

From South to North: Official Transfers and the Sustainability of Regional Economic Growth

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Abstract: Governments worldwide frequently rely on official transfers from developed to underdeveloped regions to promote local economic growth, yet little is known about how institutions shape the persistence of such growth. We develop a dynamic model of local governance to highlight the role of long-term institutional reform in translating officials' governance capacity into sustained economic performance. Using a multi-period difference-in-differences strategy and data on prefecture-level city leaders in China from 2003 to 2022, we examine the economic effects of South-to-North official transfers. We find that official transfers increase GDP per capita by about 5.4 percent, but the effect is short-lived and dissipates within one political term. Short-run growth reflects officials' limited capacity to reduce the costs of long-term policy reform, leading them to rely on short-term policy expansion. In contrast, sustained growth depends on officials' ability to improve local institutional conditions. When such capacity or incentives are absent, official transfers generate promotion-oriented short-term gains rather than durable and replicable improvements in local governance.

Keywords: Official Transfers, North–South Economic Disparities, Economic Growth Sustainability, Institutional Reform.

JEL classifications: O18, P26, H7.

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1 Introduction

The role of institutions has long been regarded as a fundamental determinant of cross-country economic disparities, with rapid economic growth frequently attributed to political restructuring ([Acemoglu & Robinson, 2008](#)). In parallel, the promotion tournament theory emphasizes the incentives of local government officials, arguing that competition for career advancement motivates them to prioritize regional economic performance, thereby contributing to national growth ([Li et al., 2019](#)). Although these perspectives differ in emphasis, both ultimately identify political power arrangements as a central mechanism driving economic transformation. Within this framework, local officials constitute a pivotal actor in shaping development outcomes.

Across the world, many countries prefer to assign capable officials to govern underdeveloped regions ([Lim & Snyder Jr, 2021](#); [Shi et al., 2020](#)). A distinctive feature of China's official management system is the reassignment of some officials from economically developed southern coastal provinces to less developed inland regions in the north, center, and west (see Figure 1). For individual officials, successful performance in such appointments substantially increases the likelihood of promotion. For the central government, however, this transfer mechanism appears to serve dual purposes: first, as a means of assessing officials' administrative and governance capacities in more challenging contexts; and second, as an instrument for diffusing advanced developmental practices from leading regions to lagging ones, with the broader aim of reducing regional inequality. As time progresses, the economic divide between northern and southern China continues to widen, with southern regions perceived to possess more advanced economic institutions and developmental experiences. If such advantages could be transferred to less developed northern regions through official

transfers, they would undoubtedly present new opportunities for local economic growth.

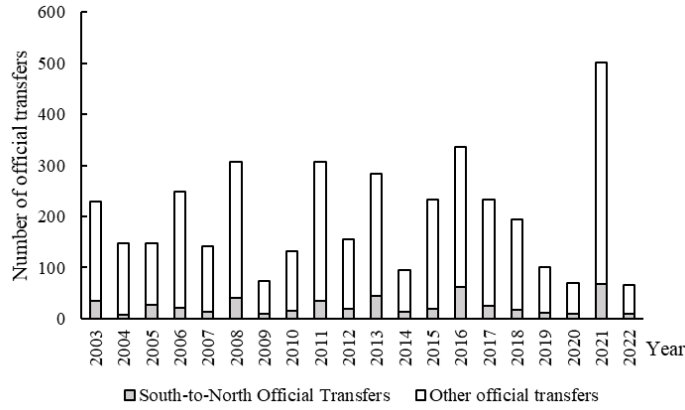


Figure 1. Local government official transfers during the sample period

Note: The South-to-North Transfers depicted in Figure 1 refers to officials who had either served in or were born in southern regions and were subsequently transferred to northern regions. Within the sample period, there were 4,007 prefecture-level official transfers, of which 502 (12.53%) were south-to-north transfers. We exclusively account for the inter-city transfers of leading officials at the prefectural level and above, without encompassing inter-administrative transfers between local and central governments.

However, the South-to-North official transfer in China raises a critical puzzle. Despite having accumulated advanced governance experience in the southern provinces and possessing near-absolute decision-making authority in their northern postings, these officials often fail to fully realize their capabilities. They appear to face what can be described as a “transfer dilemma.” Upon taking office, these high-performing officials generally attempt to employ a range of policy measures to stimulate local economic growth, but such growth frequently proves unsustainable. Rather than promoting convergence between northern and southern regions, the economic gap has, in fact, widened in recent years. Against this backdrop, this study investigates whether the South-to-North official transfer constitutes an effective policy instrument for promoting regional economic development. By providing systematic theoretical framework and empirical evidence, we seek to evaluate the extent to which this personnel arrangement has contributed to growth across Chinese regions.

We start by developing a theoretical model to examine the mechanisms through which the South-to-North official transfer affects the sustainability of local economic growth. Our model incorporates two salient features of China’s political economy. First, southern regions generally uphold market mechanisms and property rights more strongly, offering greater support for private enterprises and foreign investment. Hence, officials from the south bring more advanced experience in private-sector development. Second, local governments across China exercise substantial control over enterprises, and their policy choices largely determine sectoral output. Consistent with the empirical findings of [Yao and Zhang \(2015\)](#), our model indicates that officials transferred from southern regions can stimulate economic growth in northern areas. However, dynamic analysis shows that long-run sustainability depends on whether officials’ governance capacity exceeds a threshold set by local institutional conditions, thereby lowering the costs of long-term policy reform and enabling long-term policy investment. While a shift from short-term to long-term policies may crowd out output in the short run, the accumulation of institutional capital generates amplifying effects that sustain economic growth even after

officials leave office. Overall, the model highlights that the effects of South-to-North official transfers depend on the interaction between officials' governance capacity and local institutional constraints.

The second step of our analysis estimates the reduced-form effects of the South-to-North official transfer, providing empirical evidence to test the implications of our theoretical model. This paper collects data on the transfer of principal officials (municipal party secretaries and mayors) in cities at the prefecture level from 2003 to 2022. We treat the transfer as a quasi-natural experiment and implement a multi-period difference-in-differences strategy. The results show that the transfer significantly increases local per capita GDP, with an average effect of about 5.4%. However, this growth effect proves short-lived, typically persisting only 4–5 years, roughly the length of a single official's tenure. Further analysis highlights the central role of institutional conditions in the private sector. The short-run growth effects of official transfers are driven primarily by infrastructure investment and capital expansion, with little impact on deeper institutional factors. By contrast, the growth effects are more persistent in regions characterized by stronger government financial support, fewer industry barriers for private enterprise, and more effective legal protection. Taken together, these results suggest that the effectiveness of South-to-North official transfers depends not only on the experience of transferred officials, but also on the institutional environment into which they are placed.

This paper makes three contributions to the literature. First, this paper fills a theoretical gap in the political economy literature, where the impact of officials has been widely examined but the role of institutions has largely been ignored. Existing studies have primarily emphasized the role of officials' personal characteristics or local governance in shaping economic outcomes (Cheng et al., 2024; Rochlitz et al., 2015; Wang et al., 2020; Yao & Zhang, 2015; Zheng et al., 2014). For instance, some scholars attribute post-1990s differences in economic growth across Russia, India, and China to variations in government governance (Bardhan, 2006; Zhuravskaya, 2000). However, these studies generally treat institutional settings as exogenous background, overlooking the important role institutions play in this process, and focus primarily on empirical correlations with limited theoretical development (Baskaran & da Fonseca, 2021; Martinez-Bravo, 2014; Reed, 2024; Wu & Chen, 2016; Xi et al., 2018). In contrast, this paper develops a theoretical framework connecting officials' involvement in local governance, North–South institutional differences, and cross-sectoral production. Our empirical findings align with the model's predictions, providing a clearer understanding of how institutional factors, such as government financial support, industry barriers, and legal protection, shape the economic effects of local governance.

