

Unravelling Bihar's 'Growth Miracle'

CHIRASHREE DAS GUPTA

It has now become almost conventional wisdom that Bihar under the National Democratic Alliance government has moved onto a new and higher growth path. An examination of the Central Statistical Organisation data for the decade since 1999-2000, however, reveals a cyclical move towards a higher growth continuum rather than any structural break under the NDA government. The recent growth path represents the resumption of a long, fluctuating and volatile movement towards a trade-led higher growth continuum that had started in 1994-95 but was interrupted by the impact of bifurcation of Bihar in 2001. A preliminary proposition is that the process of movement to a higher growth continuum since 1994-95 in Bihar follows from the diversified patterns of accumulation through the agency of new entrants to accumulation as an outcome of the social justice movement in Bihar. The evidence presented here belies the propositions around a "growth miracle" under the NDA government and indicates a politically fractious movement of Bihar's economy since bifurcation to a volatile higher growth continuum that is lopsided in three dimensions – regional, sectoral and social.

The author is grateful to Bakshi Amit Kumar Sinha, Rahbar Ali and Barna Ganguli for assistance and acknowledges with gratitude Pronay Sarkar's contributions towards research support for this paper. The author is also indebted to P P Ghosh and other peers who took time off to discuss or read and comment on various drafts. The views expressed in this article are those of the author and do not necessarily represent the views of ADRI or those whose comments and support the author is grateful for. The comments of an anonymous referee of this journal are also acknowledged.

Chirashree Das Gupta (chirashree@gmail.com) is at the Centre for Economic Policy and Public Finance, Asian Development Research Institute, Patna.

Introduction

An innocuous set of numbers released by the Central Statistical Organisation (CSO) in November 2009 on domestic product of states led to the "discovery" of the "growth miracle" of Bihar along with Uttarakhand, Orissa, Jharkhand and Chhattisgarh (Aiyar 2010a). A celebration ensued in the corporate media of the revelation that four of the eight poorest states of India had grown as fast as or faster than the all-India average in the last five years. From the Indian corporate media to the *New York Times* and the *Economist* (2010), Bihar's second position at 11.03¹ in the league table of state level growth in gross domestic product (GDP) between 2004-05 and 2008-09, became the focus of shaping opinion and perception about a state that had been written-off as a basket case for decades.

The immediate causal connections of the 11.03% growth derived from the CSO numbers as these were on November 2009 were attributed to growth in agriculture. With the evidence from data on agriculture running contrary to the assertion, a sequel followed soon which argued that Bihar grew due to *sushasan* (good governance) under the National Democratic Alliance (NDA) government. This government under Chief Minister Nitish Kumar has arguably freed Bihar from the "swaggering goons" during the Rashtriya Janata Dal's (RJD) period, and ushered in "peace and confidence" and feelings of safety exuded from varied constituencies that ranged from "women" to Bharti Airtel's Sunil Mittal. It was argued that "security plus road and telecom expansion have incubated a boom in small business and domestic construction" (Aiyar 2010b).

These are not new assertions though the CSO data led to refurbished versions by commentators such as Polgreen (2010). However, even before the CSO data was released, it was often argued that the NDA government under Nitish Kumar's chief ministerial tenure had fared reasonably well on the "growth front" with a paradigm shift in the quality of governance and law and order in the state, with efforts to improve the state's delivery of service (Kumar 2009). Some commentators while reinstating their faith in *sushasan* have also noted that the government has not been able to ensure that this development paradigm "percolate down to the masses" and emphasised the "deplorable human conditions and high incidence of poverty". This has led to introspection that "much needs to be done to create an inclusive growth model" (ibid). A different view on the question of inclusiveness of the economic growth process in Bihar comes from commentators who perceive the construction-led growth in recent years in Bihar as "class neutral" as it has "benefited all"; and "empowerment of the subaltern" has been already achieved. Commentators now attribute Bihar's "economic miracle" to

construction and development spending by the NDA government pointing to the “resurrection of the state” in Bihar since November 2005 (Gupta 2006a, b, 2010a, b).

1 Theoretical Chinks in the Armour

Such views are premised on twin-fold articles of faith. First, there is a belief that an economic “miracle” in Bihar through sushasan under the NDA government has taken place and it is only a matter of time for the “inclusion” agenda of the state to make the more deprived castes and classes of Bihar society the beneficiaries in this process of social and economic “resurgence”. Second, is a belief that the economic “miracle” is led by the successful resurrection of a service delivery state through adoption of “good governance”.

This conception of the State coalesced in the aftermath of the Asian financial crisis, out of the theoretical consensus under neoliberalism bridging pristine neoclassical economics and its dissenting, recalcitrant, sophisticated extensions – new institutional economics and new political economy. In this consensus, the role of the state is to create the right investment climate for private capital. It should protect private property rights, should subject society to the rule of law, should not intervene in the market and should provide key services to facilitate the market, and in certain extended versions, should be anti-corruption and pro-democracy (North 1990; Hall and Jones 1999; Kauffman, Kraay and Zoido-Lobaton 1999; Knack and Keefer 1995; Mauro 1995; Barro 1996).

The new political economy propositions on the role of the State soon found their way into the post-Washington Consensus on good governance adding sophistication to the earlier neoliberal world view in which the state simply was a barrier to the free-market. A series of assertions envisaging a transhistorical set of institutions collectively conceived as a “state” were dressed up in economic jargon and sophisticated modelling, adding a false veneer of “high technicality” and expertise to a flawed intellectual paradigm which lacked “historical warrant” (Byres 1998).

This theoretical consensus on the role of the State found a key formulation in the *World Development Report* (World Bank 1997). The focus was now on building “effective states” built on the logic of the market, in which the state is conceptualised as a set of institutions conceived on either behavioural or instrumentalist assumptions around *homoeconomicus*. The clarion call after the east Asian crisis was towards “matching the state’s role to its capability” (ibid: 3) and to “raise state capability by reinvigorating public institutions”. The analysis of this “capability enhancing strategy” was elaborated:

...It means subjecting state institutions to greater competition, to increase their efficiency. It means increasing the performance of state institutions, improving pay and incentives. And it means making the state more responsive to people’s needs, bringing government closer to the people through broader participation and decentralisation... (ibid: 3).

Khan (1995) points out that far from being a service providing institution, the State is an instrument in the hands of “contending classes, groups and political entrepreneurs” each attempting to capture resources for accumulation and steer the process of social transformation in specific directions. State institutions and policies are always the outcome of conflict and negotiation

between contending socio-political forces. In spite of a range of literature that pointed out the theoretical fallacy of propositions deriving from what Hirschman (1981) had described as *mono-economics*; and provided evidence of the process of accumulation mediated by market exchange and political power being closely associated with the specific nature of corruption and social power (Harriss-White 1996; Mukherjee Reed 2001), the structure and processes defining the “service delivery state” were formalised in the post-Washington Consensus on “good governance”. Through the convergence of so-called expertise on institution-building within the larger climes of such techno-managerial approaches that claimed to be “free of ideology” in the consensus on “inclusive growth”, the NDA government in Bihar under Nitish Kumar in 2005 developed the fundamental planks of its promises of “development with social justice” through sushasan that would lead to Bihar’s growth and development through the building of the institutions of the service delivery state.

The NDA government’s policy mapping since coming to power in Bihar reflects the approach derived from “mono-economics” in which economics consists of a number of simple yet “powerful” theorems of universal validity. This leads to the claim that there is *only one* economics.² The cosy internal consistency of the kind of abstractions bent on oversimplifying reality noted by Hirschman (op cit) made this economics attractive for techno-managerialism. Sushasan, deriving from this world view of oversimplified reality, encompassed a set of policies (ADRI 2007) classified as:

Minimum Function of the State: A functioning government through the introduction of initiatives in the fields of law and order, administrative reforms and fiscal management deriving from the fiscal conservatism of the “sound finance” paradigm (Bhaduri 2006; Patnaik 2006).

Growth: Stimulate growth in the agricultural and industrial sectors through the introduction of new agricultural and industrial policies geared towards “incentivising” private investment; facilitate human resource development through improvements in service delivery of health and education; and focus on nodal infrastructure development with emphasis on road and bridge construction.

This mix of policy tools was the state government’s solution to the “development gap” between Bihar and India (Government of Bihar 2008). “Catching up” on development expenditure was set out as a prime goal of sushasan. Thus stimulating growth through public spending, despite the techno-managerial policies deriving from mono-economics that informed the sushasan agenda, were conceived on neo-Keynesian precepts of increasing development expenditure to enable structural economic transformation, reflecting an inherent contradiction in the political goals and the policies adopted to achieve the same based on sophisticated versions of neoliberal tenets emerging from new institutional economics and new political economy. The contradiction lies in the conflict between the very different means and ends of the neoliberal service delivery state and the neo-Keynesian transformative state.

This paper, which is part of an ongoing study of growth and structural transformation in Bihar, takes on two questions that have been raised by sceptics about the “growth miracle”. First, are the numbers that reflect 11.03% growth between 2004-05 and 2008-09 in Bihar reliable? Second, to what extent is the growth process in Bihar attributable to the specific policies of *good governance* under the NDA government?

The rest of this paper is divided into three sections. Section 2 contextualises the controversies around the data³ on gross state domestic product (GSDP) in Bihar. Section 3 puts forward a brief refutation of the standard journalistic narratives on economic growth under sushasan in Bihar. Section 4 provides an alternative account of the political economy of growth in post-bifurcation Bihar.

2 The Controversies around Data

The first response to the media upsurge around the cso figures was in the form of scepticism about the reliability of the data on Bihar. The cso disowned responsibility for the data. The Chief Statistician of India, clarified to the media in January 2010 that the data showing 11.03% growth rate between 2004-05 and 2008-09 is based on information provided by the state government itself and “it would not be correct to attribute it to the cso... because cso does not provide state GDP data”... “This data is not authenticated by the cso”. The Government of Bihar, on the other hand, attributed the data to the cso.

The bulk of the data on state level income published by cso is produced by the state governments’ statistical bureaus using income originating concepts and methods which are in conformity with the all-India estimates of income in terms of concepts, methods and sources. The data for “supra-regional” sectors like railways, communication (public), banking and insurance services and central government (administration) are estimated by the cso as the economic activity in these sectors are spread over a number of states (EPW Research Foundation 2009). This process entails coordination, review and agreement of three sets of estimates (advanced, quick and provisional) for any given year leading to the finalisation of figures for each state by the cso and the state statistical bureaus. Appendix 1 (p 62) present the difference in the cso data as of April 2010 and those published in the *Bihar Economic Survey for 2009-10* for the period between 2005-06 and 2008-09. Both sets of figures were part of a work-in-progress for the respective organisations with the figures for 2007-08 being provisional estimates and those of 2008-09 being quick estimates. These generally tend to be revised at both ends till the final numbers are agreed upon for a specific year.

One set of numbers in these two different estimates which have significant differences pertain to the supra-regional sectors like communications, transport, railways, which are supposed to be estimated by the cso (Appendix 1). In these, the cso estimates are mostly larger than the state government estimates, and would reflect a larger impact of overall growth of the Indian economy in Bihar’s economic growth compared to the state government’s numbers. The second set of estimates in which there is significant differences pertains to the sector which has been at the centre of the debate on the growth miracle in Bihar – construction.

