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Development in North East People's Republic of China

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Introduction

Since the government announced the *Revitalise the North East* policy in 2002 there has been a new focus to regional policy following on from the previous, but continuing, *Develop the West* policy. For a variety of historical reasons the three provinces of North East China, Heilongjiang, Jilin and Liaoning, also known collectively as Inner Manchuria or Dongbei pose quite different challenges for regional policy as compared with the backward Western provinces.

The North East is the old heavy industry centre of the country and as such retains a strong SOE presence. In the post war period initially with Soviet aid it became the part of the People's Republic of China (henceforth PRC) that most closely resembled the Soviet Union in industrial organization and production structure with a focus on heavy industry and mineral exploitation. Its share of national industrial output in 1940 was as much as one third. This fell to 17% in 1978 at the beginning of the reforms to less than 10% in 2004.

Historically the region has not been poor by national standards. In terms of GDP per capita Heilongjiang and Liaoning were among the richest provinces in 1978. This position has been eroded over time with the fast growth in the coastal provinces, but in 2004 GDP per capita was about a third above the national average and twice the figure in the poorer Western provinces. The disparity within the north-east can be seen from the fact that the province of Liaoning has a per capita income more than 50% above Jilin and roughly 20% above Heilongjiang.

However, the SOE sector in the region has been a cause of considerable concern and its restructuring poses considerable challenges. The close links between banks in the region and SOEs has meant that loans have been channelled to these enterprises to cover operating losses and consequently in 2003 the non-performing loan (NPL) ratio in the region was nearly 50% higher than the national average in Heilongjiang and nearly 20% higher in Jilin; it was close to the average in Liaoning. This bank-SOE relationship has hindered the emergence of an effective system of financial intermediation in the region.

Although the problems facing the north-east are well known the region also has a number of potential advantages that can be built on. First, the transport infrastructure is based on trade flows established in the Japanese colonial period, and also the earlier treaty periods dominated by both Japan and Russia. However the economic future of the region will be determined to a large extent by its ability to redevelop its links to Japan, Korea and Russia and with ongoing improvements in infrastructure there are good possibilities for closer ties.

Second, while the large SOE sector remains a key problem to be addressed the heavy industrial investment of the past has led to the creation of a skilled technical work force. The education system initially established by the Japanese to support its colonial industrial development continues to have world-class research and teaching. Education standards, especially in the urban areas, are among the highest in PRC. Illiteracy rates are the lowest nationally other than for Beijing, and the university enrolment rate is well above the national average. Also while it is common to point out the heavy burden that SOEs carry in the form of schools, hospitals and other social services, the other side of this coin is that life expectancy in the north-east is among the highest in the country, with access to health facilities also among the highest nationally.

Third, although the borders of Inner Manchuria are still not fully open, they are partially open. The amount of trade that is taking place is increasing. As relations between Russia and PRC improve, and as the international status of the Democratic People's Republic of Korea (DPRK) is normalised, the scope for cross-border economic development will increase. In 2002 'regional trade' defined as trade with the neighboring countries of Russia, Japan, Republic of Korea and DPRK was over half of total exports from Liaoning and Jilin and roughly two-thirds for Heilongjiang and there is scope for further expansion.

Fourth, unemployment is above the national average and this has kept wages relatively low. Heilongjiang and Liaoning have unemployment rates higher than the national average,

whilst that in Jilin is roughly the same as the average rate. This lower rate reflects the fact that Jilin still has a higher share of its population in primary sector occupations (mainly agriculture) than most other provinces—at nearly 20% it is roughly double the rates in Heilongjiang and Liaoning. The unemployment in Heilongjiang and Liaoning keeps wages rates lower than in most of the country and rates are lower in Jilin too, as surplus labor in the countryside acts as a brake on urban wages.

Fifth, and finally, whilst there are problems of resource depletion and environmental pollution all three provinces claim to have large untapped reserves of a wide range of minerals. In addition unlike other parts of the country there is no shortage of water and there are extensive areas of relatively underdeveloped land, even of prime quality agricultural land.