Second, this paper offers a new perspective on the recently emerging literature revisiting industrial policy and government governance. In recent years, much of the literature has reassessed the effectiveness of industrial policies and government governance in East Asia and begun to explore their replicability across countries or regions (Barwick et al., 2025; Chang & Andreoni, 2020; Juhász et al., 2023; Juhász & Steinwender, 2024; Lin et al., 2025; Reed, 2024). In China, local governments enjoy considerable autonomy in designing regional industrial policies (Alder et al., 2016; Barbieri et al., 2019), which largely reflects the governance capacity of leading officials. Our theoretical model internalizes industrial policy as the local government's governance capacity over different sectors and characterizes its dynamic effects on economic output. By studying the phenomenon of official transfers, this paper provides both

a new theoretical explanation and empirical evidence on the replicability of government governance.

Third, this paper adds to the literature on the regional political economy. Existing work in this area focuses on explaining how local governance shapes regional economic growth and disparities (Chen & Fleisher, 1996; Diemer et al., 2022; Gyourko et al., 2022; Song, 2013; Xu, 2011). Most prior studies highlight the positive role of intergovernmental interactions in fiscal and social governance in alleviating regional economic differences (Kyriacou et al., 2017; Wang et al., 2022; Yeeles, 2015). This paper provides empirical evidence that local institutional differences determine the sustainability of growth in economically lagging regions. More generally, it also relates to the literature on the costs and benefits of different regional policies (Grant, 2020; Hartojo et al., 2024; He et al., 2025; Yang et al., 2022). Our findings indicate that whether regional policies can reduce economic disparities depends not on short-term infrastructure investment and capital attraction, but on long-term institutional improvements.

The remainder of this paper proceeds as follows. Section 2 introduces the relevant institutional background, including the official transfer system in China and the economic and institutional differences between the North and South. Section 3 presents our theoretical framework and discusses the short- and long-term effects of the South-to-North official transfers. Section 4 reports the main empirical results and explores the underlying mechanisms. Section 5 concludes.

2 Institutional Background

2.1 China's Official Transfer

Since the beginning of China's reform and opening, the core of economic reform has been to let market mechanisms play a decisive role in resource allocation while enabling the government to function more effectively. As the top decision-makers in local governments, Party secretaries and mayors exert a direct influence on local market development through their personal qualities and policy orientations. Such capacities are shaped not only by officials' individual endowments but also by their career trajectories and working environments.

Within China's current institutional setting, it is widely recognized that rotating local officials across regions can broaden their perspectives, enhance their capabilities, and encourage them to adopt new approaches to economic development. Rotation also serves as an important criterion in assessing their potential for promotion. In general, the broader an official's administrative experience and the stronger their performance record, the higher their likelihood of being promoted. Consequently, the reassignment of leading local officials across departments and regions has become a common feature of China's political system (Li & Zhou, 2005). The official transfer can be broadly classified into vertical and horizontal transfers. Vertical transfers occur between different levels of government, such as the dispatch of higher-level officials to local positions or the promotion of local officials to higher offices. Horizontal transfers are more complex, including both same-rank transfers (e.g., the mayor of City A moving to City B) and cross-rank transfers (e.g., a city-level official being directly promoted to a provincial-level post).

According to central regulations, cross-regional transfers—particularly cross-province transfers—are typically organized by the Party's higher-level organization departments, leaving

individual officials with little discretion. The primary purposes are to curb local factionalism and to cultivate future leaders, which imparts a quasi-exogenous character to such reassignments. In most cases, officials are unaware of the reassignment in advance, and the destination is not chosen by the locality itself, making the transfer akin to an external shock from the perspective of the receiving region.¹ Most transfer occur after officials have served roughly five years in office or during major nationwide leadership reshuffles, though earlier or later moves are also observed. On average, municipal mayors and Party secretaries serve for about four to six years, a tenure long enough to implement a round of major policies and generate measurable performance outcomes, yet short enough to prevent excessive accumulation of personal power or entrenched networks.

2.2 North–South Economic Disparities in China

From a historical perspective, China’s regional economic disparities have evolved from an East–Central–West imbalance to a North–South divide. In recent years, statistics show a widening trend in the North–South gap: the northern region’s share of national GDP fell from 43% in 2008 to 35% in 2019. Existing studies generally attribute this divergence to three factors. First, differences in the distribution of factor endowments have led to divergent growth paths(Banerjee et al., 2020; Fleisher et al., 2010), with the South enjoying clear advantages in both human and physical capital. Second, geographic conditions shape the spatial balance of economic activity: the more favorable geography of southeastern China facilitates population inflows and industrial agglomeration(Guo et al., 2020; Liu et al., 2018). Third, institutional differences have widened spatial disparities in economic activity(Yang et al., 2020), as the South is generally regarded as more market-oriented and less constrained by trade barriers. Southern governments, moreover, tend to place greater emphasis on respecting markets, enterprises, and property rights, and are more supportive of private and foreign investment. Taken together, beyond certain exogenous factors, deep-seated institutional differences constitute a key source of the North–South economic divide, including gaps in innovation capacity shaped by institutional and ideological factors, as well as divergent modes of resource allocation.

Within China’s current institutional setting, local economic growth is closely tied to the competence of leading local officials (Yao & Zhang, 2015). As the top decision-makers in local development, municipal Party secretaries and mayors exercise near-absolute authority over economic construction, aside from the constraints imposed by higher-level policy directives. From the perspective of informal institutions, therefore, the cross-regional Official Transfer of local leaders between North and South can directly influence regional economic disparities. For example, officials with relatively long work experience in the South are generally more receptive to market mechanisms and more inclined to encourage the development of the non-state economy. When transferred to northern regions, such officials often attempt to promote growth by pursuing market-oriented investment attraction and by supporting the development of private and foreign enterprises.

¹ Official transfer is not entirely random, which may also be influenced by individual characteristics such as ability and networks, as well as by local conditions. For instance, highly capable officials may be dispatched to economically underdeveloped regions. In the empirical robustness checks that follow, we also attempt to rule out potential endogeneity between official transfer and local economic development.

3 Theoretical Framework

Against this background, this paper embed officials' governance capacity into a production framework and construct a partial equilibrium model to analyze the short- and long-run effects of transferring southern officials to northern regions on economic output in the North. The model features two periods and allows officials to intervene through short-term and long-term policies. We characterize how officials adjust policy choices between the initial period ($t = 0$) and the subsequent period ($t = 1$), and quantify the resulting implications for production.

In each period, aggregate output depends on resource inputs (K) and government-designed policy choices. Resources inputs comprise labor, physical capital, and other productive factors. Government policies consist of short-term growth-oriented policies and long-term institutional reforms (x_t^S and x_t^L). Let $x_t^S(j)$ and $x_t^L(j)$ denote unit investments in the j -th short-term and long-term policy. These policy investments are influenced by local officials' governance capacity (N): greater capacity expands the feasible policy set and improves implementation, thereby increasing production efficiency.

Short-term policy investments can raise contemporaneous output but generate no intertemporal spillovers, limiting their contribution to sustained growth. In contrast, long-term institutional reforms only promote future production by shaping the accumulation of institutional capital in subsequent periods. Such reforms typically enhance the technological environment of production—for example, through fiscal support, a larger non-state sector, and stronger intellectual property protection.

The production function is given by

$$Y_t = AK^\beta (1 + \phi R_t) \int_0^N [x_t^S(j)]^{1-\beta} dj, \quad (1)$$

where β denotes the output elasticity of capital ($0 < \beta < 1$). A represents the level of technology and R_t represents institutional capital. ϕ reflects the extent to which institutional improvements affect production technology ($1 + \phi R_t$). The term $(1 + \phi R_t)$ reflects the technology-augmenting role of institutions, indicating that stronger institutional environments enhance the productivity of both technology and capital utilization.