In this, the figure for 2007-08 published by the cso is significantly less than those in the state government’s *Economic Survey*, while the opposite is true for 2008-09. Third, the bulk of downward revision by the cso has been for the year 2006-07 which are not “estimate” but “final” figures; for this year, even after the downward revision of *actual* figures which indeed is rare in the cso data, the state has supposedly recorded 22% growth.

Thus, the “technical debate” between the two organisations entails difference in methods of estimation which converge with the political concerns over the very issues based on which sceptics have doubted the data. A few days after the publication of the *Economic Survey for Bihar 2009-10*, in March 2010, the Government of Bihar’s Directorate of Statistics and Evaluation released its revised numbers. The revised data is exactly identical to the cso figures of April 2010. Thus the difference between the two sets of numbers is no longer a matter for debate. However, contrary to official claims, this in itself does not imply that the reasons for the earlier differences were entirely a technical matter. The cso figures as on April 2010 show that Bihar grew at 12.8% between 2004-05 and 2008-09, as opposed to the 11.03% based on the November figures published by the cso. Thus the revised cso numbers of April 2010 and accepted by the state government is a win-win set of data for Government of Bihar for the period 2005-06 to 2008-09 in terms of overall growth figures and is higher than what had been estimated by the state government’s earlier publication.

Further, there are issues of data gaps and analytical lacuna in the standard methods of state-level income estimation in India. The most important lacuna stem from the absence of key datasets at the state level, e g, cost of cultivation studies, indices of industrial production, corporate sector statistics, very little data on local bodies and inadequate data for annual extrapolation on the basis of benchmark surveys for enterprises (National Statistical Commission 2001; EPW Research Foundation 2009). There are also broader issues such as underestimation of “informal” work (Husmanns 2004), underestimation of women’s contribution to the national product which apply to the entire institutional process of national income calculations (Lewenhak 1992), overestimation of contribution of “growth sectors” (Boyer 2004), significant variation among advanced, provisional, quick estimates and final figures (National Statistical Commission 2001; Kolli 2004). Given these qualifications, which apply to all income figures generated at both the state and the national level, there is no specific reason to assume that the errors and limitations in the data produced by the directorate of statistics and evaluation in Bihar would be any more or less than any other state in India.

However, some of the numbers in the 1999-2000 GSDP series for Bihar which formed the basis of the 11.03% growth are beyond credible explanation. The data on agriculture in Bihar reflects internal inconsistencies. The trend annual growth rates for the primary sector based on the downwardly revised cso data indicate spurts in growth between 2003-04 and 2004-05 mainly explained by a growth in agriculture which has been growing at more than 10% annually on an average from 2004-05 to 2008-09 (Table 2.1, p 53). Table 2.1 also indicates declining volatility of agricultural growth in the latter part of the decade, which we

will address in Section 4. If the income figures are correct, then growth in cultivation and livestock in Bihar in the larger part of this decade is comparable to Punjab and Haryana in the decade since 1965-66 (Sindhu 1991). But the crop-wise area and production figures for major crops in Bihar compiled by the directorate of statistics and evaluation and collected by the department of agriculture indicate a consistent decline in yield and production since 1999-2000 in most major crops including rice, wheat and maize – the three crops that account for 90% of the total foodgrain produce in Bihar (Table 2.2). How can income at constant prices grow consistently while there is decline in yield and production? Moreover, how can these numbers be reconciled with the political economy accounts of agrarian intensification based on increase in multi-cropping and rise in numbers of private tube wells? While some observers attribute productivity increase to fruit and vegetable production, the data published in Table 2.5 to Table 2.13 of the *Bihar Economic Survey 2009-10* (Government of Bihar 2010) does not bear this out. Also, such phenomenal growth would have been socially observable as had been the case in Punjab and Haryana. The district level data and social invisibility of such miraculous agricultural growth in a predominantly agrarian livelihood based economy calls to question the reliability of the income and production data on agriculture compiled by the directorate of statistics and evaluation in Bihar and collected by the department of agriculture which constitute the data published by cso.

The declines recorded in Table 2.2 would have been much higher had not the figures on yield and production for most crops for 2005-06 to 2007-08 been inexplicably high. Also, no data for

Table 2.1: Overview of Growth in Primary Sector (Bihar) (2000-01 to 2008-09)

	Period	Agriculture/ Animal Husbandry	Forestry/ Logging	Fishing	Total Primary
Trend annual growth rate (%)	2000-01 to 2004-05	2.4	4.0	10.2	-19.1
	2004-05 to 2008-09	10.5	4.1	2.9	-8.4
	2000-01 to 2008-09	3.4	4.1	5.3	3.5
Volatility (%)	2000-01 to 2004-05	343	29	111	325
	2004-05 to 2008-09	215	7	228	206
	2000-01 to 2008-09	304	21	137	289
Growth/decline in sector share of GSDP (%)	2000-01 to 2004-05	-1.93	-0.44	5.52	-1.54
	2004-05 to 2008-09	-4.04	-9.54	-10.56	-4.71
	2000-01 to 2008-09	-3.84	-3.15	-2.04	-3.73

Calculations on the basis of GSDP at Factor Cost (1999-2000 prices).
Source: CSO.

Table 2.2: Trend Growth/Decline (%): Major Crops in Bihar (2000-01 to 2007-08)

Crops	Yield	Production	Share in Total Area	Share in Total Production
Rice	-3	-4	-3	-14
Wheat	-1	-1	-2	-11
Maize	2	3	-1	-8
Coarse cereals	-1	-6	-6	-16
Pulses	-1	-4	-5	-15
Oilseeds	3	2	-3	-9
Fibre crops	5	3	-4	-9
Sugar cane	-2	0	1	-9
Vegetable*	8	39	22	17
Fruits*	1	3	-3	-13
Total	9	11	-	-

* Figures available only from 2005-06.

