Institutional quality is arguably one of the main drivers of differences in income across countries (e.g. Rodrik et al., 2004). The economic literature has devoted increasing attention to quantifying their impacts and disentangling their mechanisms. These exercises need to rely on adequate quantification of institutional variables, which are starting to emerge.¹

The measurement of state-business relations (SBRs) has so far received relatively little attention, but their importance in the economic development process is clear in those countries where the state has intervened in the economy so as ‘to provide incentives to private capital and to discipline it’ (Harriss, 2006).² We apply the measurement to the major Indian states over 1985-2006: this represents the first effort to characterise SBRs at the sub-national level. India is an appropriate context for building sub-national indices, as it is a federal country composed of several states with a fairly high degree of political autonomy and legislative power. The relevance of SBRs in this context is underlined by the view that the radical shift in the attitude and practice of the political leadership in relation to the private sector in the 1980s was at the root of India’s sustained economic growth in the past decade (Kohli, 2006a; 2006b).

As with other economic (and non-economic) institutions, measurement of the effectiveness of SBRs is complicated by the inherently unobservable nature of institutional quality. Several indices tackle this problem by relying on perceptions, e.g. by firms, experts or non-profit organisations. This creates a measurement error problem typical of subjective survey response data. In turn, the likely causal correlation of this measurement error with dependent variables may generate biased estimated coefficients when testing for the effects of institutions (Bertrand and Mullainathan, 2001). This is why we instead use actual observable variables to build the indicators.

Using actual variables in a sub-national context poses a problem of data availability, which conspicuously constrains the extent to which one can construct proxies capturing the essence of SBRs. This is particularly the case here, as we aim to cover a fairly long time span. Therefore, in our choice of variables, we need to strike a fine balance between representativeness and availability. For this, we gathered data for variables that were as close as possible to our ideal notion of effective SBRs, through interviews with business associations in each state and government officials from the industry department of almost every state. We also collected data from secondary sources whenever they were available. Despite substantial efforts, we were not always able to obtain data on the desired variables. For example, we would have liked to measure the ability of the private sector (the ‘B’ in SBRs) to advance its interests through indicators such as number of members (e.g. a more effective organisation raises the expected returns of becoming a member) and the share in total staff salaries of non-administrative staff (who mainly perform lobbying and/or strategic activities, which ideally favour SBRs). But time-varying data on such measures proved impossible to collect. Despite this, and with the usual notes of caution when interpreting any quantitative indicator, we are confident that the measures constructed provide a fairly reliable indication of the quality and effectiveness of SBRs across Indian states in the past 30 years.

We created a composite SBR index, made up of four dimensions reflecting the main aspects of effective SBRs, as argued by Te Velde (2006), which was the first study to develop quantitative measures of SBRs quality (in Sub-Saharan Africa):

1. The way the private sector is organised vis-à-vis the public sector;
2. The way 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.

We amended the measurement of each dimension to adapt it to the specific characteristics of the sub-national context in India. For example, Indian states historically have had stronger institutions than African countries, so accurate identification of inter-state differences is preconditioned on the formulation and use of new and innovative ways of
scoring SBR effectiveness using more qualitative and/or specific data.

Each of the dimensions was measured through an appropriate sub-index, using data on relevant variables. The various SBR sub-indices were then combined to arrive at an overall index. The construction of composite and specific indices of SBRs took into account 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.\(^3\)

An examination of the evolution of the SBR indices suggests that SBRs have improved over time for all states except Bihar. This is consistent with various accounts of recent Indian policies towards businesses (e.g. Kohli, 2006a; 2006b). This generalised secular upward trend is characterised by variations across time and states. Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Tamil Nadu show a stable and high ranking over time, Assam and Uttar Pradesh a stable and low ranking. The major gainers over time are Haryana, Orissa and Punjab, but these also exhibit the highest variation or, equivalently, the lowest stability. The major losers are Madhya Pradesh and West Bengal. These variations suggest that there is potential for Indian states to learn from each other, given similarities in political and institutional setups and linkages to the same central government.

The SBR measure is strongly positively correlated with economic growth, which hints at the importance of SBRs for economic growth in the Indian context. However, there is a need for deeper study to estimate the impact of SBRs on economic performance after controlling for other determinants of growth and for the likely endogeneity of SBRs.\(^4\) Although the SBR index aims to capture a unique economic institution, it is useful to compare it with other indices measuring the quality of the business environment. A comparison between state-level SBR rankings and the World Bank's ranking based on the Investment Climate Index (ICI – Iarossi, 2009) for 14 states in the year 2005 suggest there are marked differences between the SBR index and the investment climate index across Indian states, suggesting that, although effective SBRs may be important for the investment climate, they are measuring a fairly different economic institution. Such differences are less important in the case of the Doing Business indicators which, unlike the ICI, are not based on perception surveys. This confirms the need for caution when interpreting perception-based indicators, which we argue should ideally be complemented by indicators based on actual values of different variables.

### Endnotes:
1. E.g. Kaufmann and Kraay (2008); corruption indicators from Transparency International.
2. The most prominent examples of this type of intervention in recent times are provided by the East Asian countries (e.g. Johnson, 1987).
3. For more details on the specific variables and on the aggregation procedures used in index construction, see Call et al. (2009).
4. See Call and Sen (2009) for such analysis.

### References: