

# TRANSNATIONAL CORPORATIONS AND LOCAL ECONOMIC GROWTH IN CHINA – A COMPARATIVE CASE STUDY OF NINGBO AND WENZHOU –

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**Abstract:** *This article uses a comparative case study to investigate the effects of Transnational Corporations on China's local economy. It is found that different historical and geographical conditions, industrial structures and policy regimes have contributed to distinct patterns of economic growth and FDI location in Ningbo and Wenzhou. Concerning the economic effects of Transnational Corporations, the empirical evidences have shown that despite the positive relationship between Transnational Corporations and local GDP growth, Transnational Corporations do not possess substantial advantages for the increment of local government revenues and the incomes of local urban residents. Comparing with local private enterprises, Transnational Corporations might have limited contributions to the real economic benefits of localities and local residents.*

**Keywords:** *Transnational Corporations, FDI location, local private enterprises, Chinese economy*

## 1. Introduction

Since the economic reform in the early 1980s, the Chinese leadership has issued a series of policies to open up the national market and to attract foreign direct

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investment (FDI). Thereafter, FDI by transnational corporations (TNCs) has grown unprecedentedly in China. This trend has intrigued a debate of the economic impact of FDI on host countries which are less developed in technology, capital, and know-how. This article selects two cities in China—Ningbo and Wenzhou—to investigate whether and how the TNCs in host developing countries contribute to the growth of local economy.

In previous studies, there are primarily two opposite groups of ideas about the effects of FDI by TNCs on local economic growth in host less developed countries (LDCs). One group argues that international inflows of capital can help accelerate local economic development through direct economic effects, which provides “an increase in the real income of the host country” through taxes, higher incomes, and cheaper goods (Fieldhouse, 2000, p. 170). This often results from the inflow of advanced technology, equipment, and new management servings from the TNCs. As a result, domestic economies in host countries gain significant spillover benefits (Blomström & Kokko, 1996, p. 2; Dees, 1998, p. 189; Wen, 2007, p. 130). Second, FDI plays an important role in the balance of payments through increasing export of manufactured products (Dees, 1998, p. 186). Third, the diffusion of imported skills and ideas by TNCs creates indirect or side effects that lead to a fast convergence of less developed countries toward the developed countries’ standards (Romer, 1993, p. 547; Fieldhouse, 2000, p. 172).

The second group contends that international capital inflows might be detrimental to host developing countries. These researches try to identify the conditions that would result in different economic impacts of FDI, such as the type of investment (Narula & Dunning, 2000, p. 144), the degree of substitutability between FDI and domestic investment (De-mello, 1999, p. 146), and country-specific characteristics (Zhang, 2001, p. 680). Second, aiming at “monopoly rent”, the TNCs might distort the economic process and make domestic competition imperfect (Fieldhouse, 2000, p. 176). Third, FDI tends to exacerbate developing countries’ balance-of-payments deficits, as a result of rising debt repayment obligations (Chen, Chang & Zhang, 1995, p. 691). In addition, the potential impact of FDI on growth might be confined to the short run, only affecting the level of income but leaving the long-time growth rate unchanged (De-Mello, 1997, p. 30).

To contribute to this general debate, the article provides an empirical comparative case study in China. Wenzhou and Ningbo are municipalities in the same province — Zhejiang. Short distance ensures frequent communications and mobility of people in these two places. However, there is a dramatic regional distinction between Ningbo and Wenzhou in patterns of economic development and the inflow of FDI. Ningbo has attracted considerable amounts of FDI, while the economic structure of Wenzhou is known for the predominance of local private enterprises. Based on the comparative-case study of Ningbo and Wenzhou, the article argues that there is a

positive relationship between the growth of local gross domestic product (GDP) and investment by TNCs; however, TNCs do not possess substantial advantages with regarding to the increase of local government revenues and the incomes of local urban residents. Therefore, comparing with local private enterprises, TNCs might contribute less to the real economic benefits of localities and local residents.

The article uses empirical evidences of Ningbo and Wenzhou in the time period from 2005 to 2009, and aims to provide a detailed investigation of the complexity of the effects of TNCs. In addition to the empirical contributions, China's top position as a recipient of FDI also enhances the significance of the study. Since 2002, China has become the largest recipient of incoming FDI in the world. In the past 15 years, its international trade has risen from US\$ 49.451 billion during 1995-2004 to US\$ 173.735 billion in 2010 (UNCTAD, 2011).

The article is organized as follows. The next section examines three principal determinants that contribute to the distinct patterns in Wenzhou and Ningbo: geographical and historical conditions, industrial structures and policy regimes. Based on this, Section 3 investigates the differentiated economic effects of TNCs and local private enterprises in terms of three main aspects: local GDP growth, local government revenues, and incomes of local urban residents.

## ***2. Ningbo and Wenzhou: different patterns of FDI location*** ████████████████████

Ningbo and Wenzhou represent two different modes of economic development in Zhejiang province. Ningbo has been spearheading the growth of global investment, since it was authorized by the State Council of China as one of the 14 economic and technological development zones (ETDZs) in 1984. Among the 12 cities in Zhejiang, Ningbo ranks the top in the number of foreign invested enterprises, the amount of the total imports and exports, and the output value of foreign investment in 2010 (ZPBS, 2010).

Although Wenzhou is also an ETDZ, it has attracted much less foreign investment and TNCs. However, Wenzhou is a heartland for the growth of township and village enterprises (TVEs). As early as 1985, local private industry, service, transport and construction have taken the lead over the local collective-economy sector in both net production value and transaction proceeds (Liu, 1992, p. 295). In 2010, the output value of domestic-funded enterprises constitutes more than 90 percent of the gross output value of industry in Wenzhou (ZPBS, 2011). Comparing indicators of international trade in Wenzhou and Ningbo, one can imply that economic development in Ningbo is more outward-oriented, while Wenzhou much more depends on domestic capitals and local private enterprises to increase its economic growth (See Table 1).

Table 1  
*Indicators of FIEs and Foreign Investment in Wenzhou and Ningbo (2010)<sup>1</sup>*

City	Output Value of FIE / Gross Output Value of Industry (%)	Number of FIEs/ Total Number of Enterprises (%)	Total Imports of Foreign Capital (100 million USD)	Total Exports of Foreign Capital (100 million USD)
Ningbo	41.8%	29.6%	309.37	519.67
Wenzhou	8.2%	9.4%	25.51	145.43

Source: Zhejiang Province Bureau of Statistics, "2011 Zhejiang Statistical Yearbook" (Beijing: China Statistics Press, 2011).

Previous literatures have come up with various approaches to explain this regional variation of foreign investment within a host country. Dunning's eclectic paradigm (1993) explains the regional distribution of FDI inflows in terms of natural resource, market, rationalization of the structures of established investment, strategic asset, legislations and macro-organizational policies, and support services. Grub, Lin and Xia (1990, p. 90) consider that determinants of US investment in China include potential market, labor cost, infrastructure facilities, economic policies and bureaucracy efficiency. Wei and Liu reviewed that traditional industrial location theory focuses on the effects of transport costs, wages and infrastructure; while new location theory emphasizes "pecuniary' externalities or agglomeration associated with demand and supply linkages" (2001, p. 65).

Based on the existing literatures, to explain, this article examines three principal determinants that might explain different patterns of economic growth and FDI location between Ningbo and Wenzhou: historical and geographical conditions, industrial agglomeration, and government FDI policies.

## 2.1. Historical and Geographical Conditions

### *Historical and Geographical Conditions in Ningbo*

Ningbo Municipality is a harbor city in Northeastern Zhejiang. It is a sub- provincial administrative unit, including six municipal districts, three county-level cities, and two counties. As a load centre in Hangzhou Bay, the Ningbo port has the comparative advantage of having most of the region's gantry crane capacity (Comtois & Dong, 2007, p. 299). It started to handle containers in 1991; during the past 20 years, the total throughput is increasing in an average annual growth rate of more than 40

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<sup>1</sup> These data of FIEs and foreign capital include investments from Hong Kong, Macao and Taiwan.

percent, and has reached to 6.22 million twenty-foot equivalent units (TEUs) in 2010 (Zhu, 2011, p. 2).

This provides industries in Ningbo a crucial geographical opportunity in lowering transportation costs, expanding market size, increasing mobility, and improving infrastructure facilities. With the ongoing investment in port infrastructure, such as the building of the Hangzhou Bay Bridge, Ningbo will inevitably “reap the greatest marginal benefit from the economies of scale and efficiency improvements that will result” (Cullinane, Teng & Wang, 2005, p. 343). Endowed with these advantages, Ningbo tends to attract more TNCs and FDI inflows than its neighbor cities.

### ***Historical and Geographical Conditions in Wenzhou***

Located in the downstream of the Ou River, Wenzhou municipality covers 11,784 square kilometres, including three municipal districts, two county-level cities, and six counties. The mountainous geographical conditions create hurdles in developing transportation and other infrastructures, which might be harassment for the outward-oriented economic development in Wenzhou.

The capital accumulation in Wenzhou initiated with the production of low-quality, hand-made consumer goods by poor farmers. In the early 1980s, a large number of small scale household enterprises emerged, triggered labor mobility and capital flow, and finally achieved the dramatic growth of private factory industry. Characterized as privatization, marketization and local deviation from state policies, this process of “capitalization” shows a transition from self-employed petty bourgeois commodity producer to capitalist entrepreneur that is willing to take risks for reinvestment (Liu, 1992, p. 296). Since capital and investment are endogenously abundant, there would be less need for Wenzhou to attract the inflow of international capitals.

## **2.2. Industrial Agglomeration**

The 1998 world investment report (UNCTAD, 1998) indicates agglomeration economies with clustering of industrial activities, infrastructure facilities, and access to regional markets as important determinants of the location of FDI. Combined with scale economies and better access to domestic and international markets, industrial agglomeration is likely to significantly mitigate the disadvantages faced by foreign investors, such as operational hazards, business uncertainties and information asymmetry (He, 2003, p. 352). Therefore, industrial agglomeration is to be positively correlated with inward FDI.

In Ningbo and Wenzhou, industrial agglomeration mainly occurs in the secondary industry, which consists of mining, manufacturing, electricity and energy consumption,

and construction sectors. Contributing to more than half of the GDP in year 2010 (ZPBS, 2011), the secondary industry is a substantial composition of the industrial structure in both cities. Also, it has obtained most of the foreign investment. Between 2007 and 2009, the amount of “Foreign Capital Signed Agreements”, “Foreign Investment Actually Used” and “Newly Projects” in the secondary industry constitutes more than 80 percent of the total amount in all sectors (NBS, 2010, p. 187; WBS, 2010, p. 48).

### ***Industrial Agglomeration in Ningbo***

There are three principal industrial agglomerations in Ningbo. First, the port industry in Ningbo has developed into an industrial cluster which includes petrochemical, steel-and-iron, electronic, machinery and auto sectors; among these heavy chemical industries, the petrochemical and electronic sectors have achieved considerable scale economies (Qiao, 2003, p. 40). Industry agglomeration is also revealed in other traditional manufacturing firms, such as enterprises of clothing, plastics, home appliances, stationery, and auto parts. A third industry agglomeration is the high-tech industry. Since the late 1990s, this agglomeration of high-tech industry in Ningbo has developed into three principal sectors: optoelectronic integration, electronics and information, and new materials (Chen & Zhang, 2008, p. 11).

Recently, these three industry agglomerations have been through a transition toward more outward-oriented structures. Traditional manufacturing industries, such as the clothing firms, internationalize through exporting products, linking private enterprises with foreign capital, and attracting FDI by establishing TNCs (Lin, Xiang & Lu, 2006, p. 41). However, most of the foreign capital flows into the port and high-tech industries; these capital-intensive and technology-intensive industries are more likely to attract international investment (Tian, 2008, p. 52). Locating at the islands just offshore from the port, the factories in Ningbo can take a huge advantage of the transportation resources to import raw materials and export their products. This complements the shortage of resource, and therefore enables the development of heavy chemical industries in Ningbo. The development of the high-tech industry mainly derives from innovation within traditional industries and the promotion of government policy—the “No. 1 project” (“Yihao Gongcheng”) (Jiang & Lin, 2011, p. 37). These two industrial agglomerations attract substantial international capitals and contribute to the outward-oriented economic development in Ningbo.

### ***Industrial Agglomeration in Wenzhou***

Derived from endogenous capital accumulation, the industrial structure in Wenzhou is a “territorial agglomeration” of small household firms capitalizing on external economies of scale (Wei, Li & Wang, 2007, p. 426). This kind of industrial

agglomeration mainly includes traditional manufacturing enterprises that prefer fewer investment risks, shorter periods of return on investment, market-oriented flexible production, and endogenous development. Most of these firms belong to light manufacturing, producing low value-added “petty commodities”, such as leather products, garments, plastic products and lighters. On the other hand, heavy-chemical and other resource-intensive industries are poorly developed in Wenzhou (Wang, 2009, p. 77). The scarce resources and the inefficient infrastructure and transportation facilities imply that Wenzhou does not possess comparative advantages in developing heavy chemical industries.

