



# Economic Freedom of the States of India 2011

Bibek Debroy • Laveesh Bhandari • Swaminathan Aiyar

Economic freedom is a concept used to measure the extent to which governments constrain efficient decision-making and distort resource allocation decisions. It has been used in cross-country literature to show that countries with higher levels of economic freedom have better development indicators. However, sub-national attempts to capture economic freedom are rare, pertinent in a federal country like India, where many factor markets are State subjects under the Seventh Schedule. This **pioneering work** modifies economic freedom concepts and applies them to India's inter-State setting, not only measuring economic freedom in major States, but also demonstrating links between economic freedom and development.

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ACADEMIC FOUNDATION



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Friedrich Naumann STIFTUNG FÜR DIE FREIHEIT



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# Contents

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<i>List of Tables and Figures</i> .....	7
<i>Foreword</i>	
by IAN VÁSQUEZ .....	9
<i>Message</i>	
by SIEGFRIED HERZOG .....	11
<i>Executive Summary</i> .....	13
<b>1. The State of Economic Freedom in India</b>	
<b>Bibek Debroy.</b> .....	15
<b>2. Calculating Economic Freedom</b>	
<b>Laveesh Bhandari.</b> .....	23
<b>3. Andhra Pradesh: Fastest Improver in Economic Freedom</b>	
<b>Swaminathan S. Anklesaria Aiyar.</b> .....	41
<b>Appendices</b>	
I: Variables and Methodology .....	65
II: Detailed Methodology .....	68
III: Mapping of Variables with Economic Freedom of the World .....	70
IV: Data and Results .....	72
<i>References.</i> .....	77



## List of Tables and Figures

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### TABLES

1.1	India's Scores in Economic Freedom of the World	17
2.1	Areas under Central and State Government Control	24
2.2	Size of Government: State Ratings and Rankings	28
2.3	Legal Structure and Security: State Ratings and Rankings	31
2.4	Regulation of Labour and Business: State Ratings and Rankings	34
2.5	Overall Economic Freedom Ratings: 2009	36
2.6	Economic Growth and Economic Freedom in Indian States	37
3.1	Ranking of States on Economic Freedom Index	42
3.2	GDP Growth in Andhra Pradesh and All-India	43
3.3	Andhra Pradesh: Indicators of Economic Freedom—2005 and 2009	44
3.4	Gross Fixed Capital Formation as Per cent of GDP/GSDP	47
3.5	GDP Growth in Four Northern Maoist-Affected Districts	49
3.6	Sectoral Growth Rates at Constant (1999-2000) Prices: India vs. Andhra Pradesh	52
3.7	The Top 10 Global Reformers and South Asia	54
3.8	Doing Business Rankings of Countries in South Asia	55
3.9	Doing Business in India: Where is it Easiest?	55
3.10	Ease of Starting Businesses and Construction Permits	57
3.11	Property Registration and Ease of Export/Import	58
3.12	Contract Enforcement and Tax Payments	59
3.13	Ease of Closing Businesses	60
3.14	Economic Competitiveness	61
3.15	Ranking of States by Labour Ecosystem	63



**FIGURES**

2.1	Change in EF Index and Economic Growth of the States (2005 to 2009) .....	38
-----	--	----

**BOXES**

1.1	How the Fraser Institute Measures Economic Freedom .....	16
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## Foreword

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Economists since the time of Adam Smith have pointed to the strong relationship between prosperity and open markets. But it was not until the work begun in the 1980s by the Fraser Institute on measuring economic freedom, culminating in the now annual *Economic Freedom of the World* report (published by the Cato Institute in the United States), that the relationship was studied in such a systematic way. More economic freedom is indeed associated with greater wealth, higher growth, and improvements in the whole range of human development indicators. Research spawned by the *Economic Freedom of the World* report at universities, international organisations and think tanks around the globe continue to enrich our knowledge about the central role of economic freedom in human progress, including its importance in sustaining civil and political liberty.

The Cato Institute is pleased to co-publish the present report on India with Indicus Analytics and the Friedrich Naumann Foundation, and thus add to our knowledge about the effects of policies on outcomes. At a time when India has benefited from sustained high growth as a result of liberal reforms, we considered it important to measure economic freedom within this vast country and to highlight the diverse levels of freedom from state to state. The uneven spread of economic freedom in India is a reminder to state-level policymakers that there is much they too can do to improve the welfare of their citizens. In that sense, we hope that this report can help as an empirical guide to better policies.

This report is the latest in a series of annual surveys on the economic freedom of Indian states, which started in 2004. The index of economic freedom devised for this series is derived from the Fraser Institute's *Economic Freedom of the World* report, with adjustments for data relevant to subnational entities, and whose design benefited from critical

input from the Fraser Institute and the authors of the *Economic Freedom of the World* report. The major innovation in this year's survey is a separate chapter on Andhra Pradesh, the state that improved economic freedom the most in 2009. Future annual surveys will continue to have a chapter focussing on a state that stands out for very good or very poor performance or a chapter that focuses on significant policy findings from the overall report. Earlier annual surveys were authored by Bibek Debroy and Laveesh Bhandari. This year's survey has another co-author, who has also written the chapter on Andhra Pradesh—Swaminathan S. Anklesaria Aiyar, Research Fellow at the Cato Institute.

— Ian Vásquez

Director,  
Center for Global Liberty and Prosperity,  
Cato Institute

## Message

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The *Economic Freedom of the States of India* report demonstrates the significant differences in economic governance that exist in India. It thus has focused attention on state-level reforms to improve inclusive economic growth. The Index is based on the Fraser Institute's *Economic Freedom of the World* report. This was developed on the ideas of Milton Friedman, Michael Walker and others who wanted an empirically sound way to measure whether economic freedom would lead to better economic and social outcomes. This has indeed been conclusively demonstrated, and the index has become an important contribution to the international policy debate. Its success has inspired researchers to come up with sub-national indices to capture the performance of sub-national institutions in China, Germany and elsewhere. The Friedrich-Naumann Stiftung has been engaged in developing an Economic Freedom Index for the states of India for several years now. This index has become an important part of India's reform discourse.

The Indian Index is based on the three parameters which are size of the government, legal structure and security of property rights, and regulation of business and labour. The Indian Index ranks 20 states of India for which data is available. The researchers have used objective data to produce the Index.

The researchers to the Index are distinguished economists from India. Bibek Debroy and Laveesh Bhandari are known for their work in suggesting policy recommendations for the Indian economic growth. For the current Index, Cato Institute, a prominent and leading think-tank based in Washington DC. has also joined hands. Swaminathan S. Anklesaria Aiyar, a well-known writer and commentator, is the third co-author representing Cato's initiative.

The Index shows the direct correlation between economic freedom and the well-being of citizens. As the World Index has shown a direct correlation between economic freedom and national indicators of human and material progress, the same similarity is also visible at the sub-national level. States in India which are economically more free are also doing better in terms of a higher per capita growth for its citizens, unemployment levels are lower in these states, sanitary conditions are better and the states also attract more investments.

In the current Index, we find a special focus on Andhra Pradesh. Naturally, the state has shown some major fluctuations in its economic growth. The Index is a useful instrument for policymakers to observe changes over a time period to understand the benefits and costs of policy changes.

The Index is published by the Academic Foundation, New Delhi. We would like to thank all the contributors, authors, partners who have helped in order to make this work see the light of day. We hope it will be a useful tool for research and debate for policymakers and academics alike.

— Siegfried Herzog  
Regional Director, South Asia,  
Friedrich Naumann Stiftung für die Freiheit

## Executive Summary

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The *Economic Freedom of the States of India 2011* ranks economic freedom in the 20 biggest Indian states, using a methodology adapted from the Fraser Institute's *Economic Freedom of the World* annual reports. The main highlights of this study are as follows.

The top three states in economic freedom in 2009 were Tamil Nadu, Gujarat and Andhra Pradesh, in that order. This is significantly different from 2005, when Tamil Nadu was still on top but Madhya Pradesh came 2<sup>nd</sup>, Himachal Pradesh 3<sup>rd</sup>, Haryana 4<sup>th</sup>, and Gujarat 5<sup>th</sup>.

The bottom three states in 2009, in reverse order, were Bihar, Uttarakhand and Assam. Back in 2005, Bihar was still last (20<sup>th</sup>), Assam was 19<sup>th</sup> and West Bengal was 18<sup>th</sup>.

The state with the fastest improvement in economic freedom was Andhra Pradesh, moving up from 7<sup>th</sup> position in 2005 to 3<sup>rd</sup> position in 2009. Its index score went up from 0.40 to 0.51 on a scale from 0 (no freedom) to 1 (high freedom), an improvement of 27.25 per cent. The second fastest improver was Gujarat, moving up from 5<sup>th</sup> to 2<sup>nd</sup> position.

Even as some states improved in economic freedom, others worsened, showing that there is no uniform all-India trend. Only two states registered large increases in economic freedom: Andhra Pradesh and Gujarat. Haryana, Tamil Nadu, West Bengal, Rajasthan and Jammu & Kashmir registered moderate increases in economic freedom.

The states with the largest decreases in economic freedom were Madhya Pradesh, Orissa, Uttarakhand, Punjab and Himachal Pradesh. Punjab, once among the best performers, slipped from 6<sup>th</sup> position in 2005 to 12<sup>th</sup> position in 2009. It has been riding too long on its earlier successes, and its present track record on governance, broadly defined, is anything but satisfactory.

Maharashtra, Kerala, Bihar, Jharkhand, Karnataka, Uttar Pradesh, Assam and Chhattisgarh showed moderate declines in economic freedom.

**TABLE**

*Overall Economic Freedom Ratings: 2009*

States	2005		2009	
	Overall	Rank	Overall	Rank
Tamil Nadu	0.57	1	0.59	1
Gujarat	0.46	5	0.57	2
Andhra Pradesh	0.40	7	0.51	3
Haryana	0.47	4	0.47	4
Himachal Pradesh	0.48	3	0.43	5
Madhya Pradesh	0.49	2	0.42	6
Rajasthan	0.37	12	0.40	7
Jharkhand	0.40	8	0.38	8
Jammu & Kashmir	0.34	15	0.38	9
Kerala	0.38	10	0.36	10
Maharashtra	0.40	9	0.36	11
Punjab	0.41	6	0.35	12
Karnataka	0.36	13	0.34	13
Uttar Pradesh	0.35	14	0.34	14
West Bengal	0.31	18	0.33	15
Chhattisgarh	0.33	16	0.33	16
Orissa	0.37	11	0.31	17
Assam	0.30	19	0.29	18
Uttarakhand	0.33	17	0.26	19
Bihar	0.25	20	0.23	20

States with higher levels of economic freedom tended to perform better across a range of economic variables. They also had higher levels of in-migration, while states with the least economic freedom had higher levels of out-migration.

Andhra Pradesh reduced waste and corruption and implemented innovative reforms such as contract teachers to supplement regular teachers, social audit of employment schemes, and private sector participation in infrastructure projects which had earlier been government monopolies.

Three factors—buoyant agriculture, rural infrastructure, and the elimination of Maoism—boosted employment and attracted in-migration from other states.

A number of independent studies and indicators support our analysis of Andhra Pradesh. The World Bank/IFC report *Doing Business 2010* ranks India a lowly 133<sup>rd</sup> out of 183. Some Indian cities have worse business conditions than others. *Doing Business in India 2009* ranks Hyderabad as the second easiest place to do business among 17 top cities.

For the convenience of the international readers, whenever in the Report we have a figure in rupees, it is followed immediately by the corresponding figure in US dollars. For the sake of simplicity, we have taken the exchange rate for conversion to be Rs.50 to the dollar, which was the rate for much of 2009.

# 1

## The State of Economic Freedom in India

**Bibek Debroy**

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‘**M**an is born free, but is everywhere in chains.’ That was Jean Jacques Rousseau (1712-1778) in *The Social Contract*. In today’s world, shorn of gender biases, we would often say that man and woman is born free but is everywhere in chains, although that sounds less pithy. But the point is that no worker, male or female, desires to be poor. A desire for upliftment, a desire for well-being, a desire for freedom and prosperity is an innate human tendency. Unfortunately, this natural desire is shackled and constrained by governments that actually believe they are aiding rather than disempowering citizens. The road to hell is paved with good intentions and nowhere is this truer than of governments. In a desire to do good, governments often do more harm, and so ensure that free men (and women) continue to be in chains. They ensure that free markets do not function. The visible hand of government interferes in production, trade and consumption. Private property is regarded as theft and the robbery of public property. Individuals are not allowed freedom to contract. There is no equality before the law.

Economic freedom is not the only kind of freedom that exists. For example, political liberties and civil rights are also notions of freedom and have spillover effects on economic freedom. To name but one example, Freedom House ranks countries in the world on the basis of such liberties and rights.<sup>1</sup> That “Freedom in the World” survey ‘measures political rights and civil liberties, or the opportunity for individuals to act spontaneously in a variety of fields outside the control of the government and other centers of potential domination. As such, the survey is primarily concerned with freedom from restrictions or impositions on individuals’ life pursuits.’ However, if development and prosperity are the yardsticks, notwithstanding those spillovers, it is economic freedom that is of key importance. ‘The

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1. <http://www.freedomhouse.org> and Freedom House (2010).



foundations of economic freedom are personal choice, voluntary exchange, and open markets. As Adam Smith, Milton Friedman, and Friedrich Hayek have stressed, freedom of exchange and market coordination provide the fuel for economic progress. Without exchange and entrepreneurial activity coordinated through markets, modern living standards would be impossible. Potentially advantageous exchanges do not always occur. Their realisation is dependent on the presence of sound money, rule of law, and security of property rights, among other factors. *Economic Freedom of the World* seeks to measure the consistency of the institutions and policies of various countries with voluntary exchange and the other dimensions of economic freedom.<sup>2</sup> This quotation comes from an *Economic Freedom of the World* (EFW) report that has been brought out by the Fraser Institute since 1996, and is published by some 70 think tanks across the world including the Cato Institute in Washington DC. For details, see Box 1.1.

### BOX 1.1

#### *How the Fraser Institute Measures Economic Freedom*

Admittedly, economic freedom is difficult to pin down, quantify and measure. After a lot of discussion and debate, the Fraser Institute's *Economic Freedom of the World* (EFW) now has a robust and evolved methodology based on five pillars: (1) size of government (expenditures, taxes and enterprises); (2) legal structure and security of property rights; (3) access to sound money; (4) freedom to trade internationally; and (5) regulation of credit, labour and business. Within these five components, there are sub-components—such as general government consumption spending, transfers and subsidies, government enterprises and investment and top marginal income tax rate under (1); judicial independence, impartial courts, protection of property rights, military interference in rule of law and the political process, integrity of the legal system, legal enforcement of contracts and regulatory restrictions on the sale of real property under (2); money growth, standard deviation of inflation, inflation and freedom to own foreign currency bank accounts under (3); taxes on international trade (revenues from trade taxes, mean tariff rates, standard deviation of tariff rates), regulatory trade barriers (non-tariff barriers, compliance costs of trade), size of trade sector, black market exchange rates and international capital market controls (foreign ownership and investment restrictions, capital controls) under (4); and credit market regulations (ownership of banks, foreign bank competition, private sector credit, interest rate controls), labour market regulations (minimum wages, hiring and firing regulations, centralised collective bargaining, mandated cost of hiring, mandated costs of worker dismissal, conscription) and business regulations (price controls, administrative requirements, bureaucracy costs, starting a business, extra payments/bribes, licensing restrictions, cost of tax compliance) under (5).<sup>3</sup>

There is strong correlation (depending on the context, positive or negative) between a country's score on EFW and assorted measures of

2. <http://www.cato.org/pubs/efw/>. See also Gwartney and Lawson with Hall (2010).

3. Gwartney and Lawson with Hall (2010).

economic development (life expectancy, percentage of children in the labour force, per capita income, average growth rate, income share of the poorest 10 per cent, income level of the poorest 10 per cent, per capita investment, adult literacy, infant mortality and so on). Admittedly, this is correlation and not causation. However, when the correlation is so strong, across development and deprivation indicators, it does suggest causation. Some studies also suggest that economic freedom has substantial explanatory power for improved economic and social indicators.<sup>4</sup> High levels of economic freedom are good for economic development and removal of poverty. *Economic Freedom of the World* measures have been criticised on some counts. First, *Economic Freedom of the World* splices some subjective data (like responses to questionnaires) with objective data, and questions can be raised about the quality of subjective data. Second, errors of omission and commission have been alleged in choosing the variables, but the fact is that some desirable variables cannot be used for want of data. Third, weights and formula used for aggregation have been criticised as arbitrary, but simulations show that the results are in fact robust. Fourth, critics argue that of the five core components, some have the bulk of explanatory power, not the others. Fifth, people have argued that high Chinese rates of growth are inexplicable when China does not score very high on economic freedom. The same argument can be advanced about some other fast-growing developing countries too. However, all these countries have rising levels of economic freedom, even if their absolute levels are not high, and it is the improvement in freedom that drives positive economic outcomes. The findings of *Economic Freedom of the World* are fairly robust when subjected to sensitivity tests.