Figures in the tables are Log-linear Trend Growth Rates.

Source: Department of Agriculture, Government of Bihar.

fruits and vegetables are available before 2005-06 and as such the 39% growth in vegetable production reflects a low base for the first year data in the series. If indeed such a phenomenal techno-economic transformation in agriculture came about in 2005-06, then some positive transformation must have happened before 2005-06, i.e., before the NDA came to power on 22 November 2005. Such remarkable transformation under the earlier RJD government has never been regarded as a credible possibility by the same commentators who have accepted the figures unquestioningly. The period after 2005-06 also saw severe floods including the Kosi flood, which (by the state government's own documents) had led to severe silt deposits rendering large tracts of agricultural land uncultivable for four years since the flooding, apart from severe depletion in livestock (Government of Bihar 2008, 2009). More than 50% of Bihar's districts have also been officially declared as "drought" affected in two out of the four years after 2005-06 rule. Thus the figures on income, yield, cultivation and livestock since 2005-06 lack internal consistency and credible explanation. These anomalies explain both the retracting of the initial assertions on the role of agriculture in the growth miracle and silence on the issues raised around data.

The income data on other sectors compiled by the directorate of statistics and evaluation in Bihar and published by cso, beyond the broader issues of data gaps and under/overestimation do not have any such glaring year-to-year internal inconsistency. However, the year 2006-07 stands out as an outlier in officially recording 22% annual growth of GSDP explained by a 34% growth in agriculture, which is inconsistent for reasons argued above. The downward revision in the final numbers of the cso series and later accepted by the state government also reinforces the scepticism about the data for 2006-07. The other outlier in the series is 2001-02 when Bihar's economy plummeted due to the impact of the state's bifurcation. The first outlier is a statistical enigma, while the second reflects the factors that halted economic growth in Bihar due to the impact of bifurcation. Additionally, there are problems in the logical consistency of the data on the high growth sectors such as construction which is arguably driving this miraculous growth process (Nagaraj and Rahaman 2010). The problem is succinctly posed as a rhetorical question by Nagaraj (2010): Assuming the optimistic estimate to be correct how could construction with a less than 10% share in the GSDP push up growth by over 4 percentage points in three years?

There are other limitations too on how much can be read off and analysed from the cso income data on Bihar given that no comprehensive information on gross capital formation is available for Bihar (except for basic figures on the supra-regional sectors like railways, banking, etc., and preliminary estimates of the public sector) unlike states like Andhra Pradesh, Haryana, Madhya Pradesh, Maharashtra and Punjab where comprehensive figures are compiled at the state level for both the private and the public sector for at least since the 1993-94 series at the state level. Thus there are constraints on carrying out the standard growth accounting exercises of contemporary mainstream macroeconomics on Bihar.

If one were to go solely by the doubts expressed on the data or inadequacy of numbers, then the growth miracle could be dismissed without any further ado as only a debate of perceptions. But there are other considerations. First, the same premises of the inadequacy

of overall limits of growth statistics outlines earlier would qualify as enough ground for a dismissal of the entire research on post-independence state level growth, development and regional disparity in India based on official GDP estimates. Second, once certain corrections and qualifications are introduced, the official figures along with social observations and other methods do provide the basis for a political economy account of growth and development. As long as economic growth continues to be the epicentre of political contest and the economic growth process remains the cause of all social outcomes, one has to engage with the data. Identifying the inconsistencies around data and introducing qualifiers and suitable critique and corrections wherever possible, it is more important to examine Bihar's growth in the decade since bifurcation to establish if there is any connection between the tenure of the current NDA government and the rising growth figures that have polarised the debate on development in Bihar.

3 Bihar's Growth under Sushasan

Taking the limitations of the data into cognisance, the GDP figures of the last two decades when read in conjunction with other data on public finance and observations and evidence from field based research, do tell a story, but a story that is contrary to those assertions that have not bothered to consider this simple question: the NDA government came to power on 22 November 2005; as such, how can the growth acceleration that is indicative from 2002-03 and evident between 2003-04 and 2004-05 (Figures 3.1 and 3.2) from the CSO data be attributed to the NDA's policy interventions, which were announced only after November 2005 and operationalised only by the middle of 2006?

Figure 3.1: Annual Growth Rate of Bihar's GDP: Five-Yearly Trends

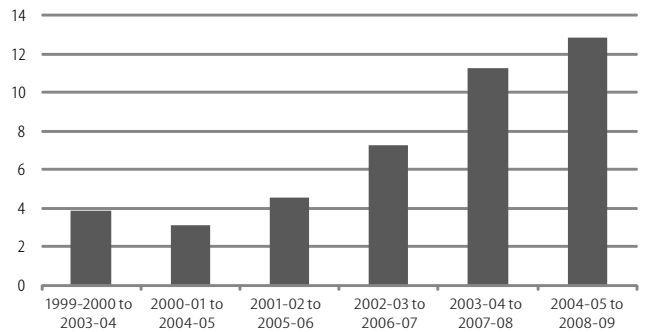


Figure 3.2: Annual Growth Rate of Bihar's GDP: Three-Yearly Trends

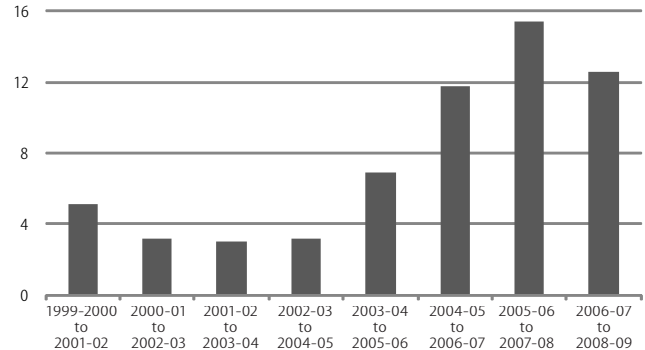


Table 3.1 shows the three standard measures of growth rates in Bihar for the decade since 1999-2000. However, given the volatility of Bihar's annual GDP which is presented in the next section, we go by the trend growth rates in every period for our analysis. The trend-growth rates in Table 3.1 illustrates that the myth around