Combined with thick institutions and strong local networks, this characteristic of industrial structure prevents the inflow of external capital and technology, making Wenzhou less attractive to FDI and high-quality labor. Recently, faced with intensive competition from FIEs and other domestic enterprises with high-quality products, enterprises in Wenzhou are paying more attention to enhance their competitiveness, through upgrading technology, improving quality of products, building brands, and increasing economic scales. As a result, products “made in Wenzhou” are more competitive in the global market; more enterprises have established sales branches in foreign countries and obtained considerable profits from exports. However, the industrial agglomeration in Wenzhou is still less demanding for the inflow of foreign capitals. The Wenzhou model is essentially viewed as a bottom-up process of the regional industrialization paradigm based on internal markets, internal resources, and traditional manufacturing (Shi, Jin, Zhao & Luo, 2002, p. 62).

### **2.3. Government Policies**

Government policies serve a crucial role in shaping industrial structures and the inflow of foreign capital in Ningbo and Wenzhou. With regard to national policies, there are no fundamental differences between both cities, as both Wenzhou and Ningbo are listed as economic and technology development zones (ETDZs) by the State council in 1984. This policy encouraged the inflow of foreign investment in these two coastal cities, and offered a significant opportunity for them to develop out-oriented economy. Therefore, comparing with national policies, local government policies are more related to the substantial gap between Ningbo and Wenzhou in terms of FDI inflows by TNCs.

#### ***Government Policies in Ningbo***

The local government in Ningbo has set up various platforms and channels to enhance cooperation between local private enterprises and foreign investment. Since 2004, local governments in Ningbo have adopted a policy called “Yimin Yinwai”

(“Absorbing Foreign Investment by Private Enterprise”) to support both the degree and scale of international capital investment in local private enterprises (Tian, 2008, p. 53). Forms of cooperation between local enterprises and TNCs include equity joint venture, contractual joint venture, merger and acquisition (M&A), transferring and so forth.

The local government in Ningbo has also fully utilized policy incentives from its upper-level governments. For example, Ningbo local government has adopted a system of “corporate management” in operating its ETDZ, offering it relatively independent authorities in the introduction of international investment and administrative approval (Qiao, 2003, p. 41). These arrangements institutionally ensure the efficiency of the inflow of foreign capital. Besides the ETDZ, Ningbo also established a Free Trade Zone (NFTZ) in 1992. As the only bounded area in Zhejiang Province, the NFTZ<sup>1</sup> mainly aims at developing “advanced manufacturing industry and modern service industry”; there are more than 6600 companies from about 60 countries within the NFTZ, covering 3 major functional industries: international trade, advanced manufacturing, and warehousing and logistics.

### **Government policies in Wenzhou**

The takeoff in Wenzhou also primarily resulted from the supports from local governments. In the late 1970s, when private enterprises were still forbidden for political reasons, the financially weak local government in Wenzhou allowed the development of family enterprises with “fake red hats”, listing them as collective enterprises in official statistics (Liu, 1992, p. 295). Rather than simply giving passive permission, the local government in Wenzhou also facilitated free economic activities by constructing several local marketplaces. The establishment of the marketplace greatly reduced the difficulties for local private enterprises in procuring raw materials, finding buyers, and obtaining information from other traders (Sonobe, Hu & Otsuka, 2004, p. 546). These spillovers of valuable market information significantly enhanced the development of local private enterprises.

However, since the early 1990s, economic development in Wenzhou faced a problem of “lock-in”; some scholar argued that Wenzhou is locked in a family-based, labor intensive, low-value added, and light-manufacturing-centered industrial structure (Shi, 2004, p. 18; Wei, Li & Wang, 2007, p. 429). One crucial reason for this lock-in problem is the thick local networks between officials and enterprises. Local business people in Wenzhou not only influence public policy, but are often governmental officers themselves (Sonobe, Hu & Otsuka, 2004, p. 551). This leads

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<sup>1</sup> The NFTZ is also called Ningbo Export Processing Zone, or Ningbo Bonded Logistics Zone; relevant data are retrieved from <http://en.nftz.gov.cn/>



to slow changes within enterprises and other related institutions, and prevents people outside Wenzhou from “melting in” (Wei, Li & Wang, 2007, p. 429).

It was local enterprises themselves that took the initiative to solve the problem of industrial lock-in. They have adopted four major types of strategies: institutional change (the shift to shareholding enterprises), technological upgrading, industrial diversification, and spatial restructuring. Once again, the local government in Wenzhou undertakes the role to support these local enterprises. Still, both the local private enterprises and the local government attempt to upgrade the industrial technology and structures in an endogenous way; there are limited spaces and incentives for the inflow of foreign capital and TNCs.