Table 1.1 shows how India scores in the 2009 *Economic Freedom of the World* ratings.<sup>5</sup> The higher the score, the better it is from the point of

**TABLE 1.1**

*India's Scores in Economic Freedom of the World*

	1980	1985	1990	1995	2000	2007
Summary Rating	5.42	5.09	5.12	5.73	6.24	6.50
Size of Government	5.00	4.50	4.88	6.26	6.83	6.98
Legal Structure and Security of Property Rights	6.32	5.38	4.79	5.87	5.99	6.41
Access to Sound Money	6.29	6.61	6.63	6.5	6.88	6.71
Freedom to Trade Internationally	4.32	3.68	4.02	4.67	5.54	6.67
Regulation of Labour and Business	5.27	5.28	5.24	5.36	5.95	5.68

4. For a review of the evidence on the relationship between economic freedom and growth, see Haan, Lundstrom and Sturm (2006).

5. Gwartney and Lawson (2009). Table 1.1 only shows the scores and not India's ranks across countries. The scores drive the ranks and are more indicative of inter-temporal improvements.

economic freedom.<sup>6</sup> Economic reforms began in India in the late 1970s, but became much more comprehensive since 1991. These reforms involve a reliance on the market and reduced government intervention. It is thus understandable that India's scores should improve over time. One should also mention that Indian growth rates have picked up in the 1990s, more so from 2003-04. Yet again, one notices the positive correlation between higher levels of economic freedom and growth. India is a federal country, and its Constitution has a Seventh Schedule that lists the topics falling under the jurisdiction of the Central government, the topics that are the responsibility of the state governments, and the topics that are the concurrent responsibility of both. The academic literature often refers to first and second generation reforms. First generation reforms include the external sector (where the first flush of reforms was introduced in 1991), while second generation reforms pertain more to the domestic economy. Besides, first generation reforms often refer to agenda items that are the province of the Central government (such as product markets), whereas second generation reforms often concern agenda items falling within the purview of the states (such as markets for land and labour). India continues to perform relatively poor in the regulation of credit, labour and business, and labour is in the Concurrent List of the Seventh Schedule. Indeed, if one disaggregates further than in Table 1.1, and compares the 1995 scores with those of 2007, one finds that India has not improved much on transfers and subsidies, government enterprises and investment, money growth, freedom to own foreign currency bank accounts, non-tariff barriers, capital controls, ownership of banks and hiring and firing regulations and has slipped on general government consumption expenditure, judicial independence, impartial courts, price controls and bureaucracy costs.<sup>7</sup> PSU (public sector undertaking) reforms, reform of PSU banks, targeting of subsidies, dismantling of exchange controls, labour market reforms<sup>8</sup> and judicial reforms are long overdue. Public expenditure and price controls have both increased under the United Progressive Alliance (UPA) government, which has effectively been in power since 2004.

A separate *Index of Economic Freedom* (IEF) is brought out annually by the Heritage Foundation and the Wall Street Journal. Though the philosophical underpinnings of IEF are similar to those of EFW, the methodology is different. The scores range from 0 to 100 and the higher the score, the better the freedom is. Out of 179 countries, in the latest ratings, India is ranked only 124<sup>th</sup>. India scored 36.3 on business freedom,

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6. The range is from 0 to 10.

7. Ibid.

8. In particular, the Industrial Disputes Act.

67.9 on trade freedom, 73.4 on fiscal freedom, 76.1 on government spending, 67.5 on monetary freedom, 35.0 on investment freedom, 40.0 on financial freedom, 50.0 on property rights, 34.0 on freedom from corruption and 57.7 on labour freedom.<sup>9</sup>

India is a large and heterogeneous country. Therefore, all-India measures tend to blur differences across states. One effect of post-1991 reforms has been to shift the focus of policy change, and policy hindrance, to the level of the states. Consequently, some states have reformed faster than others and some states have grown faster than others. Some states are economically more free than others. Consequently, economic freedom exercises need to focus on these inter-state differences. There have been regional reports on economic freedom, such as those for North America, Latin America, the Arab world and Francophone countries. But more important are sub-national reports identifying which states have more or less economic freedom. There have been a few such reports, such as the economic freedom index for the provinces of Argentina,<sup>10</sup> the index of economic freedom for the European Union and the Italian regions<sup>11</sup> and the marketisation index of Chinese provinces.<sup>12</sup> To return to the point made about China earlier, it is irrelevant to say that China has a low level of economic freedom: freedom has been improving over the years. There is a great deal of disparity between China's coastal provinces and internal areas. Indeed, China's coastal provinces have higher levels of economic freedom than many countries perceived to have high levels of economic freedom.<sup>13</sup>

This study on India follows earlier work done by two of the authors. The first such study was published in 2004,<sup>14</sup> the second in 2005,<sup>15</sup> the third in 2006<sup>16</sup> and the fourth in 2008.<sup>17</sup> There was also a parallel exercise that correlated economic freedom in states with the legal infrastructure.<sup>18</sup> The methodology has evolved over a period of time, through presentations and consultations at workshops and seminars, and is now fairly robust. While based on *Economic Freedom of the World*, it needed to be modified to draw out differences between states. For instance, there was not much

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9. Holmes and Miller (2010).

10. Stefano, Marcos and Leonardo (2009).

11. Ronca and Guggiola (2007).

12. Published by the National Economic Research Institute of China.

13. This point has been made in Louw *et al.* (2008).

14. Debroy *et al.* (2004).

15. Debroy and Bhandari (2005).

16. Debroy and Bhandari (2006).

17. Debroy and Bhandari (2008).

18. Debroy and Bhandari (2007).

point in including Central government subjects. Accordingly, the *Economic Freedom of the World* methodology was modified to cover only three heads: (1) size of government (expenditures, taxes and enterprises); (2) legal structure and security of property rights; and (3) regulation of labour and business. *Economic Freedom of the World* uses subjective data in cross-country comparisons, such as responses to questionnaires. No such comparable databases exist in India, save for specific cities rather than state as a whole.<sup>19</sup> Even where such data are available, they can be used meaningfully only if they are available for all states for which the ranking is being done. This constrains our exercise to objective data alone, and limits our choice of variables to those for which comparable data exist across states. Other variables may also be important for measuring economic freedom, but we do not have the necessary data.

All the variables are structured such that a higher value implies more economic freedom. This often requires the inversion of well-known ratios. Accordingly, in the first area of size of government, the variables included are: (1) the inverse of government revenue expenditure as a ratio of gross state domestic product (GSDP); (2) the inverse of administrative GSDP to total GSDP; (3) the inverse of government employment to total organised employment;<sup>20</sup> (4) the inverse of state taxes on income as a ratio of GSDP; (5) the inverse of state taxes on property and capital transactions as a ratio of GSDP; (6) the inverse of taxes on commodities and services as a ratio of GSDP; and (7) the inverse of the stamp duty rate. In including each of these variables, the fundamental premise is that the lower the government's importance and intervention, the better it is from the point of view of economic freedom. In the second area of legal structure and security of property rights, the variables included are: (1) the ratio of the total value of property recovered to the total value of property stolen; (2) the inverse of vacant posts in the judiciary to the total number of sanctioned judicial posts; (3) the inverse of total number of cases under economic offences to the total number of cases;<sup>21</sup> (4) the percentage of cases where investigations were completed by the police; (5) the percentage of cases where trials were completed by the courts; and (6) the inverse of violent crimes as a ratio of total crimes. In including each of these variables, the fundamental premise is that ensuring law and order and justice and protecting property is a core governance area. Finally, in the third area of regulation of labour and

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19. The World Bank's doing business indicators is a case in point.

20. There is a substantial chunk of unorganised sector employment in agriculture. Almost all government employment is in the organised sector.

21. These economic offences are under special and local laws and all of them represent unnecessary state intervention in individual rights.

business, the variables included are: (1) the average wage of unskilled workers as a ratio of the minimum notified agricultural wages;<sup>22</sup> (2) the inverse of man-days lost in strikes and lock-outs as a ratio of the total number of industrial workers;<sup>23</sup> (3) the inverse of the minimum licence fee for traders; (4) the implementation rate of Industrial Entrepreneurs' Memorandum (IEM);<sup>24</sup> (4) the inverse of power shortage as a percentage of total demand;<sup>25</sup> and (5) the inverse of cases pending investigation from the earlier year on cases registered under prevention of corruption and related acts as a ratio of the total number of cases registered under such acts. In this category, the inclusion of variables primarily reflects state intervention in labour markets and bureaucratic and procedural costs, including those on physical infrastructure like power. There is little or nothing on credit, which is overwhelmingly a Central government subject. All the variables are normalised, to enable comparison between states that vary enormously in size (area and population).

For each of these three heads, the variables are then aggregated using principal components analysis (PCA). That is, for each head, one obtains a score and a rank for each state. The scores drive the ranks and the scores permit a state's performance to be tracked over time and the tables give the results for two points in time, 2005 and 2009. Data limitations permit the exercise to be done only for 20 states, the major ones.

As regards size of government, the top three states in 2009 are Gujarat, Jharkhand and Haryana, in that order, and the bottom three states are Uttarakhand, Chhattisgarh and Uttar Pradesh, in reverse order. Jharkhand may seem to be a bit of a surprise. But the point is that Jharkhand has witnessed high economic growth without a concomitant increase in the size of the government, something that characterises all the better-performing states under this head. In legal structure and security of property rights, the top three states in 2009 are Tamil Nadu, Madhya Pradesh and Andhra Pradesh, in that order, and the bottom three states are Bihar, West Bengal and Assam, in reverse order. Madhya Pradesh's inclusion in the top bracket may seem to be a bit of a surprise. However, Madhya Pradesh has fewer economic offences and its completion rate on trials is fairly good. On regulation of labour and business, the top three states in 2009 are Gujarat, Andhra Pradesh and Tamil Nadu, in that order, and the bottom three states are Chhattisgarh, Bihar and Punjab, in

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22. Male and female.

23. Strikes and lock-outs result from dysfunctional state intervention in industrial relations.

24. When there are high bureaucratic and procedural costs, the implementation rates are lower.

25. This results from low public investments or low private sector generation, and both are policy-induced.

reverse order. Punjab's inclusion in the bottom league is a bit surprising. But the fact remains that Punjab has been riding on its earlier successes and its present track record on governance, broadly defined, is anything but satisfactory.

The three heads are then aggregated to obtain an overall score and ranking for each state. In doing this, equal weights are used.<sup>26</sup> The top three states in 2009 are Tamil Nadu, Gujarat and Andhra Pradesh, in that order, and there are no great surprises in this listing. The bottom three states, in reverse order, are Bihar, Uttarakhand and Assam. What is worrying is that between 2005 and 2009, not all states have exhibited an increase in economic freedom. Andhra Pradesh and Gujarat show large increases in economic freedom, while Haryana, Tamil Nadu, West Bengal, Rajasthan and Jammu & Kashmir show moderate increases in economic freedom. But on the flip side, Madhya Pradesh, Orissa, Uttarakhand, Punjab and Himachal Pradesh show large declines in economic freedom, while Maharashtra, Kerala, Bihar, Jharkhand, Karnataka, Uttar Pradesh, Assam and Chhattisgarh show moderate declines in economic freedom. Clearly, on their own, governments are reluctant to cede economic freedom to citizens. And despite the euphoria over reforms, countervailing citizen pressure that can trigger change has not yet manifested itself adequately. As is only to be expected, states with higher levels of economic freedom tend to perform better across a range of economic variables. And, as is also to be expected, states with higher levels of economic freedom are associated with higher levels of in-migration, while states with lower levels of economic freedom are associated with higher levels of out-migration. Unfortunately, the migration option is not one that is available to everyone. Therefore, the countervailing pressure to make state governments change needs to be exerted. That requires information dissemination and this study is a contribution towards that end.

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26. We experimented with PCA weights too. But there was not much of a difference, so the equal weight results are being reported.



# 2

## Calculating Economic Freedom

Laveesh Bhandari<sup>1</sup>

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### Background

As discussed in the previous chapter, the term 'economic freedom' can have many connotations and depending upon which one is used the measurement of economic freedom would obviously differ. This Index of Economic Freedom (EFI) considers that 'The key ingredients of economic freedom are personal choice, voluntary exchange coordinated by markets, freedom to enter and compete in markets, and protection of persons and their property from aggression by others.'<sup>2</sup>

We recognise that this is not the only definition that can be used. An alternate definition would be something on the lines of 'the unfettered ability of an individual to make economic choices'. For one, in developing countries such as India, family, community, and social constraints can also be held responsible for constraining an individual's options. For instance, gender biases, caste biases and religious biases can seriously impede economic opportunities of those discriminated against. Such constraints work to nullify human rights and the ability to choose, and therefore, freedom in general. So, elements of social and civil freedom may also find a place in such a view of economic freedom. Such an approach would be on the lines of Amartya Sen's 'capability approach'; as it can be argued that the absence of poverty, poor health, and illiteracy promote the ability of individuals to take unfettered decisions.

But these are grey areas at best. The concepts of economic, political and social freedom can be integrated to form the concept of 'human freedom'. According to Milton Friedman political freedom is 'the mode of

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1. I am grateful for the brave research assistance of Minakshi Chakravarty and Swati Vira.  
2. Gwartney and Lawson (2009).



representation in the political structure, the right to vote, the definition of democracy as the society in which the public servants—the people who determine public policy—are chosen by the votes of the citizens’ while social/civil freedom is ‘the freedom to speak, the freedom to assemble, the freedom to express your views’, that is, ‘human rights’.<sup>3</sup> These, however, are not the same as economic freedom.

This study focuses entirely on economic freedom, following the approach of the *Economic Freedom of the World* (EFW) report in that, ‘an index of economic freedom should measure the extent to which rightly acquired property is protected and individuals are engaged in voluntary transactions.’<sup>4</sup> In line with this and the previous IEF for Indian States published by the Rajiv Gandhi Institute for Contemporary Studies (RGICS) the index and related rankings of Indian states using the latest available data is constructed.

The areas for which the index is constructed derive from the *Economic Freedom of the World* report constructed by the Fraser Institute. This ensures that the economic freedom rating for Indian states has measures that are somewhat comparable with those of other countries. However, given Indian conditions and the sharing of responsibilities between the states and the Central government, only three of the five areas are found to be appropriate where state governments have powers to directly impact conditions and institutions (see Table 2.1). These are:

- Size of government: expenditures, taxes and enterprises.
- Legal structure and security of property rights.
- Regulation of labour and business.

**TABLE 2.1**

*Areas under Central and State Government Control*

<i>Under State Control</i>	<i>Under Central Control</i>	<i>Under Common Control</i>
Law, order, justice and local governance	Administrative functions such as defence, foreign affairs	Inter-state interactions
Public health and environment	Labour, quality standards	Labour issues
Land and water	Railways, shipping, ports, airports, post & telegraph	Education
Some types of taxes	Income tax, customs and excise	Environment
Infrastructure except national highways	Deals with the RBI, public debt	Power
Some aspects related to commerce & industry	Natural resources	Shipping and inland waterways

3. <http://www.cato.org/special/friedman/friedman/friedman4.html>

4. Gwartney and Lawson (1996).

The Index of Economic Freedom however is calculated for each of these categories, and then aggregated. Each category is important for indicating a specific aspect of economic freedom.

While the categories have been included in the index on the lines of the *Economic Freedom of the World* reports, the variables from the *Economic Freedom of the World* could not be replicated at the sub-national level in India. So proxies have been taken wherever possible that are more meaningful at the state level. Often data were unavailable, in which case those indicators had to be eliminated from the study. A detailed table that correlates the indicators used in *Economic Freedom of the World* and those included in the study is presented in the Appendix. The methodology adopted for creating the index is discussed in the following section.

This chapter first discusses the methodology briefly. It then takes up each of the areas under consideration, describes the variables used and the motivation, and then discusses the results. The last section of this chapter discusses the overall trends and what that signifies for economic growth for India.

### Methodology in Brief

A relatively more detailed methodology is presented in the Appendix. Here we briefly outline the process. Since data needs to be comparable across time and geography, be credible and robust, and highly reflective of the conditions in different states, the following criteria have been identified in the selection of variables.

1. The data should be objective—that is, it should not be based on perceptions but on hard facts such that it is not sensitive to perceptions of the masses but should reflect conditions as they actually are.
2. The data should be available from highly respected, public and ideally government or semi-government sources—this would ensure that the ensuing discussion and debate should focus on the resultant performance of the states and not on the quality and credibility of the data.
3. The data should be available periodically and should be available from the same source for different states—this would ensure the credibility of the data and the continuity of the ratings.

