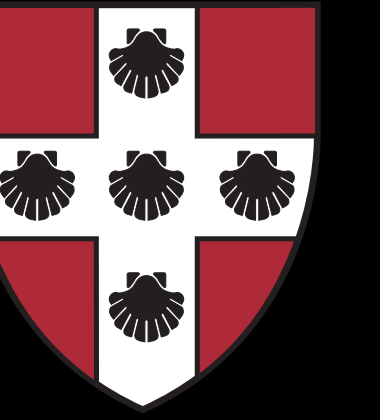


# The Value of a Contract: Chinese Provincial Variation In Utilized vs. Contracted Foreign Direct Investment (FDI) Flows

WESLEYAN  
UNIVERSITY

by : Kin Yan Chew  
Sponsor : Prof. Abigail Hornstein

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## Introduction

China's economic growth has been partially fueled by large inflows of foreign direct investment (FDI) - these flows totaled \$53.5bn in 2003; \$60.6bn, 2004; \$72.4bn, 2005 - and China has consistently been one of the top three recipients of FDI world-wide in recent years (UNCTAD). FDI is considered important for economic growth because it can generate beneficial spillover effects in the host country (e.g., access to new technologies, labor skills upgrading).

FDI in China has been primarily in a small number of more developed, coastal provinces. We examine the substantial inter-provincial variation in the gap between contracted and actually utilized FDI. Contracted FDI represents monies that are 'promised' or contracted by foreign parties, while actually utilized FDI represents actual paid-up, implemented foreign capital. We investigate the relationship between investors' ex ante expected FDI flows (contracted FDI) and ex post actual FDI flows (utilized FDI) in the context of China. This research thus enables us to shed light on inter-provincial variation in factors that affect utilized FDI flows, and to identify how these factors affect the relative ratios of utilized to contracted FDI flows over time.

We believe that foreign investors are most likely to honor their pledges (i.e., that the ratio of utilized to contracted FDI would be higher) when foreign firms have access to good information on the investment and economic environment, and when the host province has a stronger economy, has preferential policies in place, and a better educated workforce.

## Motivation

The extensive literature on FDI has established that there are clear linkages between FDI flows and host country development on multiple dimensions. For example, there is strong evidence that the presence of foreign firms in a host country generates spillover benefits such as improved labor skills (Blonigen and Slaughter, 1999), and positively influences the development of local industries (Markusen and Venables, 1997). Related research examines the effects of geography and government policies on regional development, income and FDI in the context of China (Demurger et al., 2002).

As China is the only large recipient of FDI flows world-wide to also release data on contracted FDI, the existing FDI literature uses only utilized FDI data. Our focus on contracted FDI is therefore novel as it allows us to investigate a new question: why utilized and contracted FDI flows differ, and how this gap is related to provincial characteristics. Although data availability constrains our research to the China context, China is a great case study as as China regularly receives large flows of FDI and there is large domestic variation among the 31 provinces and national-level municipalities in economic development, economic performance, government regulation, and geography.

## Data

Our data sources include the China Data Online database (<http://www.chinadataonline.com>), CEIC, and the Chinese Ministry of Foreign Trade and Economic Cooperation (MOFTEC). We use unbalanced panel data for 1994-2007 covering all China provinces and national-level municipalities except Tibet. Tibet was excluded as it was a clear data outlier on numerous dimensions.

There is large inter-provincial variation with regards to GDP per capita (Figure 1), utilized FDI inflows (Figure 2), and the average ratio of utilized to contracted FDI (Figure 3). The data used in the maps are averages over 2000-2004. While the provincial distributions of GDP per capita and FDI are similar, there is considerable variation in the ratio of utilized to contracted FDI. Figure 4 shows aggregate FDI data for the nation.

$$UC_t = \frac{Utilized_t}{\left[ \frac{Contracted_t + Contracted_{t-1} + Contracted_{t-2}}{3} \right]}$$

Figure 1 - GDP per Capita

(2000-2004 average)