### ***3. Economic Effects: TNCs versus Local Private Enterprises*** ████████

Based on the determinants of historical and geographical conditions, industrial structures, and government policy regimes, it is salient that Ningbo and Wenzhou has different patterns of economic growth: Ningbo has substantially benefited from the port industry and takes the inflow of FDI as one crucial driving force for its economic growth, while Wenzhou relies on an endogenous pattern of investment and economic growth under the impetus of local private enterprises. The next section compares these two different patterns based on three major indicators: local GDP growth, local government revenues, and incomes of local urban residents. Particularly, four groups of enterprises are examined: the TNCs in Ningbo, the local private enterprises in Ningbo, the TNCs in Wenzhou, and the local private enterprises in Wenzhou.

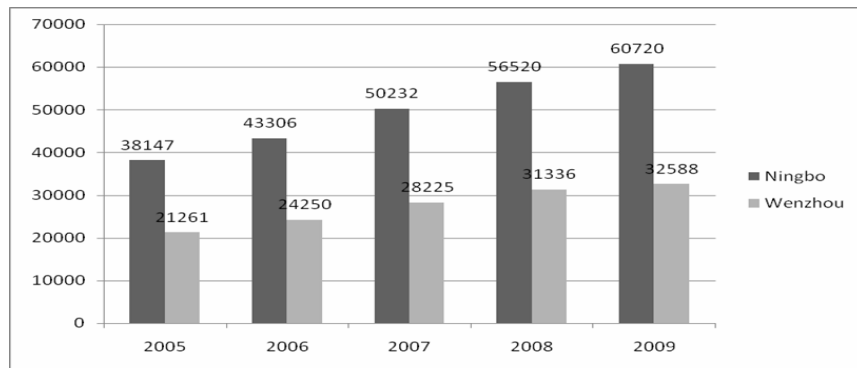
Through this comparative study, the article tries to reveal the potential advantages or limitations that TNCs might have when comparing with local private enterprises. The article also wants to reveal that other factors might also affect the contribution of TNCs, such as the amount of foreign investment and the influences of local private enterprises. Therefore, it is extremely possible that the effects of TNCs would vary in terms of different regions and conditions. In the following section, I try to present this variation and complexity of the effects of TNCs on local economy, with empirical evidences and data of the two cities mainly during 2005 and 2009.

#### **3.1. Local GDP Growth**

Comparing with Wenzhou, Ningbo has a larger basis and a higher growth rate of GDP. From 2005 to 2010, the gap of GDP per capita between Ningbo and Wenzhou has increased from 16886 yuan to 28132 yuan. Also, Ningbo enjoys a smoother change of GDP growth than Wenzhou: in Ningbo, the average deviation of the growth rate of GDP increase is 1.62, while in Wenzhou the deviation reaches to 2.08. The 2008 economic crisis has a substantial impact on both Ningbo and Wenzhou. Despite

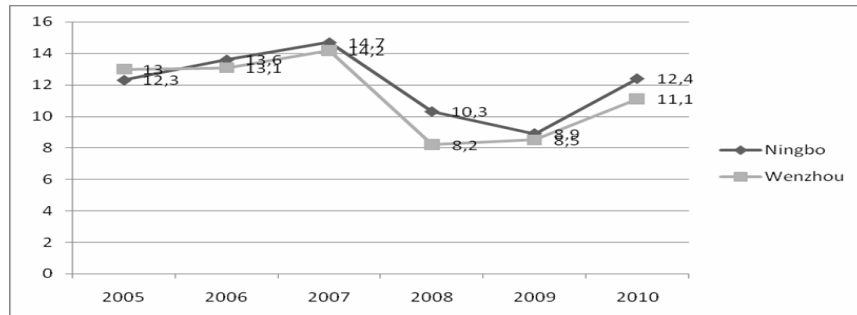
recovering earlier than Ningbo with a slight increase of 0.3% in 2009, Wenzhou suffered a more dramatic drop of GDP growth rate in 2008. These facts imply that in general Ningbo has a better performance in GDP growth during the past 5 years.

**Figure 1**  
*Growth Domestic Product (GDP) per capital in Ningbo and Wenzhou (yuan)*  
*(2005-2009)*



Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

**Figure 2**  
*Growth Rate of GDP Increase Preceding Year in Ningbo and Wenzhou (%) (2005-2010)<sup>1</sup>*



Source: Ningbo Bureau of Statistics, "2011 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2011); Wenzhou Bureau of Statistics, "2011 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2011)

<sup>1</sup> Data in this table are retrieved from NBS (2011) and WBS (2011).