Each of the variables that are constructed are normalised to correct for the differences in the size of the states. Hence normalisation is done

by dividing by population, area, a ratio or using it as a percentage of some aggregate so that it is neutral to the size of the state. Moreover, each data source needs to be available for a large enough number of states so that missing data points are minimised.

In line with the previous ratings for the Indian states, the range equalisation with equal weights has been chosen as the appropriate method. This is a multi-stage process. First, range equalisation is conducted on each variable across all states—this requires the subtraction of the minimum value from the value for each state and dividing the resultant with the difference of the maximum and minimum values. Range equalisation ensures that all variables lie between 0 and 1. Each of the new ‘range equalised’ variables are then aggregated with equal weights to create an index for each of the areas under consideration. Next, the indices of each of the three areas are aggregated to obtain a composite index using equal weights. Thus, four indices are generated on which basis each of the states is ranked.

### Changes from the Past

As mentioned before, this *Economic Freedom of the States of India 2011* is done on similar lines as in 2004 and 2005. However, there are a few changes in that—some measures used in the past such as number of special economic zones (SEZs) and also the share of unorganised workers in the total workforce are no longer used. There has also been a change in the base year of the state level GSDP figures released by the government of India, and also the sources of some of the variables have had to be changed. This has necessitated the redoing of the past ratings to ensure comparability. Hence this study has redone the ratings for 2005 and presents those as well as that of 2009.

### Area 1: Size of Government—Expenditures, Taxes and Enterprises

Interference of the government in the functioning of the economy or a large role of the government as a producer and provider of services and goods or as a redistributor of resources reduces the level of economic freedom. Government revenue expenditure, administrative GDP, and a large employment in the public sector are therefore indicators of size of the government. Taxes on income, commodities and services, property and capital transactions, and other duties are indicative of the extensive role played by the government in the economy.

#### 1) *Inverse of Government Revenue Expenditure as a Share of Gross State Domestic Product (GSDP)*

Higher revenue expenditure by the government is indicative of a large size of the government, and a rising share of government revenue

spending in GSDP is an indicator of lower economic freedom. Therefore, inverse of this ratio has been considered.

### *2) Inverse of Administrative GSDP as a Ratio of Total GSDP*

Administrative GDP is the contribution of government services to the national product. The lower this ratio, the better is the level of economic freedom as the government's role is lower; therefore the inverse of this ratio is used.

### *3) Inverse of Share of Government in Organised Employment*

This is the ratio of employment with the government and quasi-government institutions to total organised sector employment. This ratio is a direct indicator of the size of the government. Inverse of the ratio is considered.

### *4) Inverse of State Level Taxes on Income as a Ratio of GDP*

This is the ratio of income tax collected by the state to the GDP. The lower the state taxes on income, the higher will be the economic freedom. Therefore, the inverse of this ratio has been incorporated in the analysis.

### *5) Inverse of Ratio of State Level Taxes on Property and Capital Transactions to State GDP*

This is the ratio of taxes on property and capital transactions to state GDP. High transaction costs and taxes tend to restrict the trade activities. Therefore, economic freedom is considered to be inversely related to level of taxation and the inverse of the variable has been taken.

### *6) Inverse of State Level Taxes on Commodities and Services to GDP*

This is the ratio of taxes collected on commodities and services i.e., sales tax, service tax, excise, etc., to the GDP. Lower taxes on commodities would result in a higher freedom index, therefore the inverse of this ratio has been used.

### *7) Stamp Duty Rate*

Stamp duty is defined as tax collected by the state by requiring a stamp to be purchased and attached on the commodity. Higher duties impose higher constraints on trade and economic activities and curb the economic freedom of agents. The inverse of this variable is taken to ensure that a higher level of economic freedom is reflected by a higher ratio.

TABLE 2.2

*Size of Government: State Ratings and Rankings*

States	2005		2009	
	Area 1	Rank	Area 1	Rank
Gujarat	0.56	2	0.69	1
Jharkhand	0.56	3	0.67	2
Haryana	0.50	7	0.63	3
West Bengal	0.52	4	0.58	4
Punjab	0.49	8	0.54	5
Maharashtra	0.52	5	0.53	6
Assam	0.41	11	0.51	7
Kerala	0.51	6	0.49	8
Andhra Pradesh	0.39	12	0.49	9
Himachal Pradesh	0.58	1	0.48	10
Tamil Nadu	0.46	9	0.47	11
Bihar	0.38	16	0.44	12
Rajasthan	0.34	18	0.44	13
Jammu & Kashmir	0.31	20	0.43	14
Orissa	0.32	19	0.38	15
Karnataka	0.38	15	0.36	16
Madhya Pradesh	0.39	14	0.35	17
Uttar Pradesh	0.45	10	0.33	18
Chhattisgarh	0.37	17	0.32	19
Uttarakhand	0.39	13	0.25	20

Gujarat is a well known success story through much of the 2000s. It has been among the most rapidly growing states of India and has also attracted large investments. Moreover it has had major successes in agriculture, social welfare programmes, and water resource management. All of this is being achieved without an inordinate increase in the size of the government. But Jharkhand is another story. It also has achieved high economic growth but largely on the basis of a few large units in the mining and basic manufacturing sector. Its human development indicators are among the poorest in the country.<sup>5</sup> And it is currently at the centre of a large leftist violent movement.

Other states such as Haryana are attracting significant investments in the services sector and in manufacturing. Proximity to Delhi, one of India's fastest growing economic centres would have helped, but Haryana has been able to leverage it without too much increase in size of government. West Bengal is another state that is among the better performers in this area. However it is not clear whether that has been a good outcome overall; for instance, the number of civil policemen has

5. India Today (2009).

dropped over the years. Though the size of the government has not increased as much as GDP in recent years, whether West Bengal can sustain its position is questionable. Assam's index values and rankings show that there has been significant improvement but here as well, the data shows many year-on-year variations—largely due to an economy that is highly dependent upon agriculture.

Andhra Pradesh has been improving steadily over the years; its GDP growth has outpaced growth in both state-level taxes on income (such as professional taxes) as well as state government revenue expenditure; this despite the fact that government programmes have increased in scope and scale during the period. (See the next chapter for a detailed discussion on Andhra Pradesh.) Himachal receives greater funds from the Central government given its 'special category status' and this enabled it to charge lower state level taxes. Nevertheless Himachal Pradesh has been increasing its taxation partly to maintain and build infrastructure in a difficult mountainous terrain and therefore a significant fall in its rankings. Lastly, both Bihar and Rajasthan, among the worst performers in 2005 have improved significantly in 2009—each has benefited from economic growth without commensurate increase in the size of their government.

Overall there has been some improvement in this category with the average values increasing from 0.44 in 2005 to 0.47 in 2009.

## **Area 2: Legal Structure and Security of Property Rights**

The efficiency of the government in protecting human life and property is measured by this category. Quality of the justice mechanism is measured by the availability of judges, by the completion rate of cases by courts and investigations by the police. The level of safety in the region is measured by the recovery rate of stolen property, and by the rate of violent and economic crimes.

### **8) *Ratio of Total Value of Property Recovered to Total Value of Property Stolen***

One of the key ingredients of economic freedom is protection of property. This measure is the ratio of total value of property recovered to the total value of property stolen. A higher value of this variable denotes efficiency of law enforcing agencies in protecting property rights and would therefore signify greater economic freedom.

### **9) *Inverse of Violent Crimes as a Share of Total Crimes***

This is the ratio of violent crimes, including murder, attempt to murder, etc., to total crimes under the Indian Penal Code. The inverse of

this ratio is considered, relating higher economic freedom to lower incidence of violent crimes.

*10) Inverse of Cases under Economic Offences as a Share of Total Cases Registered*

This is the ratio of economic offences (criminal breach of trust and cheating) to the total crimes reported under the Indian Penal Code. The inverse of this ratio is considered, as a lower incidence of economic offenses is indicative of better protection of property rights and therefore higher economic freedom.

*11) Inverse of Vacant Posts of Judges in the Judiciary as a Ratio of Total Sanctioned Posts of Judges*

This is the ratio of total vacant posts of judges in district/subordinate courts to total posts sanctioned. A high value of the ratio indicates that adequate infrastructure for getting justice is not in place. Therefore, the inverse of this ratio is considered.

*12) Percentage Cases where Investigations were Completed by Police*

This is the ratio of total cases where investigations were completed by the police to total cases registered for investigation by them. A higher value of this ratio indicates higher economic freedom as it indicates lower pendency of investigations.

*13) Percentage Cases where Trials were Completed by Courts*

This is the ratio of total trials completed by the courts to total cases awaiting or undergoing trial by courts. A higher value indicates higher economic freedom as it indicates lower pendency of cases.

Tamil Nadu retains its pre-eminent position; it is generally a much better governed state than all others and this is also reflected in its index value that is far ahead of all others. Madhya Pradesh is a distant second and scores high because of better police investigations as well as a lower share of economic offenses in total; however there has been no improvement over time in the state. Andhra Pradesh's improvement has been quite marked largely because of improvement in terms of reduced vacancy of judges.

Gujarat's ratings show a significant improvement over time; and this improvement has been on many fronts. The value of property recovered out of property stolen, cases under economic offences, vacant posts in the judiciary, and share of violent crimes all contribute to its improved position at number five.

**TABLE 2.3***Legal Structure and Security: State Ratings and Rankings*

States	2005		2009	
	Area 2	Rank	Area 2	Rank
Tamil Nadu	0.80	1	0.90	1
Madhya Pradesh	0.63	2	0.62	2
Andhra Pradesh	0.48	7	0.56	3
Rajasthan	0.49	5	0.54	4
Gujarat	0.35	12	0.54	5
Chhattisgarh	0.48	6	0.52	6
Haryana	0.58	3	0.45	7
Himachal Pradesh	0.51	4	0.42	8
Uttar Pradesh	0.41	10	0.39	9
Karnataka	0.45	8	0.34	10
Punjab	0.42	9	0.34	11
Kerala	0.35	13	0.34	12
Jammu & Kashmir	0.35	14	0.32	13
Uttarakhand	0.28	15	0.29	14
Jharkhand	0.19	18	0.24	15
Orissa	0.37	11	0.23	16
Maharashtra	0.26	16	0.19	17
Assam	0.14	19	0.17	18
West Bengal	0.20	17	0.15	19
Bihar	0.12	20	0.11	20

However many states have shown a fall in overall ratings—Haryana, Himachal Pradesh, Karnataka, Punjab, Jammu & Kashmir, Orissa, Maharashtra and West Bengal, all show significant fall in index values. This is worrisome as some of these states were among the poor performers in 2005 as well. Thus we find an increase in the variation among the states (standard deviation has increased from 0.17 to 0.19) and also a fall in the median index value from 0.39 in 2005 to 0.34 in 2009.

The ratings reflect that as Gujarat leaves behind its sordid past of communal violence and destruction, other states are unable to improve security of life and property in the manner required. This puts a serious question mark on the sustainability of high economic growth in such states.

### Area 5: Regulation of Labour and Business

An entrepreneur needs to take many decisions that cannot cater to the sentiments of all the workers and management that his firm employs. Decisions such as rationalisation of employee base etc., are an essential component of efficient use of scarce resources. Constraints on exiting the



market seriously hamper an entrepreneur's freedom. Labour laws for many decades have favoured the rights of the workers in the country. The number of strikes and industrial disputes that take place in the economy portray the amount of economic freedom in terms of the control that an entrepreneur has over his own business. Other areas where an entrepreneur may lack control over his own business is in terms of lack of adequate infrastructure and raw material. Such limitations severely constrain the entrepreneur's ability to enforce decisions that may be beneficial for his business. High transaction costs are well known deterrents of trade and economic activity. They also contribute to black market transactions. The higher the costs in terms of licences, the more constraints they impose on carrying out trade and economic activity and therefore serve as restraints on economic freedom of agents. Corruption also translates into higher transactions costs.

*14) Ratio of Average Wage of Unskilled Workers (Males)  
to Minimum Wages*

This is the ratio of yearly average of daily wages for harvesting to minimum agricultural wages in the state. A higher than one ratio in a state indicates that the wages received by workers is higher than the specified minimum implying greater economic freedom both for the entrepreneur and labour.

*15) Ratio of Average Wage of Unskilled Workers (Females)  
to Minimum Wages*

This is the ratio of yearly average of daily female wages for harvesting to minimum agricultural wages in the state. A higher than one ratio in a state indicates that the wages received by workers is higher than the specified minimum implying greater economic freedom both for the entrepreneur and labour. This ratio is taken separately from that for males, as many times the market determined wages for unskilled female workers are said to be biased against them.

*16) Inverse of Man-Days Lost in Strikes and Lockouts/  
Total Number of Industrial Workers*

This is the ratio of man-days lost due to disputes (strikes and lockouts) to the total number of workers. A large number of man-days lost indicates the breakdown in arbitration and other consensus mechanisms. Lower the man-days lost, the better the economic freedom. Therefore, inverse of the variable is considered.

### *17) Implementation Rate of Industrial Entrepreneurs Memorandum (IEM)*

IEM denotes the intention to invest in an industry. However, when there are bureaucratic or other delays, the rate of implementation is low. This indicator is the ratio of total amount invested to total amount proposed for investment through IEMs. A higher ratio implies larger economic freedom, thus depicting lower interference of government.

### *18) Inverse of Minimum Licence Fee for Traders*

Traders are required to pay a minimum amount of fees for obtaining a licence from the government to indulge in market activities. Therefore, the higher the licence fees, the more restricted traders are while trading in the market. Inverse of the variable is taken to denote higher levels of economic freedom.

### *19) Inverse of Power Shortage as a Percentage of Total Demand*

This is the ratio of power shortage to the total demand for power. Power shortage exists either due to low investment on the part of the government or due to low levels of private sector generation. Higher power shortage will tend to slow down the production process and thus would relate directly to inability of an entrepreneur to control his business. Again, inverse of the ratio is taken.

### *20) Inverse of Pendency Rate of Cases Registered under Corruption and Related Acts*

This is the ratio of cases pending investigation from the previous year of cases registered under the Prevention of Corruption Act, 1988 and other related acts as a share of total cases registered under the same acts. Economic freedom is higher when justice is served promptly and therefore the inverse of the pendency rate is used.

### *21) Persons Arrested as a Share of Total Cases being Investigated under Prevention of Corruption and Related Acts*

This is the ratio of the number of persons arrested under the Prevention of Corruption and other related acts as a share of total cases registered under the same acts. The higher the ratio, the higher is the level of economic freedom.

TABLE 2.4

*Regulation of Labour and Business: State Ratings and Rankings*

States	2005		2009	
	Area 5	Rank	Area 5	Rank
Gujarat	0.47	1	0.49	1
Andhra Pradesh	0.33	10	0.48	2
Tamil Nadu	0.46	2	0.41	3
Jammu & Kashmir	0.35	8	0.39	4
Himachal Pradesh	0.36	7	0.38	5
Maharashtra	0.41	6	0.35	6
Haryana	0.32	11	0.34	7
Karnataka	0.24	17	0.32	8
Orissa	0.43	5	0.31	9
Uttar Pradesh	0.18	19	0.30	10
Madhya Pradesh	0.46	3	0.27	11
West Bengal	0.20	18	0.25	12
Kerala	0.28	15	0.25	13
Jharkhand	0.45	4	0.24	14
Uttarakhand	0.31	12	0.24	15
Rajasthan	0.28	14	0.22	16
Assam	0.34	9	0.19	17
Punjab	0.30	13	0.18	18
Bihar	0.26	16	0.15	19
Chhattisgarh	0.14	20	0.14	20

Gujarat has seen some improvement and retains its pre-eminent position. Andhra Pradesh has seen the most significant improvement in this measure (see chapter 3 for details). Its position is attributed to better performance on a range of variables—yearly market wages to minimum notified wages for unskilled workers, strikes and lockouts, and total cases registered in the Prevention of Corruption Act improved.

Karnataka is another state that has seen significant improvement in this measure and on the back of better performance in a range of variables—yearly wage to minimum notified wages, actual investment to investment proposed and total cases registered in the Prevention of Corruption Act, have all improved. Moreover its performance on ratio of industrial workers to strikes and lockouts has also enabled it to substantially improve upon its low ranking in 2005.

Uttar Pradesh had a low ranking in 2005 (at 19) and has improved upon it in 2009 (at 10)—one of the factors behind this is better performance in the variable registration of cases under Prevention of Corruption Act.

Madhya Pradesh's position on the other hand has fallen as its high ranking in 2005 was achieved in part due to its exceptional performance in strikes and lockouts. This has since changed and the industrial climate has been worsening in the state leading to its fall. Jharkhand is another state that has performed poorly since 2005, but its poor performance has been in a range of areas—yearly wages to minimum notified wages, total industrial workers to strikes and lockouts, total cases registered in the Prevention of Corruption Act all have declined.