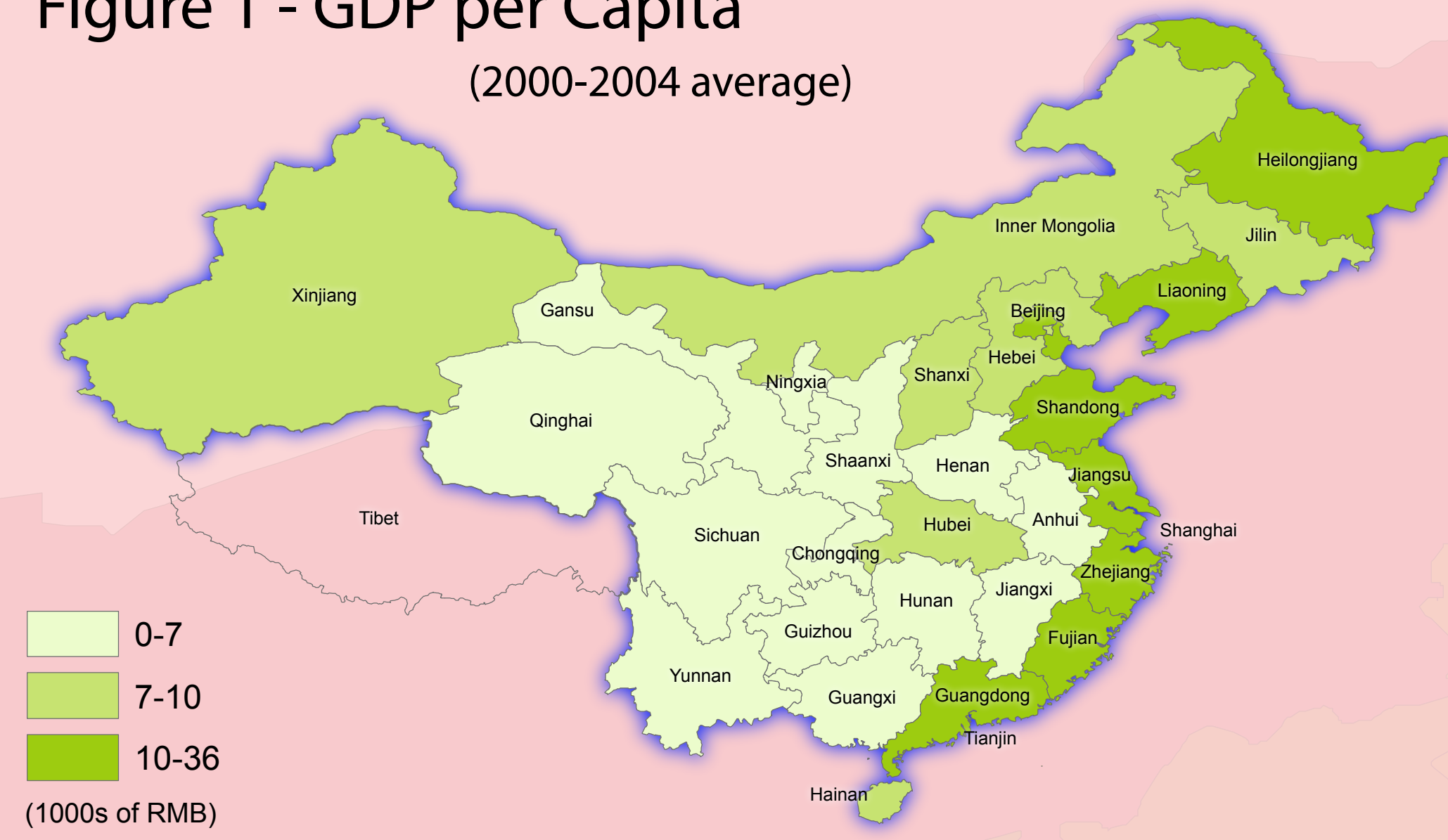


Figure 2 - Foreign Direct Investment

(utilized, 2000-2004 average)

