief executive should be subject to a similar set of evaluation criteria. The party secretary also benefits from visible performance measures and is therefore supportive of the chief executive's effort, even if not necessarily making the expenditure allocations.

Empirical Findings

The previous two sections laid out the theoretical framework for local political budget cycles in China. The incentive for county leaders to accelerate government spending is expected to peak during the years when they are most likely to be considered for promotion. This theoretical prediction will be tested in this section using county-level panel data. The dependent variable is the annual growth rate of government expenditures per capita for each county each year. Five years of annual growth rates for each county are calculated from six years of statistics on county government expenditures and population from 1997 through 2002. These data are published in the *China County (City) Social and Economic Statistical Yearbooks* [Zhongguo xian (shi) shehui jingji tongji nianjian]. Since these are publicly available data compiled from local official reports, there may be concern about their reliability. While the incentive and capacity of local leaders to exaggerate statistics certainly exist, both have declined considerably due to a series of recentralization reform measures since the 1990s that shifted horizontal, geographic lines of authority relations to vertical, functional lines (Mertha 2005). Through institutional reforms and new technologies, the central state capacity to measure, monitor, and audit local economic and fiscal activities has also improved dramatically (Yang 2004, 77). Another concern is that the substantial amount of extra-budgetary revenues and expenditures in Chinese counties are not reported in the yearbooks. However, given the incentive structure of local leaders, they would probably take advantage of the extra-budgetary spending in much the same way as they do budgetary spending, that is, to help boost visible and quantifiable performance measures and thus to improve the prospect of their political career advancement.

A priori the growth rate of government expenditures is more appropriate for the purpose of testing local political budget cycles than other measures such as the growth of agriculture, industry, or revenues. Compared with other variables, government spending is where the local leaders have the most immediate control and should be the most sensitive to any cyclical manipulation. Field research by Wang (2002, 8) reveals that county budget is controlled only by the two or three top leaders of a county. Economic growth rate in Chinese counties, which by official definition are all in the rural area, often depends on such factors as local weather conditions and national market prices, etc., that local leaders obviously have no control over. Local leaders also lack the monetary and other policy instruments to cause immediate economic growth, especially in the context of the significantly retracted economic role of the state during the reform era. The 1994 tax-sharing system reform also dramatically centralized the collection of value added tax and excise tax and has thus limited the power of local governments regarding tax revenues.

The key explanatory variables for this model of political budget cycle are how long the county party secretaries and chief executives have been in office, respectively. These variables are expected to have a curvilinear relationship with the dependent variable of expenditure growth. To calculate the values of these two key explanatory variables, the names of the party secretaries and the chief executives of all counties of mainland China are obtained from the respective provincial yearbooks for the years from 1994 through 2002, except those in the Centrally Administered Municipality of Chongqing, in the province of Sichuan, and in the Autonomous Region of Tibet, which did not list county leaders' names in their yearbooks. From those names a "time in office" variable was derived for each county each year that indicates for how many years the chief executive has been in office. For instance, if a county chief executive came to office in 1995, then this "time in office" variable would take on value of "1" for that county in 1995, value of "2" for that county in 1996, and value of "3" in 1997, and so on, until that chief executive leaves his or her position and the variable takes on value of "1" again. Likewise, a separate "time in office" variable was derived for the county party secretaries, which turns out to be highly correlated with the variable of time in office of the chief executives, at $r = 0.5$.

The list of names of county leaders does not contain information about their age, sex, or prior experience, but at least five categories of outcomes in the following year for each chief executive can be derived from the list, namely, whether he or she stayed on the same job, became the chief executive of another county, became the party secretary in the same county, became the party secretary of another county, or left the position in some other unknown way, i.e., retirement, demotion, etc. For party secretaries, the information derivable from the list of names is much more limited than for chief executives, because while chief executives can be promoted to the position of party secretary and still be in the data set, a party secretary would disappear from the list of names once he or she is promoted. Besides, party secretaries are rarely transferred to be the party secretary of another county, let alone to be demoted to become the county chief executive. Table 1 shows the cross-tabulation between the time in office and the outcome in the following year for the chief executives from 1998 through 2002. Table 2 shows the frequency distribution of chief executives' time in office for each year from 1998 through 2002.