Institutional capital evolves according to

$$R_{t+1} = (1 - \delta)R_t + \xi \int_0^N x_t^L(j) dj, \quad (2)$$

where δ denotes the depreciation rate of institutional capital ($0 < \delta < 1$). A higher depreciation rate implies that existing institutional reforms are difficult to sustain after officials leave. ξ represents the efficiency of institutional capital accumulation ($\xi > 0$). Local government officials serve for two terms ($t = 0$ and $t = 1$). In each period, they choose short-term and long-term policy investments to maximize their performance payoff over their tenure, proxied by output:

$$\max_{\{x_t^S(\cdot) \geq 0, x_t^L(\cdot) \geq 0\}} Y_0 + \varpi Y_1.$$

Policy choices are subject to a fiscal and administrative budget constraint,

$$\int_0^N c^S(N) x_t^S(j) dj + \int_0^N c^L(N) x_t^L(j) dj \leq B, \quad (3)$$

where B denotes the available fiscal and administrative resource. $c^S(N)$ and $c^L(N)$ are the unit costs of short-term and long-term policy investments, which are functions of officials'

governance capacity N . Specifically, the stronger the governance capacity, the lower the marginal cost of implementing these policies, which can be expressed as:

$$c^S(N) = \frac{\psi_S}{N^{\eta_S}}, c^L(N) = \frac{\psi_L}{N^{\eta_L}}, \quad (4)$$

where ψ_S and ψ_L represent the baseline costs of short-term and long-term policies, which can generally be regarded as the fixed input costs of these types of policies. η_S and η_L denote the extent to which government officials' governance capacity affects the unit costs of short-term and long-term policies, satisfying $\eta_S > \eta_L > 0$. This implies that improvements in governance capacity reduce the unit costs of both policy types. In general, officials enjoy a more pronounced advantage in mobilizing and executing short-term policies, leading to a faster decline in short-term costs. Additionally, we impose $\eta_S > 1$ and $\eta_L > 1$ to ensure that enhancements in governance capacity reduce the effective aggregate cost of policy implementation. Under this condition, higher-capacity officials face lower total policy costs and can therefore undertake a more intensive policy mix within a given budget.

Since $x^{1-\beta}$ is a concave function and the constraint is linear in x , and j is homogeneous across all cases, the optimal allocation satisfies

$$x_t^S(j) \equiv s_t, x_t^L(j) \equiv l_t. \quad (5)$$

The official's decision problem can therefore be written as

$$\begin{aligned} & \max_{\{s_t \geq 0, l_t \geq 0\}_{t=0}^1} Y_0 + \varpi Y_1, \\ & \psi_S N^{1-\eta_S} s_t + \psi_L N^{1-\eta_L} l_t \leq B; \\ \text{s. t. } & Y_t = AK^\beta (1 + \phi R_t) N s_t^{1-\beta}; \\ & R_{t+1} = (1 - \delta) R_t + \xi N l_t. \end{aligned} \quad (6)$$

The solution highlights governance capacity as a central determinant of intertemporal policy allocation. In particular, the model delivers a capacity cutoff that governs whether officials undertake long-term institutional reforms:

$$\tilde{N} = \left[\frac{(1-\beta)(1+\phi R_0)\psi_L}{\varpi \phi \xi B} \right]^{\frac{1}{\eta_L}}. \quad (7)$$

This implies that tighter fiscal resources B , a larger pre-existing stock of institutions R_0 , or higher reform costs ψ_L raise this cutoff, thereby reducing the likelihood that officials engage in institutional reform and shifting policy effort toward short-term investments. All of these reflect the extent of local institutional constraints.

Solving the optimization problem yields equilibrium policy choices $\{s_t^*, l_t^*\}_{t=0}^1$ and the associated output levels Y_0^* and Y_1^* .² To analyze the impact of officials' governance capacity, we take the logarithm of Y_t^* and differentiating with respect to $\ln N$, obtaining

$$\begin{cases} \frac{\ln Y_0^*}{\ln N} = \beta + \eta_S(1 - \beta) > 0 & N \leq \tilde{N}; \\ \frac{\ln Y_0^*}{\ln N} = \beta + \eta_S(1 - \beta) - (1 - \beta) \frac{\eta_L}{\beta} & N > \tilde{N}; \\ \frac{\ln Y_1^*}{\ln N} = \beta + \eta_S(1 - \beta) + \theta > 0, \end{cases} \quad (8)$$

where

$$\theta = \frac{\phi \xi N l_0^*}{1 + \phi[(1 - \delta)R_0 + \xi N l_0^*]} \left(1 + \frac{d \ln(l_0^*)}{d \ln(N)} \right) > 0$$

² Details on the model solution and comparative statics are provided in Appendix A1.

when $N > \tilde{N}$ and $\theta = 0$ otherwise.

Equation (8) reveals the effect of governance capacity on economic output. When $N \leq \tilde{N}$, officials allocate resources exclusively to short-term policies. Improvements in governance capacity lower implementation costs and enable more intensive policy investment, leading to higher output in both periods.

When $N \leq \tilde{N}$, officials begin diverting resources toward institutional reforms, generating an intertemporal reallocation of policy investment. As a result, the effect of capacity on early-period output (Y_0^*) becomes ambiguous. While stronger capacity continues to reduce policy costs, it also encourages a shift away from immediately productive investments toward reforms whose benefits materialize over time. This reallocation can partially crowd out short-term policies $-(1 - \beta)\frac{\eta_L}{\beta}$ and dampen current production. By contrast, later-period output (Y_1^*)

increases monotonically with governance capacity. Beyond the direct short-term policy channel $(\beta + \eta_S(1 - \beta))$, institutional investment creates an additional amplification effect (θ) through the accumulation of institutional capital. Higher-capacity officials therefore generate faster institutional accumulation and stronger future production. Moreover, institutional reforms introduce persistence into the production process. As implied by (2), the stock of institutional capital depreciates gradually, allowing reforms implemented during an official's tenure to continue affecting economic performance even after the official departs.³ The following proposition formalizes these insights.

Proposition 1: *The improvement in governance capacity induced by the South-to-North Transfers generates a piecewise effect on local economic output along the dimension of officials' capacity. When capacity remains below the threshold ($N \leq \tilde{N}$), output increases in both the early and later stages of the tenure but does not persist after the official's departure. Once capacity exceeds the threshold ($N > \tilde{N}$), the marginal effect on early-stage output becomes indeterminate, whereas the effect on later-stage output is strictly positive and stronger, with institutional capital accumulation producing lasting gains beyond the official's tenure.*

Proposition 2: *The total treatment effect of the South-to-North Transfers can be decomposed into two mechanisms: (i) The pure ability effect $(\beta + \eta_S(1 - \beta))$ operates through reduced policy implementation costs and yields an immediate but unsustainable increase in output. (ii) The branch-switching effect only $N > \tilde{N}$ reflects a reallocation from short-term policies to long-term institutional reforms, implying potential crowding-out in the early stage $-(1 - \beta)\frac{\eta_L}{\beta}$ and amplification in the later stage (θ), thereby sustaining output growth over time.*

4 Reduced-Form Effects of South-to-North Official Transfer

4.1 Data Source

China has a five-tier government structure: central, provincial, municipal, county (or district), and township. Each level of government maintains an independent budget and either independent or shared revenue sources. Beyond the mandatory responsibilities imposed by higher-level governments, local governments retain substantial autonomy in shaping local

³ To further clarify the model, we provide a simple simulation and illustrative figures in Appendix A2.

economic development. At each tier, two officials hold the top positions: the secretary of the local Communist Party Committee and the head of the administrative branch (e.g., the provincial governor or municipal mayor). Although these positions are nominally filled through elections, in practice most appointments are made directly by the Organization Department of the higher-level Party committee.

By law, both Party secretaries and mayors participate in economic affairs, but Party secretaries wield greater authority and are more heavily involved in personnel and political matters. In practice, the interaction between these two roles is complex, yet both contribute significantly to local economic growth. For empirical purposes, we abstract from the heterogeneity between them and treat both as the principal officials influencing local economic outcomes.

This paper focuses on municipal Party secretaries and mayors in the cities. Chinese cities can generally be classified into four centrally administered municipalities (Beijing, Shanghai, Tianjin, and Chongqing), prefecture-level cities, and county-level cities. The four municipalities are clear outliers, as they are effectively special provincial-level units, while the large number of county-level cities makes it difficult to obtain complete data. Accordingly, our analysis concentrates on prefecture-level cities, which are more comparable in terms of the rank of their leading officials.

