

Politics of Scale: Decentralization and Centralization of Oil Exploitation Right in Northern Shaanxi, China

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Abstract

Background: The impact of oil exploitation on local economy is often subject to the national resource management system. Monopolistic vertical resource management often makes local struggle ineffective. However, there is a successful local oil economy in China. This paper focuses on the formation of a special oil economy and reallocation of resources, power, and capital in Northern Shaanxi, China. This is a typical case of competing interests across multiple scales. It presents a typical case of the reconfiguration of resources, power, and capital at multiple scales.

Methods: We introduce the 'politics of scale' to analyze the decentralization & centralization of oil exploitation rights, and the game among the government, state-owned enterprises, private enterprises and residents.

Results: There are three findings. First, driven by fiscal interests, governments as the actual owners of the state capital, were directly involved in the politics of scale. Second, the interest conflicts among local state-owned enterprises, local governments were concealed owing to the strict administrative hierarchy and authority of the power, and they became a unified whole of interests and won the battle for oil resources with the central state-owned enterprises. Third, governments' behavior strategies were simple and crude in scaling-down, mainly by hierarchical control and administrative orders. Private capital's behaviors were more diversified in scaling-up, but were completely suppressed and eliminated by the government agencies.

Conclusions: We argue that politics of scale is an effective framework to explain multi-scale regulation, and is also a strategy of power competition among all practice parties.

Background

Realistic background—A general but special problem in Northern Shaanxi, China

There is no doubt that oil & gas resources play an important role in international geopolitics, and countries have launched a fierce geopolitical game around oil and gas resources^[1]. Even within a country, there is intense competition for oil & gas resources. In China, competitions for oil resources take place among state-owned enterprises, and even with local residents. Oil exploitation has been highly monopolized and dominated by China National Petroleum Corporation (CNPC), Sino Petroleum Corp, and China National Offshore Oil Corporation (CNOOC), so-called the 'Three Barrels of Oil' in China. The three big enterprises are directly controlled by the central government. In addition to the Big Three, there is 'half barrels of oil', named Shaanxi Yanchang Petroleum Group. It ranked 288 among the top 500 enterprises in the world in 2018. This enterprise conducts oil resource exploitation activities in Northern Shaanxi Province. To support the development of 'Old Revolutionary Base Areas' – Yan'an (the capital of Shaanxi-Gansu-Ningxia Border District Government by the Communist Party of China from 1937 to 1949), local

power was allowed to participate in oil exploitation directly. This led to the illegal appropriation of excessive rights, the introduction of private capital/enterprise, which results in greater competition among central state-owned and local enterprises, and then the necessary of 'reorganization and restructuring' in the background of '*Oil and Gas Resources Integration Movement*' (1996-2005). During this period, the conflict between some private investors (also called '*oil bosses*') and local governments intensified due to the mandatory confiscation of oil wells. This was the famous '*Northern Shaanxi oil case*'.

So, in addition to the common contradictions in the oil economic area, there are three unusual characteristics of oil exploration in Northern Shaanxi: (i) the existence of local subjects with oil exploration & exploitation rights other than the Big Three (state-owned enterprises). (ii) private capital had been involved in oil exploration. (iii) as a 'non-institutional alien, it survived in the 'Oil and Gas Resources Integration Movement'. These only happened in Northern Shaanxi, not in other places in China.

Why? Scholars have discussed the contradictions and institutional evolution of oil & gas exploitation in Northern Shaanxi mostly only listed the scattered facts^[2-5], or provided abstract mathematical models^[6]. There is no systematic and dynamic theoretical framework to explain the dynamic evolution of these particular political and economic issues.

Conceptual background—The literature on scale and politics of scale

The keywords – resources, power, capital, local actors, conflict, and development, indicate that oil exploitation in Northern Shaanxi can be included in the topic of modern political geography. Especially in geographers' eyes, resource and power dynamics are intertwined and realized through tools such as the market, law, politics, and science^[7]. We believe that the geographical interpretation of the formation of oil exploitation patterns in Northern Shaanxi can be inextricably linked to a keyword—**scale**. Oil exploitation rights are the heart of competition among governments, enterprises, and individuals. '**Politics of scale**' is an effective tool to clarify the power game of all parties in the transfer of oil exploitation rights among different scales. On the other hand, a case analysis with Chinese characteristics is also helpful to enrich political geography theory.

There is a debate in geography whether the scale is a real factor that impacts political and economic processes, or whether it is a tool of thought that we impose on the world^[8]. The study of scale reflects a contradictory view, a term that is made for granted but is difficult to define^[9]. Studies of the hierarchy, relationship, scale, and their social construction, have constituted the core topic of Western human geography since the 1990s.

The most important applications of 'scaling' are 'politics of scale'. The term 'politics of scale' was proposed by Smith^[10] to theorize the role of geographic scale frameworks in social activities and struggles on a wider scale (from capital accumulation and social regulation to social reproduction,

gender relations, mobilization, confrontation). Since then, politics of scale has been frequently used as an analytical tool by Smith, Swyngedouw and other radical geographers to describe specific sociopolitical processes, strategies, and struggles^[11-21]. Also, the concept of scale politics itself has aroused heated discussion^[22-27]. In general, the scale is used to demonstrate the social construction that evolved historically through social and political arguments. Swyngedouw^[26] defines scale as the 'embodiment of social relations of empowerment and disempowerment and the arena through and in which they operate'. Neil Brenner^[22] and Leitner, Sheppard and Sziarto^[28] argue that the key characteristics of scale politics are relevance and hierarchy, but the scale is also socially constructed and constantly shaped by social and political struggle^[9,20,29]. This means that scale is dynamic, evolving and competitive^[30-31], so it is flowing in time and space, constantly being remade by power^[27,32], and simultaneously fixed and mobile^[33]. Furthermore, as a strategy, actors apply politics of scale to political power struggles^[16,27]. When a process is fixed at one scale, it is liberated at other scales^[34]. Scale reorganization or scale construction can grant or remove the power of actors at different scales and be used as a strategic tool to promote power transfer^[22,31], or discourse struggle in social & cultural geography such as public memory, knowledge spaces, political engagement^[35].

Neil Brenner^[22] summarized the study on the application of geographical scale in the 1990s, and proposed two meanings of the 'politics of scale': politics of scale within a relatively clearly defined geographic arena^[12,23], politics of scale between different geographical scales. In the latter cases, the geographical scale is mainly understood as hierarchically and re-hierarchization, through which the differentiation of social space material and discourse is shown^[15,16,19,25,26,36-38].

Politics of scale between different geographical scales account for the majority of empirical studies on scale production, especially in the areas of natural resource management and environmental governance in the last decade^[39-44]. Resource management and environmental governance have to deal with the interrelation between space and natural environment constructed by society, and urgently require cross-regional and multilevel decision-making. Multilevel governance of various spatial hierarchical structures has attracted much attention. In such studies, politics of scale do not correspond to as open conflict, but as much subtler power redistribution^[41]. Even in Crow-Miller's^[30] study, scale reorganization can be used as a political tool to exert influence on specific groups in China. For example, if their sacrifice is remade into a sacrifice for the country, the public can consider the influential resource management project (China's South-North Water Transfer Project).

