THE NATURAL RESOURCE CURSE IN XINJIANG

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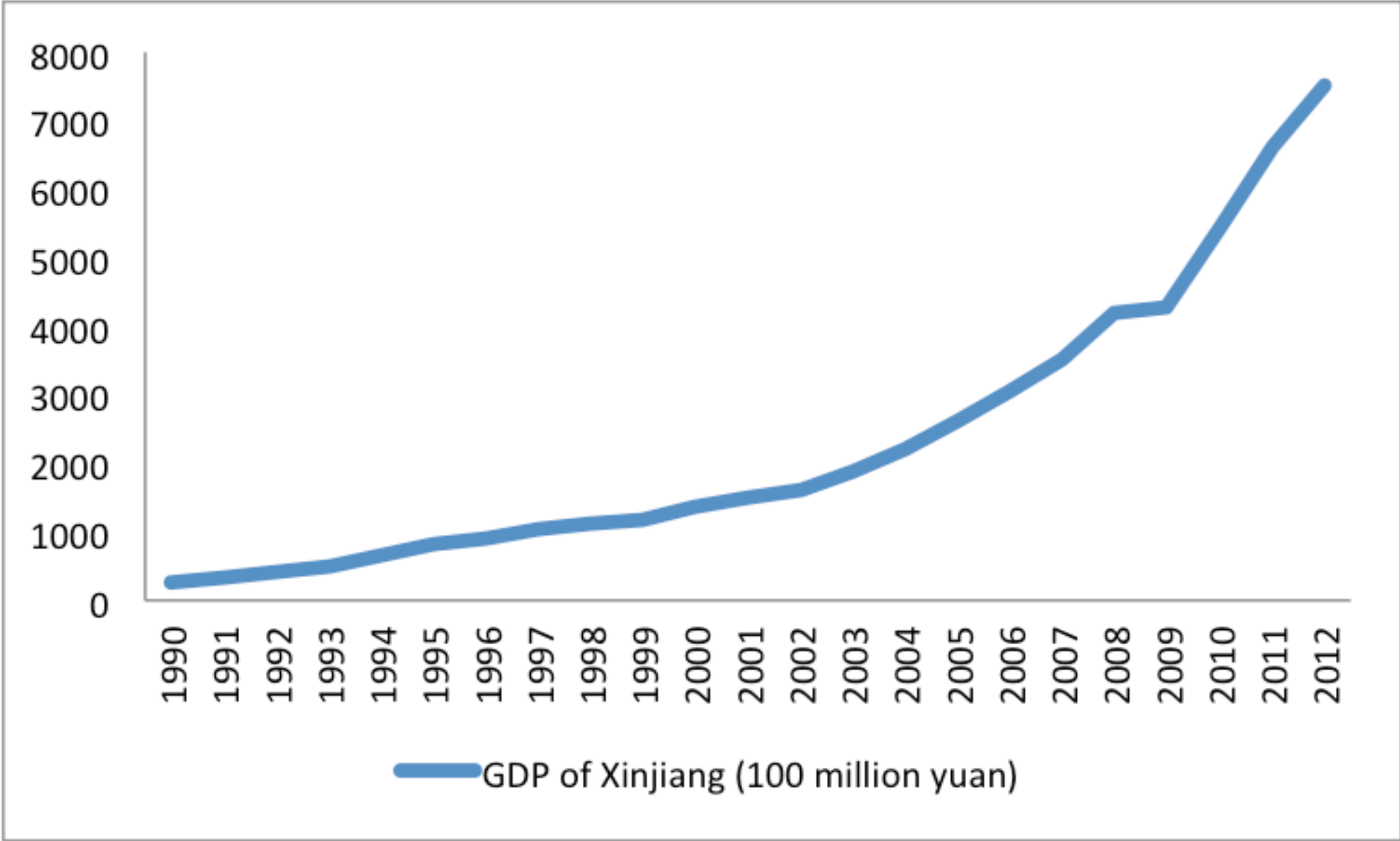
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Background Information about Xinjiang

- In 2012, Xinjiang has a resident population of 22.32 million. Among them 8.47 million are Han Chinese, the majority ethnic group in China, and 10.52 million are the Uyghurs, the most populated ethnic group in the region (Xinjiang Statistical Yearbook, 2013).

- The Gross Domestic Product (GDP) of Xinjiang in 2012 is 7505.31 million RMB, and the GDP per capita is 33796 RMB in that year (Xinjiang Statistical Yearbook, 2013)
- 1 USD= 6.2 RMB

GDP of Xinjiang (100 million yuan)

Background Information about Xinjiang

- Xinjiang has 40% of coal reserve, 22% of petroleum reserve, and 28% of gas reserve in the country.