Since this paper examines official transfers from the South to the North, the data mainly capture northern cities where leading officials were reassigned from developed southern cities. The developed South here primarily refers to the Yangtze River Delta and the Pearl River Delta, including Jiangsu, Zhejiang, Shanghai, and Guangdong. At the same time, because many geographically southern provinces such as Guizhou and Yunnan remain economically underdeveloped and in fact resemble northern regions in their economic characteristics, we also treat these areas as part of the research sample. We match Official Transfers of leading officials with prefecture-level cities, yielding an unbalanced panel dataset covering 242 cities from 2003 to 2022.

Information on officials' tenure adjustments is obtained from the Qiyan China Big Data Platform for Social Science (CBDPS). The public administration section of this database provides detailed records of officials' tenures at the prefectural level, sourced from the official website of *Economic Daily*, a mainstream media outlet under the guidance of the Central Committee of the Communist Party of China and the State Council. We then match these officials with annual macroeconomic data collected from the prefecture-level city yearbooks. Data at the city level primarily comes from the *China City Statistical Yearbook* and various provincial and municipal statistical yearbooks.

4.2 Estimation Strategy

Given that the transfer of southern officials to northern cities occurred at different points in time, this paper develops a time-varying difference-in-differences (DID) model to identify the causal relationship:

$$\ln PGDP_{it} = \beta_0 + \beta_1 SN_{it} + \theta X_{it} + \delta_i + \sigma_t + \varepsilon_{it}$$

where $\ln PGDP$ is the dependent variable, representing the city's per capita GDP, which is log-transformed to reflect the level of economic growth in the city. SN is the primary independent variable of interest, referring to the South-to-North Official Transfer. The city sample in this paper only includes northern and other economically underdeveloped cities. If a city's leading

officials in year i had previously worked in, or were born in, a developed southern region, the value of SN for that city is set to 1; otherwise, it is 0. Additionally, due to Beijing's unique political status, despite its northern location, it is also considered part of the developed regions, as it follows relatively advanced economic development policies. All other cities are classified as economically underdeveloped regions, with most located in the northern or central-western inland areas. $\mathbf{X}$ represents a series of city-level control variables, including the number of internet broadband users per 100 people (NET), per capita telecommunications volume ($MOBILE$), the number of employees ($LABOR$), total city exports ($TRADE$), the share of the tertiary sector in GDP (STR), and the proportion of urban residents in the total population ($URBAN$). For non-percentage variables, logarithmic transformations were applied, and a winsorization of 1% was used to eliminate extreme values. Descriptive statistics for main variables are presented in Table 1.

The DID approach requires the parallel trends assumption, meaning that the treatment and control groups should exhibit similar pre-treatment trends. To verify this and to capture the dynamic effects of official transfer, we employ an event study framework. The model introduces interactions between event-time dummies (relative to the year of transfer) and the treatment indicator, specified as follows:

$$Y_{it} = \alpha + \beta_k \sum_{k=-5}^{10} SN_{it_0}^k + \gamma X_{it} + \eta_t + \delta_i + \varepsilon_{it}$$

The meanings of the other symbols remain unchanged. t_0 denotes the year of the transfer, and $SN_{it_0}^k$ represents the interaction between the event-time dummy relative to t_0 and the treatment indicator. $k = t - t_0$ denotes the time distance from the year of the transfer. The sample period covers 2003–2022, with ranging from $[-19, 18]$. To avoid potential bias from sparse observations at the tails, we restrict the analysis to the interval $k \in [-5, 10]$, which contains the vast majority of the sample, ensuring more reliable estimates.

Table 1. Summary statistics.

Variables	Units	N	Mean	Median	SD	Max	Min
<i>PGDP</i>	Ten thousand yuan	3422	3.517	2.572	3.128	26.863	0.286
<i>SN</i>	-	3422	0.256	0.000	0.436	1.000	0.000
<i>NET</i>	Per household	3422	12.699	8.853	12.130	100.862	0.082
<i>MOBILE</i>	Ten thousand yuan	3422	0.118	0.062	0.189	2.703	0.001
<i>LABOR</i>	Per ten thousand people	3422	40.993	30.000	37.789	552.732	4.050
<i>TRADE</i>	Million USD	3422	2343.737	508.710	5996.421	76136.297	0.010
<i>STR</i>	%	3422	37.702	36.350	9.421	80.490	11.050
<i>URBAN</i>	%	3422	47.266	45.995	16.442	98.010	11.410
<i>BANK</i>	Per square kilometer	2715	0.072	0.056	0.059	0.443	0.001
<i>ROAD</i>	10000 m ² /km ²	3345	0.156	0.074	0.239	3.424	0.001
<i>FAI</i>	Million yuan	3074	89686.508	53158.455	110807.704	940423.820	1970.080
<i>TAX</i>	%	1426	4.491	2.635	4.804	40.603	0.246
<i>GOV</i>	%	3422	6.531	6.103	2.553	20.402	1.074
<i>NSOE</i>	%	2441	90.287	92.364	6.807	97.083	8.929
<i>IPR</i>	%	2049	1.888	6.061	11.896	88.503	0.019

4.3 Baseline Results

Table 2 shows the estimation results of the baseline regression. As shown in the column (4), after controlling for other variables and fixed effects for both year and region, the SN coefficient is statistically significant at the 5% level, with a value of 5.4%. This indicates that the South-to-North Official Transfer does indeed have an economic stimulating effect on economically underdeveloped northern or central-western regions, with an average increase of 5.4% in per capita GDP. While this value is not particularly large, it nonetheless provides evidence that the transfer of officials from developed southern regions to the north can effectively promote improvements in the local economic conditions.

To further examine the sustainability of this phenomenon, the paper conducts a parallel trends test, with results shown in Figure 2. It is observed that, prior to the South-to-North Official Transfer event, there were almost no significant differences between the treatment and control groups, and the economic development level of the treatment group was even somewhat lower than that of the control group. However, after the transfer of southern officials to the treatment cities, economic growth significantly increased compared to the control group. Moreover, this economic stimulation effect was primarily concentrated in the year of the transfer and the subsequent four years, with the effect dissipating by the fifth year. This duration closely aligns with the typical five-year term of local officials in China. These findings suggest that, while the South-to-North Official Transfer does have a positive economic effect on underdeveloped regions, this effect is not sustainable, as officials may focus on short-term economic growth during their tenure rather than long-term growth.

Within our theoretical framework, a plausible interpretation of the above results is that higher institutional reform costs and tighter resource constraints in northern China raise the model-implied threshold, such that transferred southern officials lack the capacity to undertake long-term institutional reform. Under these conditions, the effects of official transfers are inherently unsustainable. We will explore this mechanism in greater detail in the following empirical analysis. Taken together, the evidence presented in Table 2 and Figure 2 is consistent with our theoretical prediction regarding the impact of South-to-North official transfer on local economic growth (see Proposition 1).

Table 2. Benchmark regression results.

	(1)	(2)	(3)	(4)
<i>Variables</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>
<i>SN</i>	0.489*** (0.085)	0.914*** (0.031)	0.224*** (0.040)	0.054** (0.024)
<i>lnNET</i>			0.417*** (0.022)	0.078*** (0.017)
<i>lnMOBILE</i>			0.072*** (0.012)	0.039*** (0.011)
<i>lnLABOR</i>			0.276*** (0.058)	0.175*** (0.051)
<i>lnTRADE</i>			0.094*** (0.014)	0.032*** (0.007)

<i>STR</i>			-0.013***	-0.014***
			(0.002)	(0.001)
<i>URBAN</i>			0.008***	0.002
			(0.001)	(0.001)
<i>City FE</i>		✓	✓	✓
<i>Year FE</i>				✓
<i>Obs.</i>	3422	3422	3422	3422
<i>Adj. R²</i>	0.070	0.601	0.943	0.978

Note: Columns (1)-(4) are estimated by OLS. Dependent variables are in logs. Standard errors in parenthesis are clustered at the city level. *, ** and *** represent the significance levels of 10%, 5% and 1%, respectively.