Method—framework And Its Adaptation To The Case

Analysis framework—Scale politics analysis of the tripartite game

Politics of scale has been introduced and widely used in mainland China^[45-48], and has two practical directions. First, the perspective of scale reconstruction is used to interpret China's regional planning strategy^[49,50], regional refractory^[51-53], and globalization^[54]. In this direction, the concept of scale is

combined with the actual administrative-level control to produce a relatively distinct geographical unit. Second, from the political practice perspective, politics of scale is utilized to analyze the struggle between stakeholders behind big events and regional development. Studies in this direction often have adopted the functional mechanism of the three-party game of 'politics of scale' proposed by Liu & Wang^[55](Fig.1).

There are three actors with unequal power in general politics of scale: strong actor, weak actor, and third-party. The strong side and the weak side have interest disputes on a certain scale. To achieve their respective goals, the strong actor will use the boundary to limit and suppress the expression of interests of the weak actor (scale-down), while the weak actor mainly uses "politics of scale" through direct fight by improving its mobility or making an alliance with its fellows, or through indirect mobilization by networks or scaled representation(scale-up). Once third-party support is obtained or sufficient mobility or group size is achieved, the weak actor can leverage the unbalanced power pattern by countering the strong actor.

In the above process, scale jumping is the core of the politics of scale, which includes bottom-up construction and top-down deconstruction. It covers both macro-political and economic processes and micro social behavior processes. In politics of scale, the strong actor usually corresponds to the national or regional government, while the weak actor usually corresponds to various sub-regions or individuals, and the third party usually corresponds to the global network of contacts or the international community.

This framework has been applied to analyze public events in China, such as the 'Sanlu milk powder incident (2008)', regional energy security^[56], geopolitical phenomena^[57], cultural phenomena^[58], regional development path selection and breakthrough^[59], and 'not-in-my-backyard space conflict^[60], showing that the analysis framework has effective explanatory power. Recently, based on integrating existing studies, Wang & Liu^[61] proposed a three-stage theoretical framework of scale politics and argued that it is necessary to expand the study of political geography of geographical space (especially territory) to social/expressive space to explore the influence of social relations and discourse on political geographical processes.

As for the 'politics of scale', we have concluded the following consensus:

- i. Politics of scale is not only a framework to explain the social and economic reconstruction and resource management, but also a strategic means for actors and groups to compete for power and interests in reality.
- ii. The scale is not only reflected in the spatial scale (body, family, community, city, region and global or other geographical sizes), but also in relations such as the hierarchy of public power, capital, even the influence of discourse platforms.
- iii. In the conflict, different actors or groups try to promote the development/reconstruction of events in the direction beneficial to themselves by using diversified scale behavior strategies.
- iv. The essence of the 'politics of scale' analysis is the diachronic and cross-scale behavior of different agents around interests/power in history.

Adaptation of cases and methods, data collection

Northern Shaanxi, including Yan'an City and Yulin City, is the core of the Loess Plateau, which is the most ecologically fragile area in China. The Northern Shaanxi oil region is located in the Ordos Basin (Fig.2). The total geological resources of conventional oil resources in the Ordos Basin are 116.50×10^8 t, and the total technical exploitation oil resources are 21.78×10^8 t^[62]. In 2018, crude oil production in Shaanxi province was 25.42×10^6 t (Changqing oilfield was 14.20×10^6 t, Yanchang Oilfield was 11.20×10^6 t, Sinopec was 0.02×10^6 t)^[63].

As described in the background section, The '*Northern Shaanxi oil case*' is only one part of the long-term game in the decentralization and centralization of oil exploitation rights in Northern Shaanxi since the 1950s. This is a typical case of competing interests across multiple scales. It presents a typical case of the reconfiguration of resources, power, and capital at multiple scales. Long-term scale and political analysis are more suitable to understand the expression and interests of inter-scale conflicts^[40].

Due to a long time of the evolution of the scale of oil exploitation right in Northern Shaanxi and the sensitivity of this topic, we do not conduct face-to-face interviews with relevant actors, but mainly use the published academic journal papers, university course materials and newspaper reports in China. We believe that the information that can be published and has been publicly available so far is credible.

Results

Institution changes in oil exploitation in Northern Shaanxi

The institutional system determines the arrangement of power/rights and interests. The evolution of institutions concerning the resources of oil & gas has always been controlled by the central government.

Entry and elimination of private capital in oil exploitation

(1) Centralized control by the central government, private capital only can enter by contract

The right to exploit oil & gas resources is concentrated in the big three central state-owned enterprises authorized by the State Council. Private capital & enterprises have two ways to gain rights to oil & gas drilling: *First*, they can apply for mining rights to (former) Ministry of Petroleum Industry, the competent department under the State Council, but this needs the enterprise to have certain qualifications. The *second* way is to rent oil (gas) wells of state oil enterprises by a cooperation agreement. The latter is easier and be used in Northern Shaanxi according to '*The oil and gas exploration, mining registration management interim measures*' (effectively promulgated on December 24, 1987, named '*87 interim measures*')^[5].

(2) Eliminate private capital: The '*oil and gas resources integration movement*'

The 'Oil and gas resources integration movement' (1996-2005), is an administration campaign to close and bar the illegal oil (gas) production sites, was carried out by the State Council. The campaign has two reasons, first is the technological breakthroughs which lead to the potential value enhancement of low-grade oil & gas fields, and the second is macroeconomic control by the central government'. This campaign was intended to strengthen the management power of the central government over oil & gas resource exploitation^[5]. According to these new policies, oil & gas resources exploration would be issued as the national-level registration management, approved by license issued by the state council and the Ministry of Land and Resources. Local governments and relevant departments had no right to accept the application for oil and natural gas resources exploration, or to issue licenses for exploration and mining^[2]. The '87 interim measures' were repealed on February 12, 1998. Since then, private enterprises had no lawful basis to conduct oil & gas exploitation activities. In 2001, the State Council issued documents to rectify some irregularities in the mining of mineral resources.

Possibility of local power's challenges under multi-scale management

The changes of oil and gas resource management systems mainly consider the economic dependence on oil & gas resources, global oil & gas supply relations, and domestic regulatory capacity^[64]. Within China, the oil production system is authorized at the central level. This results in some problems such as the single vertical mining management, conflicting between single-dimension mining ownership (central government) and dual land ownership (state & collective) ^[65-66].

Resource exploitation and management are cross-regional and cross-level affairs, especially related to local areas in terms of land use. This is an opportunity for local power intervened in vertical mining systems. In China, the conflict between local residents and nonnative oil production units reveals the resistance from local forces. But scattered struggles of ordinary residents are not sufficient to affect the macro-level distribution of interests. A more equitable interest distribution system of oil & gas resources could be created only through the dialogue among governments at all levels^[6]. The pattern of oil resource exploitation in Northern Shaanxi was formed in the game among different levels of state-owned enterprises and the governments behind them, private capital, local residents.