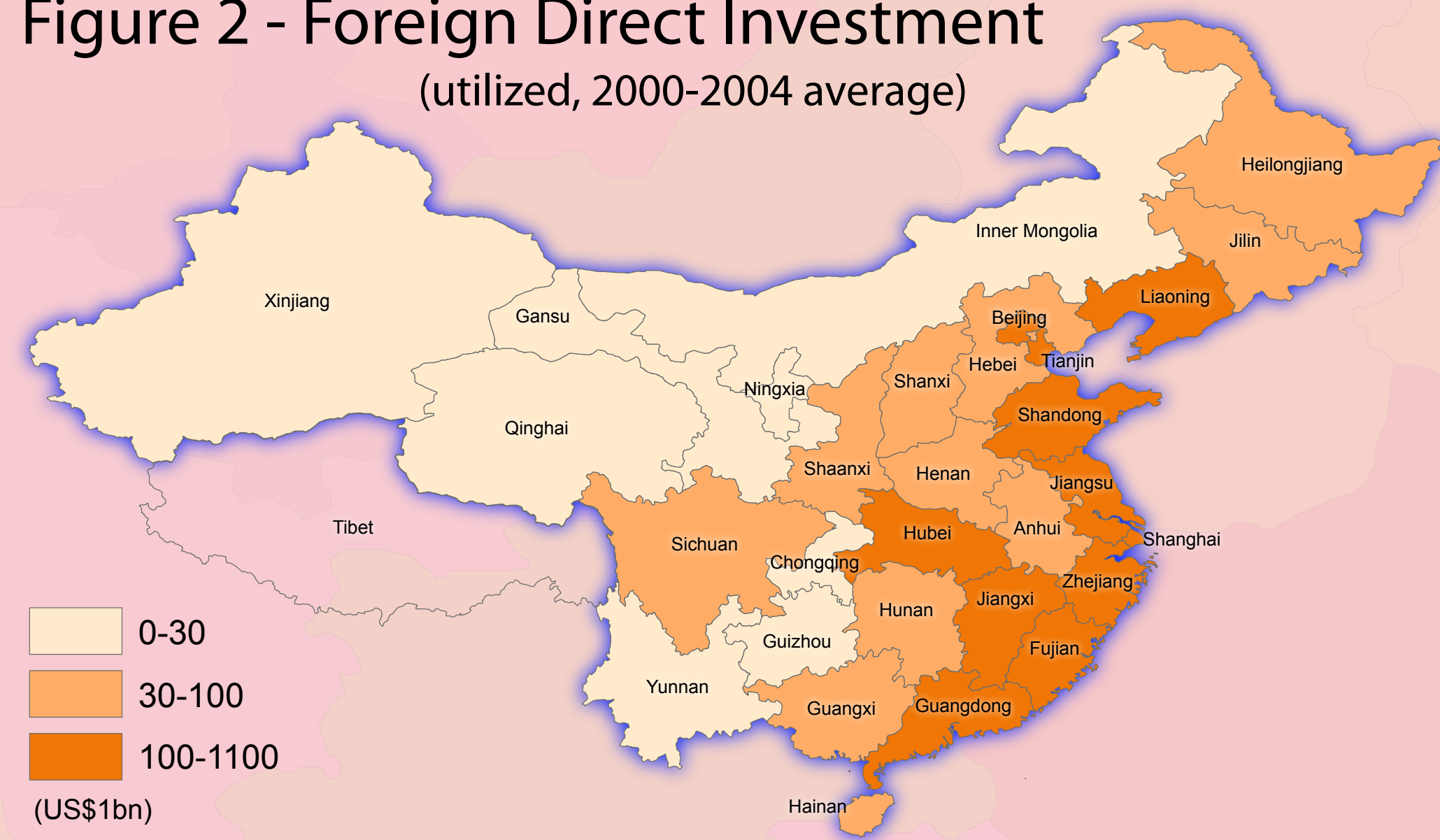


Figure 3 - Utilized/contracted FDI ratio

(2000-2004 average)