- The coal deposits in Xinjiang are of higher quality compared to deposits in other provinces (less sulfur, more accessible).

- Oil-gas fields in Xinjiang are concentrated in Karamay, Tarim Basin, and Turfan Basin. They are three of China's 17 major gas-oil fields in the land, and are among the most productive ones.

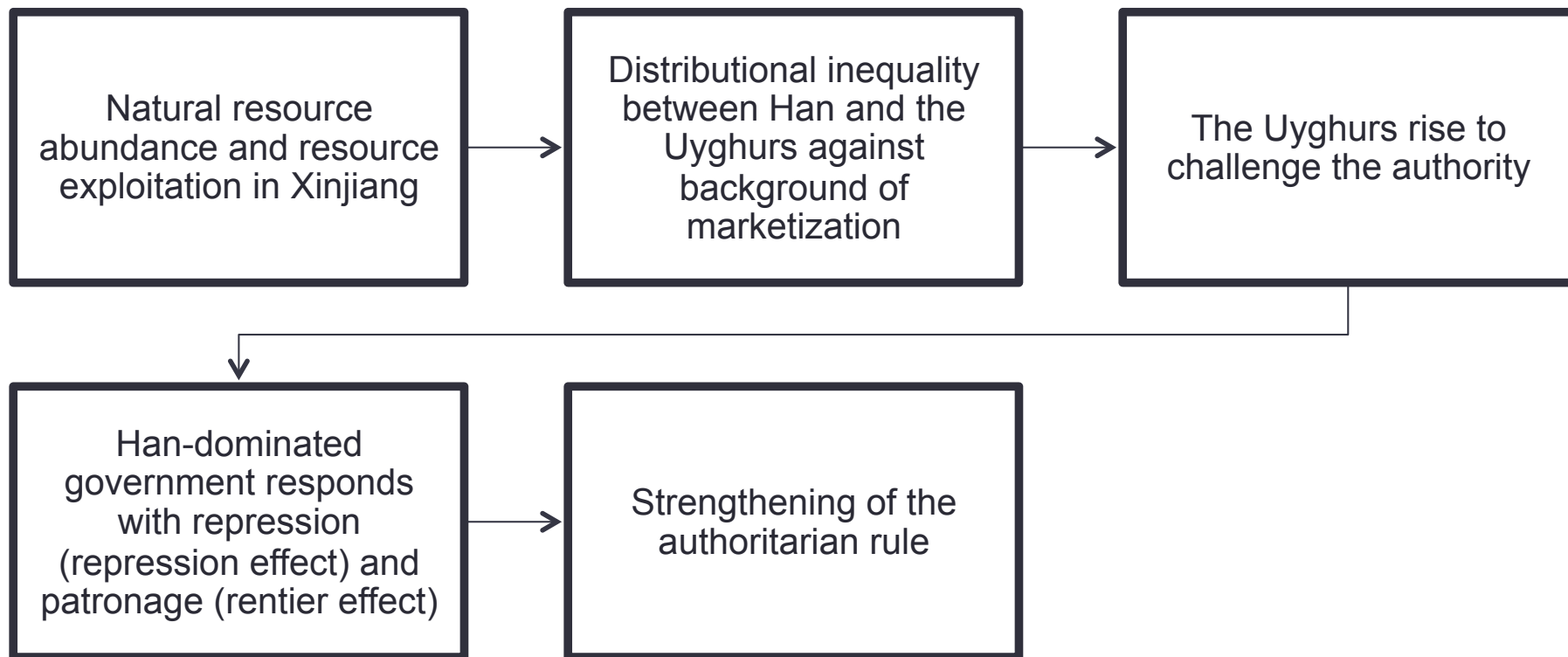# Background Information about Xinjiang

Why Xinjiang?

- Soon after Xi left Xinjiang, on April 30, 2014, a terrorist attack happened in a train station in Urumqi.
- The Kunming Terrorist Attack on March 1, 2014: 33 dead, more than 140 injured.
- Since the 1990s the frequency of terrorist attacks by Uyghur independence activists in Xinjiang has been increasing.
- The oil and gas in Xinjiang are supposed to bring prosperity to local residents. But…
- Natural resource curse is a good theoretical framework…

What is a Natural Resource Curse?