Stakeholders in oil exploitation in Northern Shaanxi

(1) Yanchang oilfield

The Yanchang Oil Bureau was established in 1949, and was delegated to the Shaanxi Provincial Government in 1958 by the former Ministry of Petroleum and Industry, and then to Yan'an, a prefecture-level city, in 1966. In 1986, the former Ministry of Petroleum and Industry agreed that oilfield areas could be rented by local county governments to benefit local economy. In 1998, Shaanxi Provincial Party Committee decided to merge Yanchang Oil Bureau with other enterprises to form a wholly state-owned enterprise, Shaanxi Yanchang Petroleum Industry Corporation, which is under the direct control of the provincial government. In September 2005, Shaanxi Yanchang Petroleum (Group) Co., LTD. was

established and took over the drilling and mining companies from 14 counties (districts) of Yan'an and Yulin City.

(2) Changqing oilfield

In 1971, Changqing Petroleum Exploration Bureau, under the Ministry of Petroleum, entered the Northern Shaanxi region and began to enjoy the exploration rights to the oil field along with the Yanchang Oil Bureau. In 1993's oil and gas resources registration, about 82.5% of the oil field in Northern Shaanxi was registered to Changqing oilfield^[67]. Changqing oilfield (now named Petro China Changing Oilfield Company) is a regional company of the CNPC and belongs to the 'central army'.

Yanchang oilfield and Changqing oilfield all have oil exploration & exploitation rights.

(3) County state-owned drilling & mining companies in Yan'an and Yulin City

Since the late 1980s, state-owned drilling & mining companies have been set up by counties where oil resources are located in Northern Shaanxi. They rented part of the oilfield area from the Yanchang oilfield. On April 13, 1994, the China National Petroleum Corporation and the Shaanxi Provincial Government signed an agreement to solve disputes over oil exploitation in Northern Shaanxi. In 2005, oil drilling & mining companies in 14 counties of Yan'an and Yulin were combined into Shaanxi Yanchang Petroleum (Group).

(4) Private capital

In the late 1980s, due to a shortage of funds and technology, counties in Yan'an and Yulin began to introduce individuals and private enterprises to oil exploitation in the form of joint operation of the oil well. Local governments issued 'business licenses' allowing investors to exploit oil. By the end of 1998, the total investment in the oil exploitation of Yan'an and Yulin counties had reached 5.05 billion yuan, and 3.29 billion yuan came from the private capital. By the end of 2000, there were 1,039 private oil investors, 4,473 wells and a crude oil production capacity of 1 million tons^[67-68]. Since 2003, oil wells have been merged one after another, causing the '*Northern Shaanxi oil case*'.

County state-owned drilling & mining companies and private capital had no oil exploration rights or formal exploitation rights, but they could extract oil by leasing from Yanchang oilfield and acquiring informal authorization from local governments.

The variation of the main scale of oil production in Northern Shaanxi is comprehensively sorted out (see Fig.3). Changqing oilfield, as a central state-owned enterprise, has owned the oil & gas exploitation rights in Northern Shaanxi since 1971. Yanchang oil is a legal entity and makes a very torturous experience. The county drilling & mining companies finally acquired legal status through reorganization. Private capital was 'illegal' and was eventually retracted and banned.

1) Through the control of oil & gas resource ownership, the central government ensures national energy security and a reasonable allocation of energy resources, obtains economic benefits from oil and gas exploration by the national petroleum corporation. 2) The Shaanxi provincial government tries to promote the development of the regional economy and obtain income by participating in oil & gas exploration. 3) County governments in Northern Shaanxi are particularly keen to increase their fiscal revenue from oil and gas. Oil production contributing more than 80% of the local fiscal revenue in some counties. Therefore, local governments (provincial-prefecture-county level) and their state-owned enterprises represent alliances with closely related interests. By contrast, 4) although private capital has a dual operation and contractual relationship with the local state-owned enterprises, there is no strong government support behind it. 5) Local residents often have conflicts with oil companies as well as with mining enterprises over land compensation.

Politics of scale in the decentralization of oil exploitation rights

In this stage, the relationship between the central and local governments is quite harmonious.

Promotion from the top: Decentralization based on the emotion linked to Old Revolutionary Base Areas and the unique geology of the oilfield

In 1958, Yanchang Oil Bureau was devolved to Shaanxi Province and then to Yan'an. The decentralization of the mining authority was promoted from the top. However, oil exploitation did not truly promote the development of the Northern Shaanxi regional economy before the late 1980s^[69], but led to a 'particularity' opportunity in terms of mining rights re-allocation – the intervention of local (prefectural and county government) forces was affirmed.

The decentralization of oil exploitation rights was mainly promoted from the upper level of government. The first reason for decentralization was the state support for the development of Old Revolutionary Base Areas. Second, the geological structure of the Northern Shaanxi oil field is characterized by small and scattered deposits, low permeability of the oil layer, which results in high cost and technical difficulty in exploitation. Therefore, many counties set up oil drilling companies. On April 13, 1994, under the approval of the State Council, the China National Petroleum Corporation and the Shaanxi Provincial Government signed an agreement on the exploitation of oil resources in Northern Shaanxi Province (hereinafter referred to as 'the agreement on April 13').

Promotion from the lower-level: Suppression triggered by economic interests at the local level

In addition to the support from the central government, there was a promotion from the lower-level local forces, mainly reflected in the conflicts between local enterprises/residents and Changqing oilfield. China's highly centralized and unified system of oil & gas rights excluded local governments and residents in resource exploitation or benefit distribution. Even in Northern Shaanxi, oil & gas exploitation had not been able to lift local residents out of poverty for a long time.¹ So, another force began to promote the

decentralization of oil exploitation. The 'struggle' of the local oil enterprises and residents from the lower-level, forced the central enterprises to compromise (see Fig.4). Local governments were the beneficiaries and protectors of these activities^[2].

(1) Local governments and residents often seek interests from oil exploitation through 'land ownership'. That is, central state-owned enterprises like Changqing oilfield have the oil mining right, but the land where the oilfield located is owned to the local governments and collective. Land ownership is a major motivation in land compensation negotiations. For example, Changqing oilfield often faces the local governments' refusal to approve of land, and the difficulty to expropriate the land due to the high asking price of the local governments. On average, the actual compensation cost per hm^2 of land expropriated by Changqing oilfield is 4.4 times higher than the prescribed fee^[70]. On the other hand, due to layer upon layer of holdings and occupation, landless farmers do not get fully compensate usually. Residents in the oilfield area often compensate for the loss and give vent to their dissatisfaction through irregular and illegal means^[2].