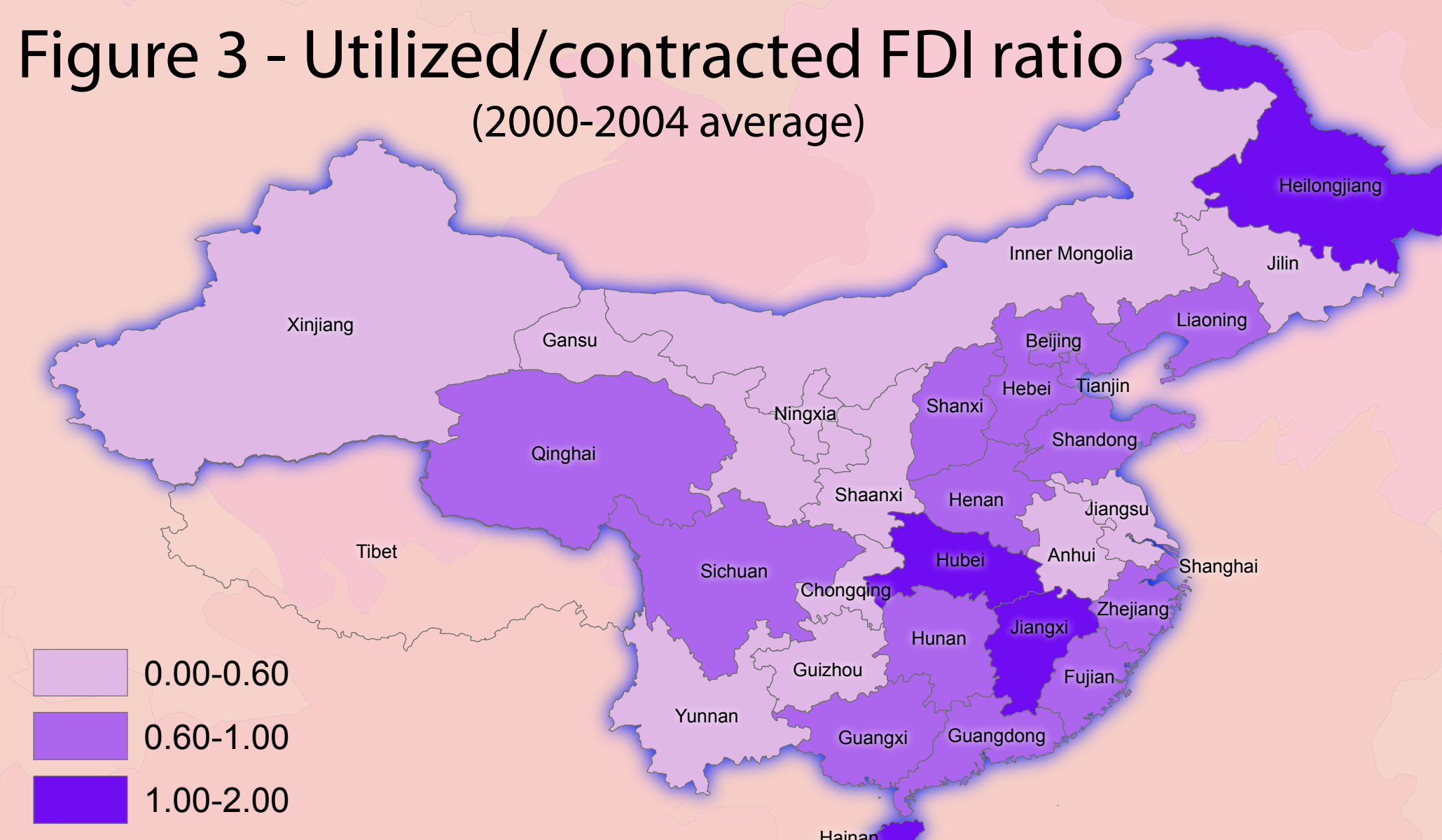
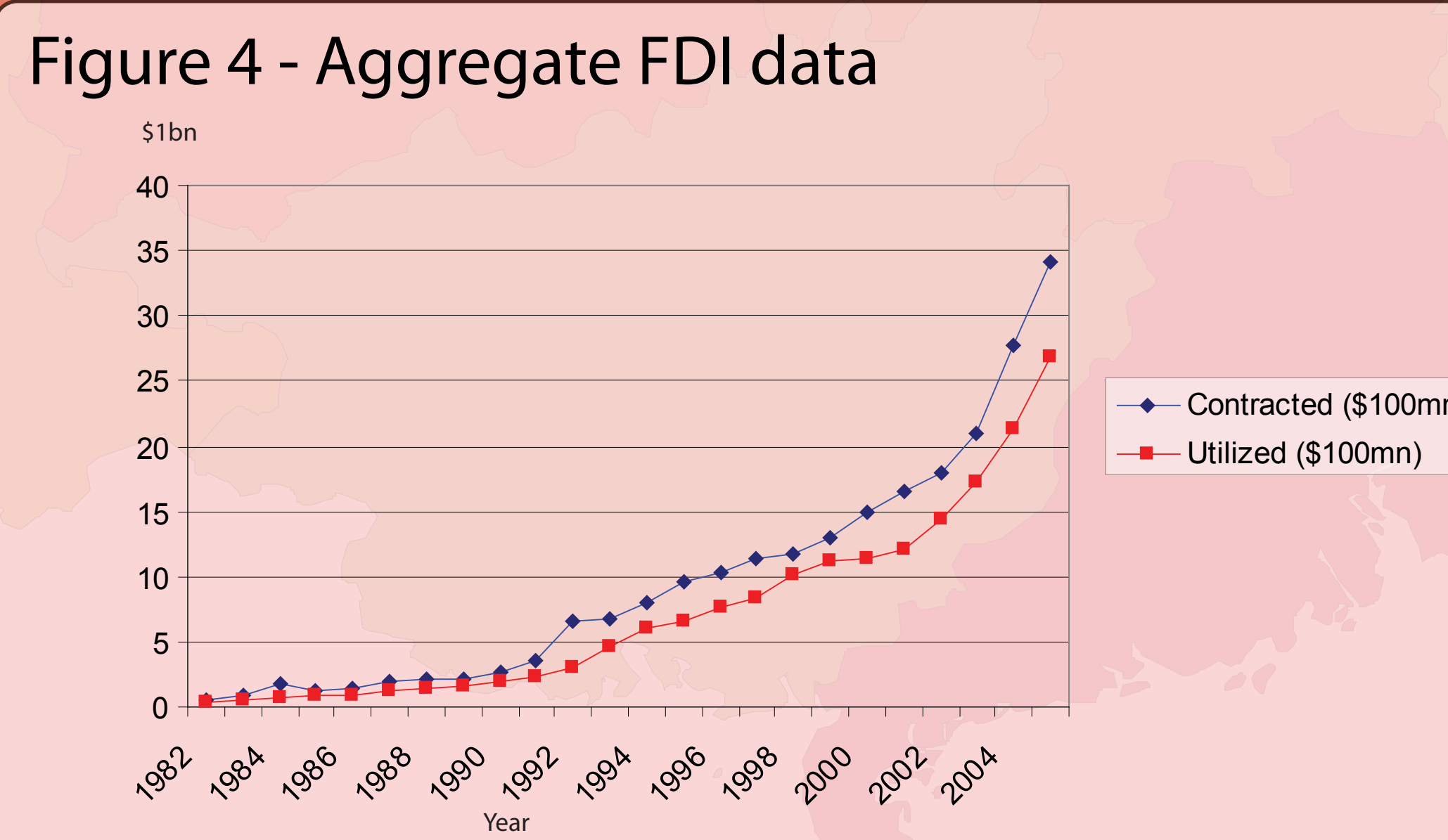