- The view that natural resources and democracy do not go together is often coupled with parallel literatures that find correlations between natural resources and slow economic growth or the onset of civil wars. Taken together, these literatures have given rise to the stylized fact that there is a "resource curse." (Haber and Menaldo, 2011)

- In other words, natural resource abundance is believed to have some negative effect on either political democratization, or economic growth, or both simultaneously. Such causal observation is usually referred as "natural resource curse".

Hypothesis

Natural resource abundance and resource exploitation in Xinjiang → Distributional inequality between Han and the Uyghurs against background of marketization → The Uyghurs rise to challenge the authority → Han-dominated government responds with repression (repression effect) and patronage (rentier effect) → Strengthening of the authoritarian rule

Literature Review

		Whether the empirical results support the "curse"	
		Support	Not Support
Which dependent variable the paper is focused on	**Economic Growth**	Warner (1995) Sala-i-Martin and Subramanian (2003) Collier and Goderis (2009)	
	Political Democratization	Ross (2001) Wantchekon (2002) Jensen and Wantchekon (2004) Smith (2004) Friedman (2006) Goldberg et al. (2008) Norman (2009) Ross (2009) Aslaksen (2010) Ramsay (2011)	Haber and Menaldo (2011) Wacziarg (2012)

Ross, M. L. (2001)

- He explores the question of causality: if oil does have antidemocratic effects, what is the causal mechanism?
- (1) a "*rentier effect*," which suggests that resource-rich governments use low tax rates and patronage to relieve pressures for greater accountability;
- (2) a "*repression effect*," which argues that resource wealth retards democratization by enabling governments to boost their funding for internal security;
- (3) and a "*modernization effect*," which holds that growth based on the export of oil and minerals fails to bring about the social and cultural changes that tend to produce democratic government.

Ross, M. L. (2001)

- *Natural Resource and Ethnic Conflict (Civil War)*
- "Mineral wealth is often geographically concentrated. If it happens to be concentrated in a region populated by an ethnic or religious minority, resource extraction may promote or exacerbate ethnic tensions, as federal, regional, and local actors compete for mineral rights. These disputes may lead to larger military forces and less democracy in resource-rich, ethnically fractured states such as Angola, Burma, the Democratic Republic of Congo, Indonesia, Nigeria, Papua New Guinea, Sierra Leone, and South Africa."
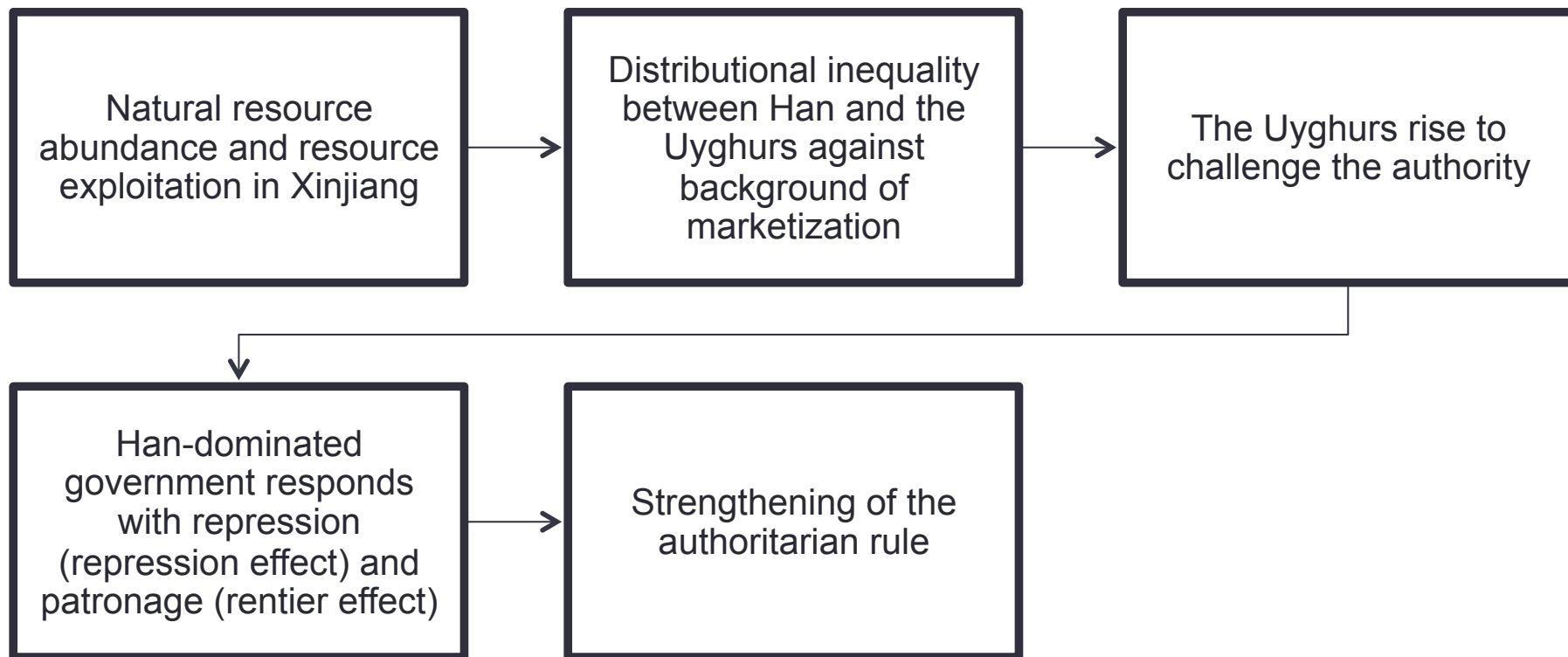
Goldberg, E. et al. (2008)