(2) The struggle of local enterprises is mainly manifested as 'cross-border' harassment. Due to huge economic benefits and the unclear demarcation of the registered oilfield area, conflicts and even violent incidents often occur among central enterprises (Changqing oilfield), provincial enterprises (Yanchang Oil) and county drilling & mining companies^[2,67]. According to statistics, since the 1990s, more than 70% of the oil and gas blocks in Changqing oilfield have been the object of harassment. From 2000 to 2005, there were 2.95×10^4 cases of damage to oil well facilities, stealing of crude oil, illegal drilling oil in China, among which 1.95×10^4 cases, or 66.1% of all cases, occurred in Changqing oilfield, causing economic losses of $\text{RMB } 2.79 \times 10^8$ ^[2,70].

(3) Decentralization of the exploitation right by local governments. The '4.13 agreement' failed to avoid the subcontract of exploitation right. Oil exploitation is a high-investment, high-risk industry. In the past, Counties in Northern Shaanxi were very poor, their drilling & mining companies generally faced bankruptcy. Therefore, the public 'invitation' was issued to introduce private capital to oil exploitation by attracting investment and selling well sites. The local government signed business licenses and relevant procedure allowing investors directly to engage in oil exploitation. However, according to the applicable laws mentioned above, such authorization is 'illegal'. A growing number of mining entities caused disorder, waste of resources and damage to the ecological environment.^[71]

Powerless scale-up from the weak party

At this stage, Changqing oilfield, a central state-owned enterprise, was 'powerless' to cope with the disorder caused by the interference, destruction and cross-border mining by local forces. Resulting from the separation of land ownership and mining rights, oil exploitation inevitably concerned local governments, and residents, and accepted relatively high costs in oil exploitation. On the other hand, the involvement of enterprises in oil exploitation in Northern Shaanxi was adopted by the central government. What Changqing oilfield could do be to protect its registered area of oilfield as much as possible. At the

same time, they actively sought to 'scale-up' through reflecting to the central government about the chaos, waste of resources and environmental damage of oil exploitation in Northern Shaanxi, and demanded to abolish the local oil exploitation rights.

Politics of scale in the centralization of oil exploitation

In the face of intense conflicts and disorder, remediation has begun, which is reflected in the centralizing oil exploitation rights and restructuring of local mining enterprises. First, in the late 1990s, China's petroleum industry was greatly restructured and reformed, with countrywide action '*Oil and gas resources integration movement*' (1996-2005). In this context, the Shaanxi Provincial Party Committee and Provincial Government upgraded the management scale of the state-owned capital of the Northern Shaanxi oil industry in 1998. The Yanchang Oil Bureau (administration by Yan'an), Yanlian Industrial Group, and oil refinery countries of Yulin area, was merged into the newly founded Shaanxi Yanchang Petroleum Industry Corporation, directly under provincial administration.² The state-owned capital and the related exploitation rights of Northern Shaanxi oil rose up at the administrative level. After that, the reorganization of the oil production in Northern Shaanxi began gradually, especially for private capital oil wells. In the early stage of centralization, the most important politics of scale was to push-down action step by step by the government. In the late stage, the politics of scale embodied as the conflict between the third-level local government and private capital (see Fig.4).

Scale-down: Downward pressure from the government

(1) The central government pushed down the scale of private capital

On December 22, 1999, the State Economic and Trade Commission's report revealed that these joint venture units were very complex and had no qualifications for oil & gas exploration and exploitation at all. In November 2000, the Shaanxi Provincial Government issued an urgent notice to stop illegally attracting capital for oil production. In September 2002, the State Economic and Trade Commission, the Ministry of Supervision and other relevant departments came to Shaanxi and demanded that the ownership, management rights and usufruct of the private capital' oil well should be recovered immediately.

(2) Administrative order from provincial and county governments

As the local fiscal revenue greatly increased and the private capital provided a 'win-win' profit, neither the local government nor the private oilfield owners broke this profit distribution balance. Instead, the county government increasingly attracted investment and capital, at the beginning of the issuance of these central & provincial government documents³. With the bringing pressure to bear, the Shaanxi Provincial Government started to rectify the order in March 2003, with the focus on (through forced redemption) reclaiming oil wells from affiliated units (private enterprises). The specific implementation was passed by the municipal governments of Yan'an and Yulin.

(3) Extreme actions: the '*Northern Shaanxi oil case*'

While the removal of private capital in the oil fields is essential, two major problems come into focus: ownership and compensation. On the issue of ownership, the Shaanxi Provincial Government and CNPC fought each other. To get the first-mover advantage, the local government took extreme actions. On May 28, 2003, in Ansai County, more than 40 oil investors were paraded in the streets, and 15 people were arrested formally. On June 16, more than 500 policemen were deployed to arrest 15 oil investors in Jingbian County, and 25 others were listed as wanted men by the police^[67,68,72,73]. This is the '*North Shaanxi oil case*'.

Failure of scale-up: Protection of private investors' rights

Some investors reacted strongly to the mandatory confiscation of oil wells before agreeing on compensation. Since 2003, some private oil wells investors had adopted various means of activism to express their views and try to gain support from the public. These countermeasures included promulgating news reports, participating in TV interviews, seeking legal advice and dialogue, presenting petitions and proposals to the National People's Congress and the Chinese People's Political Consultative Conference, organizing experts' panels, setting up a website, and even initiating judicial proceedings. When the redemption of oil wells encountered resistance and negotiations proceeded with difficulty, local governments resorted to violent means, such as arrested private enterprise litigators and the lawyers acting on their behalf. The Shaanxi Provincial High Court refused to file the case. 'Scale-up' behaviors from private investors were completely suppressed, and there was no powerful third party to help the weak(see Fig.5). The specific actions of both parties in the incident can be seen in^[73-76], this paper will not go into detail.⁴ Throughout this time, local governments turned economic problems into political issues in the name of "national interests"^[72]. After the completion of substantive rectification, the political character of the case began to be weakened, and the compensation was passed on to the enterprise level—the Yanchang Group⁵.

China adopts a centralized management structure. Private oil investors take collective protest actions, such as petitions, lawsuits, noninstitutional protest actions, or mass gatherings and violent confrontations with the local governments. But due to very high protest costs, they were unable to protect private property rights by obtaining concessions from local governments. Also, based on the industry data in the industrial enterprise database from 1998 to 2005, Feng^[5] found that the property rights of private enterprises in the oil & gas field had the lowest degree of protection compared with coal and other mineral resources enterprises.

Rescaling, and conflict continues: the rise of a local state-owned oil enterprise

After the eliminating of private capital, the Shaanxi Provincial Government initiated the second major restructuring in the oil industry in September 2005, allocating the counties' oil drilling companies and the original Shaanxi Yanchang Petroleum Industry Corporation and its subordinate enterprise to recombine as the 'Shaanxi Yanchang Petroleum (Group) Co., LTD.'

