

The Analysis of China Central Authorities and Local Authority Financial Behavior Game

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Abstract

This study focus in the questions of assignment finance resource strategies difference to form the local benefit mechanism and the financial policy change between the central and the local authorities in China from the early 90's. Continues foundation which analyzes previously (Ma, 1995), (Chen, Hillman, and Gu, 2002), we can introduce the discussion of uncertainty and want to make explanation to the different economical significance behavior transformation both of the central and the local authorities. From this study, we may obtain following several main conclusions: 1. when the central authorities care the local economy development, it can encourage the locals use "the cooperation" the strategy. Because the relations of strategy substitution say to, the central authorities must to use the "lowly residual sharing" financial strategy to be able to cause the locals become to "the cooperation". 2. In local finance policies are more brightly and the central residual sharing policies hold the dynamic consistency, if more the centrals care local development, the lowly policy into the game, but causes (central, local; low, lowly residual sharing – cooperation) become a subgame perfect equilibrium (SPE); Otherwise, if the central authorities look at benefit itself, the high policy into the game, but causes (central, local; high, highly residual sharing – resistance) the SPE. 3. In local policies are more brightly but the central dynamic consistency do not hold, regardless of the locals use what kind of financial manner, the central certainly pick the high strategy as a "strongly dominant strategy"(SDS) and the (local, central; resistance, the resistance – high) is SPE. 4. Both of the bright policies and the dynamic consistency do not hold, the centrals use the high strategy as a SDS. If the central authorities care local development, this time the central committee and the local strategy choice can fall on the non-pareto efficiency result (high - resistance). At this time, the repeated

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cooperation game is possible to show up and causes both sides profitable, also the locals have not deviated the cooperation cause. But because hold the financial distribution system explanation authority by the central authorities, therefore, does not increase in the determinism with the trust feeling in the situation, the local authorities have the possibility rather to adopt "the resistance" to hold higher benefits cause the cooperation game disintegration. 5. Regardless of central authorities in decision strategy time the information is whether complete or not, when the central authorities care the local economy development, they can use lowly strategy; when the centrals pay attention to own benefit, can use high. Moreover before, when the central authorities use an issue of local finance material makes the forecasting, the supposition centrals believed, if the local authority preceding issue has the resistance manner, then this issue also comparatively possibly adopts resists the manner, if not, the cooperative attitudes can form the multiple local finance residual sharing strategy to exist on the possibility. Because the central authorities finance centralization strategy is one kind of rational behavior again, follows the "high residual sharing" is local authority's resistance which the strategy comes, therefore future in financial policy and industrial policy redesign set of drives mechanisms, as well as how avoids the ratchet effects the appearance, all will be the direction which the following research may ponder.

Keywords: Central Authorities, Local Authority, Financial Centralization

中國中央政府與地方政府之間 財政行為的賽局分析

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摘要

本文係探討 90 年代以來，中國中央政府與地分政府，因為分配財政資源策

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略的不同，造成地方政府利益機制與財政行為重大變化的問題；延續過去分析的基礎(Ma, 1995)(陳抗等, 2002)，利用賽局分析的方法，引入信息不確定的相關討論，試圖對中央政府與地方政府的行為轉變做出不同的經濟意義之解釋。從本文的分析中，可以獲致以下幾個主要結論：1.當中央政府重視地方經濟發展時，會鼓勵地方政府採用「合作」策略，因為策略性替代的關係，中央政府必須採用低分成財政策略才能使地方政府願意「合作」。2.在地方政府財政手段透明化，而中央政府政策具有動態一致性時，如果中央政府重視地方經濟發展，中央政府會採取低分成策略，而使得(中央，地方；低分成，低分成-合作)成為子賽局完美均衡；反之，如果中央政府重視本身的利益，中央政府會採取高分成策略，而使得(中央，地方；高分成，高分成-對抗)成為子賽局完美均衡。3.在地方政府財政手段透明化，而中央政府政策不具有動態一致性時，無論地方政府採用何種財政態度，中央政府一定採行高分成的財政策略，故高分成策略對於中央政府而言是一種強優勢策略。此時，子賽局完美均衡將落在(地方，中央；對抗，對抗-高分成)。4.當地方政府財政手段不透明化且中央政府的政策沒有動態一致性時，中央政府採用高分成策略是一種強優勢策略。如果中央政府重視地方經濟發展，此時中央與地方的策略選擇會落在非帕累托效率的結果(高分成-對抗)。同時，中央與地方的重複合作賽局可能出現，使得雙方互蒙其利，且地方政府沒有偏離合作的誘因；但由於財政分配制度解釋權力在中央政府手中，因此，在不確定性與不信任感增加的情況下，地方政府有可能寧可採取「對抗」來保有較高的利益，進而使得合作賽局崩解。5.無論中央政府在決定策略時是否信息完全，當中央政府重視地方經濟發展時，會採用低分成策略，當中央政府注意自己的利益時，會採用高分成策略。另外，當中央政府利用前一期的地方財政資料做預測時，假設中央政府認為，如果地方政府前一期採取對抗態度，則這一期也較可能採取對抗態度；反之，如果地方政府前一期採取合作態度，則這一期也較可能採取合作態度的考慮下，多樣性的地方財政分成策略就可能存在。由於中央政府財政再集權策略是一種理性行為，伴隨著高分成策略而來的是地方政府的對抗，所以未來在財政政策與產業政策上重新設計一套激勵的機制，以及如何避免棘輪效應的出現，都將是後續研究可以思考的方向。

關鍵字：中央政府，地方政府，財政集權，策略性替代。