- Using a new data set for the U.S. states spanning 73 years and case studies of Texas and Louisiana.
- **In short, the American states look a lot like contemporary accounts of many mineral economies**: Economic decisions were driven by the prospect of huge returns in oil, rent seeking was prevalent, and state governments colluded with private firms and each other to maximize the rents they might extract from the oil industry.
- How about Xinjiang? Oil and gas exploitation represents almost half of Xinjiang's fiscal revenues (Becquelin, 2004).

Literature Review (Formal Theories)

- The Mechanisms
- Ross (2001): repression effect, rentier effect, modernization effect

- Caselli (2006) argues that countries with large amounts of natural resources experience *power struggles*, in the sense that potential challengers have a stronger incentive to seek to replace the existing government, or other forms of forced change in leadership.

- Caselli, F. and Cunningham, T. (2009) suggest that future work should tackle distributional effects more explicitly.
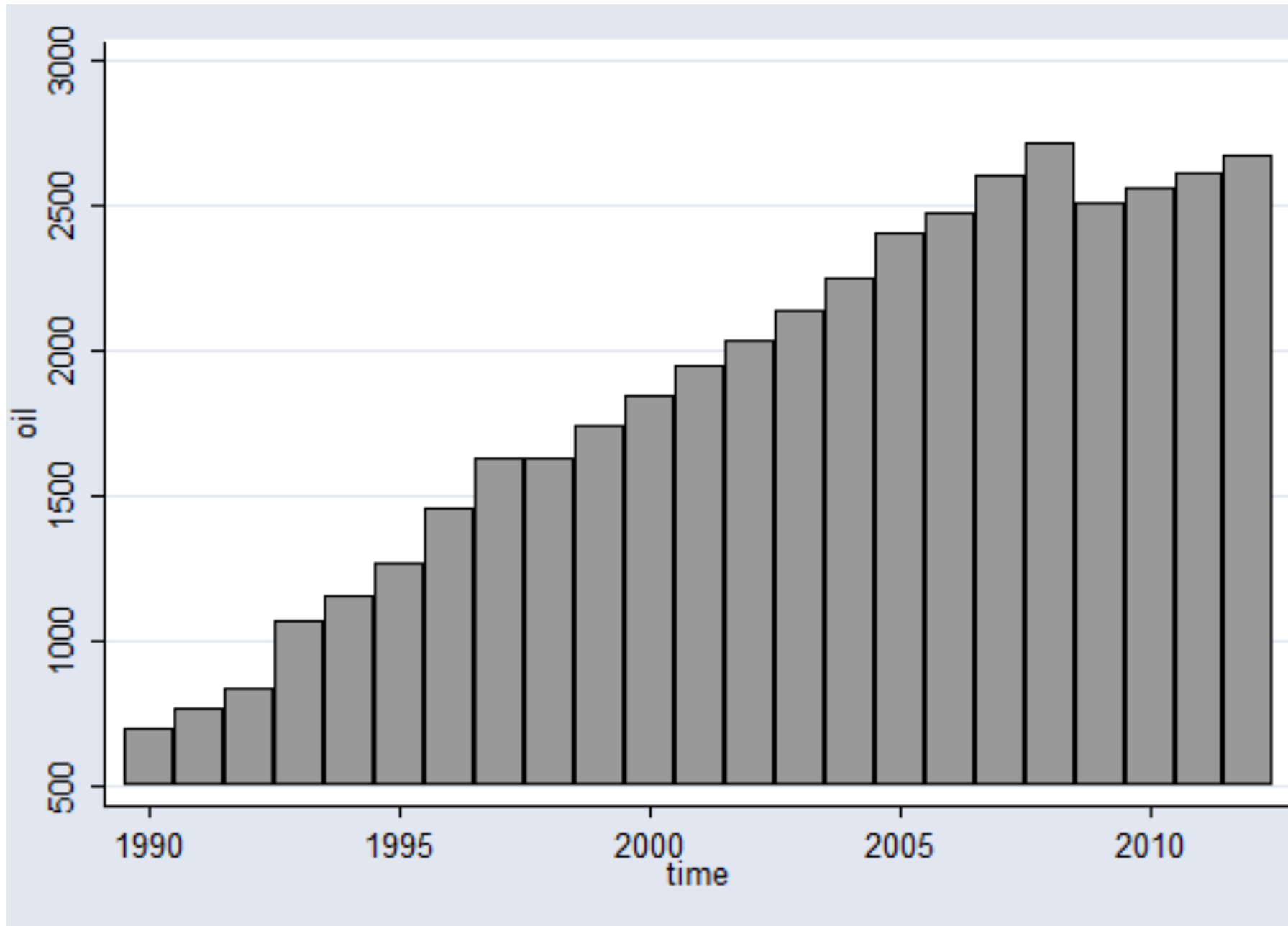
Hypothesis