The reorganization of enterprises in 2005 has internal and external dimensions of meaning. *Firstly*, resource exploitation enterprises were integrated with the axis of exploration, drilling & mining, and refining, the management scale of oil production enterprises raised. *Secondly*, the central state-owned enterprises' aspiration for the oil & gas resources in Shaanxi was repulsed. Mining disorder in Northern Shaanxi justified the central government and enterprises' aspiration to eliminate the heterodoxy in oil exploitation, and to incorporate it into 'normal' management order. If there was no solution to the chaotic order in Northern Shaanxi oil exploitation, the local government would be in a passive position in the game with the central state-owned enterprises. This was the major reason why local governments confiscate private capital' wells before reaching a compensation agreement.

So far, restructured Yanchang Petroleum (Group) has developed into a great comprehensive enterprise integrating the exploitation and R&D of oil, natural gas, coal, and other resources. It has carried on business across regions. For example, Yanchang Petroleum (Group) has 23 oil production plants and three exploration units, in Shaanxi, Inner Mongolia, Ningxia, and 10 other provinces, and established a dedicated international exploration and development company abroad ⁶.

Since 2005, The main conflict of oil exploitation in the Northern Shaanxi area has returned to the conflict between Yanchang Petroleum Group (attached to Shaanxi Provincial Government) and Changqing oilfield (attached to CNPC). Conflicts even violent incidents continue from time to time⁷.

Discussion And Conclusions

Compared with the simple listing of facts or abstract mathematical models, the politics of scale provides a systematic and dynamic framework to interpret oil exploitation in Northern Shaanxi. At the same time, politics of scale is also a strategy of power competition in practice.

The basic facts of the case are as follows. *Firstly*, multiple decentralization of the oil & gas exploitation in Northern Shaanxi resulted in a complex and multifaceted development pattern. The decentralization of exploitation rights was based on the emotional support of the central authorities for the poor old revolutionary area and the inferior geological conditions of the Northern Shaanxi oilfield, also based on the awakening of local interests and struggle. To reduce financial pressure and share risks, private capital was introduced into oil exploitation, but the danger was hidden from then on. *Secondly*, in the centralization period of oil exploitation, the main aim was removing private capital and reorganizing the scattered mining companies in counties. Due to the strict administrative hierarchy, the original conflict of interest distribution was covered up by the authority of the government, and the interests of the Shaanxi governments at all levels finally became unified. As the target of the reorganization, the private capital and joint venture unit were completely suppressed, and the judicial means for a solution was blocked, resulting in fierce conflicts. *Thirdly*, central & local governments, as the actual owners of state-owned enterprises, were directly involved in the politics of scale. The local governments must carry out the higher authorities' will to scale-up the oil exploitation right, but also had to preserve local interests from oil

exploitation. County-level mining units were merged into the enterprises directly under the province state-owned enterprises, which were the 'scale reorganization' that most people can accept.

Scale-down will strengthen the dominance of powerful subjects in social events in China^[55]. In this paper, the case not only fully reflects this feature but also shows the positive role of local forces in scale politics. In combination with this case, several points deserve attention.

Economic interests were the main driving force for the politics of scale. *Firstly*, the original decentralization of oil exploitation rights was driven by the 'sentiment' of policymakers towards the old revolutionary areas, but the subsequent decentralization and centralization changes were mainly driven by economic interests⁸. Especially when oil exploitation brought huge economic income to local finance and residents, local forces (governments, local-state-owned and private enterprises, residents) began to get benefits from oil exploitation through land ownership, cross-border mining and other informal behaviors. This was mainly guaranteed by the entanglement of oil exploitation rights with land policy and financial and tax institutions. *Secondly*, local governments also used the politics of scale as an economic tool to diversify risk and stimulate economic vitality. Oil exploration and exploitation are a high-risk and high-investment industry. Due to problems of capital, technology, and management, county state-owned oil plants generally faced losses. Therefore, the county governments further scaling down oil exploitation activities. By attracting investment, they illegally authorized private capital as the joint venture unit into oil exploitation to increase economic vitality and profits.

The politics of scale strategy is diversified, and the lower the hierarchy level the more diverse the strategy. It is mainly reflected in the centralization of oil exploitation which was driven by the government through scale-down. *Firstly*, from the government perspective, scaling-down was based mainly on simple and brutal hierarchical administrative orders but no other auxiliary strategies. At the same time, the scaling-up strategy of private capital was diversified in seeking protection for their rights. As private enterprises directly faced the government, their strategies were more traditional, formal and rational (demonstrated through participation in TV interviews, news reports, mass petitions, submission of legal opinions, litigation, proposals to NPC and CPPCC representatives, etc.). Unfortunately, such 'normal' approaches were often controlled or even directly eliminated by governmental authority power. *Secondly*, similar to Crow-Miller's work^[30], government-led scaling-up serves as a political persuasion tool to exert influence on the masses in this case. The local government once persuaded and demanded the private capital divestment from oil exploitation in the name of "national interests" and "national security". However, this did not yield the desired persuasive effect. On the other hand, "national interests" and "national security" were the excellent reason for the centralization of oil exploration to the central-state-owned enterprises (scale-up). They persuaded the central authorities to normalize the oil exploration in Northern Shaanxi into their system. Therefore, when the politics of scale was used as a persuasive tool, its effect depended on a variety of complex factors. *Thirdly*, in this case, a powerful third party was not formed, especially the Internet had not yet highlighted its enormous power in scaling-up practice. Public opinion from the Internet first supervised in China in 2003, and a series of major public opinion events (such as the *SARS incident*, *Sun Zhigang and the detention & repatriation system case*) demonstrated the

power of the Internet to promote democracy and institutional improvement. On July 13, 2003, private oil investors opened the website '*Private Oil Network in Northern Shaanxi*'. However, due to the short period and single-source dissemination, the website did not represent the main public opinion among netizens.

In 2010, the central government began to encourage private capital investment in the exploration of *unconventional* oil & gas (shale gas, coalbed methane, oil sands, oil shale). Private capital is also allowed entry into *conventional* oil & gas exploration through cooperation and accounts for a small proportion. Even so, private capital has already been accessed.

Declarations

Ethics approval and consent to participate

Consent for publication

Availability of data and materials

The data presented in this case study are available on published papers and news reports in China.

Competing interests

The authors declare no conflict of interest. The funders had no role in the design of the study, in the collection, analyses, or interpretation of data, in the writing of the manuscript, or in the decision to publish the results.

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Authors' contributions

Conceptualization, Q.Y. and Y.G., methodology, Y.G., software, Y.G., validation, Y.G., formal analysis, Q.Y., investigation, Q.Y., resources, Y.G., data curation, Y.G., writing—original draft preparation, Y.G., writing—review and editing, Q.Y., visualization, Y.G., supervision, Q.Y., project administration, Q.Y., funding acquisition, Q.Y. All authors have read and agreed to the published version of the manuscript.

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Notes

1 Before 2003, the 12 counties and districts in Yulin were all state-level poverty-stricken counties. Of the total population of 325.8 million, 220,000 people did not reach the subsistence level. In the old revolutionary area of Yan'an, there are also eight state-level poverty-stricken counties in the 13 districts and counties.