In the regulation of labour and business category, the median state value has declined from 0.33 in 2005 to 0.28 in 2009. What is worse, the states that had performed poorly in the past are the ones that have had the largest fall as well, again indicating worsening disparities in this component of economic freedom.

### Overall Ratings

The overall ratings are a simple equal weighted average of the three ratings and the top three states are Tamil Nadu, Gujarat and Andhra Pradesh. These are followed by Haryana and Himachal Pradesh. Tamil Nadu has been a consistent performer—it was at the top in 2005 and retains that position in 2009. It has had a marginal improvement in its rating, up from 0.57 in 2005 to 0.59 in 2009 thus it continues its leading position but driven mainly by better legal and regulatory performance. Gujarat and Andhra Pradesh are 2<sup>nd</sup> and 3<sup>rd</sup> respectively and each has seen a considerable jump in both ranking and rating since 2005. In the case of Gujarat all round performance has enabled it to improve its rating from 0.46 in 2005 to 0.57 in 2009.

In the case of Andhra Pradesh as well the improvement from 0.40 to 0.51 has enabled it to achieve a rank of 3, up from 7 in 2009. Improvement continues for Andhra Pradesh on all fronts (in order of importance): Area 5—Regulation; Area 2—Legal Structure; and Area 1—Size of Government). Among the top 5, while Haryana Pradesh retains its 4<sup>th</sup> position, Himachal Pradesh has slipped from 0.48 to 0.43 in its ratings and from 3<sup>rd</sup> to 5<sup>th</sup> position in rankings.

Madhya Pradesh has fallen in overall terms, though its better performance in legal structure has compensated somewhat for its relatively poor performance in other areas. Punjab is another state that has performed poorly, its rating has fallen by 0.06 in the period under consideration.

As many as 12 states have seen a fall in their economic freedom rankings. The worse performers being: Madhya Pradesh, Uttarakhand, Punjab, Orissa, Himachal Pradesh and Maharashtra.

**TABLE 2.5***Overall Economic Freedom Ratings: 2009*

States	2005		2009	
	Overall	Rank	Overall	Rank
Tamil Nadu	0.57	1	0.59	1
Gujarat	0.46	5	0.57	2
Andhra Pradesh	0.40	7	0.51	3
Haryana	0.47	4	0.47	4
Himachal Pradesh	0.48	3	0.43	5
Madhya Pradesh	0.49	2	0.42	6
Rajasthan	0.37	12	0.40	7
Jharkhand	0.40	8	0.38	8
Jammu & Kashmir	0.34	15	0.38	9
Kerala	0.38	10	0.36	10
Maharashtra	0.40	9	0.36	11
Punjab	0.41	6	0.35	12
Karnataka	0.36	13	0.34	13
Uttar Pradesh	0.35	14	0.34	14
West Bengal	0.31	18	0.33	15
Chhattisgarh	0.33	16	0.33	16
Orissa	0.37	11	0.31	17
Assam	0.30	19	0.29	18
Uttarakhand	0.33	17	0.26	19
Bihar	0.25	20	0.23	20

Overall, the median value for economic freedom of the states of India has fallen from 0.38 to 0.36. This could be a temporary blip in the long-term trends, but needs careful watching. Though, the overall index figures have not improved much, some improvement on size of the government is being outweighed by fall in both legal structure and property rights as well as regulation of labour and business. In other words, the evidence is that economic freedom in India is not improving despite high growth in the intervening period.

As India opens its national markets to international investment and commodity flows, it cannot afford to constrain its own entrepreneurs from benefiting from the great opportunities that lie ahead. For this, economic freedom needs to be improved at the national, state and local levels.

### **A Discussion of Economic Freedom in the States of India**

Overall the states of Madhya Pradesh, Orissa, Uttarakhand, Punjab and Himachal Pradesh have had a significant fall in their economic freedom ratings (a reduction of greater than 0.05 points). Others such as Maharashtra, Kerala, Bihar, Jharkhand, Karnataka, Uttar Pradesh, Assam and Chhattisgarh have had a moderate fall in their ratings (reduction of

between 0 to 0.05 points). While Haryana, Tamil Nadu, West Bengal, Rajasthan, Jammu & Kashmir have seen a moderate rise (improvement from 0 to 0.04 points); and Andhra Pradesh and Gujarat have seen a significant improvement (both by 0.11 points).

There is no linear pattern in the sense of some of the states that have had a large fall include top ranked states in 2005 such as Madhya Pradesh and Himachal Pradesh; whereas states such as Orissa and Uttarakhand were not among the top performers and have since worsened. At the same time, some of the improving states were at the top (Tamil Nadu) as well as among the lowest ranked (West Bengal ranked 18 in 2005).

TABLE 2.6

*Economic Growth and Economic Freedom in Indian States*

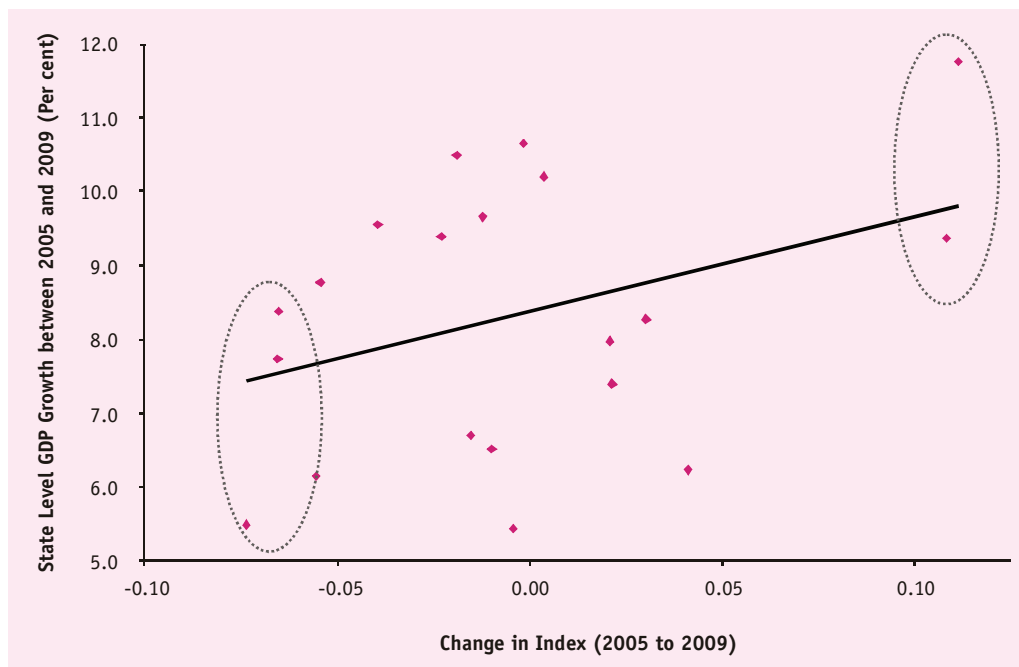
<i>Units</i>	<i>Rs.</i>	<i>Rs.</i>	<i>%</i>	<i>Index</i>	<i>Unit</i>	<i>Index</i>	<i>Unit</i>	<i>Index</i>	<i>Unit</i>	<i>Text</i>	<i>Text</i>
<i>Year</i>	<i>2004-05</i>	<i>2008-09</i>	<i>2004-05 to 2008-09</i>	<i>2005</i>	<i>2005</i>	<i>2009</i>	<i>2009</i>	<i>2005 to 2009</i>	<i>2005</i>	<i>2005</i>	<i>2005 to 2009</i>
<i>States</i>	<i>GSDP at 1999-2000 Price</i>	<i>GSDP at 1999-2000 Price (Rs.10 billion)</i>	<i>Annual Growth (Rs.10 billion)</i>	<i>Overall</i>	<i>Rank</i>	<i>Overall</i>	<i>Rank</i>	<i>Change in EF Index (2005 to 2009)</i>	<i>Change in Rank</i>	<i>Position in 2005</i>	<i>Movement between 2005-2009</i>
<b>States with Large Falls</b>	267	346	6.7								Large Fall
Madhya Pradesh	88	109	5.5	0.49	2	0.42	6	(0.07)	-4	High	Large Fall
Orissa	58	78	7.7	0.37	11	0.31	17	(0.07)	-6	Low	Large Fall
Uttarakhand	20	28	8.4	0.33	17	0.26	19	(0.07)	-2	Low	Large Fall
Punjab	81	103	6.1	0.41	6	0.35	12	(0.06)	-6	High	Large Fall
Himachal Pradesh	19	27	8.8	0.48	3	0.43	5	(0.05)	-2	High	Large Fall
<b>States with Moderate Falls</b>	934	1,304	8.7								Moderate Fall
Maharashtra	317	456	9.6	0.40	9	0.36	11	(0.04)	-2	High	Moderate Fall
Kerala	94	135	9.4	0.38	10	0.36	10	(0.02)	0	Low	Moderate Fall
Bihar	66	98	10.5	0.25	20	0.23	20	(0.02)	0	Low	Moderate Fall
Jharkhand	42	55	6.7	0.40	8	0.38	8	(0.02)	0	High	Moderate Fall
Karnataka	125	181	9.7	0.36	13	0.34	13	(0.01)	0	Low	Moderate Fall
Uttar Pradesh	210	271	6.5	0.35	14	0.34	14	(0.01)	0	Low	Moderate Fall
Assam	43	53	5.4	0.30	19	0.29	18	(0.00)	1	Low	Moderate Fall
Chhattisgarh	36	54	10.7	0.33	16	0.33	16	(0.00)	0	Low	Moderate Fall
<b>States with Moderate Rise</b>	544	743	8.1								Moderate Rise
Haryana	76	113	10.2	0.47	4	0.47	4	0.00	0	High	Moderate Rise
Tamil Nadu	168	228	8.0	0.57	1	0.59	1	0.02	0	High	Moderate Rise
West Bengal	178	236	7.4	0.31	18	0.33	15	0.02	3	Low	Moderate Rise
Rajasthan	102	141	8.3	0.37	12	0.40	7	0.03	5	Low	Moderate Rise
Jammu & Kashmir	19	24	6.2	0.34	15	0.38	9	0.04	6	Low	Moderate Rise
<b>States with Large Rise</b>	329	491	10.5								Large Rise
Andhra Pradesh	176	252	9.4	0.40	7	0.51	3	0.11	4	High	Large Rise
Gujarat	153	239	11.8	0.46	5	0.57	2	0.11	3	High	Large Rise

But both the states that have improved the most have seen improvements on a whole range of indicators—Gujarat and Andhra Pradesh. This suggests that improvements in economic freedom can be most dramatic when they impact most or all areas, and are not driven by excellent performance in just one or two areas.

The states that have worsened most in economic freedom experienced average annual GDP growth between 2004-05 and 2008-09 of 6.7 per cent. Those states that worsened moderately averaged 8.7 per cent growth. And the states that improved the most (Andhra Pradesh and Gujarat) averaged 10.5 per cent growth. This suggests strongly that more economic freedom translates into faster growth. The difference in growth rates between the worst and best states is striking.

**FIGURE 2.1**

*Change in EF Index and Economic Growth of the States (2005 to 2009)*



The figure above compares the change in the index value with annualised state-level GDP growth between 2004-05 and 2008-09. Both Andhra Pradesh and Gujarat have seen among the highest growth rates during the period. However some states such as Bihar, Chhattisgarh, Maharashtra and Karnataka also have seen significantly high growth in the latter part of the 2000s.

Short-term growth figures are known to vary widely. But Maharashtra and Karnataka have been known to be among the better governed states in India and have a long history of international and domestic investments in manufacturing and services. The growth of Bihar and

Chhattisgarh on the other hand is characterised by some sectors (construction in Bihar and mining and basic industry in Chhattisgarh) that have contributed to recent successes. It is not clear whether these can be sustained if overall economic freedom measures do not improve.

At the same time, the figure above also suggests that at least at the extreme points there is a strong link. States that have had a large fall in economic freedom indices do not have high growth, and states that have had a large improvement in economic freedom index have had high growth.





# 3

## Andhra Pradesh

### *Fastest Improver in Economic Freedom*

Swaminathan S. Anklesaria Aiyar

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Andhra Pradesh is India's 4<sup>th</sup> largest state by area and 5<sup>th</sup> largest by population (currently estimated at 84 million). It has traditionally been a major agricultural state, producing surpluses that feed neighbouring food-deficit states in South India. Indeed, it is among the few states in which the share of agriculture (30.2 per cent) in gross state domestic product (GSDP) is higher than that of industry (22.6 per cent).<sup>1</sup> However, it is also a specialist in defence services and pharmaceuticals, and is a major producer of steel, cement and sugar. Services have come up rapidly in recent decades, and its capital, Hyderabad, has become one of the biggest centres of information technology in India, including major campuses of Microsoft and Genpact.

Between 2005 and 2009, Andhra Pradesh and Gujarat were the two states that registered the biggest improvements in economic freedom,<sup>2</sup> with their overall scores going up by 0.11 points each (see Table 2.5). Andhra Pradesh's score went up from 0.40 to 0.51, which is proportionately faster than Gujarat's move from 0.46 to 0.57. In overall state rankings, Andhra Pradesh moved up from 7<sup>th</sup> position in 2005 to 3<sup>rd</sup> position in 2009.

Looking at sub-categories in the index of economic freedom, we find that the state has fared exceptionally well in regulation of labour and business, creating a climate that provides more economic freedom for entrepreneurs. The state is not uniformly freedom-friendly in all respects. In the first sub-category, relative size of the state, Andhra Pradesh has

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1. GoAP (2010).

2. Debroy and Bhandari (2005).

TABLE 3.1

## Ranking of States on Economic Freedom Index

	Size of State		Legal System		Business/Labour Regulation		Overall	
	2005	2009	2005	2009	2005	2009	2005	2009
Andhra Pradesh	12	9	7	3	10	2	7	3
Assam	11	7	19	18	9	17	19	18
Bihar	16	12	20	20	16	19	20	20
Chhattisgarh	17	19	6	6	20	20	16	16
Gujarat	2	1	12	5	1	1	5	2
Haryana	7	3	3	7	11	7	4	4
Himachal Pradesh	1	10	4	8	7	5	3	5
Jammu and Kashmir	20	14	14	13	8	4	15	9
Jharkhand	3	2	18	15	4	14	8	8
Karnataka	15	16	8	10	17	8	13	13
Kerala	6	8	13	12	15	13	10	10
Madhya Pradesh	14	17	2	2	3	11	2	6
Maharashtra	5	6	16	17	6	6	9	11
Orissa	19	15	11	16	5	9	11	17
Punjab	8	5	9	11	13	18	6	12
Rajasthan	18	13	5	4	14	16	12	7
Tamil Nadu	9	11	1	1	2	3	1	1
Uttar Pradesh	10	18	10	9	19	10	14	14
Uttarakhand	13	20	15	14	12	15	17	19
West Bengal	4	4	17	19	18	12	18	15

improved from 12<sup>th</sup> position (2005) to 9<sup>th</sup> (2009). This is still way down the list, and in this respect the state has much room for improvement. In the second sub-category, legal institutions and functioning, the state has moved up from 7<sup>th</sup> position (2005) to 3<sup>rd</sup> position (2009) in India. This indicates improved economic freedom and the space for individual actors, especially in what used to be Maoist-affected northern districts. In the third sub-category, labour and business regulation, the state has fared very well indeed, moving up from 10<sup>th</sup> position in 2005 to 2<sup>nd</sup> position in 2009.

This improvement in economic freedom and business climate has helped almost double the state's growth rate. In the Ninth Five-Year Plan period (1997 to 2002) the state had an average annual gross state domestic product (GSDP) growth of 5.59 per cent. But in the last five years for which data are available (2004-05 to 2008-09), GSDP growth accelerated to an average of 9.07 per cent per year.<sup>3</sup> This latest five-year

3. GoAP (2010).

average was pulled down by a major drought in 2008-09. In the previous three years, GSDP growth was in double digits (see Table 3.2 below). The state was an outperformer, consistently growing faster than India as a whole except for the drought in 2008-09.

**TABLE 3.2***GDP Growth in Andhra Pradesh and All-India*

	<i>India GDP Growth (%)</i>	<i>Andhra Pradesh GSDP Growth (%)</i>
2004-05	7.47	8.15
2005-06	9.52	10.24
2006-07	9.75	11.16
2007-08	9.01	10.75
2008-09	6.70	5.04

*Note:* GSDP means gross state domestic product.

*Source:* GoAP (2010).

It is instructive to take a more detailed look at the components of each sub-category. Table 3.3 gives the relative scores on the state on key indicators between 2005 and 2009. The indicators have been defined such that a rising score indicates more freedom, and a declining score indicates reduced freedom.