Variables and Measurement

Variables	Measurement	Data
Natural Resource Abundance and Resource Exploitation in Xinjiang	Output of Oil and Gas	Xinjiang Statistical Yearbook
Distributional Inequality	Migration, Unemployment, Income Gap	Data on migration and relevant empirical researches using national population census data
Challenge from the Uyghurs	*Frequency of Mass Protests* Frequency of Extreme Activities (including Terrorist Attacks)	GTD
Repression	Public Security Budget Social Control Methods	Internet Censorship *Frequency of Mass Protests*
Patronage	Fiscal Transfer and Investment	News report

Methodology

- Within-Case Analysis
- Van Evera (1997: 58-64)
- Congruence Procedures: When using congruence procedures, the investigator explores the case looking for congruence or incongruence between values observed on the independent and dependent variable and values predicted by the test hypothesis;
- Process Tracing: In process tracing, the investigator explores the chain of events or the decision-making process by which initial case conditions are translated into case outcomes.

Output of Crude Oil (10000 tons)

Output of Natural Gas (100 million cu. m)

Migration Flood

Dependent Variable	
$\Delta mipop$	= migration population from other provinces in 2010 - migration population from other provinces in 2000
Independent Variables	
$\Delta segdp$	= GDP of secondary sector of Xinjiang in 2010 - GDP of secondary sector of Xinjiang in 2000, billion RMB
Δgdp	= GDP of Xinjiang in 2010 - GDP of Xinjiang in 2000, billion RMB
$\Delta enpop$	= population working in energy industry of Xinjiang in 2010 – population working in energy industry of Xinjiang in 2000

Migration Flood

	Model 1	Model 2	Model 3	Model 4
Δsegdp	3167.94***		3000.14***	
	(315.47)		(237.67)	
Δenpop		151.28***	132.93***	73.16***
		(28.21)	(16.54)	(13.04)
Δgdp				2151.68***
				(115.48)
Constant	-3520.29	6051.86	-1707.492	-5589.19***
	(2695.18)	(3321.539)	(2035.16)	(1582.11)
Number of Observations	84	84	84	84
Prob>F	0.00	0.00	0.00	0.00
R-square	0.55	0.26	0.75	0.86
Adjusted R-square	0.55	0.25	0.74	0.86

Note: The numbers in parentheses are standard errors. $*p < 0.05$. $**p < 0.01$. $*** p < 0.001$.