2 From <http://baike.baidu.com/view/1601675.htm>.

3 Most of the private entrepreneurs interviewed by *China Newsweek* during their investigation in Northern Shaanxi Province were attracted by this round of investment promotion (Zhu, Y. Protection of private property first case. *China News Weekly*,2004-11-01,34-36, in Chinese).

4 There are lot of text and pictures in Prof. Du Xiaowu' lecture "*Introduction to the Development of Shaanxi Petroleum Industry*", Xi'an Shiyou University (can be download from <http://sxsgy.xsyu.edu.cn/classZiLiao.html#pptdownload>). The representative in proceedings Feng Bingxian's blog, <http://blog.sina.com.cn/u/1366985573>.

5 The Northern Shaanxi oil case has been settled in a harmonious way for four years(in Chinese). 2007-04-19, *International Financial Times*, <http://xian.qq.com/a/20070419/000077.htm>, The Northern Shaanxi oil case was transferred to another one hundred days(in Chinese). *Economic Observer*, <http://finance.sina.com.cn/g/20070617/19383698521.shtm>.

6 from<http://ktgs.sxycpc.com/gsgk/gsjj.htm>.

7 The latest incident occurred on 31 August 2018, more than 100 people from the two sides were involved in a confrontation, throwing Molotov cocktails at the scene. Four people have been injured and one has suffered severe burns. (in Chinese). <http://news.sina.com.cn/c/2018-09-02/doc-ihinpmnr9340019.shtml>.

8 It is worth noting that around 1996, CNPC made a breakthrough in the exploration and exploitation technology of 'low-grade' oil fields, and the value of low-grade oil fields, including Northern Shaanxi, greatly increased.