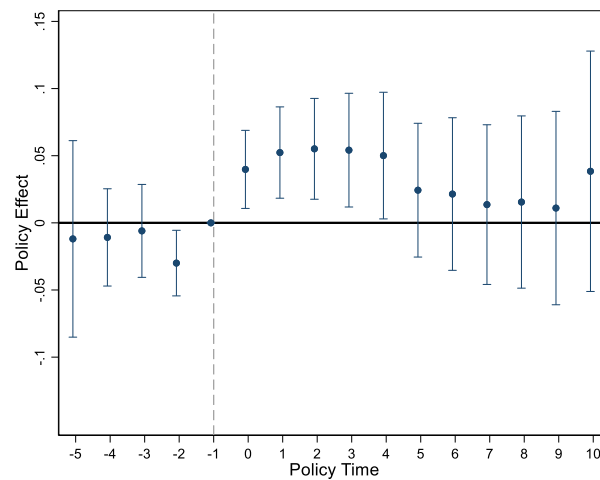


Figure 2. Parallel trends test.

Note: Figure 2 shows the dynamic effect of SN on urban economic growth. The bars represent 95% confidence intervals. The horizontal axis indicates the number of years relative to the policy implementation.

4.4 Robustness Checks

4.4.1 Transfers among Underdeveloped Regions

A natural concern regarding our baseline results is that the observed economic effects of south-to-north official transfers may not reflect the specific impact of such moves, but rather the general consequences of any reassignment of officials or transfers among underdeveloped regions. To address this issue, we examine transfers between underdeveloped regions, which do not constitute south-to-north moves. Specifically, for each year, we construct a difference-in-differences interaction term, where the treatment indicator equals one if a transfer between underdeveloped regions occurs in that year, and the time variable corresponds to the respective year. We then estimate the model separately for each year, with the coefficients and confidence intervals reported in Figure 3. The results indicate that transfers among underdeveloped regions generally do not produce significant economic growth effects, and in some years even exhibit negative effects, likely because these regions remain economically lagging regardless of official transfers. This evidence suggests that the baseline effects we document are unlikely to be driven by general reassignment, but rather are specifically associated with south-to-north transfers.

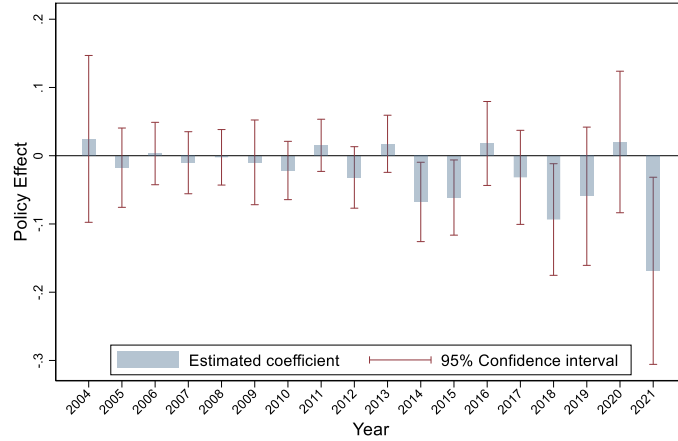


Figure 3. Policy effect of official transfers among underdeveloped regions.

Note: Figure 3 shows the results of official transfers among underdeveloped regions. The blue boxes represent the estimated coefficients, and the red lines indicate the 95% confidence intervals. The DID interaction terms for 2003 and 2022 are dropped because they are perfectly collinear with the city fixed effects, so the figure presents results for 2004–2021.

4.4.2 Ruling Out Political Factors

In the context of China’s political system, South-to-North Official Transfers may be influenced by political factors. We examine two potential channels to ensure the robustness of our baseline results.

First, the political environment of the receiving locality may interfere with the identification of causal effects. For instance, if the locality is characterized by high levels of corruption, or if local political factions collectively resist the newly transferred South-to-North officials, the observed economic impact may be biased. To address this concern, we include controls for local political conditions, such as corruption levels, local protectionism, whether the previous official is native, whether contemporaneous officials are natives. The results are reported in Table 3. Even after controlling for the local political environment, South-to-North Official Transfers continue to significantly promote economic growth, suggesting that the estimated effects are not driven by resistance from local political groups.

Table 3. Controlling for local political environment.

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>
<i>SN</i>	0.054** (0.024)	0.055** (0.024)	0.065** (0.032)	0.059* (0.033)	0.066* (0.035)
<i>Controls</i>	✓	✓	✓	✓	✓
<i>City FE</i>	✓	✓	✓	✓	✓
<i>Year FE</i>	✓	✓	✓	✓	✓
<i>Corruption levels</i>	✓				✓
<i>Local protectionism</i>		✓			✓
<i>Whether the previous official is native</i>			✓		✓
<i>Whether contemporaneous officials are natives</i>				✓	✓
<i>Obs.</i>	3422	3422	3422	3422	3422

<i>Adj. R²</i>	0.978	0.978	0.976	0.978	0.976
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Note: Columns (1)-(5) are estimated by OLS. Dependent variables are in logs. Standard errors in parenthesis are clustered at the city level. *, ** and *** represent the significance levels of 10%, 5% and 1%, respectively.

Second, transferred officials may possess individual political connections, for example, being favored by higher-level leaders for promotion. In practice, if South-to-North Official Transfer officials have significant political resources, they might continue to stimulate economic growth in subsequent assignments, as this increases the likelihood of further promotion; otherwise, the personal political connection channel is unlikely to matter. To test this, we use officials' subsequent transfers as explanatory variables, including local promotions (*AfterSN_local*, e.g., from mayor to Party Secretary) and transfers to other localities that have previously received South-to-North Official Transfers (*AfterSN_other*). The results, reported in Table 4, show that neither type of subsequent transfer generates additional economic growth, suggesting that these officials do not possess substantial individual political connections.

Table 4. Testing the role of individual political connections.

	(1)	(2)	(3)
<i>Variables</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>
<i>AfterSN_local</i>	-0.044 (0.048)		
<i>AfterSN_other</i>		0.038 (0.089)	
<i>AfterSN_both</i>			-0.017 (0.046)
<i>Controls</i>	✓	✓	✓
<i>City FE</i>	✓	✓	✓
<i>Year FE</i>	✓	✓	✓
<i>Obs.</i>	3422	3422	3422
<i>Adj. R²</i>	0.976	0.978	0.976

Note: Columns (1)-(3) are estimated by OLS. Dependent variables are in logs. Standard errors in parenthesis are clustered at the city level. *, ** and *** represent the significance levels of 10%, 5% and 1%, respectively. *AfterSN_local* and *AfterSN_other* equals 1 if a South-to-North Official Transfer official is assigned to the cities in that year, and 0 otherwise. *AfterSN_both* equals 1 if either condition is met.

4.4.3 Robustness of the DID Estimates

(1) Alternative DID Estimators

Given the widespread use of Difference-in-Differences (DID) models to identify causal effects of policies, recent studies have pointed out that conventional two-way fixed effects (TWFE) DID estimators with multiple time periods may be biased (De Chaisemartin & d'Haultfoeuille, 2020; Goodman-Bacon, 2021). In particular, the estimated coefficients in multi-period DID often represent a weighted average of several standard DID estimates, and the weights may be negative if treatment effects are heterogeneous across periods. To address these concerns and ensure the robustness of our baseline results, we implement four alternative DID estimators that are designed to account for heterogeneous and dynamic treatment effects (Borusyak et al., 2024; Callaway & Sant'Anna, 2021; De Chaisemartin & d'Haultfoeuille, 2020; Sun & Abraham, 2021). All four approaches are alternative DID estimators designed to provide robust estimates in the presence of heterogeneous and dynamic

treatment effects. The results are presented in Figure 4. Across all four methods, the estimated coefficients are consistent in sign with our baseline estimates, with only minor differences in magnitude. Most estimates remain statistically significant, confirming that our baseline results are robust to alternative DID specifications.