Figure 4 - Aggregate FDI data



## Results

A representative set of our key results are presented in the table below:

		Model 1	Model 2	Model 3	Model 4
Lag utilized FDI	US\$100bn of FDI in province in prior year	-2.00*	-1.64	-1.61	-2.09*
GDP per capita	RMB 10 000, current year	-0.15**	-0.21	-0.12**	-0.15**
Preferential policy	Index measuring types of incentives central government has authorized the province to offer foreign investors in current year	0.33**	0.31**	0.40**	0.37**
SOE share	Ratio of state-owned enterprise output to provincial output in current year	-0.34**			-0.42**
Urban disposable income	10,000RMB, current year		0.34		
Employment ratio	Ratio of provincial population employed full-time in current year	-1.09**	-1.44**		-0.92**
Education	Ratio of School-Aged Children Enrolled			-0.028	-0.033
Land	1mil square kilometers land area	-0.34**	-0.36**	-0.37**	-0.37**
# observations		217	227	214	206
R <sup>2</sup>		0.21	0.19	0.18	0.22

\* significant at p<0.10

\*\* significant at p<0.05

One result is rather surprising: Figures 1 and 2 show clearly that utilized FDI is most concentrated in the wealthiest provinces and yet we find many of the poorer provinces have higher yields of utilized FDI relative to contracted FDI (Figure 3). This suggests that foreign investors are more inclined to follow through on their pledges - or, invest more than pledged - when they are investing in provinces

- with lower operating costs (proxied separately by GDP per capita, employment ratio, and urban disposable income per capita)
- with more market-friendly policies in place (measured by the preferential policy index which measures the types of policies some cities in the province are authorized to offer foreign investors)
- that have a more free-market economy (measured inversely using the state-owned sector share of the provincial economy)
- that previously attracted lower levels of FDI
- that are smaller, which may be consistent with fewer informational surprises arising after a foreign investor signs contracts

In short, foreign investors appear most likely to honor their contractual agreements when investing in provinces that have the most transparent operating environment and in which short and long-term cost pressures appear most minimal.

## Conclusion

We conclude that when a province has business-friendly policies and procedures in place, foreign investors are more likely to fulfill their contracts. This is consistent with the fact that government transparency is strongly linked to economic growth (e.g., La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998), and that foreign investment is higher in countries with lower levels of bureaucracy and higher rule of law. In addition, foreign investors invest more heavily in provinces with smaller state sectors. The recent reduction in the size of the state sector may have reduced broader market distortions such as input monopolies, licensing restrictions and costs, and state subsidies.