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Figures

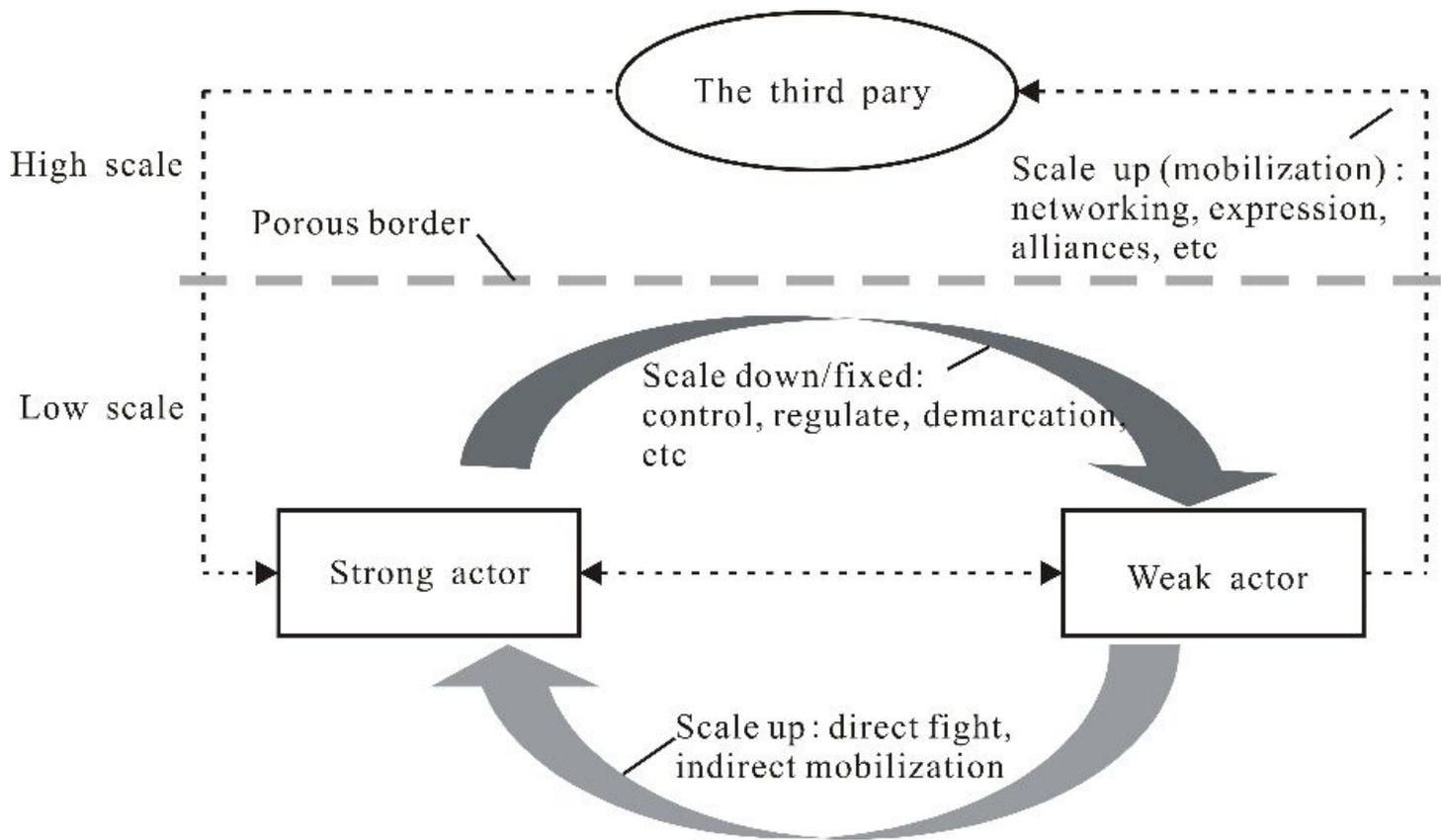


Figure 1

General framework of politics of scale

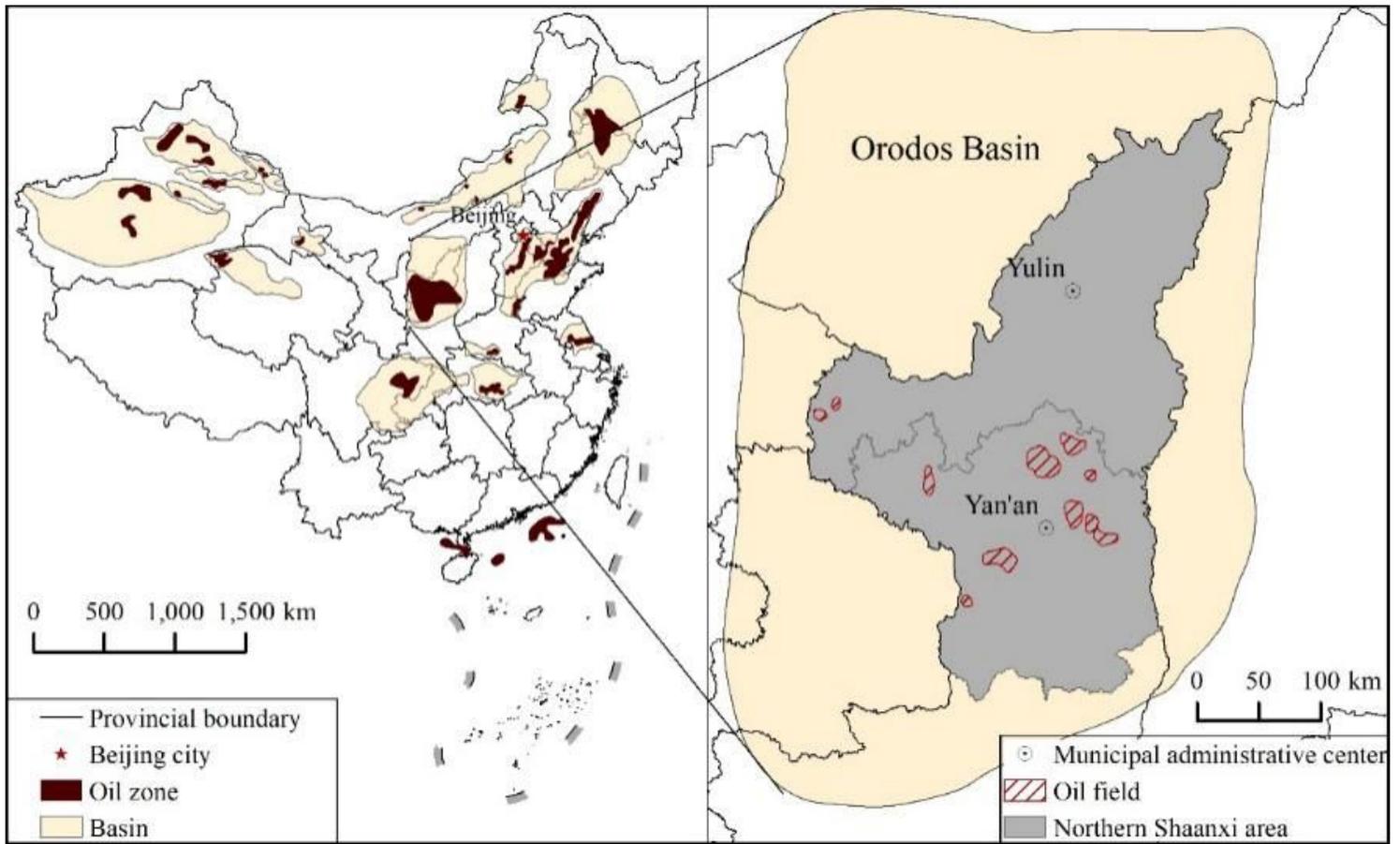


Figure 2

Distribution of petroleum resources in Northern Shaanxi

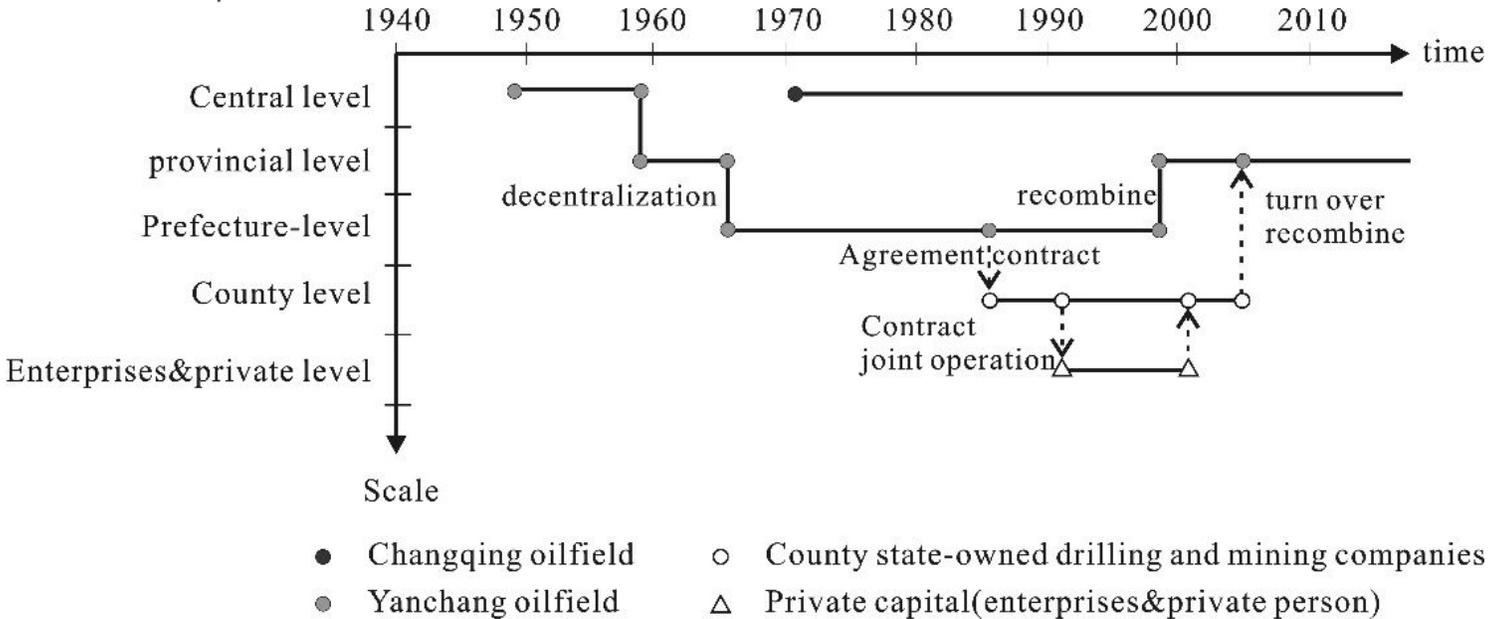


Figure 3

The subordinate-level changes of the oil exploration enterprises in Northern Shaanxi since Note: The provincial-level refers to the Shaanxi Provincial Government, prefecture-level city level refers to Yan'an City

and Yulin City, The county-level refers to the counties under the jurisdictions of Yan'an and Yulin City.