It is a mistake to think that in policy terms the north-east has been stagnant at a time of great economic change in the rest of the country. There has been a rapid expansion in the privatization program for the SOE sector, which broadly follows the national trend. Foreign direct investment often seen as the driving force for economic change in PRC has been coming to the north-east, although new investments are principally to Liaoning (especially Dalian and its hinterland) and Jilin rather than to Heilongjiang. Aggregated over the three provinces the share of foreign firms in industrial output is currently slightly above the national average (although well below the coastal areas). Through a Special Economic Zone policy and other incentives attempts are being made to induce foreign investors to invest in a range of activities to help diversify the region away from old heavy industry and engineering activities. New initiatives include investments in agro-processing, mineral development and a range of higher technology activities.

However success in any new area requires overcoming the 'locational disadvantage' suffered by three provinces that enterprise-level analysis conducted by the ADB Institute seeks to quantify (see below).

What explains regional growth in PRC?

Since the early 1990's with the 'Opening Up' of trade and foreign investment there has been clear divergence in incomes between provinces due principally to the rapid growth of the coastal provinces in the eastern region. Two key factors have been put forward to explain the rapid growth of the coastal provinces. One is the policy environment, based around the Special Economic Zones and other related incentives for FDI, and the other is the favoured geography of the coastal provinces with easy access to the coast and thus international trading networks. The north-east is not particularly disadvantaged by either criteria and in one well-known index of policy (based on number of zones) relative to the other regions the north-east has the highest score after the coastal region.

Ownership of enterprises in a province also appears to have had an important growth effect. The share of 'foreign invested enterprises' in economic activity in a province appears to have had a positive growth effect either directly through its impact on efficiency or indirectly through externalities. Conversely the share of state owned enterprises (SOEs) in provincial activity appears to exert a negative effect, either due to their own inefficiencies, or to the requirement in the past for banks to channel funds to SOEs at the expense of new forms of non-state enterprise.

An important aspect of the investment climate that impacts on provincial growth has been shown to be the quality of provincial infrastructure, particularly roads and telecommunications. Infrastructure activities link provinces with the external sector and are a means of overcoming geographic barriers like distance to a port. In addition they link provinces with each other and thus stimulate inter-province trade. Good infrastructure can also be an incentive to higher investment. The north-east region is not particularly poorly endowed with infrastructure by national standards with the exception of village roads in Heilongjiang, where only roughly half of villages have good highway connections.

In general, what matters for regional growth are policy on openness to investment and trade, ownership (the respective shares of state and foreign-owned firms in economic activity) and by implication competition, infrastructure and geography.

Enterprise data

The ADB Institute has examined in detail firm-level data on large and medium scale industrial enterprises across all provinces to establish how far performance varies by province after allowing for all other measurable factors. Data come from an annual survey of the National Bureau of Statistics, Beijing. The period covered is 1995–2002. The sample is large and in 2002 the enterprises covered accounted for over 40% of the national industrial value-added.

In general the picture is mixed with an overall improvement in recorded profitability over the period, but with two of the three north-east provinces (Jilin and Liaoning) having a higher proportion of total assets in loss-making enterprises in 2002 than the national average. Jilin and Heilongjiang, in particular, have a higher proportion of enterprises in the profitable category than the national average, although in the latter case this is influenced strongly by the petroleum sector.

For the whole sample the north-east started the mid-1990s with a higher employment share in the SOE sector. There have been significant employment shifts due to SOE restructuring and privatizations both nationally and in the region, but at the end of the period SOEs still retained roughly two-thirds of employment in medium and large-scale enterprise employment in Jilin and Heilongjiang. The proportion in Liaoning is closer to the national average.

Over the period 1995–2002 for the sample we can measure privatization by the percentage point change in the share of SOEs in both employment and fixed assets. In the decline in SOE employment share almost matched the national trend. Jilin and Heilongjiang were behind the national trend. However by the criteria of the fall of SOEs in total assets of the medium and large-scale sector, privatization in the region has in each province either exceeded or matched the national trend.