Some interesting observations can be made here. First, relatively few counties have chief executives who have been in the position for more than six years, which indicates a rather frequent turnover among county leaders. Secondly, it is relatively rare for a newly installed chief executive to be replaced in the following year. The vast majority of county chief executives in their first or second year in office stayed in the same position in the following year. In contrast, most of the chief executives in their fifth year in office or later were replaced in one way or another. Generally speaking promotion to the position of party secretary appears to be the most common mode of turnover for county chief executives. Especially noticeable are the fourth and fifth years in office of chief executives. One in every five county chief executives in their fourth or fifth year in office were promoted to be the party secretary of the same county in the following year, plus 3 or 4% who were promoted to be the party secretary of another county. Chief executives who were in earlier or later years in office did not seem to be promoted at such high frequencies. That empirical pattern can probably give us some rough idea about the time in office of chief executives when the incentive for increased spending is the highest. Caution is necessary here because the actual observed frequencies of the mobility outcomes

TABLE 1 Time in Office and Political Mobility of County Chief Executives, 1998–2002

	Outcome in the Following Year					
Time in Office of the Chief Executives	Stayed in the Same Position	Became Chief Executive of Another County	Became Party Secretary of the Same County	Became Party Secretary of Another County	Retirement, Promotion, or Demotion to Another Position	Total N
1st year	85%	0.7%	6.4%	1.0%	6.5%	2,818
2nd year	75%	0.9%	12%	1.6%	11%	2,534
3rd year	65%	1.2%	15%	2.6%	16%	1,792
4th year	55%	1.4%	20%	3.4%	21%	1,160
5th year	42%	0.6%	20%	4.4%	33%	479
6th year	42%	0.8%	19%	3.9%	35%	127
7th year	44%	3.7%	11%	3.7%	37%	27
8th year	25%	0.0%	0.0%	25%	50%	4
Total N	6,370	84	1,110	183	1,194	8,941

TABLE 2 Frequency Distribution of County Chief Executives' Time in Office, 1998–2002

Time in Office of the Chief Executives	1998	1999	2000	2001	2002
1st year	37%	22%	28%	38%	40%
2nd year	41%	32%	18%	22%	29%
3rd year	14%	32%	25%	11%	14%
4th year	7%	9%	20%	15%	6%
5th year	1%	4%	6%	10%	7%
6th year	0%	1%	2%	3%	3%
7th year	0%	0%	0%	1%	1%
8th year	0.0%	0.0%	0.0%	0.2%	0.3%
9th year	0.00%	0.00%	0.00%	0.00%	0.04%

Note: Column entries may not add up to 100% due to rounding.

are not equivalent to the prior expectations that would have a direct impact on the incentive structure of county leaders. Moreover, the main element of uncertainty here is the last category of outcomes, which includes all the other situations of official turnover, such as retirement or dismissal from all official posts, retirement to the local people's congress or political consultative conference, promotion to a position other than that of a county party secretary, demotion, etc. It may be said here, however, with some empirically informed confidence, that county chief executives probably expect to have the best chance to be considered for promotion at around their fifth year in office and thus they probably have the strongest incentive to increase government spending about a year before that.

Table 2 suggests that turnover rate of county chief executives did fluctuate from year to year, and so dummy variables for each year except the base year of 2000 are included in the model to control for, among other things, the possible effect of any nationally synchronized waves of local official turnovers. To capture the curvilinear relationship between time in office and expenditure growth, both the "time in office" variable and its quadratic form are added to the equation. According to the discussion in the previous section, two of the most important determinants of local government expenditures are revenues and subsidies (i.e., intergovernmental transfer payments from above), and so the annual growth rates of county government revenues per capita and subsidies per capita are both in the model.