The indicators relating to the size of the state show encouraging progress. The ratio of GSDP to the revenue expenditure of the government (excluding capital spending) shot up from 3.4 in 2005 to 7.93 in 2009. In other words, GSDP rose more than twice as fast as government spending on administrative matters, including subsidies and employment schemes. The relative size of the state shrank.

But this did not mean that government spending was muted. On the contrary, the state government's capital spending went up from Rs. 42.5 billion (\$ 0.85 billion) in 2003-04 to Rs. 103.7 billion (\$ 2.07 billion) in 2008-09. This increase focussed on irrigation and infrastructure, which were earlier weak spots. Improving irrigation and infrastructure aimed to improve business conditions for farmers and businessmen, thus expanding the range of economic opportunities and freedom of choice. Agricultural growth averaged 6.82 per cent per year in 2004-2009, more than double the all-India average of 3.26 per cent. And industrial growth in the state averaged 10.75 per cent against the national average of 8.70 per cent.<sup>4</sup> While government spending increased, the state economy increased still faster, so the relative size of government declined.

4. Office of the Economic Advisor to the Chief Minister, Andhra Pradesh.

TABLE 3.3

*Andhra Pradesh: Indicators of Economic Freedom—2005 and 2009*

	2005	2009	More(+)/Less(-) Economic Freedom
<b>Size of State</b>			
GSDP/revenue expenditure	3.4	7.93	+
GSDP/administrative GSDP	0.21	0.24	+
Total organised employment/government employment	1.40	1.46	+
GSDP/state taxes on income	69	85.7	+
GSDP/taxes on property, capital transactions	89	84	-
GSDP/taxes on commodities and services	8	2	+
Property price/stamp duty	NA	0.2	
<b>Rule of Law</b>			
Property recovered/property stolen	0.41	0.49	+
Total judicial posts/vacant posts	12.32	20.69	+
Total cases/economic offence cases	17.44	19.04	+
% cases completed by police in same year	0.77	0.76	-
% cases completed by courts in same year	0.24	0.23	-
Total crimes/violent crimes	13.52	14.09	+
<b>Regulation of Labour and Business</b>			
Casual wage rate/minimum wage for males	0.87	1.03	+
Casual wage rate/minimum wage for females	0.67	0.81	+
Industrial workers/man-days lost in strikes, lockouts	0.73	0.34	-
Minimum licence fee/year for traders	0.4	0.4	
Implementation rate IEMs	0.09	0.04	-
Power demand/power shortage	0.99	0.91	-
Inverse of pending corruption cases from previous year	1.93	3.10	+

Note: IEMs—Industrial Entrepreneurs Memorandum.

This was a welcome but utterly unexpected outcome, given the state's reputation of focussing on freebies and subsidies to buy votes. Andhra Pradesh's Chief Minister in 2004-2009, Y.S. Rajasekhara Reddy, gained popularity by expanding welfare schemes such as subsidised rice, subsidised housing for the poor, rural employment schemes, and free power and virtually free canal water for farmers. Many critics feared that such 'populism' would drain the state treasury without producing real growth, and for good reason. Welfare schemes in the state suffered from the same problems afflicting such schemes all over India. Many subsidies were irrational and untargeted, so much of the benefit flowed to the undeserving. For instance, shopkeepers were given cheap rice for distribution to the poor by the Government, but they resold much of this in the open market, providing only a fraction to those with ration cards. And the ration cards themselves were distributed to all and sundry as part of a political patronage system—the supposed targeting of people below the poverty line was a farce. Free electricity encouraged farmers to pump excessive amounts of groundwater, leading to a fall in the water table. This in turn meant that drinking water wells went dry, shallow tube wells

went dry, and only the deep tube wells of wealthy farmers had enough water. The state is well-known for having a high farmer suicide rate, and many farmers who died had taken loans for tube wells that produced no water or ran dry after a short time. The National Rural Employment Guarantee Act (NREGA) was supposed to provide 100-days work per year to families below the poverty line. In fact corruption and bogus muster rolls diverted money from the intended beneficiaries in every state, including Andhra Pradesh.

Given these pitfalls, why was the actual outcome so favourable? Why did actual revenue spending grow at only half the rate of state GDP? Why was the actual outcome a smaller government relative to state GDP, and not larger?

The explanation is that Chief Minister Reddy's strategy was actually altogether more farsighted and nuanced than the bleeding-heart stance he adopted in election rallies. He portrayed himself as a friend of the poor and the farmer, determined to provide them more welfare and a better deal. But, unlike some other Indian socialists, he did not seek to soak the rich to help the poor. On the contrary, he understood that the creation of economic freedom and opportunity was crucial to spur economic activity to the point that it created a labour shortage, and thus helped raise real wages. So he set out to improve the business climate, and business flourished as never before in his five years in office. Further, he realised that to finance expanded rural investment and welfare on a sustainable basis, he needed a rapid growth of revenues, which in turn required a rapid growth of GDP. He did not see economic freedom as a concession to big business. Rather, he saw the creation of wealth as linked organically to creating the revenue base for expanded welfare. As a politician seeking votes, he saw the means to get more votes had to be public investment and business rules that promoted economic freedom and opportunity. The strategy worked: despite higher spending on subsidies and anti-poverty schemes, the ratio of revenue spending to GDP actually halved. And the Chief Minister himself won a rousing election victory in 2009.

Waste and corruption have long been endemic in government programmes, but Reddy set out to reduce these, and succeeded in significant measure. Andhra Pradesh was the first state to implement the social audit of the government's rural development schemes, such as the NREGA and mid-day meals scheme in schools. NGOs identified and trained villagers to check muster rolls, receipts and expenditure claims by contractors, and provide reports on malpractices and waste. This harnessed stakeholder participation in supervision. The social audit reports were pasted up in local government offices everywhere, and officials were obliged to respond to allegations of corruption and waste. Both these were

reduced because of greater transparency and accountability.<sup>5</sup> This improvement in governance improved rural empowerment and helped boost rural development: the increase in irrigated area in the last five years owes something to reduced waste and corruption, which aided faster agricultural growth. Nevertheless corruption remained high in sectors like real estate and mining.

Rapid growth also reduced the relative share of wasteful subsidies. Free power for farmers is wasteful, but the share of agriculture in total power consumption keeps falling with faster growth in industry and services. The share of subsidies for canal water and fertilisers in GSDP also falls with rapid overall growth.

Reddy did not reform high absenteeism by teachers in government schools: he judged teachers' unions to be too powerful. But he encouraged the appointment of contract teachers to supplement unsackable, unaccountable permanent teachers. Research by Kartick Muralidharan of the University of San Diego showed that this led to a significant improvement in teaching outcomes: 'We present experimental evidence from a program that provided an extra contract teacher to 100 randomly-chosen government-run rural primary schools in the Indian state of Andhra Pradesh. At the end of two years, students in schools with an extra contract teacher performed significantly better than those in comparison schools by 0.15 and 0.13 standard deviations in math and language tests respectively. While all students gain from the program, the extra contract teacher was particularly beneficial for students in their first year of school and students in remote schools. Contract teachers were significantly less likely to be absent from school than civil service teachers (16 per cent *versus* 27 per cent). We also find using four different non-experimental estimation procedures that contract teachers are no less effective in improving student learning than regular teachers who are more qualified, better trained, and paid five times higher salaries.'<sup>6</sup>

Gross fixed capital formation in the public sector went up from Rs. 107.7 billion (\$2.16 billion) in 2000-01 to Rs. 289.1 billion (\$5.78 billion) in 2007-08. Net borrowings went up more slowly, from Rs. 75 billion (\$1.5 billion) in 2003-04 to Rs. 110.9 billion (\$2.22 billion) in 2008-09. Since spending on infrastructure and irrigation boosted agriculture and industry respectively, the increase in revenue helped reduce its fiscal deficit. All Indian states were in fiscal disarray after a huge rise in government mandated by India's statutory Pay Commission in 1998. This led to the

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5. CGG (2009).

6. Abstract of a lecture by Kartick Muralidharan, University of San Diego, at the Center for Global Development, Washington DC, May 6, 2010.

enactment of a Fiscal Responsibility and Budget Management (FRBM) Act by New Delhi in 2003, which prescribed a steady fall in the fiscal deficits of both the Central and state governments to 3 per cent of GDP and GSDP by 2009. Andhra Pradesh was able to reduce its fiscal deficit to 2.68 per cent of GSDP in 2007-08, well below the prescribed ceiling of 3 per cent. But then followed the Great Recession of 2008-09, which led the Central government to relax the fiscal deficit ceiling of states to 3.5 per cent of GSDP. Andhra Pradesh registered an actual deficit of 3.34 per cent in 2008-09, within the ceiling.<sup>7</sup>

Higher public investment in infrastructure and irrigation attracted more than matching private investment. The share of the private sector in gross capital formation has gone up from 65.66 per cent in 2000-01 to 70.34 per cent in 2007-08. Public investment in many countries has crowded out private investment. In Andhra Pradesh, public investment stimulated private investment.

Indeed, the improved business climate has helped Andhra Pradesh to achieve high levels of productivity. Table 3.4 below gives the ratio of gross fixed capital formation to GDP, in the state and in India as a whole. The ratio has risen substantially in the state, from 20.50 per cent in 2000-01 to 27.69 per cent in 2007-08. Yet the ratio has risen much faster in India as a whole, from 22.73 per cent to 33.99 per cent. So, the gap in capital formation between the state and India has grown, from 2.23 per cent in 2000-01 to 6.30 per cent in 2007-08. Yet GDP growth has been faster in the state than in India. So, compared with the rest of India, Andhra Pradesh has succeeded in getting more out of less, an indicator of rising total factor productivity. This has been a welcome consequence of expanded economic freedom and opportunity.

**TABLE 3.4**

*Gross Fixed Capital Formation as Per cent of GDP/GSDP*

	Andhra Pradesh	All-India	Gap
2000-01	20.50	22.73	2.23
2001-02	20.54	23.62	3.08
2002-03	19.18	23.82	4.65
2003-04	19.92	24.97	5.03
2004-05	21.15	28.45	7.30
2005-06	25.12	31.02	5.90
2006-07	26.28	32.55	5.77
2007-08	27.69	33.99	6.30

Source: GoAP (2010).

7. GoAP (2010).



State-level taxes on income, capital transactions and commodities are low in most Indian states. This holds for Andhra Pradesh too. When taxes are low, even small changes can produce big changes in ratios. The ratio of state GDP to taxes on income has risen sharply from 69 to 85.7, meaning that the effective state income tax rate has fallen sharply (see Table 3.3). There is little change in the ratio of State GDP to other state taxes—on property, capital transactions and commodities.

The functioning of the legal system is important for a good business climate. India is notorious for legal sloth and slow enforcement of contracts. Police functioning is weak and corruption-ridden. However, in this area Andhra Pradesh has moved up from 7<sup>th</sup> to 3<sup>rd</sup> position among all states between 2005 and 2009, so it has improved substantially in relative terms (Table 3.1). The ratio of stolen property recovered to property stolen has improved from 0.41 to 0.49 (Table 3.3). This represents a significant improvement. Yet it pales in comparison with a recovery rate of over 99 per cent in Japan. The state has simply improved from extraordinarily weak to very weak.

Unfilled judicial positions have slowed the pace of justice in many states. In Andhra Pradesh, the ratio of total judicial posts to vacant posts has improved a lot, from 12.32 to 20.69 (Table 3.3). The share of economic offences in total offences has gone down a bit, and that suggests better protection of property and businesses. The ratio of cases where the police completed investigations in the same year is abysmally low, and so is the ratio of cases completed by courts in the same year. In these respects, there has been a marginal deterioration. There are now slightly fewer violent crimes as a proportion of total crimes, and to this extent there is an improved business climate.

However, these indicators fail completely to capture the huge problem posed in Andhra Pradesh by Maoist violence, or the way this has now been overcome. Back in the 1990s, even Members of Parliament and the State Assembly dared not visit their constituencies in the northern districts for fear of being killed by Maoists. Normal economic activity was not possible: the chaos and fear spread by insurrection hit employment and growth in the affected areas. When Rajasekhara Reddy became Chief Minister in 2004, he initially tried negotiating with the Maoists, but then decided that they were simply playing for time to regroup and strengthen their defenses. So he decided to crack down with greatly increased police force. Police recruitment was stepped up, police vehicles were greatly increased in number, and police training academies helped create anti-guerilla skills. New technology was introduced, providing police with high-tech telecommunications.

Girish Kumar, Director-General of Police, says categorically that the use of police force alone could never have succeeded. In effect, the state had vacated the Maoist-affected areas, and the Maoists ruled in this vacuum. So, the state needed to reoccupy that vacuum. This meant building a dense network of roads in the forests in the northern districts which gave Maoists sanctuary, and of making operational government services including police, courts, schools, health clinics, bus services, irrigation, and welfare schemes available in other parts of the state. This re-establishment of the state meant that local people gained confidence that the State had arrived and was here to stay. Only after that did the police find it possible to recruit locals who would penetrate the Maoists and yield highly local, highly actionable counter-intelligence. In earlier years, before this approach was adopted, the police simply could not obtain the highly local knowledge required to identify and strike at Maoist camps. Maoists have been driven out of the northern districts of the state, and have taken refuge across the border in Chhattisgarh state (from where they still hope to stage a comeback some day). The number of Maoist incidents fell steadily from 576 in 2005 to 62 in 2009, and the numbers killed by Maoists fell from 211 (including 25 policemen) in 2005 to just 17 deaths (and zero police deaths) in 2009.<sup>8</sup>

One of the lessons flowing from this is that all states hit by Maoist insurgency need to reoccupy areas vacated to the Maoists, and provide government services available in the rest of the state. In Andhra Pradesh, this approach is reflected in the acceleration of the state's growth, and more so in fast growth in the northern districts. Table 3.5 gives district-wise growth data, which have been calculated by the state government till 2006-07. Growth jumped to extremely high levels in some of these districts in 2005-06, partly because of recovery from the previous year's drought and partly because economic activity boomed with the reduction of Maoism. Growth continued to be strong in 2006-07 too.

**TABLE 3.5**

*GDP Growth in Four Northern Maoist-Affected Districts*

*(Per cent/Year)*

	<i>Adilabad</i>	<i>Karimnagar</i>	<i>Warangal</i>	<i>Khammam</i>	<i>State Average</i>
2005-06	19.27	32.65	18.93	9.26	10.24
2006-07	15.80	10.15	8.05	10.27	11.16

Source: Office of Economic Advisor to the Chief Minister, Andhra Pradesh.

8. Figures given in a private conversation by Girish Kumar, Director-General of Police, Andhra Pradesh.

Our indicators for labour regulation reveal considerable improvement. The state did not ease its heavy-handed regulations for unionised labour, which continue to be as onerous as in the rest of India. But between 2004 and 2009, the state doubled its minimum wage from Rs. 60 (\$1.20) to Rs. 120 (2.40) per day. The minimum wage was paid to workers under NREGA, the flagship rural employment scheme. Andhra Pradesh spent almost Rs. 60 billion (\$1.2 billion) on NREGA last year, second only to Rajasthan. Now, employment schemes of this sort carry a moral hazard: by paying high wages, they may divert workers from productive private sector work to less productive public sector schemes, thus reducing GDP. This happens especially in states where the legal minimum wage is much higher than the market wage (minimum wage laws are not enforced).

However, the outcome in agriculture and GDP growth in Andhra Pradesh, as shown in Table 3.3, was favourable. In 2005, the market wage for males was 87 per cent of the minimum wage. But in 2009 the male market wage was 103 per cent of the minimum wage, notwithstanding the fact that the minimum had been doubled. So, the minimum wage ceased to be distortionary for male workers. The legal minimum wage is equal for males and females, but the market has always discriminated against the weaker sex. For females, the ratio of the casual market wage to minimum wage improved from 67 per cent to 81 per cent. Clearly discrimination against females continue, but the market rate for females is now much closer to the minimum wage, and this implies less distortion in the labour market. The rise in wages was driven mainly by buoyant economic growth, especially in agriculture. Government employment programmes account for only a tiny fraction of total work in the state, and could not on their own have driven up real wages, though Chief Minister Reddy and other politicians claimed this was the case. The employment programmes performed the more modest task of supplementing the incomes of poor people in the agricultural off-season.

The state now has a significant labour shortage at harvest time, when labour demand spikes sharply. This is one reason why the male market wage has risen above the minimum wage rate. The state's northern districts used to have low wage rates since Maoism discouraged economic activity. But after being cleared of Maoist, economic activity has raised wage rates to levels that make ideology of Maoism unattractive: earlier, it thrived on high youth unemployment. Mahbubnagar district, a poor area well known for out-migration, is now getting in-migration. People from distant Bihar are migrating to Andhra Pradesh in search of higher wages, and are welcomed since they ease the labour shortage at harvest time.<sup>9</sup>

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9. Private conversation with D.A. Somayajulu, Economic Advisor to the Chief Minister, Andhra Pradesh.