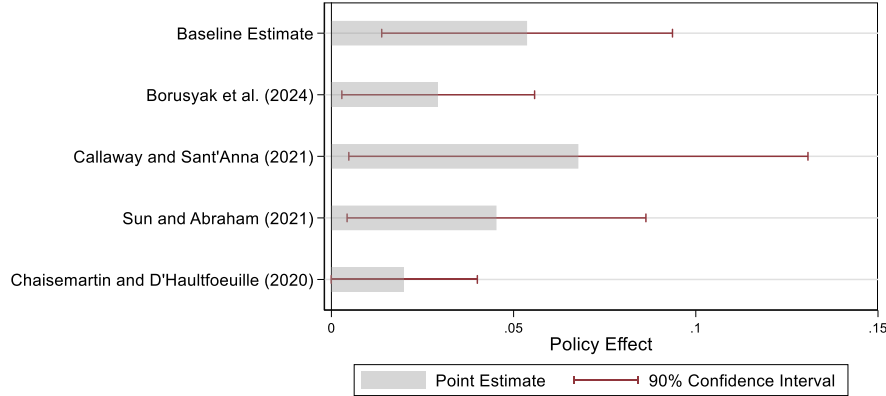
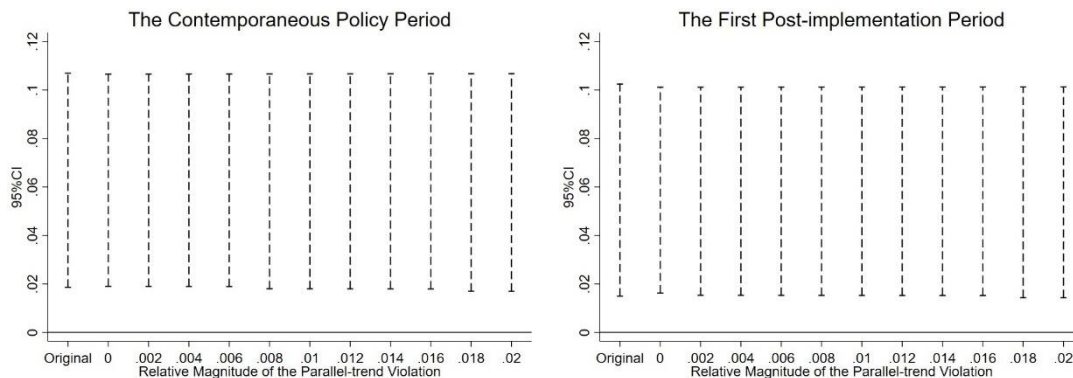


Figure 4. Results of DID robust estimators.

Note: The top panel presents the baseline estimates, while the bottom panels show results using four alternative robust DID estimators. The figures display 90% confidence intervals. For some dynamic effect estimators, we aggregate the period-specific coefficients to obtain an overall average treatment effect for comparison with the baseline, which is standard practice in the literature.

(2) Parallel Trend Sensitivity

Traditional pre-trend tests are statistically low-powered and may introduce bias in estimation and inference. To address this, [Rambachan and Roth \(2023\)](#) proposed a parallel trends sensitivity test where the parallel trends assumption is violated. Their approach involves conducting a sensitivity analysis on the confidence intervals of post-treatment point estimates. The test consists of two steps: first, defining the maximum plausible violation of parallel trends ($Mbar$); second, constructing the confidence interval for the post-treatment point estimate under this deviation. If the interval excludes 0 even under the maximum violation, the treatment effect is considered robust to deviations from parallel trends. Following [Biasi and Sarsons \(2021\)](#), we set $Mbar = 1 \times \text{Standard Error}$. Figure 5 presents sensitivity analysis results for the treatment effects during the implementation year and up to three years post-treatment. The findings demonstrate that the South-to-North Official Transfer policy continues to significantly promote regional economic growth, even under plausible deviations from the parallel trends assumption.



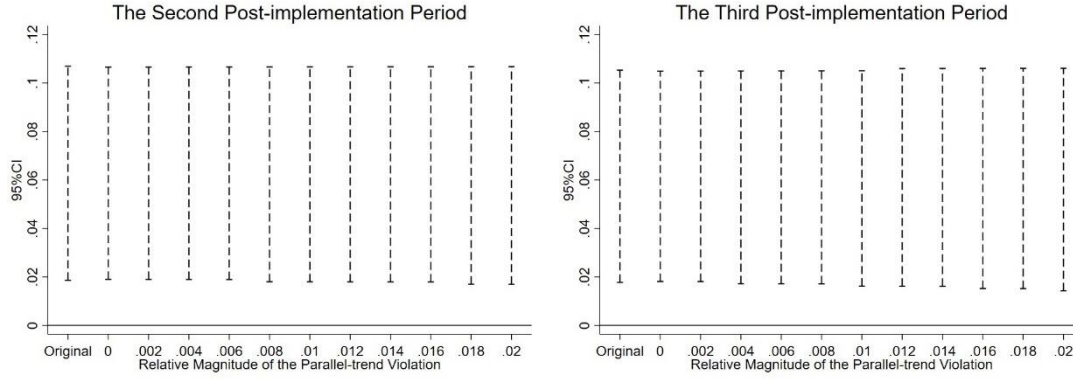


Figure 5. Parallel trends sensitivity test.

Note: Figure 5 shows the results of parallel trends sensitivity test. The bars represent 95% confidence intervals. We also test the fourth year after the policy, where treatment effects remain statistically significant. This result is not included due to space limitations but is available upon request. The findings confirm that the estimated effects are robust to potential violations of the parallel trends.

(3) Propensity Score Matching DID

We employ PSM to ensure comparability between the treatment and control groups, thereby mitigating potential selection bias in official transfers. Using city-level variables such as employment levels, foreign trade conditions, industrial structure, and urbanization rates, we conduct nearest-neighbor matching to control for city characteristics that influence an official's assignment to the treatment or control group. The propensity score density functions before and after matching are shown in Figure 6. It is evident that, after matching, the mean difference between the treatment and control groups is significantly reduced, and the similarity in their distributions is markedly improved. Table 5 presents the estimated results after PSM. As shown in Column (4), after controlling for other city characteristic variables, as well as city and year fixed effects, the coefficient remains significantly positive at the 1% level, with a value of 0.074, which is consistent with our main findings.

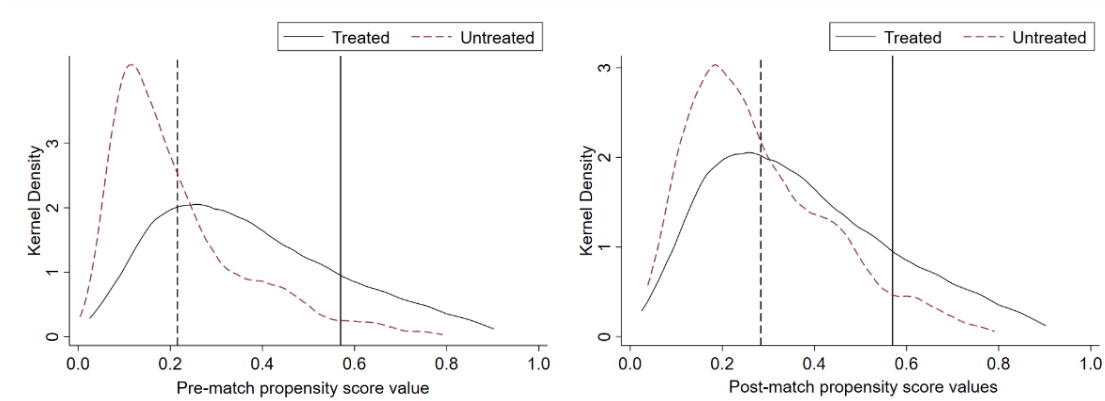


Figure 6. Kernel density function before/after PSM.

Note: Figure 6 shows the Kernel density function of propensity score values before/after PSM. The vertical line represents the average value. The closer the mean values and the more similar the kernel density curves, the closer the distribution of the two groups, implying fewer differences in characteristics.

Table 5. Robust test: PSM-DID results.