Table 3.1: Overview of Growth Trends in Bihar (1999-2000 to 2008-09)

Sectors/Period	Growth Rate (%)								
	1999-2000 to 2008-09			1999-2000 to 2004-05			2004-05 to 2008-09		
	Trend Growth Rate	Compound Annual Growth Rate (Taking Terminal Years)	Average of Annual Growth Rates	Trend Growth Rate	Compound Annual Growth Rate (Taking Terminal Years)	Average of Annual Growth Rates	Trend Growth Rate	Compound Annual Growth Rate (Taking Terminal Years)	Average of Annual Growth Rates
1 Agriculture, forestry and fishing	3.5	5.3	7.1	2.8	5.2	7.4	6.5	5.5	8.1
1.1 Agriculture/animal husbandry	3.4	5.3	7.6	2.4	5.0	7.8	6.8	5.8	8.9
1.2 Forestry/logging	4.1	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.3
1.3 Fishing	5.3	6.5	6.9	10.2	9.5	9.9	2.4	3.0	2.6
2 Mining/quarrying	-8.9	-4.6	7.2	-19.1	-13.2	3.3	3.0	7.3	6.4
3 Manufacturing	3.3	2.6	3.0	-0.4	-0.5	-0.3	8.4	6.7	7.2
3.1 Registered	-3.7	-5.9	0.1	-6.5	-7.2	-4.1	1.6	-4.2	9.7
3.2 Unregistered	5.3	5.3	5.4	1.8	2.1	2.2	10.0	9.3	8.0
4 Electricity/water supply/gas	2.3	1.9	2.4	-3.0	-1.8	-1.2	6.8	6.9	6.2
5 Construction	26.5	24.0	25.8	12.2	13.1	14.2	38.0	39.1	40.7
6 Trade/hotel/restaurant	13.7	14.8	15.2	12.2	13.0	13.2	18.7	17.1	18.5
7 Transportation, storage/communication	8.7	9.3	9.6	2.6	3.4	3.5	17.7	17.2	15.4
7.1 Railways	1.9	3.5	4.2	-2.7	-1.0	-0.1	9.9	9.5	9.1
7.2 Other transport	2.7	3.2	3.3	3.2	3.6	3.6	3.1	2.8	3.3
7.3 Storage	1.9	2.5	2.9	1.0	1.1	1.7	3.3	4.2	3.6
7.4 Communication	23.1	21.1	22.3	11.0	10.2	10.8	36.2	36.2	32.0
8 Banking/insurance and real estate	6.9	7.8	7.9	4.9	5.3	5.4	11.3	11.0	9.9
8.1 Banking/insurance	8.7	10.2	10.7	5.2	5.9	6.4	16.6	15.9	13.9
8.2 Real estate, ownership of buildings and business services	5.1	5.2	5.2	4.6	4.7	4.7	5.8	5.8	5.6
9 Community, social and other services	3.4	4.0	4.1	1.9	2.3	2.4	5.7	6.2	5.4
9.1 Public administration	3.7	5.1	5.5	2.8	3.9	4.3	6.6	6.6	6.6
9.2 Other services	3.3	3.4	3.5	1.5	1.5	1.5	5.3	5.9	4.8
GSDP	7.5	8.5	8.9	4.4	5.6	6.0	12.8	12.2	12.4

Source: CSO.

the growth miracle under sushasan in Bihar is largely an *article of faith* at this stage as the period of the miracle is spread over the tailing years of the RJD government, the two time-periods when Bihar was under President's Rule since the fall of the RJD government, along with part of the period under the NDA's tenure.

Periodisation

The first causal assertion of economic growth being an outcome of sushasan defies all definitions of even linear time, not to mention historical time. The commentaries obfuscate the impact of economic policy by attributing everything that is "virtuous" in Bihar's economic growth process to the NDA government's sushasan agenda. This is very similar to the obfuscating literature emanating from neoliberal academia which made fallacious conclusions on the role of economic reforms by generalising its analysis over the historical period after 1947 to 1980 (Virmani 2003) or 1991 (Bhagwati 1998) depending on when the respective authors believe the state "got it right" in its moves towards deregulation and liberalisation (Byres 1998). Just as in the case of accounts of Indian economic transition, for the sake of historical specificity, we need to be clear about the exact domains, sequence and pace of interventions and non-interventions by the state in reviewing the impact of these policies in Bihar. A clear periodisation along with references to a longer historical period is necessary to cull out the core determinants of economic change in Bihar in the last decade.

Figures 3.1 and 3.2 illustrate that the growth acceleration in Bihar had preceded the NDA government at least by two to three years as the acceleration in growth in this decade starts from 2002-03 and becomes pronounced in the period between 2003-04 and 2005-06 (Figures 3.1 and 3.2). The first set of "reforms" under sushasan started from January 2006 with time-lags for design, adoption, implementation and impact. So, if one has to look for structural breaks due to policy change, it would be more appropriate to look for growth trends since 2007.