Migration Flood

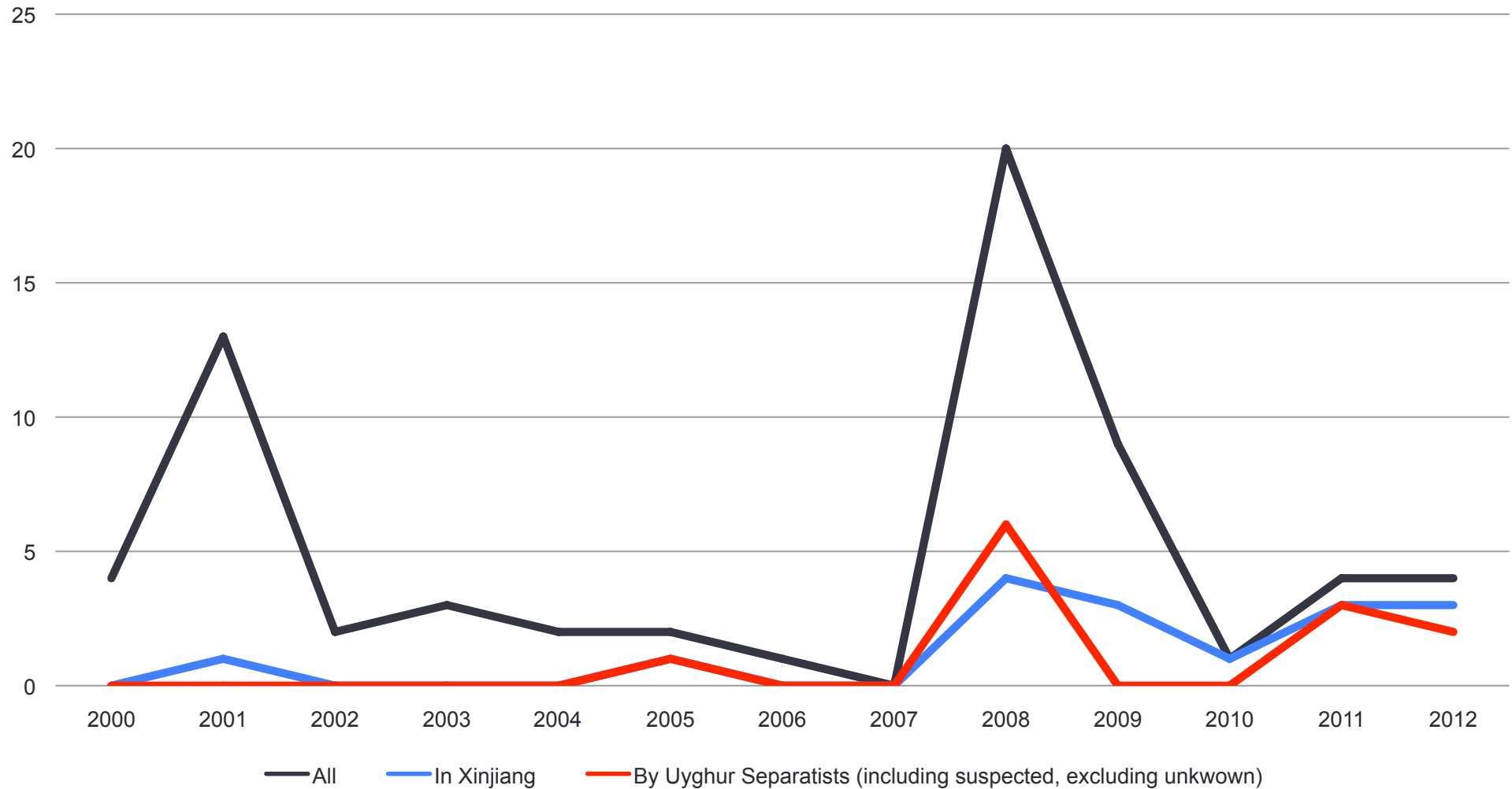|	Percentage of Ethnic Minorities in 2010	Oil or Gas Output Reported in 2007
XUAR	59.52	Not Applied
Urumqi City	25.09	Yes
Qaramay City	18.35	Yes
Turpan Administrative Offices	74.98	Yes
Hami [Kumul] Administrative Offices	30.65	No
Changji Hui Autonomous Prefecture	24.69	No
Bortala Mongolian Autonomous Prefecture	35.04	No
Bayangol Mongolian Autonomous Prefecture	40.71	Yes
Aksu Administrative Offices	77.11	No
Kizilsu Kirgiz Autonomous Prefecture	93.22	No
Kashgar Administrative Prefecture	92.00	No
Hotan Administrative Offices	96.41	No
Ili Kazak Autonomous Prefecture	64.78	No
Tacheng [Tarbagatai] Administrative Offices	34.27	No
Altay Administrative Offices	61.45	No

Unemployment Problem of Ethnic Minorities

- Zhu and Balchford (2012) believe it is the *self-initiated/market-driven migration* that has a very direct impact on both demographic and employment situations in ethnic minority areas.