To explain how TNCs and local enterprises impact the differentiated outcomes of GDP growth, the article also examines the changing proportion of these two types of enterprises in the industrial structures in Ningbo and Wenzhou. Specifically, I use the percentage of output value of different types of enterprises as the indicator of the proportion of local private enterprises and TNCs in the overall industrial structure.

As the data in Table 2 shows, during 2005 and 2009, in terms of proportion of the output value, the impact of local private enterprises in Ningbo is declining, while the TNCs see a slight increase trend. The TNCs in Ningbo seem to have a greater impact than local private enterprises on the gross output value of the industry and local GDP growth. One the contrary, the changes of local private enterprises and TNCs were in an opposite direction in Wenzhou. Basically account for more than half of the gross output value, the proportion of local private enterprises is drastically increasing in Wenzhou, particularly in Year 2008 and 2009. However, there is a slight decrease of the influence of TNCs, with the proportion declining from 6.59 percent to 5.42 percent. This implies that the industrial structure with a greater proportion of TNCs, such as Ningbo, is more likely to result in higher and smoother GDP growth. It also implies that the increase of the proportion of TNCs in local industrial structure tends to contribute to a better situation of GDP growth in the local economy.

The data also shows that the changes of the TNCs in Ningbo and Wenzhou are consistent with their local GDP growth rates. For the two cities, both the proportion of TNCs and the growth rate of GDP increased from 2005 to 2007, and decreased from 2007 to 2009. This also shows a positive correlation between TNCs and local GDP growth.

Table 2  
*Proportion of Output value of different enterprise types in Gross Output Value of Industrial Enterprises in Ningbo and Wenzhou (%) (2005-2009)<sup>1</sup>*

Year	Ningbo		Wenzhou	
	Local Private Enterprises	TNCs	Local Private Enterprises	TNCs
2005	29.86	36.52	50.83	6.59
2006	29.83	37.99	51.12	6.72
2007	29.16	42.76	47.75	6.16
2008	25.34	42.26	72.09	6.17
2009	27.90	42.04	70.45	5.42

Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

<sup>1</sup> Local enterprises include "Private Enterprises" and "Self-employed individuals"; TNCs include enterprises invested by foreigners and investors from Hong Kong, Macao and Taiwan. Data in this table are retrieved from NBS (2010) and WBS (2010).

As a key indicator of economic development, the GDP growth and its correlation with the TNCs have indicated the positive effects of foreign investment on local economy. However, GDP only counts goods and services that pass through markets. Hence, local GDP growth might exaggerate the effects of TNCs on local economy, as this indicator tends to include economic profits that flow out of the domestic economy. It is important to complement the above inference by examining local government revenues and income growth of local urban residents. Reflecting wealth accumulation of local governments and residents, these two indicators are more essential than the GDP growth rate in reflecting the TNCs' real effects on local economic growth.

### 3.2. Local Government Revenues

As local GDP growth often correlates with local revenues, Ningbo is financially more powerful than the local government in Wenzhou. From 2005 to 2009, the gap of budgetary revenues between Ningbo and Wenzhou increased from 26.3 billion yuan to 60.6 billion yuan. Comparing with Wenzhou, Ningbo enjoys a higher growth rate almost every year.

However, to compare different impacts of TNCs and local private enterprises, it is invalid to examine the performance of local government revenue alone. In the comparative case study of Wenzhou and Dongguan, Lin and Yang (2001) measures the effects of TNCs and local private enterprises on local government revenues with the indicator of the ratio of total profits and taxes to total assets. This measurement can help to examine the impact of local private enterprises or TNCs as a single factor, and therefore exclude other confounding variables, such as the effects of cooperative enterprises, infrastructure conditions, and different sizes of investment.

Table 3  
*Total amount and growth rate of Fiscal Budgetary Revenues in Ningbo and Wenzhou (2005-2009)*

Year	Ningbo		Wenzhou	
	Total Fiscal General Budgetary Revenue (10000 yuan)	Growth rate (%)	Total Fiscal General Budgetary Revenue (10000 yuan)	Growth rate (%)
2005	4664968	16.35%	2049213	12.33%
2006	5611702	20.29%	2410894	17.65%
2007	7239222	29.00%	2932606	21.64%
2008	8109020	12.02%	3397842	15.86%
2009	9662496	19.16%	3607243	6.16%

Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

In this article, I use three indicators to examine how local enterprises and TNCs influence the revenues of local government: the ratio of Total Profits to Total Assets, the ratio of Value Added Taxes (VAT) Payable to Total Assets, and the ratio of Sales Taxes and Extra Charges to Total Assets. From Table 3, one can see that in both Ningbo and Wenzhou, TNCs earn more profits than local private enterprises with the same value of assets. It also shows that both TNCs and local private enterprises gain from agglomeration: the TNCs in Ningbo gain more profits than the minority of TNCs in Wenzhou, while local enterprises in Wenzhou earn more than their fellows in Ningbo.