The state has excelled in getting a much higher share of resources from New Delhi. Cynics put this down to the close relationship between Chief Minister Reddy and Sonia Gandhi, head of the Congress Party. But there is much more to it. New Delhi has a series of what are called centrally sponsored schemes (CSSs), providing large funds for specific schemes provided the states enact sectoral reforms and produce matching funds. The aim of these CSSs is to induce the states to improve efficiency and economic freedom, reduce unwarranted taxation and improve business conditions in the states. D.A. Somayajulu, Economic Advisor to the Chief Minister, says, 'Andhra Pradesh has been first or second in utilisation of all the CSSs—for rural roads, irrigation, rural electrification, urban renewal, rural health, education, low-cost housing and rural employment. By grabbing a much bigger slice of Central Government funds, the state has managed to spend much more on infrastructure, irrigation and social sectors without additional taxation. However, this has not simply been political opportunism: it has also meant improved climate of economic freedom. To qualify for the funds, it has also adopted sectoral reforms (such as abolishing the urban land ceiling, reducing stamp duty on property sales, computerising property records and export-import procedures, using public-private partnerships in place of government monopolies, unbundling the State Electricity Board into separate entities for generation, transmission and distribution). These reforms have improved business conditions and economic freedom. Transmission and distribution losses (including electricity theft) are outrageously high in all Indian states, and at one time all-India losses averaged 40 per cent of electricity generated. Andhra Pradesh has cut its T&D losses to 18 per cent, not a low figure by international standards but nevertheless low among Indian states.<sup>10</sup> This improvement in power availability has helped stoke industrial growth, although generation has been hit by shortages of natural gas.

The state provides free electricity to farmers, a retrograde practice which means other consumers have to subsidise electricity. Free power removes the incentive for farmers to use more energy-efficiency pump-sets, encourages inappropriate water-guzzling crops, and encourages over-pumping that can destroy aquifers. One saving grace is that industry and services are growing much faster than agriculture, and so free agricultural power as a proportion of total power supply is shrinking.

The infrastructure boom has changed the nature of government functioning and opened huge new areas to private participation. In earlier

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10. Private conversation with D. Somayajulu. Economic Advisor to the Chief Minister, Andhra Pradesh.

times, various government departments monopolised the execution of public works. But Andhra Pradesh was among the early proponents of using private corporations to execute government contracts. So, when the Central government and all Indian states began expanding infrastructure at a furious rate in the 2000s, once-small infrastructure companies from the state seized the new opportunities to become some of the biggest companies in India—GVK Power and Infrastructure Ltd., GMR Group, Lanco Infratech Ltd., Nagarjuna Construction Company Ltd. and IVRCL Infrastructures & Projects Ltd. These companies quickly bagged a big share of mammoth projects put up for private-public participation (PPP), ranging from roads and power to water supply and airports. However, they are also tainted by allegations of crony capitalism.

The construction boom was by no means limited to Government projects. Private investment in construction and other areas of capital formation rose even faster. Housing in particular experienced a runaway boom. This had a knock-on effect on cement and steel production, which rose stridently in the state. So did the mining of iron ore, limestone and coal, the raw materials for cement and steel production.

Although the state has become an important centre for information technology—it ranks fourth among all Indian states in software exports—its growth has not been driven primarily by services. Companies like Microsoft, IBM, Intel, Genpact and Satyam all have operations in the state. However, while Andhra Pradesh has greatly outperformed all-India in agriculture and modestly outperformed it in industry, it has underperformed all-India in services. This is shown in Table 3.6. Agricultural growth in the state is very volatile because it has large semi-

	2004-05	2005-06	2006-07	2007-08	2008-09
<b>All-India</b>					
Agriculture	0.05	5.84	3.95	4.86	1.60
Industry	10.34	10.17	11.00	8.10	3.88
Services	9.13	10.59	11.23	10.85	9.67
<b>Andhra Pradesh</b>					
Agriculture	4.44	8.84	2.73	16.86	1.20
Industry	12.20	13.22	17.66	10.45	0.22
Services	8.27	9.53	12.29	8.01	9.58

Source: Office of the Economic Advisor to the Chief Minister, Andhra Pradesh.

arid areas dependent on the monsoon. But expanded irrigation helped give the state an average agricultural growth rate of 6.82 per cent per year in the period 2004-05 to 2008-09, more than double the all-India average of 3.26 per cent per year. The boom in farm incomes is very much a private sector success—farmers are entrepreneurs no less than corporations.

In some states the rural masses have not done too well after economic reforms began in 1991. However, the big jump in agricultural production in Andhra Pradesh means that GDP gains have been widely shared. Somayajulu says that the rural credit-deposit ratio of banks in the state is 120 per cent. In the vast majority of states, the ratio is well below 100 per cent. Bank policy is controlled by the Central bank, not the state government. Andhra Pradesh has expanded the economic opportunities available to farmers (through additional irrigation and rural infrastructure), who in turn have applied for and got far more credit than farmers in other states.

Our *Economic Freedom of the States of India 2011* index has attempted to follow the methodology used by the Fraser Institute in its annual *Economic Freedom of the World* reports. However, many key indicators used in *Freedom of the World* cannot be used by us since key policies (exchange rates, monetary policy fiscal policy, and foreign investment rules) are determined by national governments, not state governments. For this reason, it is useful to also collect other indicators of economic freedom. Data limitations are a hurdle, but the World Bank and International Finance Corporation (IFC) have been producing a *Doing Business* series of studies, which look at the relative ease of doing business in various countries and sub-national entities (like cities or state governments). These sub-national indicators are not available in a time series: we have only snapshots. Still, by looking at the relative rankings of different states and cities in the snapshots, we can get some idea of relative economic freedom in different Indian states.

At the national level, let it be said immediately, India is not a good place to do business. *Doing Business 2010* places India at a lowly 133<sup>rd</sup> out of 183 countries. India is in fact the worst place for business in South Asia, ranking well below Pakistan (85<sup>th</sup>), Sri Lanka (105<sup>th</sup>), Bangladesh (119<sup>th</sup>) and Nepal (123<sup>rd</sup>). China's rank is 89<sup>th</sup>.

An earlier study, *Doing Business 2007*, notes that the pace of reform has been slower in South Asia than in almost any other region (see Table 3.7).

TABLE 3.7

## The Top 10 Global Reformers and South Asia

Economy	Starting a Business	Dealing with Licences	Employing Workers	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
Georgia	✓	✓	✓		✓			✓	✓	
Romania		✓	✓		✓	✓		✓		✓
Mexico	✓					✓				
China	✓				✓	✓	✓	✓		
Peru	✓				✓	✓			✓	x
France		✓			✓			✓	✓	✓
Croatia	✓			✓					✓	
Guatemala	✓	✓		✓						
Ghana				✓			✓	✓		
Tanzania	✓			✓		✓		✓		
<b>South Asia Region</b>										
Afghanistan										
Bangladesh										
Bhutan										
India	✓				✓	✓	✓	✓		
Maldives			x							
Nepal										
Pakistan							✓	✓		
Sri Lanka							x			

Note: Economies are ranked on the number and impact of reforms. First, *Doing Business* selects the economies that reformed in three or more of the *Doing Business* topics. Second, it ranks their economies on the improvement in rank in the ease of doing business from the previous year. The larger the improvement, the higher the ranking as a reformer. "X" indicates negative reform.

Source: *Doing Business* database.

The above table compares the top 10 reformers globally with those in India. Between January 2005 and April 2006, 213 business regulation reforms were introduced in 113 countries. These reforms simplified regulations, strengthened property rights, eased tax burdens, improved access to credit, and reduced the cost of exporting and importing. South Asia had less reform than any other region in the world. However, for what it was worth, India was the leading South Asian reformer in this period. It cut the time to start a business from 71 to 35 days. It reduced the corporate income tax rate from 36.59 per cent to 33.66 per cent. A Supreme Court decision made it easier for banks to seize the collateral of defaulting borrowers. New risk management procedures in customs lowered import clearance time by 2 days and exports by 9 days. Reforms in stock exchange rules toughened protection for investors.

While India may have reformed faster in this period, it remained a much worse place for doing business than its neighbours. It ranked well

below neighbouring South Asian countries on many counts. The details are given in Table 3.8 below.

Country Ranking (1-175)	Starting a Business	Dealing with Licences	Employing Workers	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
53 Maldives	31	9	5	172	143	60	1	91	83	114
74 Pakistan	54	89	126	68	65	19	140	98	163	46
88 Bangladesh	68	67	75	167	48	15	72	134	174	93
89 Sri Lanka	44	71	98	125	101	60	157	99	90	59
100 Nepal	49	127	150	25	101	60	88	136	105	95
134 India	88	155	112	110	65	33	158	139	173	133
138 Bhutan	79	145	116	41	159	118	68	150	56	151
162 Afghanistan	17	-	74	169	174	173	30	152	165	151

Source: *Doing Business* database.

*Doing Business in India 2009* was the first country-specific report in the series focussing on the sub-national level. It ranked 17 cities—all of which were state capitals—on seven indicators relating to ease of business and economic freedom. These are: (a) starting a business, (b) dealing with construction permits, (c) registering property, (d) exports and imports, (e) paying taxes, (f) enforcing contracts, and (g) closing a business.

The overall ranking placed Hyderabad 2<sup>nd</sup> out of 17 cities (see Table 3.9). Mumbai (formerly called Bombay), India's commercial capital, comes

1. Ludhiana, Punjab (easiest)	10. Mumbai, Maharashtra
2. Hyderabad, Andhra Pradesh	11. Indore, Madhya Pradesh
3. Bhubaneswar, Orissa	12. Noida, Uttar Pradesh
4. Gurgaon, Haryana	13. Bengaluru, Karnataka
5. Ahmedabad, Gujarat	14. Patna, Bihar
6. New Delhi, Delhi	15. Chennai, Tamil Nadu
7. Jaipur, Rajasthan	16. Kochi, Kerala
8. Guwahati, Assam	17. Kolkata, West Bengal
9. Ranchi, Jharkhand	

Note: The ease of doing business is calculated as the ranking on the simple average of city percentile rankings on each of the 7 topics covered. The ranking on each topic is the simple average of the percentile rankings on its component indicators.

Source: *Doing Business* database.



only 10<sup>th</sup> in the list. India's information technology capital, Bengaluru (formerly called Bangalore) ranks even lower at 13<sup>th</sup>. The top city is Ludhiana, which is not among the major industrial or service hubs.

The first two indicators used by *Doing Business in India 2009* are issues in starting a business, and dealing with construction permits (see Table 3.10). Between 2007 and 2009 Hyderabad had local reforms in cutting the time to start a business and construction permits. It introduced a single window system for construction permits, speeding up approvals. It introduced single point access for paying value added tax (VAT) and registering professional tax.

Hyderabad ranked 4<sup>th</sup> in ease of starting a business as well as of giving construction permits. On an average it took 33 days to start a new business, and the associated cost was 41.6 per cent of per capita national income. This was very far behind the world leader, New Zealand, where starting a business takes just one day and costs just 0.4 per cent of per capita national income. In China, it takes 40 days, longer than the average of 34 days in the 17 Indian cities.

For construction permits, Hyderabad had 16 procedures and took on an average 80 days. This might not seem too fast. But the OECD average is as high as 162 days, so Hyderabad looks pretty good in comparison. Hyderabad and Bengaluru process applications within 30 days. The speed of clearance is offset by high costs, amounting to 1,314.2 per cent of per capita income in Hyderabad compared with just 204.4 per cent in Patna, Bihar. However, cities with low official payments often require high 'under-the-table' payment (or speed money, as it is called), so official data can be misleading. The computerisation of building permit process is most advanced in four cities—Hyderabad, Ahmedabad, Bengaluru and Chennai (formerly called Madras).

The third and fourth indicators relate to property registration and export-import speed. Hyderabad ranks a lowly 9<sup>th</sup> in property registration (see Table 3.11). It takes 37 days for property registration, less than in Kochi (27 days) but far faster than in Kolkata (107 days). The world leader is Saudi Arabia, where registration is free and takes just 2 days. The cost of registration in Hyderabad is 10.5 per cent, well below the 15.5 per cent in Kochi but very high by international standards.

In speed of clearing exports and imports, Hyderabad ranks only 132<sup>nd</sup> out of 17 cities. It takes 26 days to clear exports and 23 days to clear imports. This is grossly inefficient compared with Bhubaneswar which takes 17 days and 16 days respectively. The absolute cost to import one container is as high as \$1,084 in Hyderabad, against just \$480 in Kochi.

**TABLE 3.10**  
*Ease of Starting Businesses and Construction Permits*

	Starting Business					Dealing with Construction Permits			
	Procedures (Number)	Time (Days)	Cost (% of GNI per Capita)	Paid-in Minimum Capital (% of GNI per Capita)	Ease of Starting a Business (Rank)	Procedures (Number)	Time (Days)	Cost (% of GNI per Capita)	Ease of Dealing with Construction Permits (Rank)
Ahmedabad (Gujarat)	13	35	46.3	0	14	15	144	746.1	4
Bengaluru (Karnataka)	13	40	64.7	0	17	15	97	1,158.7	1
Bhubaneswar (Orissa)	12	37	40.0	0	5	18	149	294.7	8
Chennai (Tamil Nadu)	13	34	40.3	0	10	15	143	831.7	3
Gurgaon (Haryana)	12	33	50.7	0	9	19	110	298.0	2
Guwahati (Assam)	13	38	40.5	0	13	16	179	353.1	12
Hyderabad (Andhra Pradesh)	12	33	41.6	0	4	16	80	1,314.2	4
Indore (Madhya Pradesh)	13	32	43.8	0	8	21	163	205.2	13
Jaipur (Rajasthan)	12	31	45.5	0	3	19	151	414.6	13
Kochi (Kerala)	13	41	47.2	0	16	22	224	233.8	15
Kolkata (West Bengal)	13	36	39.6	0	10	27	258	2,549.6	16
Ludhiana (Punjab)	12	33	48.0	0	7	17	143	622.9	7
Mumbai (Maharashtra)	13	30	70.9	0	12	37	200	2,717.7	17
New Delhi (Delhi)	11	32	41.1	0	1	19	144	256.0	4
Noida (Uttar Pradesh)	12	30	52.5	0	6	19	139	696.1	9
Patna (Bihar)	11	37	38.6	0	2	19	185	204.4	9
Ranchi (Jharkhand)	12	38	51.5	0	15	19	170	226.4	9

Note: GNI - Gross National Income.

Source: *Doing Business in India 2009*.

The fifth and sixth indicators used by *Doing Business in India 2009* are tax payments and contract enforcement. Hyderabad ranks low in tax payments (13<sup>th</sup> rank) but has number 1 rank in enforcing contracts (see Table 3.12).

A multiplicity of tax payments for various purposes, often required monthly, means that businesses in Indian cities pay taxes from 59 times a year in Ludhiana to 78 times in Hyderabad, which is the worst in this

TABLE 3.11

## Property Registration and Ease of Export/Import

	Registering Property						Trading across Borders				
	Procedures (Number)	Time (Days)	Cost (% of Property Value)	Ease of Registering Property (Rank)	Documents for Export (Number)	Time for Export (Days)	Cost to Export (US\$ per Container)	Documents for Import (Number)	Time for Import (Days)	Cost to Import (US\$ per Container)	Ease of Trading (Rank)
Ahmedabad (Gujarat)	5	42	7.0	2	8	17	946	9	18	978	3
Bengaluru (Karnataka)	5	28	9.3	4	8	25	783	9	25	1,024	9
Bhubaneswar (Orissa)	6	126	7.5	17	8	17	834	9	16	833	1
Chennai (Tamil Nadu)	7	48	10.1	16	8	25	541	9	19	593	2
Gurgaon (Haryana)	4	26	7.7	1	8	25	1,077	9	28	1,184	17
Guwahati (Assam)	4	84	15.4	14	8	22	713	9	28	794	7
Hyderabad (Andhra Pradesh)	5	37	10.5	9	8	26	1,012	9	23	1,084	13
Indore (Madhya Pradesh)	5	39	10.7	10	8	21	912	9	35	981	11
Jaipur (Rajasthan)	5	24	9.9	3	8	22	1,289	9	22	1,384	14
Kochi (Kerala)	4	27	15.5	7	8	28	432	9	21	480	5
Kolkata (West Bengal)	5	107	7.9	13	8	20	644	9	31	710	6
Ludhiana (Punjab)	4	67	10.6	11	8	21	1,105	9	25	1,154	12
Mumbai (Maharashtra)	5	44	7.4	5	8	17	945	9	21	960	3
New Delhi (Delhi)	5	55	7.5	7	8	25	1,077	9	28	1,158	14
Noida (Uttar Pradesh)	5	37	25.4	12	8	25	1,077	9	27	1,187	16
Patna (Bihar)	5	87	12.4	15	8	29	941	9	32	985	10
Ranchi (Jharkhand)	5	56	5.4	6	8	21	678	9	36	717	8

Source: Doing Business in India 2009.

regard. The ratio of taxes to profit is similar in most of the 17 cities, ranging from 66.5 per cent to 70.3 per cent of profit. In time taken for payments, Hyderabad is second fastest at 236 hours, and it has the shortest ratio of hours per payment. So, while it demands the largest number of payments, it compensates to a fair extent with higher speed.