Going by the CSO data, Figure 3.2 further illustrates that the period between 2005-06 and 2007-08 was the highest period of economic growth in Bihar. The period 2006-07 to 2008-09 – the three full years of NDA rule in the CSO dataset, shows a decline compared to the period 2005-06 to 2007-08, even if we go by the extraordinarily high figures reported for 2006-07. Thus it is difficult to find any indication of a structural break after 2007. Economic growth trends do not map linearly to "regime change". With these qualifiers, the growth period under consideration does not come across as a miracle. It reflects a continuum of three-year systemic cycles in post-bifurcation Bihar since 2001-02, the year in which the state saw a sudden plummeting of its economy due to bifurcation. The years 2002-03, 2004-05 and 2006-07 are periods of more than 10% growth in this cycle even without any adjustment of the CSO data (Figure 3.3). If one takes into consideration that 2006-07 is an outlier (and the last two years in the series in the CSO are provisional and quick estimates and prone to change), one could conclude that there has been no major change under sushasan in the systemic cycle of economic growth in the last decade. In fact, between 1993-94 and 2000-01, Bihar's economy had grown faster than the Indian economy. In this period, while India as a whole had recorded a longer period average growth

rate of 5.75%, Bihar's economy had grown at 6.09% (EPW Research Foundation 2009, p 28, Table 8.2). This came to an abrupt halt due to the "economic shock" of bifurcation in 2000. Read with these patterns since 1994-95, the CSO data since 1993-94 till 2008-09 points to the possibility of a structural break in the early 1990s. Figure 3.3, can be interpreted as the resumption of a long fluctuating and volatile movement towards a higher growth continuum that had started since 1994-95 but was interrupted

Figure 3.3: Trend Annual Growth Rates: Bihar's GDP

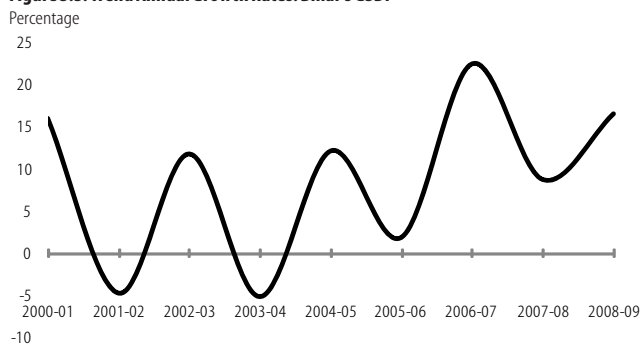
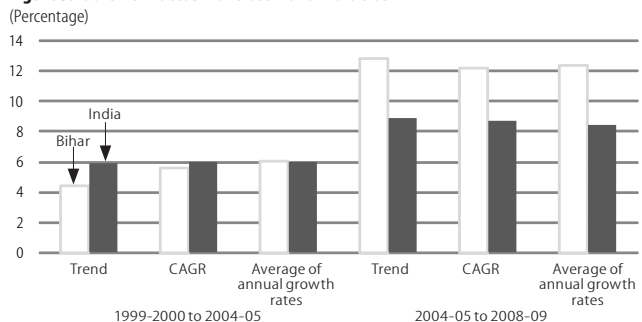


Figure 3.4: Growth Rate: Bihar's GDP and India's GDP



by the impact of bifurcation in 2001-02. Figure 3.4 further shows that Bihar had already caught up with the national average in 2004-05 and overtook it in the subsequent period.

Crime

While the myths associated with crime in Bihar since the 1990s has been an offshoot of the urban metropolitan manufacturing of opinion about the state, Bihar was never at the top of the state-wise crime league tables. The topping of the crime charts has historically been the achievement of the so-called high and middle income high growth performers (National Crime Records Bureau, various years). However, between 2001 and 2003, Bihar recorded the highest number of armed dacoities in India. Given the media hype around crime in Bihar before 2004-05 as reflected in Polgreen (2010), etc, which certainly is not borne out by either social experience or crime statistics, in most of the eulogistic commentaries restoration of law and order, derived from selective use of official crime statistics, has been cited as a prime reason for the high economic growth since 2004-05.

Table 3.2 (p 56) shows the trend growth rates of crime calculated by the author, based on official crime data published by the state CID in Bihar (Appendix II, p 62). It is clear from this data that certain kinds of crime are shown to have relatively declined in the official statistics since 2004. These are different types of dacoity, robbery, kidnapping for ransom and murder. In the same period,

burglary, rape and theft have increased in absolute terms. Total cognisable crimes after 2004 have increased (annual increase of 3.79% between 2004 and 2008) twice as fast compared to the period before (annual increase of 1.75% between 1998 and 2004). Apart from the selective use of crime statistics which do not reveal the overall faster rise of crime after 2004, the eulogistic commentaries have also failed to tell us why certain kinds of crimes are growing much faster in Bihar compared to others.

The limitations of using official crime records to establish hypothesis on law and order are inherently flawed as these do not take account of unreported crime, nor do the methods of official crime-recording leave much scope to address the reasons for non-reporting or under-reporting or more than the usual reporting of crime (Macdonald 2002). It is often argued by state functionaries in Bihar that the increase reflected in certain crime categories is due to higher reporting attributed to the restoration of law and order under the NDA. However, this is untenable if one scrutinises the government’s published crime statistics which has been done in Table 3.2. If there has been a general restoration of trust in the state, it should reflect a more secular pattern of higher reporting. The crimes against women, dalits and adivasis show an alarming increase between 2004 and 2008. The annual trend growth under the tenure of the current government in rape of dalits (14.5%), kidnapping of women (18%), arson against dalits and adivasis (22%) and the annual growth in crimes recorded against dalits and/or adivasis under the Prevention of Atrocities Act, 1989, (24%) indicates the change in the social base of crime victims in the latter half of the decade (Table 3.3).