Among the four groups of enterprises, TNCs have obtained both the lowest and highest values of taxes with regard to different types of taxes. Specifically, the TNCs in Ningbo pay the lowest amount of VAT, and TNCs in Wenzhou contribute to the lowest amount of Sales Taxes and Extra Charges. It seems that TNCs do not possess substantial advantages in contributing to the growth of local government revenue. In addition, in terms of the higher profits earned by TNCs in both cities, it is likely that local private enterprises offer a greater proportion of their profits for the taxes and revenues of local governments.

**Table 4**  
*Investment Effects of TNCs and Local Private Enterprises per 100 yuan of Fixed Assets*

Item	Wenzhou			Ningbo		
	Total Profits	Value Added Taxes Payable	Sales Taxes and Extra Charges	Total Profits	Value Added Taxes Payable	Sales Taxes and Extra Charges
TNCs (Foreign Funded Enterprises and Enterprises with Funds from Hong Kong, Macao & Taiwan)	5.52	3.49	0.30	5.57	2.28	0.78
Private Enterprises	4.85	3.21	0.53	4.23	2.61	0.43

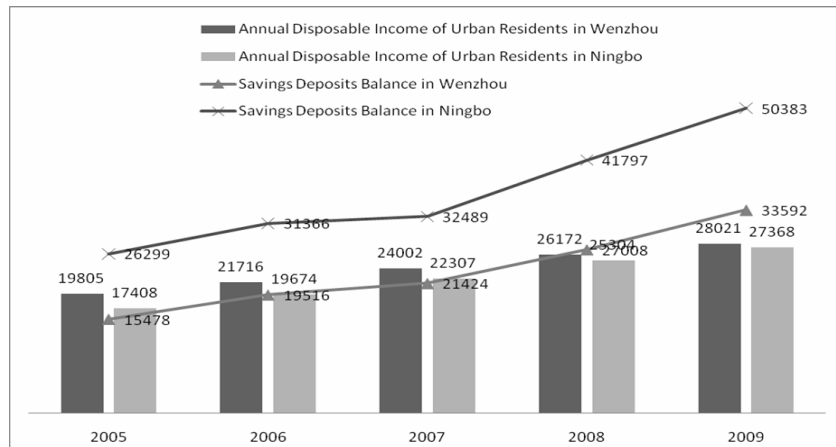
Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

### 3.3. Income Growth of Local Urban Residents

To access local income growth, particularly among urban residents, the article adopts two major indicators: annual disposable income of urban residents per capita and balance of savings and deposits per capita. Personal disposable income often refers to total personal income minus personal taxes, while savings deposits balance reveals the resident's purchasing power after consumption.

Figure 3 shows that urban residents in Ningbo have a higher level of savings deposits balance, consisting with its larger amounts of GDP and local government revenues. However, this distinction of savings deposits balance between the two cities might also relate to the fact that the Wenzhouness are more likely to use their deposits for reinvestment, rather than for savings. Plus, from 2006 to 2009 (except for Year 2008), Wenzhou has a larger growth rate of savings and deposits balance.<sup>1</sup> This is consistent with the fact that Wenzhou is slightly higher than Ningbo in terms of personal annual disposable income of urban residents.

**Figure 3**  
*Annual Disposable Income of Urban Residents Per capita and Savings Deposits Balance per capita in Wenzhou and Ningbo (yuan) (2005-2009)*



Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

<sup>1</sup> From 2006 to 2009, the growth rates of savings and deposits balance in Wenzhou is 26.1%, 9.8%, 26.1% and 24.4%, while the growth rate in Ningbo is 19.3%, 3.5%, 28.6% and 20.5%.

To examine how TNCs and local private enterprises affect incomes of local residents, the article uses three principal indicators: Wages Payable, the ratio of Wages Payable to Total Assets, and the ratio of Wages Payable per capita. “Wages Payable per 100 yuan Assets” examines the contribution of average amount of investment to local income growth, while “Wages Payable per capita” refers to the average income of employment.