Enforcing contracts is an agonising and lengthy process. Hyderabad comes 4<sup>th</sup> in time taken to enforce a contract, with 770 days. This is slower than in Guwahati (600 days) but much faster than in Mumbai

TABLE 3.12

## Contract Enforcement and Tax Payments

	Paying Taxes				Enforcing Contracts			
	Payments (Number)	Time (Hours)	Total Tax Rate (% Profit)	Ease of Closing a Business (Rank)	Procedures (Number)	Time (Days)	Cost (% of Debt)	Ease of Enforcing Contracts (Rank)
Ahmedabad (Gujarat)	75	261	69.0	11	46	1,295	30.9	16
Bengaluru (Karnataka)	59	291	70.3	12	46	1,058	32.5	15
Bhubaneswar (Orissa)	63	287	68.2	9	46	735	25.2	5
Chennai (Tamil Nadu)	68	292	70.0	17	46	877	25.3	7
Gurgaon (Haryana)	62	288	67.0	7	46	1,163	31.3	14
Guwahati (Assam)	62	278	67.4	6	46	600	22.5	2
Hyderabad (Andhra Pradesh)	78	236	69.4	13	46	770	17.8	1
Indore (Madhya Pradesh)	64	240	69.6	10	46	990	26.3	10
Jaipur (Rajasthan)	60	233	67.7	2	46	1,033	18.6	7
Kochi (Kerala)	76	263	69.1	14	46	705	30.2	6
Kolkata (West Bengal)	68	303	69.1	16	46	1,183	26.9	13
Ludhiana (Punjab)	59	255	67.6	1	46	862	20.0	4
Mumbai (Maharashtra)	59	271	68.5	4	46	1,420	39.6	17
New Delhi (Delhi)	60	277	68.5	7	46	900	33.8	12
Noida (Uttar Pradesh)	59	278	66.5	2	46	970	24.0	7
Patna (Bihar)	64	405	68.4	15	46	792	17.0	2
Ranchi (Jharkhand)	63	271	67.0	4	46	985	30.6	11

Source: *Doing Business in India 2009*.

(1,420 days). As regards the cost of enforcing a debt, Hyderabad comes 2<sup>nd</sup> among 17 cities, with its cost being 17.8 per cent of the debt. India has only 14 judges per million people compared with 51 in the UK, 75 in Canada and 107 in the USA. Unsurprisingly, India's best city in contract enforcement would rank 105 out of 181 countries on the *Doing Business* list.

The seventh indicator relates to closing a business (see Table 3.13 below). India's performance is truly ghastly on this score. Across its 17 cities, the average time for an insolvency case is 7.9 years, and the recovery

TABLE 3.13

*Ease of Closing Businesses*

	<i>Closing a Business</i>			<i>Ease of Closing a Business (Rank)</i>
	<i>Time (Years)</i>	<i>Cost (% of Estate)</i>	<i>Recovery Rate (Cents on the Dollar)</i>	
Ahmedabad (Gujarat)	6.8	10	15.0	4
Bengaluru (Karnataka)	7.3	10	14.1	8
Bhubaneswar (Orissa)	7.5	7	15.0	5
Chennai (Tamil Nadu)	7.5	10	13.8	10
Gurgaon (Haryana)	7	10	14.7	6
Guwahati (Assam)	8.3	7	13.5	12
Hyderabad (Andhra Pradesh)	7	7	15.9	1
Indore (Madhya Pradesh)	8	7	14.0	9
Jaipur (Rajasthan)	9.1	7	12.3	14
Kochi (Kerala)	7.5	10	13.8	10
Kolkata (West Bengal)	10.8	10	9.1	17
Ludhiana (Punjab)	7.3	7	15.3	2
Mumbai (Maharashtra)	7	9	15.1	3
New Delhi (Delhi)	7	10	14.7	6
Noida (Uttar Pradesh)	8.7	10	11.9	16
Patna (Bihar)	9.3	7	12.0	15
Ranchi (Jharkhand)	8.5	7	13.2	13

Source: *Doing Business in India 2009*.

rate of creditors is just 13.7 per cent. In the OECD the average time taken is 1.7 years, and creditors recover 68.6 per cent of their dues. Japan is the world's best performer with a 92.5 per cent recovery rate. The cost of an insolvency process is typically 8.6 per cent of the estate value in the 17 Indian cities, which is comparable with the OECD average of 8.4 per cent.

Of the 17 Indian cities, Hyderabad has the highest recovery rate of 15.9 per cent, while Kolkata comes last with 9.1 per cent. The process takes 7 years in Hyderabad and costs 7 per cent of the estate value, and on these two parameters too, Hyderabad is the best in India. Yet it has a very long way to go.

The seven parameters of *Doing Business in India 2009* provide evidence supporting some of the conclusions of our own study. Another piece of supporting evidence comes from a separate study on the *Competitiveness of Indian States*, devised by the Institute for Competitiveness. This broadly follows the approach of the *Global Competitiveness Report* of the World Economic Forum (WEF), which identifies hurdles in the way of freedom of business and economic growth,

and so has a significant overlap with the *Economic Freedom of the World* report. Andhra Pradesh has improved its competitiveness considerably between 2009 and 2010 (see Table 3.14). It ranked 6<sup>th</sup> out of 27 major states in 2009. In 2010 it stood 5<sup>th</sup>. This does not capture the full extent of improvement. In 2010, two small states, Delhi and Goa, had been added to the list, and were close to the top. Excluding these new entrants, the ranking of Andhra Pradesh shot up from 6<sup>th</sup> in 2009 to 3<sup>rd</sup> in 2010 in terms of factor conditions. It overtook Gujarat, Punjab and Karnataka, which had ranked above it the previous year.

TABLE 3.14

## Economic Competitiveness

Rank 2010	Rank 2009	States	Compe. Score	GDP Per Capita (Rs.)#	Population (In '000s)	Factor Conditions		Demand Conditions		Strategic Context		Supporting Conditions	
						Score	Rank	Score	Rank	Score	Rank	Score	Rank
1	NR	Delhi	84.98	65,156*	16,760*	58.35	1	82.90	1	62.71	1	56.37	13
2	1	Maharashtra	59.53	38,785*	107,321*	54.99	2	66.18	2	53.10	4	65.56	3
3	NR	Goa	56.87	70,329*	1,568*	45.54	6	62.26	3	58.88	2	67.96	1
4	2	Tamil Nadu	56.35	34,417	66,386	48.60	4	59.32	9	56.40	3	66.17	2
5	6	Andhra Pradesh	53.92	30,452	82,858	50.64	3	57.01	13	49.41	7	60.30	8
6	3	Gujarat	53.45	37,954*	56,298*	43.39	9	61.79	5	51.50	5	62.57	5
7	4	Punjab	53.08	36,947	27,990	46.01	5	61.35	6	51.19	6	57.03	12
8	5	Karnataka	52.25	31,305	57,927	44.30	8	60.00	8	48.35	8	60.39	7
9	7	Haryana	51.28	46,077	24,425	42.24	13	61.01	7	47.10	9	59.12	9
10	8	Himachal Pradesh	49.70	36,166*	6,862*	42.65	12	56.46	15	42.25	12	61.06	6
11	10	Kerala	49.24	39,815	33,958	43.16	10	55.67	16	46.07	10	55.00	16
12	14	Uttarakhand	48.91	38,671	9,305**	42.83	11	58.20	11	43.15	11	53.67	19
13	9	Uttar Pradesh	48.47	14,083	1,92,325	41.76	14	62.13	4	39.80	17	51.81	24
14	11	Rajasthan	47.50	21,553	65,200	40.47	17	59.11	10	40.58	14	52.21	22
15	13	West Bengal	47.14	25,410*	85,768**	39.98	18	57.26	12	41.33	13	52.82	21
16	12	Madhya Pradesh	46.99	15,162*	68,266*	41.11	15	56.63	14	39.28	19	52.94	20
17	15	Orissa	44.98	19,591	40,024	40.58	16	50.48	20	38.94	20	51.83	23
18	17	Meghalaya	44.11	25,349	2,548	37.49	21	49.76	21	37.33	25	55.39	15
19	16	Assam	44.01	17,977	29,660	38.15	19	51.74	18	37.99	23	50.65	26
20	21	Sikkim	43.10	29,506	593*	45.07	7	31.86	28	31.62	29	65.19	4
21	18	Bihar	42.85	10,415	94,474	37.53	20	50.82	19	37.11	26	47.94	29
22	19	Jharkhand	42.47	17,956	30,438	33.03	29	52.43	17	40.25	15	48.77	28
23	20	Chhattisgarh	41.99	22,359	24,100	34.21	27	49.58	22	38.70	21	49.40	27
24	22	Arunachal Pradesh	40.49	25,110	1,206	36.79	22	32.09	25	39.83	16	58.13	10
25	24	Tripura	39.49	24,034*	3,474*	36.33	25	31.86	27	39.74	18	54.31	18
26	27	Jammu & Kashmir	39.03	20,604*	11,192*	36.36	23	33.33	23	38.57	22	51.29	25
27	23	Manipur	38.94	18,347	2,619*	34.51	26	32.00	26	37.01	27	57.27	11
28	25	Mizoram	38.28	23,174	1,077	36.35	24	30.92	29	33.37	28	55.79	14
29	26	Nagaland	38.23	18,490**	2,623**	33.51	28	32.16	24	37.39	24	54.90	17

Note: NR: Not ranked Population and GDP as on 31 March 2009; \* As on 31 March 2008; \*\* As on 31 March 2007; and # At constant price (base 1999-2000).

Source: Centre for Monitoring Indian Economy (CMIE), Institute for Competitiveness.

Finally, a recent independent study on labour conditions—the *India Labour Report* (2009)—ranks Andhra Pradesh as best in India in 2009 in its total labour system (see Table 3.15). This constitutes a big improvement from the state’s 8<sup>th</sup> position in 1995 and 6<sup>th</sup> position in 2005, and the improvement since 2005 is especially notable. This study considers three parameters. The first is the demand for labour, measured in an employment index. The second is the supply of labour, measured by an index of employability. The third is the labour law environment, which includes the flexibility of regulations and their actual application. Labour regulations are restrictive everywhere but are not quite as oppressive in some states as others. Andhra Pradesh ranks 2<sup>nd</sup> in India in employment demand, a sign that a booming economy is creating a demand for jobs. The state comes 3<sup>rd</sup> in employability (labour supply), showing that its educational and skill-creating system is producing the sort of populace whom the market wants. And the state comes 2<sup>nd</sup> again in its labour law environment.<sup>11</sup> Conceptual objections to these measures have been mentioned by some analysts, but the overall conclusions of the study are plausible.<sup>12</sup>

Much has been written about India reaping a demographic dividend, because of the rapid expansion of the share of its workforce in total population. But in many states like Bihar and Uttar Pradesh, low literacy and poor skills mean there is a terrible mismatch between what the market wants and what it gets. Andhra Pradesh appears to have engineered the best balance of labour supply and demand among Indian states, along with some improvements in labour regulations and enforcement. Thus buttresses its claims to have improved economic freedom.

In sum, our study finds that Andhra Pradesh has been the Indian state that improved economic freedom most between 2005 and 2009. Its improvement was most marked in relation to business and labour regulation. Apart from looking at the standard indicators used in our annual studies, we have examined the state’s success in curbing the Maoist menace with very positive outcomes. We have also shown how the state’s reputation for focussing on freebies and subsidies to win elections is a misconception: revenue spending as a share of GSDP actually halved. The real secret of the state’s success was that it used public investment and the business climate to improve economic opportunities and freedom of choice, and this in turn yielded a revenue bonanza that helped expand welfare measures. Finally, we have found much supplementary evidence from other sources—the *Doing Business* series of the World Bank/IFC, the

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11. Teamlease Indicus *India Labour Report* (2009). [www.teamlease.com](http://www.teamlease.com)

12. Acharya (2010).

TABLE 3.15

## Ranking of States by Labour Ecosystem

States	Labour Ecosystem Index Rank			Rank by Component Indices (2009)		
	2009	2005	1995	Employment (Demand)	Employability (Supply)	Labour Law
Andhra Pradesh	1	6	8	2	3	2
Karnataka	2	3	2	10	1	3
Maharashtra	3	5	4	13	7	1
Delhi	4	1	1	1	2	8
Gujarat	5	2	3	6	4	4
Kerala	6	11	9	5	6	10
Tamil Nadu	7	4	7	7	8	6
Haryana	8	12	11	12	12	7
Rajasthan	9	9	13	3	13	11
Goa	10	7	5	14	5	9
Punjab	11	8	12	9	11	12
Himachal Pradesh	12	10	14	4	16	13
Madhya Pradesh	13	13	6	16	17	5
Orissa	14	14	10	15	15	14
West Bengal	15	15	15	8	10	19
Uttar Pradesh	16	17	17	18	14	15
Bihar	17	18	19	17	9	17
Assam	18	16	16	11	18	16
Jammu & Kashmir	19	19	18	19	19	18

Source: India Labour Report (2009). [www.teamlease.com](http://www.teamlease.com)

*Competitiveness of Indian States* series, and the *India Labour Report* (2009)—to buttress our own positive conclusions about the performance of the state. However, several caveats are in order too. India ranks a lowly 133<sup>rd</sup> out of 183 countries in *Doing Business 2010*, and Hyderabad does badly even within this low-grade Indian subset on some indicators. Clearly all Indian states—including Andhra Pradesh—are, by global standards, not good places to do business. The welfare schemes of the state lead to many perverse effects (like free power; encouraging over-pumping of scarce groundwater), and are also dogged by corruption and waste. Its legal processes remain very weak despite some recent improvement. So, while Andhra Pradesh has moved up the Indian rankings in the last four years, it still has some way to go.





# Appendices

## APPENDIX I

### Variables and Methodology

#### Description of Variables used for Economic Freedom of the States of India 2011

Normalised Variables	Variables	Units	Source
<b>Area 1: Size of government: expenditures, taxes and enterprises</b>			
GSDP/revenue expenditure	GSDP (1999-2000 prices)	Rs. 10 million	CSO & estimates
	Revenue expenditure	Rs. 10 million	RBI, State budgets
% of GSDP accounted for by public administration	% of GSDP accounted for by public administration	%	CSO
Population/subsidy on power for domestic consumers	Population	Number	Census 2001
	Subsidy on power for domestic consumers	Rs. 10 million	Ministry of Power
Total organised employment/government employment	Total employment in organised sector	in '000	Directorate General of Employment & Training, Ministry of Labour
	Total employment in government and quasi government institutions	in '000	Directorate General of Employment & Training, Ministry of Labour
GSDP constant prices/state taxes on income	GSDP (1999-2000 prices)	Rs. 10 million	CSO & estimates
	State revenues from income tax	Rs. '00,000	State finances, RBI
GSDP constant prices/State taxes on property and capital transactions	GSDP (1999-2000 prices)	Rs. 10 million	CSO & estimates
	State revenues from taxes on property and capital transactions	Rs. '00,000	State finances, RBI

contd...

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<i>Normalised Variables</i>	<i>Variables</i>	<i>Units</i>	<i>Source</i>
GSDP constant prices/ Taxes on commodities and services	GSDP (1999-2000 prices)	Rs. 10 million	CSO & estimates
	State revenues from taxes on commodities and services	Rs. '00,000	State finances, RBI
Stamp Duty Rate	Stamp Duty Rate	%	<a href="http://www.indiaproperties.com">www.indiaproperties.com</a>
State level public sector enterprises in which disinvestment process initiated or completed/ total SLPEs	Number of SLPEs where disinvestment process initiated or completed	Number	Dept. of Disinvestment, Ministry of Finance
	Total number of SLPEs	Number	Ministry of Disinvestment

**Area 2: Legal structure and security of property rights**

Total value of property recovered/value of property reported stolen	Total value of property recovered	Rs. '00,000	National Crime Records Bureau
	Total value of property reported stolen	Rs. '00,000	
Total number of posts in judiciary/vacant posts	Total judiciary posts sanctioned in district/ subordinate courts	Number	GoI
	Vacant posts of judicial officers in district/subordinate courts	Number	
Total cases/economic offences	Total incidence of crimes under Indian Penal Code (IPC)	Number	National Crime Records Bureau
	Economic offences (criminal breach of trust, cheating and counterfeiting)	Number	
Cases completed by police/total cases registered with police	Cases where investigation completed by police	Number	National Crime Records Bureau
	Total cases registered for investigation by police	Number	
Trials completed by courts/total cases for trial by courts	Total number of trials completed by courts	Number	National Crime Records Bureau
	Total number of cases awaiting or undergoing trial by courts	Number	
Total Cases/violent crimes	Total incidence of crimes under IPC	Number	National Crime Records Bureau
	Cases of murder, attempt to murder, culpable homicide not amounting to murder, rape, kidnapping and abduction, preparation and assembly for dacoity, robbery, riots, arson and dowry deaths	Number	

contd...