It must also be noted that for the categories of crime that are more general in nature, the compilation by the CID covers all years

Table 3.2: Overview of Crime in Bihar (1998-2008)

Year	Trend Growth Rate		
	1998-2008	2004-2008	1998-2004
Murder	-2.23	-6.1	0.1
Dacoity	-8.41	-18.33	-4.95
Road dacoity	-6.75	-16.02	-3.16
Bank dacoity	-1.88	-14.54	1.99
Robbery	-2.25	-14.75	3.56
Road robbery	-1.41	-15.14	6.04
Bank robbery	-8.8	-22.76	5.76
Burglary	-1.08	1.21	-4.3
Kidnapping	1.49	0.66	-0.09
Kidnapping for ransom	-14.86	-37.47	-0.43
Rape	4.45	1.01	4.57
Riot	-1.14	-1.88	-0.58
Theft	3.93	4.62	2.12
Total cognisable crime	2.56	3.79	1.75

Source: CID, Government of Bihar.

Table 3.3: Crime against Women, Dalits and Adivasis in Bihar (2004-08)

Year						Trend Growth Rate 2004-08
	2004	2005	2006	2007	2008	
Rape	1,063	973	1,083	1,122	1,041	1.01
Rape (SC/ST)	9	22	20	11	25	14.46
Kidnapping of women	756	884	925	1,184	1,490	17.93
Molestation	192	140	201	69	188	-7.22
Dowry death	1,009	1,044	1,006	1,091	1,233	4.55
Dowry torture	1,992	1,424	1,759	1,589	2,229	3.4
Arson against SC/ST	11	3	7	8	18	21.72
Crimes against SC/ST under Prevention of Atrocities Act 1989	44	21	34	67	73	24.27

Source: CID, Government of Bihar.

between 1998 and 2008. But for crime against women, dalits and adivasis, no figures for the years before 2004 have been released. Thus, there is no way left other than assertion, for state functionaries and media propagandists to back up their claim that the steep increase of crime between 2004 and 2008 against the “marginalised” evident from official statistics is due to increased reporting of crimes reflecting a restoration of trust of the “marginalised” on the state.

Contrary to freeing Bihar from “swaggering goons” from the RJD’s period, and the ushering-in of “peace and confidence” and feelings of safety, reading between the lines of official records, it is clear that the social basis of crime has changed in Bihar. The feelings of safety and security are associated with the decline in the kind of crimes that affects the safety of life, work and business of the dominant propertied social constituencies. But, this growing peace and confidence has ominous portents in the increasing threats to life, livelihood and security of women, dalits and adivasis. If indeed the swaggering goons of the RJD period, who made the propertied and the affluent lose sleep, have been put on a leash, they seem to have been replaced by a different set of swaggering goons whose targets are the most discriminated, oppressed and exploited. The social patterns of crime are one indicator of the reassertion of the power of Bihar’s traditional upper caste feudal patriarchy through the front door of “good governance” under the NDA government.

The assertions on law and order have been further buttressed by anecdotal perceptions on safety of travel and movement of people within cities and across cities along with official statistics on increased inflow of tourists and increased number of flights at Patna airport. The anecdotal perceptions cited as evidence of an increase in safety of travel within cities and between Patna and other metropolitan centres by air are mainly confined to urban areas in a state which is 90% rural. Second, similar to the crime statistics, figures for tourist inflow have not been released for the period prior to 2004 and thus there is no material basis to verify this claim. However, the number of incidents of rape against women tourists especially from other countries in the last two years has been reported by the media quite extensively. The case of public stripping of a woman in August 2009 in broad daylight and full public glare within one km of the district administration’s headquarters in a busy commercial part of Patna had also received sensational coverage. These provide one pointer to the limits of metropolitan perceptions of safety and security of travel within urban Bihar.

Investment

Economic growth regarded as the outcome of the “feelings” of security of the propertied, articulated in several commentaries, derives from the foundational texts of “new institutional economics” which informed the good governance agenda. But for such feelings of good governance to have had an impact on growth acceleration, should also reflect some multiplier effects of concurrent material increases in private investment, given that in the theory of good governance, with some selective exceptions, public investment is considered to be inefficient and productive. It is difficult to see any direct correlation between such feelings in the three years since 2006-07 and the proportion of private investment in Bihar based on the government’s own statistics,

that could explain the more than 11-12% growth. Till December 2008, out of the total proposed new investment of Rs 91,750 crore from 164 proposals recorded by the State Investment Promotion Board (SIPB), 15 proposals worth Rs 628.49 crore had been implemented. Table 3.21 of the *Bihar Economic Survey 2009-10* reports that of the total of 245 proposals amounting to Rs 1,33,841 crore approved till November 2009, 22 units have been commissioned, 78 are in advanced stage and 145 are at different stages of implementation. The total actual investment accruing from all these disparate investments in Bihar amounts to Rs 1,044 crore at nominal prices (Government of Bihar 2010). The updated figures of the SIPB shows that out of the 342 proposals approved till June 2010, actual investment amounts to Rs 1,100 crore approximately. While government officials are optimistic that these projects will take off in the next two or three years assisted by the International Finance Corporation's interventions to improve "investment climate" in Bihar, once again this is faith in future gains. As of now, this trickle of nascent investments, in quantum and spread are insignificant in accounting for the "growth miracle".