(1)	(2)	(3)	(4)
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<i>Variables</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>	<i>lnPGDP</i>
<i>SN</i>	0.173** (0.087)	0.034 (0.034)	-0.002 (0.043)	0.074*** (0.025)
<i>Controls</i>			√	√
<i>City FE</i>		√		√
<i>Year FE</i>		√		√
<i>Obs.</i>	2066	2066	2066	2066
<i>Adj. R²</i>	0.012	0.962	0.793	0.974

Note: Columns (1)-(4) are estimated by OLS. Dependent variables are in logs. Standard errors in parenthesis are clustered at the city level. *, ** and *** represent the significance levels of 10%, 5% and 1%, respectively.

4.4.4 Other Robustness Checks

To ensure the robustness and generalizability of our primary findings, we conduct a series of additional analyses reported in the Appendix. First, we address the concern that observed economic effects may be driven by officials directly leading other firms to invest the local rather than by the governance experience gained through the South-to-North transfer. For example, transferred officials may induce firms from their previous jurisdictions to invest in the destination city. By examining (i) out-of-province investment by firms from officials' previous postings and (ii) investment in new posting cities by firms originating elsewhere, we find no significant increase in either case (Appendix A3), indicating that short-term economic growth is attributable to enhanced governance experience rather than firm relocation. Second, we implement a placebo test by constructing counterfactual transfer scenarios. The results reveal a clear distinction between the placebo and actual policy effects, supporting the exogeneity of the transfers (Appendix A4). Third, we control for other contemporaneous major reform events, which could influence local officials' behavior. The estimated effects of officials' transfers remain statistically significant even after accounting for these reforms (Appendix 5). Finally, we account for heterogeneity in city characteristics that may interact with the pilot policy. Differences in economic development, resource endowments, and administrative ranking between pilot and non-pilot cities could affect local growth over time. By interacting these characteristic variables with time trends and including them in the regressions, our main results remain robust (Appendix A6).

4.5 Mechanism Analysis

This section explores why the South-to-North official transfer can stimulate some economic growth but is not sustainable. From the perspective of institutions and economic growth, changes in economic institutions and political power are key factors in explaining long-term economic growth, particularly those institutions related to property rights protection and resource allocation. However, adjustments to these institutions require significant political authority, as they involve various interest groups. Moreover, such adjustments are typically long-term processes, which may even exert downward pressure on economic growth in the short term. In China's promotion-oriented official system, southern officials transferred to underdeveloped northern regions often focus on pursuing short-term GDP growth. The most direct measures they adopt are infrastructure construction and attracting various types of investment (Lv et al., 2020). However, adjustments to institutions such as property rights protection and resource distribution, which affect local interest groups and may not manifest in

economic indicators during the official's tenure, are often not prioritized by officials. Based on the DID approach, we select several mechanism variables to further explain this phenomenon.

We construct two sets of mechanism variables. The first set captures infrastructure and investment, including bank branch density (*BANK*), road density (*ROAD*), corporate tax burden (*TAX*), and fixed asset investment (*FAI*). The second set reflects institutional factors, including the level of government financial support (*GOV*), the proportion of the non-state-owned economy (*NSOE*), and intellectual property rights protection (*IPR*)⁴. These three institutional variables are directly linked to our theoretical framework. Regions with stronger government financial support are characterized by more abundant fiscal resources, corresponding to a higher level of B . A larger employment share in the non-state sector typically reflects lower industry barriers, implying a smaller pre-existing stock of institutions R_0 . Stronger protection of intellectual property rights is closely associated with a more effective legal environment, which naturally lowers reform costs ψ_L . Together, these factors imply a lower threshold of governance capacity $\tilde{N}$, thereby increasing the likelihood that officials undertake long-term institutional reform.

First, we test whether official transfers primarily change economic inputs rather than institutional arrangements. Second, we classify northern cities by institutional characteristics to assess how the dynamic effects of official transfers on economic growth vary across different institutional environments.

Table 6 presents the results of the mechanism tests. Columns (1) - (4) reflect changes in infrastructure construction and investment, and columns (5) - (7) reflect changes in basic institutions. The results show that the transfers of southern officials to economically underdeveloped regions significantly enhance infrastructure construction and investment, specifically through increases in the number of financial institutions and road area, as well as reductions in corporate tax burdens to attract investment. However, these officials did not bring about improvements in basic institutional aspects, such as reducing government financial support or optimizing the business environment. There was no significant impact on the level of government financial support, the expansion of the non-state-owned economy, or the protection of intellectual property rights.

Table 6. Mechanism analysis results.

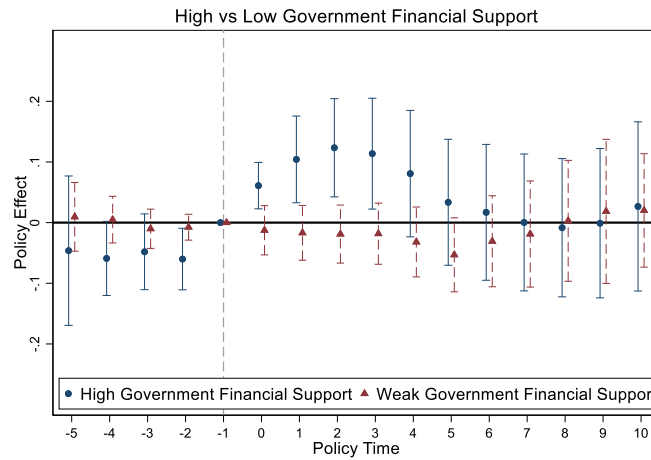
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Infrastructure & Investment				Institution		
<i>Variables</i>	<i>BANK</i>	<i>ROAD</i>	<i>TAX</i>	<i>lnFAI</i>	<i>GOV</i>	<i>NSOE</i>	<i>IPR</i>
<i>SN</i>	0.014*** (0.005)	0.032* (0.018)	-0.386* (0.221)	0.090** (0.043)	0.273 (0.218)	-0.654 (0.568)	3.495 (3.269)
<i>Controls</i>	✓	✓	✓	✓	✓	✓	✓
<i>City FE</i>	✓	✓	✓	✓	✓	✓	✓
<i>Year FE</i>	✓	✓	✓	✓	✓	✓	✓

⁴ *BANK* represents the number of bank branches divided by the administrative area. *ROAD* refers to the actual road area in the city divided by the administrative area. *TAX* is the proportion of taxes and fees from industrial enterprises above a designated size, relative to industrial value-added. *GOV* represents the share of government fiscal revenue in nominal GDP. *NSOE* is the proportion of employees in non-state-owned enterprises relative to the total number of employed individuals. *IPR* is the proportion of local intellectual property court case resolutions relative to the total number of such cases nationwide. The above data is sourced from the *China City Statistical Yearbook*, *China Financial Yearbook*, local statistical bureau websites, and the Peking University Legal Database.

<i>Obs.</i>	2715	3345	1426	3074	3422	2441	2049
<i>Adj. R²</i>	0.940	0.889	0.906	0.951	0.827	0.7166	0.535

Note: Columns (1)–(7) are estimated by OLS. Standard errors in parenthesis are clustered at the city level. *, ** and *** represent the significance levels of 10%, 5% and 1%, respectively.

Figure 7 illustrates the dynamic effects of official transfers on economic growth in different levels of institutional environment. The results show that the growth-enhancing effects are evident in regions with stronger government financial support, a larger share of private-sector employment, and better intellectual property protection. Although these effects persist for only a few years rather than generating sustained growth, they indicate that the effectiveness of South-to-North official transfers is fundamentally shaped by the interaction between local institutional constraints and officials' governance capacity. From this perspective, the baseline finding of a 4–5 year positive effect primarily reflects outcomes in regions where institutional constraints are relatively weak. By contrast, in northern regions, growth effects are less persistent due to stronger institutional frictions, including limited fiscal support, rigid sectoral barriers, and weaker legal protection for private enterprises, all of which undermine long-run sustainability. Overall, these results corroborate the predictions of our theoretical model: the persistence of growth induced by South-to-North official transfers depends on the relative strength between local institutional constraints and officials' governance capacity. When officials' governance capacity does not exceed these constraints, official transfers provide only a temporary boost through infrastructure investment and capital expansion during an official's tenure (see Proposition 2).



