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State-Business Relations in Indian States Measurement, Analysis and Implications

Background

India is a vast country of almost 1.2 billion people and 458 million workers. It is therefore surprising that World Bank data shows that only 8 million workers have formal jobs in the private sector (World Bank, 2007¹). A better environment for formal business can bring about changes in this scenario. Such environmental

- The results of the study suggest that the intensity of state-business relations (SBRs), a measure of the positive impact of these on the business sector, has seen enhancement over time in all states in India barring Bihar.
- Rankings of states in terms of the SBR index show varying time trends –
 - A stable and high ranking for Andhra Pradesh, Gujarat, Karnataka, and Tamil Nadu,
 - A stable and low ranking for Uttar Pradesh and Assam,
 - Rapidly improving SBRs for Haryana, Rajasthan and Orissa
 - Swift deterioration for West Bengal, Bihar and Madhya Pradesh.

change can be brought about by developing effective relations between state and business. But any efforts to do so have to be preceded by measurement and analysis of such effectiveness which is the focus of this briefing paper.

A recent line of research identifies effective relations between states and business as an important condition for sustaining economic development. These researches highlight the interaction between formal institutions and domestic social, political and economic settings, emphasising key relational properties that characterise the state's relationship with private economic actors in promoting systemic market competitiveness and industrial development. The experience of East Asian countries (where the state has intervened in the economy to provide incentives to private capital and discipline it) highlights the positive role that state business relations (SBRs) can play in the economic development process.

Such experience motivates the present attempt wherein research focuses on the quantitative measurement of institutional variables relating to the public and private sectors and subsequent development of an index measuring the intensity of the relationship between the state and business (SBR). The construction of the SBR measure is comparable to other recent attempts at measurement, for instance the

¹ Doing Business in South Asia

development of 'governance' indicators by the World Bank, 'corruption' indicators by Transparency International etc. Our research represents the first effort to systematically characterise SBRs across sub-national units within a country over time without resorting to subjective surveys.

India represents a very useful ground for testing the relationship between effective SBRs and development outcomes, given the richness and variety of economic experiences across its states. Moreover, a recent view holds that the radical shift in the attitude and practice of the political leadership towards the private sector in the eighties has been at the root of India's sustained economic growth in the last decade (Kohli, 2006a and 2006b). While Indian states are linked through a common federal institutional set up, political regimes and experience vary across states leading to variations in the effectiveness/intensity of state-business relations and corresponding differences in economic outcomes. Therefore, a study of these sub-national units offers a rich opportunity for performing a focussed analysis of causes and consequences of state-business relations without any large complications arising from institutional differences across units.

Our research, in particular, follows the recent work done by the Institute of Pro-Poor Growth Research Consortium, which has tried to define and measure effective SBRs and begun to test its impact on growth (Harris, 2006, te Velde, 2006 and Sen and te Velde, 2009). While the detailed methodological research paper examining the evolution of SBRs across Indian states and at the national level through the study of cross sectional and secular trends in appropriately constructed indices is available at <http://www.ippg.org.uk/papers/dp25.pdf>, this paper is an attempt to briefly outline the methodology and highlight the results and inferences contained in that paper in a reader friendly manner. It is hoped that the findings highlighted through the briefing paper would in turn provide useful inputs for government policy making either directly or by capturing the attention of media, intelligentsia and the representatives of civil society.

Measuring State-Business Relationship index

Construction and measurement of an SBR index involves the evaluation of four sub-components, which reflect the main aspects of effective SBRs (te Velde, 2006):

- 1) the way in which the private sector is organised vis-à-vis the public sector;
- 2) the way in which the public sector is organised vis-à-vis the private sector;
- 3) the practice and institutionalisation of SBRs;
- 4) the avoidance of harmful collusive behaviour between the two sectors.

Each of these aspects is measured through an appropriate sub-index using data on relevant variables. The various SBR sub-indices are then combined to arrive at an overall index of SBR. The construction of composite and specific indices of state-business relations takes into account quite directly facilities provided by state business associations for their members such as publications and websites, the office premises of such associations, steps undertaken by the government to facilitate an interface with business, and measures to prevent collusion/exclusionary action involving business houses and government in different states.

Note that the methodology in te Velde's cross country study for sub-Saharan Africa cannot possibly be replicated for Indian states. Since Indian states have had historically stronger institutions than African countries, accurate identification of inter-state differences is pre-conditioned on the formulation and use of new and

innovative ways of scoring SBR effectiveness using more qualitative and/or specific data. To capture all four dimensions of the composite SBR index (involvement of the private sector, involvement of the public sector, SBR practice, and anti-collusive behaviour), the study conducted structured and semi-structured interviews with business associations (umbrella organisations and sector associations) in each state and state government officials from the industry department of almost every state. Some data was also collected from secondary sources.