- In a free market where companies, including state-owned ones, emphasize efficiency, Han Chinese do have more advantages simply because they can speak Mandarin Chinese more fluently than the Uyghurs, for whom Mandarin is a completely different language. According to a survey, only **19.88%** of the Uyghurs have the ability to speak Mandarin, ranking the 50th among the 54 minorities surveyed (Han, 2013).

- That's the reason why the ADB report of 2001 identifies language policy in Xinjiang as one of the most fundamental obstacles to the upward mobility of the Uygur (Asian Development Bank, 2002: 276-277).

- Two Case Studies.

Challenges from the Uyghurs

Terrorist Attacks in China (GTD)

Legend: All — In Xinjiang — By Uyghur Separatists (including suspected, excluding unkwown)

Year	Date	Place
1990	April 5th	Akto County, Kizilsu Kirgiz Autonomous Prefecture
1992	February 5th	Urumqi
1993	June 17th	Kashgar
1997	February 5th	Yining City, Ili Kazak Autonomous Prefecture
	February 25th	Urumqi
2008	August 4th	Kashgar
2009	July 5th	Urumqi
2012	February 28th	Yecheng County, Kashgar
	July 18th	Hotan
2013	April 23rd	Bachu County, Kashgar
	June 26th	Shanshan County, Turpan
	August 20th	Yecheng County, Kashgar
	November 16th	Bachu County, Kashgar
	December 15th	Shufu County, Kashgar
	December 30th	Shache County, Kashgar
2014	January 24th	Xinhe County, Aksu
	February 14th	Wushi County, Aksu

Repression

- According to official statistics released in January 2013, regional authorities allocated 9.34 billion RMB to the public security sector in 2012, a 23-percent increase over 2011.

- Information blockade that was introduced after the street riots on July 5th, 2009: the SMS system was completely shut down for almost 7 months, while it took 10 months to restore the very basic access to the Internet.

- The frequency of mass protests that broke out in Xinjiang (very counter-intuitive).

黑龙江 11
吉林 9
辽宁 7
新疆 5
内蒙古 6
北京 35
甘肃 18
天津 5
河北 19
宁夏 1
山西 14
山东 19
青海 7
陕西 22
河南 39
江苏 43
上海 22
安徽 21
四川 54
湖北 19
重庆 15
浙江 35
贵州 17
湖南 29
江西 27
福建 22
云南 32
广西 29
广东 267
海南 23

2
华东地区居第二位，群体性事件189起；

3
西南地区居第三位，群体性事件118起。

四川紧随广东占6.2%

1
华南地区是高发区，群体性事件319起；

广东居全国之首，

Repression

- There have been 267 mass protests with more than 100 participants in the past 13 years in Guangdong. In contrast, at the same period, the number is 5 in Xinjiang.