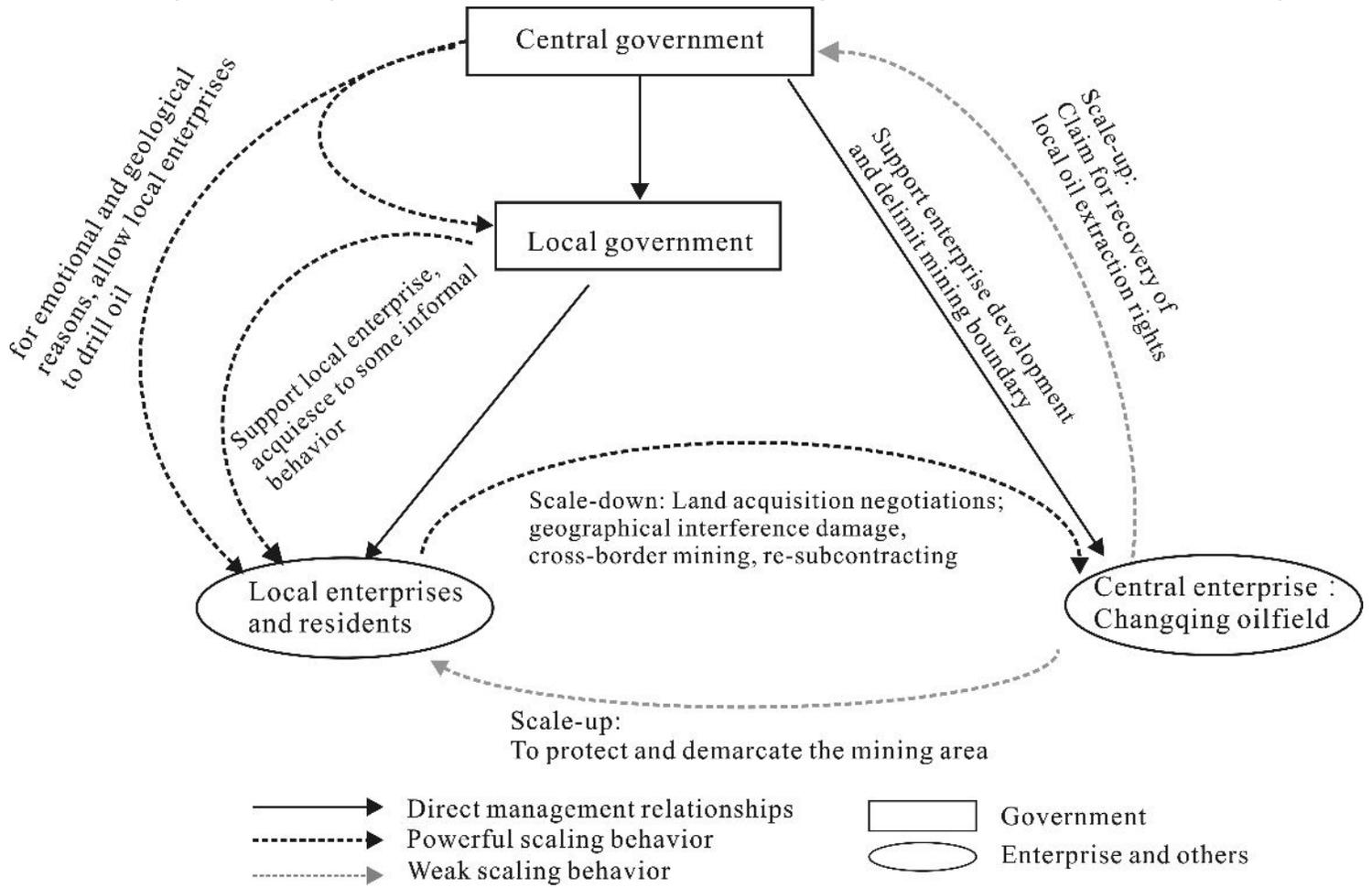


Figure 4

Politics of scale in the decentralization of oil exploitation rights

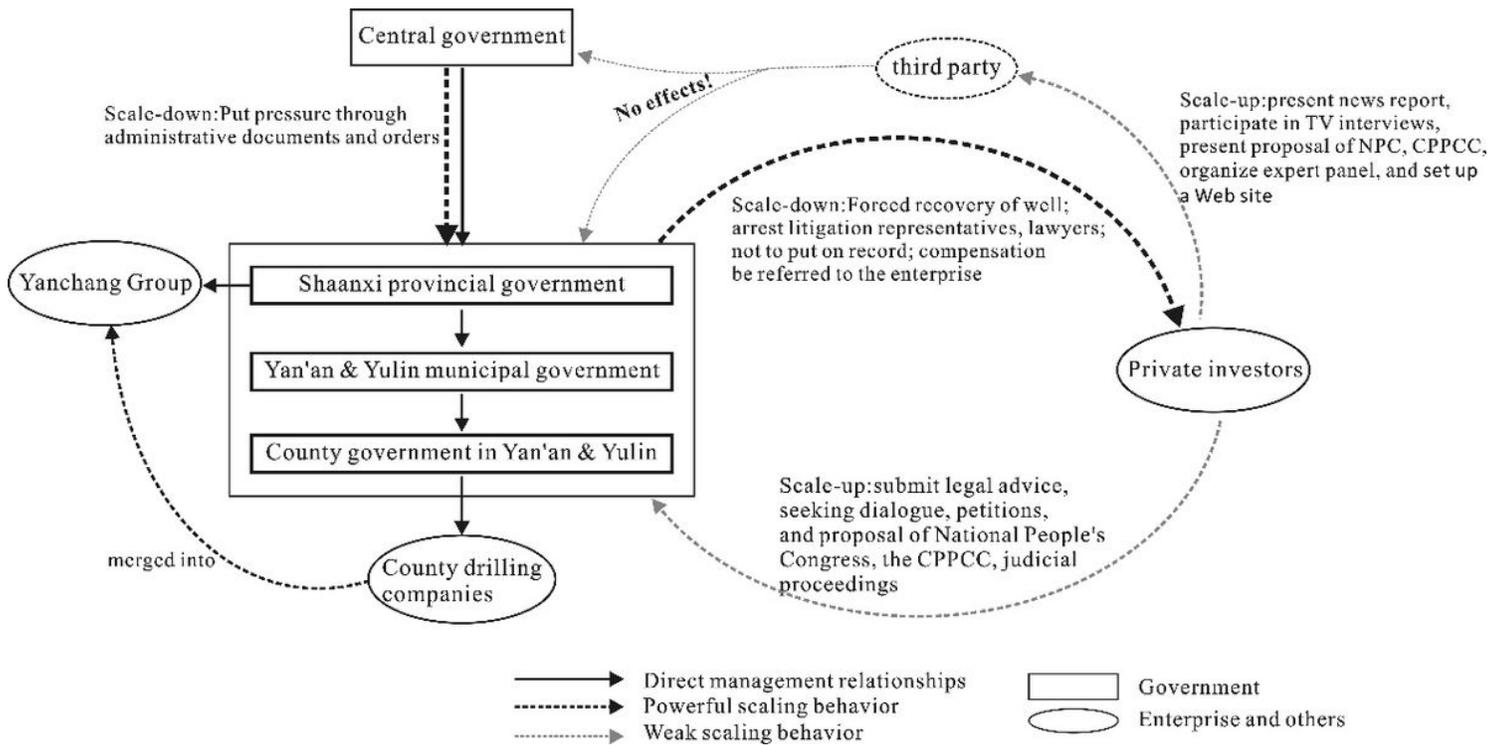


Figure 5

Politics of scale in oil exploitation right centralization in Northern Shaanxi Province