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Normalised Variables	Variables	Units	Source
<b>Area 5: Regulation of labour and business</b>			
Yearly average of daily wages for harvesting (males)/minimum notified wages	Yearly average of daily wages for harvesting (males)	Rs.	Labour Bureau, Ministry of labour and Employment, Govt. of India
	Minimum notified wages	Rs. per day	Wage Cell, Ministry of Labour and Employment, Govt. of India
Yearly average of daily wages for harvesting (females)/minimum notified wages	Yearly average of daily wages for harvesting (females)	Rs.	Labour Bureau, Ministry of labour and Employment, Govt. of India
	Minimum notified wages	Rs. per day	Wage Cell, Ministry of Labour and Employment, Govt. of India
Total number of industrial workers/man-days lost in strikes and lockouts	Total number of industrial workers	Number	Annual Survey of Industries Data, Central Statistical Organisation
	Man-days lost in strikes and lockouts	Number	Industrial Disputes in India, 2001, Ministry of Labour and Employment, Govt. of India
Minimum licence fee for traders	Minimum licence fee for traders (Rs. per annum)	Rs. per annum	Ministry of Agriculture, Govt. of India
Actual Industrial Entrepreneurs Memorandums/value of proposed IEMs	Actual value of IEMs that were implemented	Rs. 10 million	Secretariat for Industrial Assistance, Govt. of India
	Total value of proposed IEMs	Rs. 10 million	Secretariat for Industrial Assistance, Govt. of India
Met peak demand/ peak demand	Met peak demand for electricity	MW	Ministry of Power, Govt. of India
	Peak demand for	MW electricity	
Total cases registered for corruption/cases pending investigation	Total cases for investigation under prevention of corruption and related acts	Number	National Crime Records Bureau
	Cases pending investigation from previous year	Number	National Crime Records Bureau
Total cases registered for corruption/persons arrested for corruption	Total cases for investigation under prevention of corruption and related acts	Number	NCRB
	Persons arrested under prevention of corruption and related acts	Number	

## APPENDIX II

### *Detailed Methodology*

The Economic Freedom Index (EFI) has been calculated for 20 states of India. Ideally, all 28 states and 7 union territories should have been included; however, data unavailability prevented this. As a result only those states and union territories are included, for which data were available for most of the variables that are used to construct the index. No imputations were made.

Further, many variables that would have found a suitable place in this index could not be included as data were not available for many states. Eventually 21 variables covering diverse aspects of economic freedom in different areas were utilised to arrive at the composite freedom index. There were a few variables for which data were not available for some of the 20 states. However, since the indicator was essential for the credibility of the index, such indicators were retained.

There are many different ways of constructing a composite index. One way of doing this is to assign subjective weights to different variables. However, in order to ensure objectivity, this ranking refrains from such an exercise. No subjective weights have been used and as a result each variable is considered to be equally important.

The following steps were followed in constructing the index:

- Identifying the appropriate variables: The variables in the freedom index were chosen to enable a comprehensive view of economic freedom which could be obtained while working within the constraints of data availability.
- Normalising the variables: Indian states vary in geographical area, topography, social and economic milieu. Depending on the variable and what it aspires to measure, each variable has been appropriately 'normalised'.
- Comparability of data: Since data is collected at the state level, care has to be taken to ensure that the data are defined in the same way for different states and also that they are for the same time-point. Further, since the ranking exercise implies that higher values reflect better performance, appropriate ratios have been developed. Often this implied taking an inverse of a particular indicator or subtracting a percentage from 100.
- Creating an index of each variable: While the composite freedom index gives an overall view of freedom, it may be that while a state performs extremely well in certain indicators, its performance may not be as satisfactory in others. An index of each variable or indicator is also constructed, so that a ranking of the states is available for a detailed understanding of the situation of freedom. Details of the construction of individual indices are presented as follows:

- Creating a composite freedom index for each category: The simple arithmetic mean was used to calculate the category indices.
- Calculating a composite/overall index: This final step required all three category indices to be aggregated to arrive at a composite indicator of relative economic freedom for 20 states.

The last three steps in constructing the EFI are now explained in detail.

*Creating an index of each variable:* An index is obtained for each of the ratios as mentioned earlier. The following formula was used to obtain each of the indices:

$$I_{ij} = \frac{S_{ij} - \text{Min}(S_{1j}, S_{2j}, \dots, S_{20j})}{\text{Max}(S_{1j}, S_{2j}, \dots, S_{20j}) - \text{Min}(S_{1j}, S_{2j}, \dots, S_{20j})}$$

Where  $S_{ij}$  represents the value of ratio  $j$  for state  $i$ . The index is constructed for 20 states of India and therefore  $i$  ranges from 1 to 21. There are 21 ratios for which the indices have been constructed,  $j=1,2,\dots,21$ .  $I_{ij}$  is the index value that is derived for state  $i$  over ratio  $j$ . The index value lies between 0 to 1 for each ratio. The state corresponding to index value 0 can be interpreted as having the lowest level of economic freedom and the state with index value of 1 can be said to have the highest level of economic freedom relative to other states.

Note that the maximum and minimum values are the same as those used for earlier years, this ensures that the index values are comparable over time.

*Creating a composite index for each category:* Arithmetic mean was used to calculate the category index as follows:

$$C_{ik} = \frac{\sum_{j=1}^n I_{ijk}}{n}$$

Where  $C_{ik}$  is the category index of the  $i^{\text{th}}$  state for the  $k^{\text{th}}$  category over  $n$  indices within the category.

*Calculating a composite/overall index:* Once all the indices for the 24 ratios were obtained, a composite index was obtained using all these indices. An arithmetic mean of all the indices helped to arrive at the additive index. The formula used to calculate the composite index is as follows:

$$M_i = \frac{\sum_{k=1}^N C_{ik}}{N}$$

Where  $M_i$  is the additive index value for the  $i^{\text{th}}$  state over the  $N$  category indices of freedom. Here  $N$  is 3.

## APPENDIX III

*Mapping of Variables with Economic Freedom of the World*

EFW Categorisation

Variables at the State Level for India

**AREA 1: Size of government—expenditures, taxes and enterprises**

a) General government consumption spending as a percentage of total consumption	1.	Government revenue expenditure/gross state domestic product (GSDP)
	2.	Administrative GSDP/ total GSDP
b) Transfers and subsidies as percentage of GDP	3.	Subsidy on power for domestic consumers/ population
c) Government enterprises and investment as a percentage of GDP	4.	Govt. employment/total organised employment
	5.	Percentage of state level public sector enterprises (SLPEs) in which Disinvestment completed or initiated
d) Top marginal tax rate (and income threshold to which it applies)	6.	State taxes on income/GDP
	7.	State taxes on property and capital transaction/GDP
	8.	Taxes on commodities and services/GSDP
	9.	Stamp duty rate
i. Top marginal tax rate (excluding applicable payroll taxes)	Data not available—also many different types of state income taxes	
ii. Top marginal tax rate (including applicable payroll taxes)		

**AREA 2: Legal structure and security of property rights**

	10.	Total Value of property recovered/total value of property reported stolen
	11.	Vacant posts in judiciary as a ratio of total posts sanctioned
a) Judicial independence—the judiciary is independent and not subject to interference by the government or parties in disputes	Not Applicable	
b) Impartial court—a trusted legal framework exists for private businesses to challenge the legality of government actions or regulation		
c) Protection of intellectual property		
d) Military interference in the rule of law and the political process		
e) Integrity of the legal system	12.	Cases under economic offences/total cases
	13.	Per cent cases where trials were completed by courts
	14.	Per cent cases where investigations were completed by police
	15.	Violent crimes

**AREA 3: Access to sound money**

a) Average annual growth rate of money supply in the last 5 years minus average annual growth of real GDP in the last 10 years	Not applicable	
b) Standard inflation variability in the last 5 years		
c) Recent inflation rate	Inflation rate calculated on basis of GDP deflator	
d) Freedom to own foreign currency bank accounts domestically and abroad	Not applicable	

contd. ...

...contd...

<i>EFW Categorisation</i>	<i>Variables at the State Level for India</i>
<b>AREA 5: Regulation of labour and business</b>	
a Credit market regulations	Financial sector overseen by Central government, no state level differences
i) Ownership of banks—percentage of deposits held in privately owned banks	
ii) Competition—domestic banks face competition from foreign banks	
iii) Extension of credit—percentage of credit extended to private sector	
iv) Avoidance of interest rate controls and regulations that lead to negative real interest rates	
v) Interest rate controls—Interest rate controls on bank deposits and/or loans are freely determined by the market	
b Labour market regulations	
i) Impact of minimum wage—Minimum wage set by law has little impact on wage because it is too low or not obeyed	16. Average wage of unskilled workers/ minimum wages
ii) Hiring and firing practices—Hiring and firing practices of companies are determined by private contract	17. Man-days lost in strikes and lockouts/ Total number of industrial workers
iii) Share of labour force whose wages are set by centralised collective bargaining	18. Unorganised labour force as a ratio of organised labour force
iv) Unemployment benefits—the unemployment benefits system preserves the incentive to work	Not applicable
v) Use of conscripts to obtain military personnel	
c) Business regulations	
i) Price controls—extent to which businesses are free to set their own prices	
ii) Administrative controls and new business administrative procedures are an important obstacle to starting a new business	19. Number of special economic zones (no subsidies are given to units in SEZs, but tax breaks are given, regulations are also fewer and less intrusive in SEZs)
	20. Minimum Licence fee for traders
	21. Market fees charged by government run/ regulated market boards on commodities as per cent of estimated value of commodities
iii) Time with government bureaucracy—senior management spends a substantial amount of time dealing with government bureaucracy	22. Implementation rate of Industrial Entrepreneurs Memorandum (IEM denotes the intention to invest, but when there are bureaucratic or other delays the rate of implementation is lower)
iv) Starting a new business—starting a new business is generally easy	23. Power shortage as a percentage of total demand (power shortage exists either due to low investment on the part of the government or due to low levels of private sector generation)
v) Irregular payments—irregular, payments connected with import and export permits, business licences, exchange controls, tax assessments, police protection or loan applications are very rare	24. Cases pending investigation from the previous year of cases registered under prevention of corruption and related acts as a share of total cases registered under the same acts
	25. Persons arrested as a share of total cases being investigated under prevention of corruption and related acts



**APPENDIX IV**  
**DATA AND RESULTS**

**APPENDIX IV.1**

*State Ranks for All Areas: 2009*

<i>State</i>	<i>Rank 2009- Area 1</i>	<i>Rank 2009- Area 2</i>	<i>Rank 2009- Area 5</i>	<i>Overall Rank 2009</i>
Tamil Nadu	11	1	3	1
Gujarat	1	5	1	2
Andhra Pradesh	9	3	2	3
Haryana	3	7	7	4
Himachal Pradesh	10	8	5	5
Madhya Pradesh	17	2	11	6
Rajasthan	13	4	16	7
Jharkhand	2	15	14	8
Jammu & Kashmir	14	13	4	9
Kerala	8	12	13	10
Maharashtra	6	17	6	11
Punjab	5	11	18	12
Karnataka	16	10	8	13
Uttar Pradesh	18	9	10	14
West Bengal	4	19	12	15
Chhattisgarh	19	6	20	16
Orissa	15	16	9	17
Assam	7	18	17	18
Uttarakhand	20	14	15	19
Bihar	12	20	19	20

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**APPENDIX IV.2**
*State Ratings for All Areas: 2009*


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<i>State</i>	<i>Area 1: Size of Government— Expenditure, Taxes and Enterprises</i>	<i>Area 2: Legal Structure and Security of Property Rights</i>	<i>Area 5: Regulation of Labour and Business</i>	<i>Overall Average</i>
Tamil Nadu	0.473	0.90	0.41	0.593
Gujarat	0.693	0.54	0.49	0.574
Andhra Pradesh	0.486	0.56	0.48	0.509
Haryana	0.634	0.45	0.34	0.473
Himachal Pradesh	0.484	0.42	0.38	0.428
Madhya Pradesh	0.353	0.62	0.27	0.417
Rajasthan	0.440	0.54	0.22	0.401
Jharkhand	0.670	0.24	0.24	0.384
Jammu & Kashmir	0.430	0.32	0.39	0.379
Kerala	0.487	0.34	0.25	0.358
Maharashtra	0.531	0.19	0.35	0.356
Punjab	0.536	0.34	0.18	0.351
Karnataka	0.364	0.34	0.32	0.344
Uttar Pradesh	0.333	0.39	0.30	0.340
West Bengal	0.584	0.15	0.25	0.329
Chhattisgarh	0.316	0.52	0.14	0.326
Orissa	0.380	0.23	0.31	0.306
Assam	0.512	0.17	0.19	0.292
Uttarakhand	0.254	0.29	0.24	0.260
Bihar	0.442	0.11	0.15	0.233

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**APPENDIX IV.3**
*Comparison of State Ratings: 2005 and 2009*


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	2005				2009			
	Area 1	Area 2	Area 5	Overall	Area 1	Area 2	Area 5	Overall
Tamil Nadu	0.463	0.797	0.458	0.573	0.47	0.901	0.41	0.593
Gujarat	0.563	0.354	0.472	0.463	0.69	0.540	0.49	0.574
Andhra Pradesh	0.391	0.477	0.333	0.400	0.49	0.555	0.48	0.509
Haryana	0.503	0.582	0.323	0.469	0.63	0.446	0.34	0.473
Himachal Pradesh	0.576	0.506	0.364	0.482	0.48	0.421	0.38	0.428
Madhya Pradesh	0.387	0.629	0.455	0.490	0.35	0.624	0.27	0.417
Rajasthan	0.337	0.493	0.283	0.371	0.44	0.544	0.22	0.401
Jharkhand	0.559	0.186	0.451	0.399	0.67	0.240	0.24	0.384
Jammu & Kashmir	0.313	0.351	0.350	0.338	0.43	0.321	0.39	0.379
Kerala	0.509	0.354	0.278	0.381	0.49	0.340	0.25	0.358
Maharashtra	0.519	0.257	0.411	0.396	0.53	0.187	0.35	0.356
Punjab	0.493	0.424	0.302	0.406	0.54	0.341	0.18	0.351
Karnataka	0.382	0.448	0.237	0.356	0.36	0.344	0.32	0.344
Uttar Pradesh	0.452	0.412	0.185	0.350	0.33	0.390	0.30	0.340
West Bengal	0.524	0.200	0.198	0.307	0.58	0.148	0.25	0.329
Chhattisgarh	0.370	0.477	0.135	0.328	0.32	0.524	0.14	0.326
Orissa	0.321	0.365	0.429	0.372	0.38	0.230	0.31	0.306
Assam	0.408	0.143	0.338	0.296	0.51	0.175	0.19	0.292
Uttarakhand	0.389	0.279	0.309	0.326	0.25	0.287	0.24	0.260
Bihar	0.382	0.117	0.259	0.253	0.44	0.111	0.15	0.233

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**APPENDIX IV.4**
*Comparison of State Rankings: 2005 and 2009*


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States	2005				2009			
	Area 1	Area 2	Area 5	Overall	Area 1	Area 2	Area 5	Overall
Tamil Nadu	9	1	2	1	11	1	3	1
Gujarat	2	12	1	5	1	5	1	2
Andhra Pradesh	12	7	10	7	9	3	2	3
Haryana	7	3	11	4	3	7	7	4
Himachal Pradesh	1	4	7	3	10	8	5	5
Madhya Pradesh	14	2	3	2	17	2	11	6
Rajasthan	18	5	14	12	13	4	16	7
Jharkhand	3	18	4	8	2	15	14	8
Jammu & Kashmir	20	14	8	15	14	13	4	9
Kerala	6	13	15	10	8	12	13	10
Maharashtra	5	16	6	9	6	17	6	11
Punjab	8	9	13	6	5	11	18	12
Karnataka	15	8	17	13	16	10	8	13
Uttar Pradesh	10	10	19	14	18	9	10	14
West Bengal	4	17	18	18	4	19	12	15
Chhattisgarh	17	6	20	16	19	6	20	16
Orissa	19	11	5	11	15	16	9	17
Assam	11	19	9	19	7	18	17	18
Uttarakhand	13	15	12	17	20	14	15	19
Bihar	16	20	16	20	12	20	19	20

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