The sub indices of the SBR constructed through these variables have two main advantages over the traditional investment climate indicators.

- First, these cover a larger time span than that covered by other indicators pertaining to India states. This allows us to examine the evolution of the relevant economic institution over different periods.
- Second, by not being based on firm level perceptions, these avoid the measurement error problem typical of subjective survey response data.

State wise SBR Indices: *Summary of Results and Analysis*

Correlation Analysis: The first useful analytical exercise relating to the SBR measure involves examining how well each sub-index correlates with others over the period 1975-2008. Amongst all pair wise correlations, significant *negative* correlations (over time) between the anti-collusive sub-index and that for SBR practice emerge for Andhra Pradesh, Kerala, Bihar, Madhya Pradesh, Orissa and West Bengal. This result can be explained intuitively by the tendency of the state to counter decline in license revenue related accruals through higher stamp duty rates and imposition of stricter labour regulations. In other words, the state tries to maintain its power in terms of access to monetary resources of administered business and control over involved stakeholders. On the other hand, positive and significant correlation between these measures is observed in Karnataka, Madhya Pradesh, Punjab and Rajasthan showing that it is possible that decline in control exercised through licensing is often accompanied by a loosening of other regulations. The very fact that the mentioned correlation is different across the two sets of states while the trend in license revenue is similar for all states points to the conclusion that the reaction in terms of stamp duty rates and changes in the strictness of labour regulations is also different across these two sets and drives the difference in correlation.

Similarly, *negative* correlation is observed over time in states like Gujarat and Maharashtra between the composite SBR index and the sub-index relating to the role of the public sector which is attributable to the state government diluting pro-business interventions in the case of a well organised and self reliant private sector.

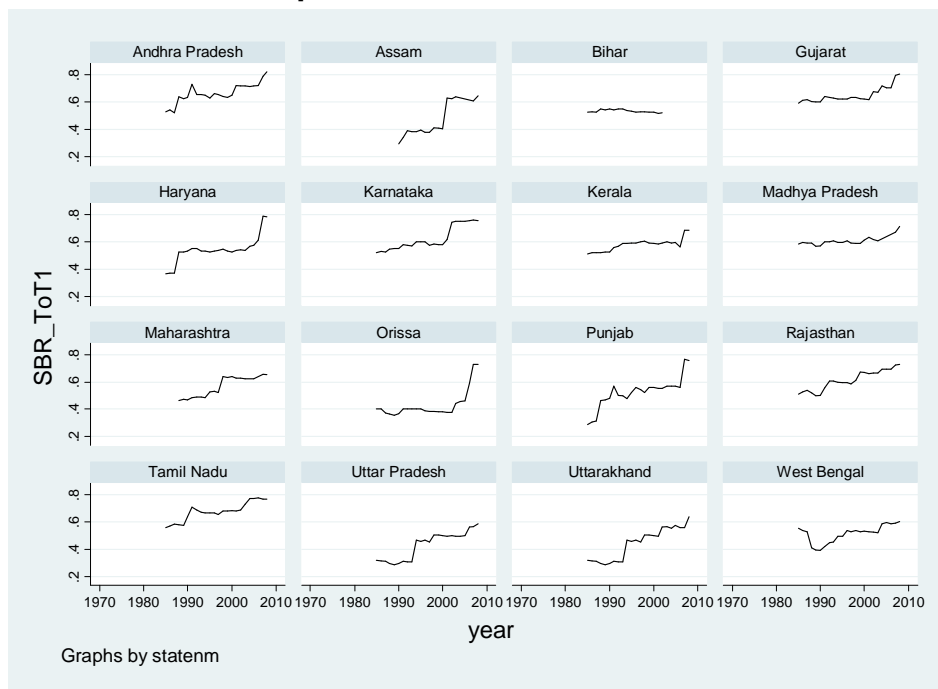
Graphical SBR trend: Graph 1 captures movements of the overall SBR measure in the period 1977-2007. From the graph, it can be inferred that the SBRs of Southern regional states (Andhra Pradesh, Karnataka, TN, and Kerala) exhibit similar movements and generally show an upward trend. The initial values of the SBR index for Karnataka and Tamil Nadu are relatively higher than those of other states. In Andhra Pradesh, the SBR index has moved the fastest among all the southern states. Kerala has shown significant improvement only recently; the left oriented government in the state may explain the overall trend of slow improvement.