As indicated in Table 5, in both cities, TNCs offer slightly higher wages to their workers. This shows that residents employed by TNCs can get more incomes than those working in private enterprises. In Wenzhou, the TNCs also provide greater income benefits in average assets. This shows that in Wenzhou, with the same amount of investment, TNCs have more advantages than local private enterprises in enhancing the growth of the incomes of urban residents. However, basically, it is local private enterprises that primarily contribute to the growth of incomes of urban residents in Wenzhou, as total payable wages of the TNCs in Wenzhou are much lower than the amount of the local private enterprises. Different amounts of employment between TNCs and local enterprises may explain such contradiction. In 2009 in Wenzhou, the annual average amount of employment is 95319 for TNCs, and 667666 for local private enterprises (WBS, 2010).

In Ningbo, the income benefit of TNCs seems to be less obvious. Opposite to the situation in Wenzhou, local enterprises in Ningbo created more wages payable within average assets. Therefore, in Ningbo, with the same amount of investment, local private enterprises tend to contribute to more income benefits for local residents. However, in Ningbo, the TNCs provide more total payable wages, and therefore have a greater effect on the income growth of local urban residents.

It is also interesting to notice that in terms of wages payable per capita, the gap between the TNCs and the local enterprises in Ningbo is bigger than the gap in Wenzhou. While there is merely a slight difference within the local enterprises, the TNCs in Ningbo offer much higher salaries than the TNCs in Wenzhou. This might attribute to different types of industries these TNCs are involved in, as well as different levels of competition among the TNCs in two cities.

To sum up, as the amount of investment by TNCs increases, the income benefits in average assets invested by TNCs tends to decrease, but personal wages provided by TNCs might increase because of fiercer competition within them. On the other hand, the income benefits provided by local private enterprises are relatively constant. Despite the variation of the amount of employment and investment, these private enterprises in Wenzhou and Ningbo had relatively similar performances.

Table 5  
Investment effects of TNCs and local private enterprises on wages (10000 yuan)  
(2009)

Item	Wenzhou			Ningbo		
	Wages Payable	Wages Payable per 100 yuan Assets	Wages Payable per capita	Wages Payable	Wages Payable per 100 yuan Assets	Wages Payable per capita
TNCs (Foreign Funded Enterprises and Enterprises with Funds from Hong Kong, Macao & Taiwan)	234989	8.3	2.47	1967329	5.71	2.80
Private Enterprises	1545782	7.4	2.32	1733672	7.96	2.30

Source: Ningbo Bureau of Statistics, "2010 Ningbo Statistical Yearbook" (Beijing: China Statistics Press, 2010); Wenzhou Bureau of Statistics, "2010 Wenzhou Statistical Yearbook" (Beijing: China Statistics Press, 2010)

#### 4. Conclusions

Based on the comparative case study of Ningbo and Wenzhou, this article has examined the determinants of FDI location and its effects on local economic development. The geographical and historical conditions, types of industrial agglomeration, and policy regimes contribute to different patterns of local economic growth: Ningbo has more advantages in attracting FDI by TNCs to develop its local economy, while Wenzhou is a typical example that relies on the predominance of local private enterprises in its economic structure. In examining the economic impact of the TNCs on local economic growth in China, the study introduces another actor -\* local private enterprises - to assess the effects of the TNCs in comparison with the primary indigenous economic composition in China. Data in Wenzhou and Ningbo from 2005 to 2009 have shown that:

1. There is a positive relationship between the TNCs and local GDP growth: a bigger proportion or the increase of TNCs in the local industrial structure tends to contribute to greater local GDP growth.
2. While TNCs tend to gain more profits from a fixed value of assets, they do not possess substantial advantages in contributing to the growth of local government taxes and revenues.



3. As TNCs increase the amount of investment, their contributions to local income growth in average investment tend to decrease; however, personal wages provided by TNCs might increase because of fiercer competition within them.

These empirical findings indicate that, despite the positive relation between TNCs and local GDP growth, TNCs do not have substantial spillover effects on the wealth increment of the local government and residents, which, comparing with local GDP growth, are more essential indicators of local economic development. Moreover, the economic merits of the TNCs tend to rely on the scale of investment and the competency of their local competitors such as local private. As the investment by TNCs increases, there is a decline of the “marginal benefits” for local economic growth. On the other hand, local private enterprises tend to avoid this dilemma, since their increase in scale of investment contributes to greater local government taxes and revenues. Despite the high salaries provided by the TNCs, their disadvantages in increasing local government revenues and taxes tend to limit the local government’s capacity in providing public goods and improving the living standards of local residents. This also proves De-mello’s argument that the potential impact of FDI on growth might leave the long-time growth rate unchanged and not benefit the real income growth of local economy (1997, p. 30). In light of these findings, local governments in China might reflect on their decisions in introducing FDI by TNCs, and adjust the balance of development between TNCs and local private enterprises.

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