Despite these changes there is a widespread perception that the north-east remains a problem region. To illustrate this we use two simple performance indicators value-added per employee, as a measure of productivity, and 'imputed profits' to total assets, as a measure of returns on investment. Imputed profits are calculated as value added minus the sum of wages, financial charges and depreciation. Indicators such as these must be related to particular industrial sectors and a direct comparison of these two measures for the north-east and the rest of the country by 2-digit industry category shows that in only three sectors (Food production, Petroleum processing and Non-Metal mining) does the north-east have a higher average labor productivity. Similarly it has a higher average profitability again in only 3 sectors (now Petroleum extraction, Petroleum processing and Furniture). In all other cases performance of firms in the north-east is below that in the rest of the country, indicating a clear 'performance gap'.

A key issue is how far is this gap due to factors like differences in scale, technology, ownership, and competition across regions, and how far is it due to the operating environment or 'investment climate', which creates a 'location disadvantage' in the north-east. This issue is addressed by a panel data regression model using enterprise data for over 44,000 firms over 1995–2002. The analysis attempts to isolate the different effects on performance, based on the characteristics of the enterprise itself, the characteristics of the sector in which it operates, time factors and a series of dummy variables including province specific and regional dummies.

Here we highlight a few key results. First, in terms of explaining both enterprise productivity and profitability a single dummy for the three north-east provinces is both significant and negative. If all the other control variables have the same value, enterprises located in the north-east are likely to have lower value-added per worker by as much as 44 percentage points. For profitability controlling for all other factors the profit to assets ratio in

the north-east is 4 percentage points below that of comparable enterprises in other locations in the country.

Second, if we decompose the north-east by using three single dummies for each province the provinces perform similarly and have almost the same performance gap with the rest of PRC. Liaoning has the largest gap. Its profitability is 4.7 percentage points lower than the rest of the country, compared with 3.3 percentage points for Jilin and Heilongjiang. In general however there are no significant 'within north-east' effects with all three provinces sharing broadly similar locational disadvantages.

Third, when we use individual dummies for each province in the country we obtain a ranking relative to the province where profitability is highest Shandong. The negative coefficients for the three north-east provinces show that their productivity and profitability is always below Shandong, after controlling for various ownership, scale, sector, technology and other relevant factors. By profitability Liaoning is 8.1 percentage points below, whilst Jilin and Heilongjiang are roughly 6.9 percentage points below. In terms of national ranking out of all provinces the three north-east provinces have three out of the bottom four places in value added per worker. By profitability the ranking out of 28 provinces is 21 for Heilongjiang, 22 for Jilin, and 27 for Liaoning. These rankings take account of characteristics of enterprises and the structure of production in the different provinces.

These results imply that even if these provinces brought their situation up to the national level in terms of ownership, industry structure and competition, firms there would still show substantially lower profitability due to provincial location disadvantages.

Conclusions

The north-east provinces are not particularly disadvantaged geographically by national standards (for example using share of the population within 100 kms of the coast as the indicator). Similarly the provinces of the north-east have had a policy of introducing Special Economic Zones for a number of years. Infrastructure provision and quality is no doubt important, but again the north-east is not particularly disadvantaged (for example by road length per sq km of land area).

This leaves the key explanation likely to lie with the 'investment climate' in the region. Lack of 'marketization', defined as the limited spread of market relations in the north-east, is a widely cited explanation for its relatively poor performance and prospects. Our analysis of enterprises controls for these structural features and shows that there are other factors at work. Even allowing for a lower than average role for non-state or foreign-owned firms in different sectors, and also for an industrial structure in which traditional heavy industry has a relative high weight, performance is still poor.

This leaves as the key explanation more fundamental features of the investment climate relating to institutional quality via the enforcement of property rights, the application of regulations and the intervention by government in the operation of enterprises and the development of financial norms and institutions. Reform in these areas will be complex, however the results leave little doubt that changes in ownership (for example with more private and less state ownership) and industrial structure (for example towards more dynamic technologically sophisticated activities) that are often put forward as solutions for the region's problems are unlikely to be sufficient to raise its performance to national levels for comparable activities.