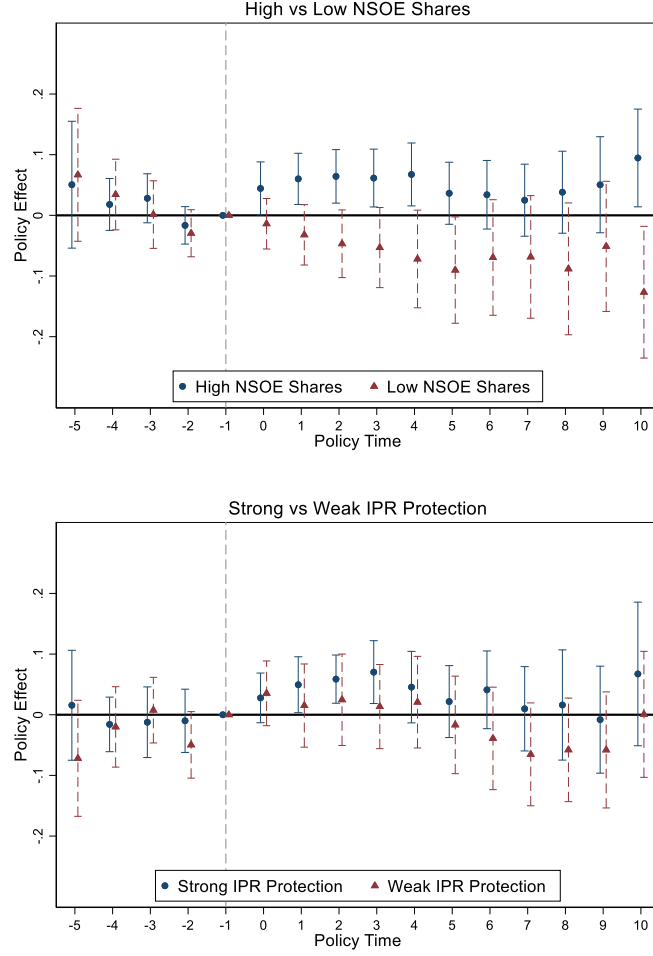


Figure 7. The dynamic effects in different institutional environment.

Note: Figure 7 the dynamic effects of South-to-North official transfers on economic growth in different institutional environment. The bars represent 95% confidence intervals. The horizontal axis indicates the number of years relative to the policy implementation. The three grouping variables correspond to the institutional mechanism variables introduced above.

4.6 Heterogeneity Analysis

4.6.1 Administrative Status

We explore whether the economic effects of official transfers vary with the administrative rank of the city in which officials serve. Prior research suggests that administrative status correlates with access to fiscal resources, political influence, and governance capacity, which in turn shape local development outcomes (Jia et al., 2021; Li & Zhou, 2005). Consistent with this perspective, our heterogeneity analysis shows that the positive growth effects of governance experience are statistically significant in cities of lower administrative rank, whereas they are not distinguishable from zero in higher-ranked cities (See Columns (1) and (2) of Table 7). This pattern indicates that experience accumulation matters more where formal authority and resource endowments are relatively limited, potentially because lower-rank locales benefit more from managerial skill improvements than from institutional advantages that already accompany high status.

4.6.2 Innovation Capacity

We further examine whether the impact of officials' governance experience differs by local innovation capability, as innovation is a known driver of productivity and long-term growth. Studies in regional economics and innovation systems highlight that regions with strong innovation ecosystems—measured by patenting activity, R&D intensity, or knowledge spillovers—are better positioned to translate governance quality into economic performance (Aghion & Jaravel, 2015). Our results in columns (3) and (4) of Table 7 show that the growth-promoting effects emerge significantly in cities with high innovation capacity, whereas cities with lower innovation capability do not experience such benefits. This suggests that governance improvements interact with local innovation systems: where knowledge production and absorptive capacity are higher, officials' enhanced governance experience more effectively catalyzes economic dynamism.

4.6.3 Environmental Regulation.

Finally, we assess heterogeneity by the stringency of environmental regulation, an institutional constraint that shapes how officials prioritize growth versus environmental sustainability. The literature on environmental governance shows that stricter regulations can alter the environment–growth trade-off and impose compliance costs that dampen short-term economic expansion, while weaker regulation may allow more flexibility for growth-oriented policies (Albrizio et al., 2017; Jorgenson & Wilcoxon, 1990). With the results in columns (5) and (6) of Table 7, we find that the positive effect of governance experience on economic outcomes is significant in cities with relatively weak environmental regulation but absent in those with strong regulation. This pattern suggests that stringent environmental constraints may limit the short-term economic leverage of governance experience, whereas under weaker regulatory regimes, officials' improved governance skills can more readily translate into growth.

Table 7. Heterogeneity analysis results.

	(1)	(2)	(3)	(4)	(5)	(6)
	Administrative Status		Innovation Capacity		Environmental Regulation	
<i>Variables</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>Strong</i>	<i>Weak</i>
<i>SN</i>	-0.0005 (0.043)	0.057* (0.030)	0.070** (0.029)	0.044 (0.039)	0.012 (0.039)	0.052** (0.024)
<i>Controls</i>	✓	✓	✓	✓	✓	✓
<i>City FE</i>	✓	✓	✓	✓	✓	✓
<i>Year FE</i>	✓	✓	✓	✓	✓	✓
<i>Obs.</i>	410	3012	1847	1575	1710	1712
<i>Adj. R²</i>	0.979	0.973	0.979	0.972	0.977	0.985

Note: Columns (1)-(6) are estimated by OLS. Standard errors in parenthesis are clustered at the city level. *, **, and *** represent the significance levels of 10%, 5% and 1%, respectively. Administrative status is defined based on whether a city is a provincial capital or holds sub-provincial status. Innovation capacity is measured by the city-level average patent grants. Environmental regulation intensity is proxied by the median ratio of industrial pollution control investment to secondary industry value added. The latter two variables are classified based on median splits.

5 Conclusion

This study illustrate theoretically and empirically that the South-to-North official transfers can impact economic growth in underdeveloped regions and that the effects of official transfers are

shaped by the relative strength between local institutional constraints and officials' governance capacity. This article develops this point in three main findings. First, we find that South-to-North official transfers increase per capita GDP in underdeveloped regions by an average of 5.4%, but the effect is short-lived. The gains last only about four to five years, roughly the length of an average tenure, suggesting that appointing capable officials alone is insufficient to narrow the North–South economic gap.

Second, both the theoretical model and the empirical evidence indicate that the relationship between local institutional constraints and officials' governance capacity is crucial for sustaining economic growth. Only when officials' governance capacity exceeds the threshold implied by local institutional constraints do officials tend to shift toward long-term policy investment, allowing improvements in governance to translate into persistent economic growth.

Finally, the mechanism analysis shows that officials transferred from more developed to less developed regions often fail to overcome these constraints and therefore continue to rely on short-term development strategies to enhance their performance, primarily through infrastructure construction and investment expansion. Such transfers do not fundamentally reform the structural institutional constraints faced by underdeveloped regions, including insufficient government financial support, rigid sectoral barriers, and weak protection of property rights.

The paper has at least a few broader implications. It develops a theoretical framework that links improvements in local officials' governance capacity to both short- and long-term economic outcomes, conditional on institutional factors. Furthermore, the empirical evidence shows that official transfers promote short-run growth but fail to deliver sustained gains, thereby advancing our understanding of the role of cross-sectoral institutions in economic performance. From a policy perspective, local governments in economically lagging regions should not only enhance the business environment for the private sector but also ensure sufficient fiscal support for state-owned enterprises, thereby enabling officials' governance capacity to translate into sustainable long-term economic growth. Finally, the findings contribute to an extensive debate on the replicability of developmental experiences in industrial policy and governance ([Juhász et al., 2023](#)), suggesting that while short-run successes may be transferable, their long-term viability depends critically on local institutional conditions.

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