Among *Bimaru* States (Bihar, MP, Rajasthan, and Uttar Pradesh), Bihar and Madhya Pradesh have not shown much improvement over time. Such a trend is consistent with the slow economic development observed in these states relative to the typical Indian trend. As regards Uttar Pradesh, the graph is slightly counterintuitive. There have been steep jumps without any corresponding marked economic improvement. Such counterintuitive results can be explained if we introspect on the nature of sub-indices – for instance, the SBR private sub-index consists of website related variables which are often determined purely by technological breakthroughs (computerisation etc) rather than actual improvement in business relations. In the case of Rajasthan, the rise in the SBR graph is consistent with the notion that Rajasthan has left the club of *Bimaru* states at the turn of the century.

West Bengal’s graph is unique – the SBR index started at a relatively high value, went into deep decline in the late 1980s with recovery starting only in the mid 1990s. Uttarakhand is generally doing well. Haryana and Punjab exhibit similar movements in the SBR index. In the case of Gujarat, post Narendra Modi (present Chief Minister) SBR increase has accelerated. A common feature of the movements of the SBR index in various states is that the exogenous influence of delicensing (Central policy) produces an upward movement in the index.

SBR Vs World Bank’s ‘doing business’: The analysis of rankings of various states over time in terms of the overall SBR index/measure suggests that Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu and Maharashtra show a stable and high ranking over time. Uttar

Graph 1: State wise Overall SBR



Pradesh and Assam show a stable and low ranking over time. The major gainers in terms of ranking are Haryana, Punjab and Orissa whereas the major losers are West Bengal and Madhya Pradesh. Rajasthan picked up around the mid nineties (since

1995) in terms of magnitude of the SBR index though its ranking has dropped again in the past two or three years.

Such ranking using values of the SBR index has been compared with the composite ranking of 'ease of doing business in Indian cities' generated by the World Bank. The World Bank's ranking is an average of different indicators describing the bureaucratic burden on businesses such as time needed for starting a business, contract enforcement, access to credit, flexibility in labour market regulations, ease of obtaining licences, trading across borders etc for the year 2006. Table 1 presents the comparison between the two sets of rankings for the year 2006. A positive correlation between the two rankings implies that the SBR index is also heavily correlated with the ease of doing business and therefore the potential for growth. Moreover, the SBR index has been measured over time and, therefore, provides more information than the World Bank index, given that the former has been measured at different points of time.

Table 1: Comparison between SBR Ranking and World Bank Ranking on the Ease of Doing Business

State	World Bank Rank 2006*	SBR Rank 2006
Andhra Pradesh	1	3
Karnataka	2	2
Orissa	5	5
Punjab	7	7
Rajasthan	3	4
Tamil Nadu	4	1
Uttar Pradesh	6	8
West Bengal	8	6

Spearman's rank correlation coefficient		
	SBR ranking	WB ranking
SBR ranking	1	
WB ranking	0.7381	1

Source: Sub-national ranking on the ease of doing business in India, World Bank's Doing Business database.

Coefficient of Variation and Growth rate of the SBR Measure: Table 2 displays average annual growth rates of the SBR measure and the coefficient of variation² of such growth rates for the period 1986-2008 for each state. The estimates indicate that average annual growth rates of Gujarat, Karnataka, Kerala, Rajasthan and Tamil Nadu, Andhra Pradesh and West Bengal are comparable. However, data on coefficient of variation of these states suggest that Rajasthan, Karnataka, Tamil Nadu exhibit more stable growth than the rest. Similarly, Andhra Pradesh and Tamil Nadu have identical high growth rates but a comparison of values of the measure of variation suggests that Tamil Nadu enjoys more stable growth. A similar contrast exists between Orissa and Assam. Rajasthan and Karnataka have very similar average growth rates and measures of variation.

² Note that five year means of the SBR measure for various sub-periods in 1986-2008 are calculated. The growth rates associated with the transition from each sub-periodic mean to the next are calculated and so is the average growth rate for 1986-2008. This measure is then combined with the average growth for the entire period to yield a pseudo CV (coefficient of variation). The deviations of sub-periodic growth rates from the average growth for the entire period are used to calculate pseudo standard deviation. For the sake of simplicity, this is being referred to in the text as just 'coefficient of variation'.

Orissa, Punjab and Haryana are states that exhibit the highest average SBR growth rates for the entire period studied. Nonetheless, they also show the highest variation, intuitively suggesting low stability of SBR growth rates. Madhya Pradesh, the largest state in India till the state of Chhattisgarh was carved out of it, displays the second lowest average growth rate of the SBR measure.

Reforms, Competitiveness and Development in India

Table 3 captures the results of the regression of the overall SBR measure for India (computed by combining state specific overall SBR indices using population weights) with respect to time. The regression coefficient on time is small but significant. In other words, SBR at the national level has improved significantly with time. This finding is echoed by the World Bank's Doing Business indicator which suggests that India has been the leading reformer in South Asia and was among the top 20 reformers worldwide in

Table 2: Average Annual Growth Rate of the SBR Measure and Coefficient of Variation

State	Average Growth Rate of the SBR measure	CV of Average Growth Rate
Andhra Pradesh	1.3%	1.260384832
Assam	2.9%	0.838440444
Bihar	-0.2%	-1.191119574
Gujarat	1.1%	2.503097542
Haryana	2.1%	3.037870576
Karnataka	1.6%	0.636138304
Kerala	1.0%	1.703758567
Madhya Pradesh	0.8%	3.102507587
Maharashtra	1.8%	0.765006253
Orissa	2.9%	4.211902745
Punjab	2.6%	1.759449688
Rajasthan	1.6%	0.509047596
Tamil Nadu	1.3%	0.882708436
Uttar Pradesh	3.1%	0.927557105
West Bengal	1.3%	1.245628118
Uttarakhand	3.2%	0.507710881

Table 3: Regression with overall SBR index as dependent variable	
Time Coefficient	0.022(0.002)**
Constant	-0.008(0.045)
Observations	34
R-squared	0.748
F	94.76
Standard errors in parentheses; ** denotes significance at 1%	

2006-07. India cut the time to start a business from 71 to 35 days and reduced the corporate income tax rate from 36.59% to 33.66%.

It estimates that new risk management procedures in customs helped lower import time by 2 days and export time by 9 days. In terms of starting a business, the improvements are a result of computerisation of the process for obtaining both Personal Account Numbers (PANs) and Tax Account Numbers (TANs) in regard to tax registration. Additionally, stamp duty can now be paid through authorised dealers (banks) as well as through the stamp office. All such reforms have improved India's ranking; nonetheless, its rank is relatively low at 134 – 41 places below China, which is reforming at a faster pace than India.

But an improvement in national indices for doing business is not the only implication of an improvement in the SBR index. In general, the state has become more active in promoting business through domestic economic reforms including delicensing, taxation reforms, reduction in tariffs for capital goods etc as well as greater interaction with business. Moreover, certain states, particularly West Bengal, which were pro-labour in the seventies and eighties, have now started wooing the private sector for investment.

The gap between India and developed countries in terms of reforms and best practices of business is still extremely large. Starting a business takes 2 days in Australia, and an average of 17 days in OECD countries. The official average cost of starting a business in India is also high at 74% of its per capita income which is far above global benchmarks such as 0% in Denmark and 9% in China and even higher than the average figures of 47% for South Asia and 43% for East Asia (Doing Business, 2007).

As noted earlier, there is substantial variation in the performance of various Indian states in terms of the ease of doing business which supports a similar finding for the SBR index. State wise time series regression analysis, using the overall SBR index as a dependant variable, conducted in the SBR study reveals that the change in SBR over time is significant for every state studied, with improvement in all states except Bihar where there is deterioration. In Maharashtra, Punjab, Haryana, Rajasthan, Karnataka, Assam, Uttar Pradesh and Uttarakhand, the change in the SBR measure with respect to time is faster than in the other states.

Conclusion

Effective relations between states and business appear to be an important condition for sustaining economic development according to an emerging line of research. However empirical evidence on this is limited by the lack of adequate measurement of SBRs over time. This brief is based on a detailed research paper and briefly describes its contribution – the formulation of methodology for such measurement in the case of Indian states over 1975-2008, the results emerging from such measurement and their analysis.

This represents the first effort to systematically characterise SBRs across sub-national units within a country without resorting to subjective surveys. Specific methodological challenges are posed by such a task including the identification of suitable variables to capture the multi-dimensional nature of SBR and their aggregation into composite indices.

An examination of the evolution of SBRs across Indian states and at the national level suggests the following:

- First, state-business relationships have improved over time for all states except Bihar.
- Second, variations across time and states in SBR outcomes suggest that there is potential for Indian states to learn from each other, given similarities in political and institutional set ups and linkages to the same central government.
- Third, the secular trend in ranking varies across states: Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu and Maharashtra show a stable and high ranking over time; and Uttar Pradesh and Assam a stable and low ranking. The major gainers in over time are Haryana, Punjab and Orissa but these also exhibit the highest variation or equivalently the lowest stability. The major losers are West Bengal and Madhya Pradesh.
- Fourth, results reveal that delicensing seems to evoke different responses from different state governments – a general loosening of hold by some governments on all fronts whereas others increase exploitation of other levers of influence on the business sector.
- Finally, the positive correlation between the SBR measure and economic growth indicates the importance of SBR for economic growth in the Indian context. There is a need for deeper study to estimate the impact of SBR on economic performance after controlling for other determinants of growth.

Siddhartha Mitra

Director of Research, CUTS.

D-217, Bhaskar Marg, Bani Park, Jaipur 302 016, Rajasthan, INDIA

Tel: +91(0)141-228 2821

Email: sm2@cuts.org

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