- Bovingdon (2013; 21-22) gives his explanation in this way: officials and public security personnel have kept a tight lid on public protest in Xinjiang; as a consequence, most protest has been individual or private. He also notices that the frequency of protests in Xinjiang was declining while they were on a dramatic rise in the rest of China.
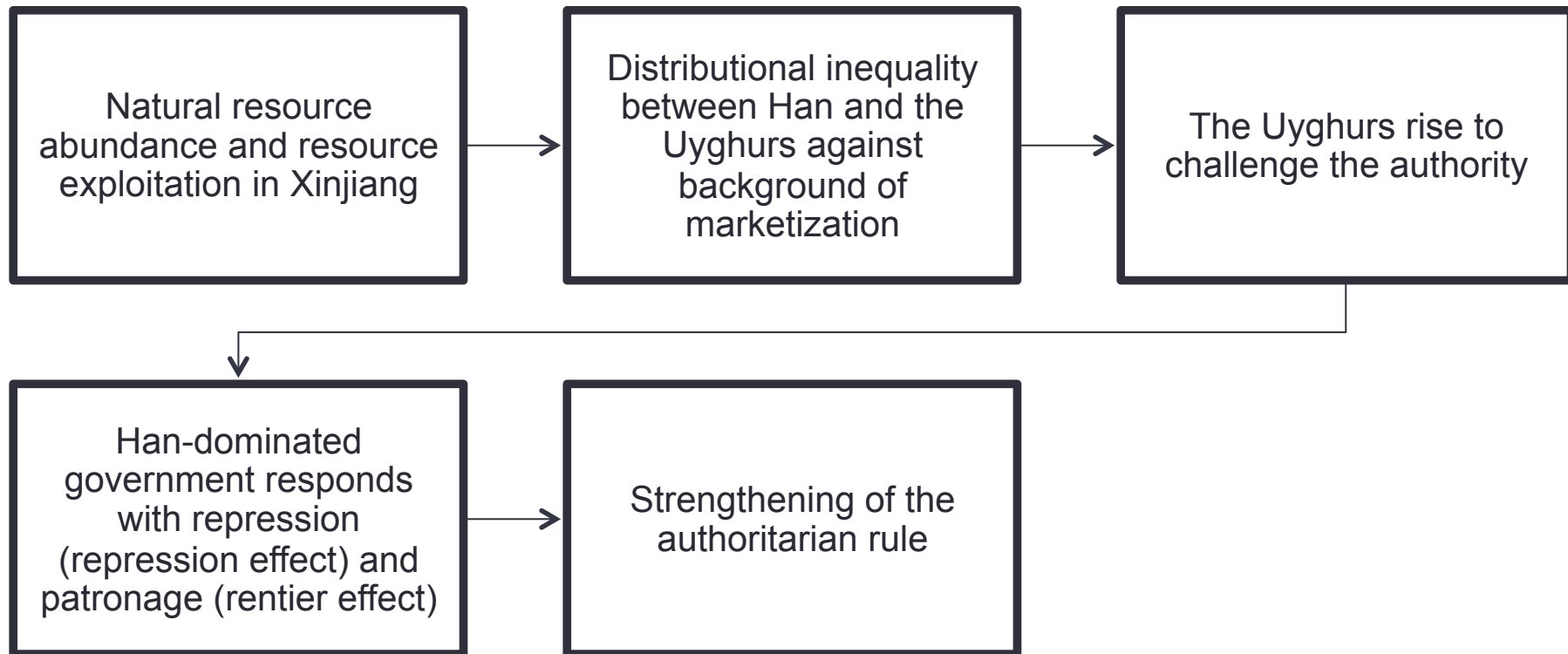
Patronage

- Less than one year after the July 5th riots, in May 2010, top central government and Communist Party leaders held a "work forum" to set state economic and political objectives for Xinjiang. The meeting marks the first work forum directed at the XUAR.

Patronage

- (1) 19 provinces and municipalities, places in the rest of China that get particular benefits from Xinjiang's oil and gas, have been designated as Xinjiang partners. They are required to contribute 0.3 to 0.6 percent of their fiscal revenues from 2011 to 2020 to support Xinjiang's development. Starting in 2011 the region will receive more than $10 billion in financial aid from this program.
- (2) Producers of crude oil and natural gas in Xinjiang will be levied a new 5 percent tax. This new tax system will be based on sales price instead of on volume as it was before. CNPC's annual crude oil production in Xinjiang is 18 million tons, while Sinopec produces 7 million tons each year. If the resources tax is collected at 5 percent, CNPC and Sinopec, China's top two oil companies, will add 5 billion RMB ($732 million) in tax revenue to the region annually as oil prices stabilize at $80 per barrel.

Conclusion

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┌─────────────────────┐     ┌─────────────────────┐     ┌─────────────────────┐
│                     │     │ Distributional      │     │                     │
│ Natural resource    │     │ inequality          │     │                     │
│ abundance and       │ ──> │ between Han and the │ ──> │ The Uyghurs rise to │
│ resource            │     │ Uyghurs against     │     │ challenge the       │
│ exploitation in     │     │ background of       │     │ authority           │
│ Xinjiang            │     │ marketization       │     │                     │
└─────────────────────┘     └─────────────────────┘     └─────────────────────┘

┌─────────────────────┐     ┌─────────────────────┐
│ Han-dominated       │     │                     │
│ government responds  │     │                     │
│ with repression     │ ──> │ Strengthening of the│
│ (repression effect) │     │ authoritarian rule  │
│ and patronage       │     │                     │
│ (rentier effect)    │     │                     │
└─────────────────────┘     └─────────────────────┘
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Policy Suggestion

- Promoting the usage of Mandarin Chinese will be beneficial for anyone in the job market.

- In fact, the communists' language policy before the 1990s should be responsible for the poor Mandarin Chinese knowledge of many Uyghurs youth.

- Of course, it would be better if Han Chinese in Xinjiang can follow some good measures in Mao era and learn Uyghur language while Mandarin is promoted by the government, as this can mitigate ethnic estrangement between Han Chinese and the Uyghurs to some extent, and appease those who feel offended by the government's language policy.