Two separate regression models are specified for party secretaries and for chief executives, respectively. The correlation between the time-in-office variables for party secretaries and for chief executives is quite high, at 0.5, and so they probably should not be in the same equation. The two models are identical except for the time-in-office variable:

$$
\begin{aligned}
&(\text{Expenditure growth})_{it} \\
&\quad = \beta_1 * (\text{Time in office of party secretary})_{it}^2 \\
&\qquad + \beta_2 * (\text{Time in office of party secretary})_{it} \\
&\qquad + \beta_3 * (\text{Revenue growth})_{it} \\
&\qquad + \beta_4 * (\text{Subsidy growth})_{it} + \beta_5 * (\text{Year dummies}) \\
&\qquad + a_i + u_{it},\ t = 1998, 1999, \ldots, 2002.
\end{aligned}
$$

$$(\text{Expenditure growth})_{it} = \beta_1 * (\text{Time in office of chief executive})_{it}^2 + \beta_2 * (\text{Time in office of chief executive})_{it} + \beta_3 * (\text{Revenue growth})_{it} + \beta_4 * (\text{Subsidy growth})_{it} + \beta_5 * (\text{Year dummies}) + a_i + u_{it}, t = 1998, 1999, \ldots, 2002.$$

The annual growth rate of subsidies per capita is only available for the years of 1999 through 2002, and so the regression models that do not include that variable can use longer time series data. The results from both scenarios are shown in Table 3. Using fixed-effects method all the county characteristics that do not change over time, such as location, size, minority, or poor county status, etc., are controlled for. Besides, to control for local economic conditions, alternative specifications were estimated (not shown here) with the value added in agricultural sector per capita and the value added in industrial and construction sector per capita included as explanatory variables. These two variables neither attain statistical significance nor affect the coefficients of other variables of interest.

First of all, the regression results affirmed the curvilinear relationship between a county leader's time in office and expenditure growth, even when the growth of revenues and subsidies, local economic conditions, and all time-invariant characteristics of the counties are controlled for. Including subsidy growth (but losing one year of data) produced a slightly steeper curve for both political budget cycles, but in all four estimated models the coefficients for the "time in office" variable and its squared term suggest consistently that expenditure growth would peak in the third year and fourth year in office. This finding suggests that Chinese local leaders coincide strategically the highest growth in government expenditures with the important third and fourth years in their tenure. As was argued earlier, growth in local government spending often reflects physically visible and easily quantifiable

TABLE 3 Fixed-Effects Regression of Expenditure Growth

Dependent Variable: Annual Growth Rate of Expenditures Per Capita		Party Secretary Model		Chief Executive Model	
Explanatory Variables		Coefficient (Standard Error)		Coefficient (Standard Error)	
$(\text{Time in office})^2$		−0.3946**	−0.4860**	−0.3463**	−0.3893*
		(0.1728)	(0.2049)	(0.1688)	(0.2011)
Time in office		2.4793**	3.1624**	2.4976**	2.8675**
		(1.0212)	(1.2252)	(0.9752)	(1.1739)
Annual growth rate of revenues per capita		0.2493***	0.2589***	0.2615***	0.2743***
		(0.0142)	(0.0166)	(0.0139)	(0.0164)
Annual growth rate of subsidies per capita			0.1411***		0.1303***
			(0.0092)		(0.0089)
Year 1998		−5.1573***		−4.6804***	
		(1.0930)		(0.9915)	
Year 1999		−1.5038	0.0329	−1.2599	0.1672
		(1.0520)	(1.1108)	(0.9658)	(1.0263)
Year 2000		base	base	base	base
Year 2001		13.3966***	11.1666***	13.1974***	11.0564***
		(1.0246)	(1.0836)	(0.9537)	(1.0175)
Year 2002		8.1638***	7.7660***	8.7605***	8.1523***
		(1.0224)	(1.0713)	(0.9576)	(1.0142)
(constant)		8.6638***	3.1056*	7.8702***	3.1947*
		(1.4945)	(1.7521)	(1.4044)	(1.6621)
N	Observations	7,070	5,774	7,562	6,103
	Groups	1,696	1,667	1,741	1,718
R-squared	Within	0.1179	0.1569	0.1242	0.1558
	Between	0.1228	0.2049	0.1147	0.1905
	Overall	0.1166	0.1602	0.1215	0.1585

Note: $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

performance measures such as large-scale development projects. Those help improve the prospect of local leaders being promoted, especially when it is done at the right time, that is, when the party committees at upper levels are about to make personnel decisions concerning them. The difference between the results for party secretaries and for chief executives is rather small. The party secretaries may have a slightly shorter time horizon than chief executives. The mathematical peak for party secretaries lies closer to the third year than to the fourth year in office, whereas the peak for chief executives lies closer to the fourth year than to the third year. That may indicate that the turnover of county chief executives is somewhat more institutionally constrained by the five-year cycle of the people's congress system and by the state constitution while the mobility of party secretaries is entirely the party's internal affair.

Also of interest is that expenditure growth in 2001, and to a somewhat lesser extent in 2002, is significantly higher than in other years. As 2002 and 2003 were the years of local people's congress and party congress elections in many areas and thus of particularly high turnover of local officials, probably county leaders were deliberately accelerating spending in 2001 and 2002 in anticipation of the scheduled turnover in 2002 and 2003. On the other hand, it is equally plausible, and probably even more interesting, that the observed surge in county government expenditures in 2001 and 2002 could be part of a nationally coordinated political budget cycle in preparation for the 16th National Congress of the Chinese Communist Party in 2002 and the 10th National People's Congress in 2003, when the so-called fourth-generation leaders, led by Hu Jintao, were set to replace the third-generation leaders led by Jiang Zemin. As local people's congress elections were not synchronized across the country until 2006, it would be interesting to see whether this finding holds for later time series, especially the years of 2005 and 2006, when county governments in 14 and 17 provinces, respectively, in late 2006 and early 2007 are scheduled to start a new five-year term while no top leadership turnover is expected to happen (Gong 2007). Moreover, the analysis in this article could certainly be further strengthened by extending the panel data back in time as well as to more recent years when official county statistics for more years become available in machine-readable form.

Conclusion

While the literature on political business cycles has proliferated, few studies have explored, either theoretically or empirically, the subject of local political budget cycles in the absence of competitive elections. This article attempts to take part in the first steps at filling that important gap in the existing literature by investigating local cases in China. Despite the fundamentally different institutional context than that in a democracy, local leaders in China also have the incentive and capacity to manipulate government spending at crucial points during their tenure to improve the prospect of political advancement. Political budget cycles in this setting are driven by the familiar personal concerns over political career under incomplete information and assisted by the economic and fiscal decentralization of the post-Mao era. It should be pointed out, however, that in the absence of downward accountability of local leaders the mass public is probably not the main beneficiary of the surge in government spending. A folk rhyme widely cited in Chinese media says, "Money was spent, projects were built, leaders were promoted, and the people suffered" (The Beijing News 2006, A02). More analyses on the policy outcomes of local political budget cycles in China will undoubtedly open up important avenues for future research.

The implications of this study are mainly twofold. On one hand, the findings suggest that the political mobility of Chinese cadres may be more institutionalized and based on their actual performance than in the popular perception. In a survey of township cadres in Anhui province, over two-thirds of the respondents believed that official promotion is based on personal connections (Zhong 2003, 115). Personal connections are certainly essential, but if that is the whole story why would county leaders bother to strategically time a surge in government spending during the crucial point in their tenure? On the other hand, the consequent acceleration of expenditures may not have been the initial intention of the regime and has generated increasingly sharp criticisms. The Chinese official media and national leaders often deplore local governments' fiscal indiscipline and extravagant spending projects. On October 28, 2007, the National People's Congress passed the Urban and Rural Planning Law, which was specifically designed to curb the so-called "zhengji" (political achievement) projects of local governments (Zhang and Du 2007). However, without a fundamental change in the incentive structure and fiscal capacity of local leaders, such phenomena are unlikely to ebb away.

Appendix: Construction of the Panel Data Set

The panel data set used in this article combines official statistics on Chinese counties from three different sources. The first source is the provincial yearbooks that listed the names of county leaders. Secondly, the *China*

County (City) Social and Economic Statistical Yearbooks, edited by the State Statistical Bureau's General Group of Rural Social Economic Survey and published by China Statistical Press, provide annual statistics on county population, government revenues, and values added in agriculture (primary sector) and industry and construction (secondary sector). The third source is the *Fiscal Statistics of Prefectures, Cities, and Counties in China*, edited by the Department of State Treasury and Department of Budget of the Ministry of Finance and published by the China Finance and Economic Press. This source provides data on the annual amount of subsidies (i.e., intergovernmental transfer payments from above) that each county received for the years of 1998 through 2002, which were then transformed into annual growth rates for the years of 1999 through 2002.

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