Industrial Policy

The question that follows is whether the Industrial Incentive Policy of 2006, which is a standard package of concessions with incentives designed to encourage new private investments, has the potential to break the historical trajectory of the causes of non-development of industry in Bihar. The main features of the new policy are VAT reimbursement, capital subsidy for captive power generation plants, abolition of annual maintenance guarantee and monthly minimum guarantee and exemption of electricity duties. A new single window clearance system had also been adopted concurrently for all new investment proposals, replacing the single window clearance policy of the previous government adopted in the latter half of the 1990s. The policy aims to provide incentives to private investment in competition with more industrialised states to facilitate "crowding in" of private investment. However, given the historical causes of non-industrialisation in Bihar, which have been traced to institutional structures of landholding patterns, the undermining of competitiveness through policies like freight equalisation and the resultant inadequate infrastructure scenario; the likelihood of this policy to significantly change Bihar's industrial landscape is marginal (Das Gupta 2007). The reasons for non-industrialisation in Bihar are complex and have equally to do with both national and state-level policy for the last 60 years and more. It is unlikely that the lack of industrialisation, stemming from complex historical factors, can be overcome with substantial crowding in of private investment breaking the pattern of the current trickle by a one-time standard incentive policy at the level of the state, in an overall scenario, where more or less, all states competing for industrialisation, have adopted such straitjacketed policies based on ahistorical technomanagerial belief systems.

Interstate Disparity

The relative rankings of the different states by per capita income levels have remained practically unchanged for last three decades, with very moderate changes in the ranking of middle

or high income states within their respective groups; the regions that were "poor" (rich) earlier are also the ones that continue to be "poor" (rich) now. This secular homogeneity among the poorer and richer regions of India since the 1960s signifies a close relation between the overall national growth strategy both in the pre- and post-liberalisation period and its regional outcomes. Regional disparities have intensified not in spite of the country's development strategy, but largely because of it (Guruswamy 2007). Notwithstanding the constitutional provisions of federalism in India allocating the different social and economic sectors between the central and state governments and guidelines regarding fiscal federalism, the core of economic development strategies in India has historically been decided by the union government, mainly through the sectoral allocation of resources either through planning or through rules of the free market paradigm, regional and social allocation being only a by-product of this exercise (Ghosh and Das Gupta 2009). Moreover, the competing considerations of equity and efficiency in the technical exercise to optimise allocation of resources among Indian states have been based on quantification of symptoms and thus have failed to address the political causes of disparity (Das Gupta 2009b).

Development Expenditure

The more sophisticated conjectures of the causal link between economic growth and sushasan has been based on the official claims of substantial stepping up of development expenditure since 2005-06. The causal links between stepping up of development expenditure and economic growth is highly contested in the theoretical literature as the determinants of these two economic variables are different. The neo-Keynesian argument has often been premised on the impact of increased development expenditure on investment. This at best is a necessary condition but not a sufficient condition for increasing productivity and thereby leading to growth. The effectiveness of this causal link is dependent on the social structure of production and consumption of the economy (Fine and Leopold 1993). In the case of Bihar since 2005-06, we have already seen that investment has not really taken off in this period till date. Table 3.4 shows that relative share of development

Table 3.4: Share of Development Expenditure in Total Expenditure of Government of Bihar

	Development Expenditure* (Rs Crore)	Total Budgetary Expenditure (Rs Crore)	Percentage Share of Development Total Expenditure Expenditure in
2001-02	7,898.80	18,882.33	41.83
2002-03	9,290.10	15,505.53	59.91
2003-04	10,127.00	22,481.90	45.05
2004-05	9,095.00	20,058.00	45.34
2005-06	12,988.00	22,568.48	57.55
2006-07	17,304.00	27,136.47	63.77
2007-08	20,456.00	31,571.19	64.79
2008-09	17,978.00	37,181.26	48.35
2009-10 (Revised Estimates)	23,622.00	49,552.32	47.67
2010-11 (Budget Estimates)	25,226.00	57,758.55	43.67

*Data from 2001-02 to 2007-08 is from RBI; Data for the period 2008-09 to 2010-11 is derived from Budget Documents of Government of Bihar.
Source: Budget Documents of Government of Bihar, 2010-11; "State Finances: A Study of Budgets", RBI 2009.

expenditure in the state government's total expenditure increased since 2005-06 to reach a peak of 64.79% in 2007-08, but fell to 48.35% in 2008-09 and is expected to fall further to almost 2001-02 levels (41.83%) in 2009-10 (47.67%) and 2010-11 (43.67%), according to the state government's own budgetary estimates.

Thus the brief period of increase in development expenditure has not been sustainable. The reasons for these are many deriving mostly from the fundamental contradictions of "sound finance" which has informed the state government's fiscal policy since 2005-06. Elaboration of these is beyond the scope of this paper; but for our purpose here it is clear that the fast tapering of development expenditure forecloses the possibility of its impact on inducing future investment.

The hype around the "growth miracle" is not only flawed in its causal assertions, but also misleading in its extremely myopic long-term expectations and predictions and the political promises of convergence with high-income states of India. The exuberance around economic growth should also be tempered by the observations from the wider literature on various aspects of convergence of economic development of Indian states. This literature has been clearly divided between those who found possibilities of conditional convergence among Indian states and those who did not, depending on both method and period under review. But the more recent additions to the empirical literature on state-level convergence since the 1990s (Rodrik and Subramanian 2004; Kalra and Sodsriwiboon 2010) are more in lines of Pritchett's (1997) theoretical formulation of "big-time divergence"³⁴ especially over long periods.

Also, the distributive implications of this growth miracle is a moot question, as Chief Minister Nitish Kumar, who has been lauded as the architect of this miracle, has been steadfast in his argument, that even the revised estimates of the Tendulkar Committee of close to 9 million below poverty line (BPL) households in Bihar in 2004-05, is a gross underestimate of the extent of poverty in present-day Bihar.

Thus Bihar's recent growth is lopsided in sectoral, regional and social terms.

4 Growth Trends in Post-Bifurcation Bihar

The aftermath of the "discovery" of Bihar's growth has opened more questions than answers. These questions are open to research and multiple interpretations before an academically credible proposition on the so-called miracle can be arrived at, considering that Bihar had been written off the national and international academic map for the last two decades. The social and political implications of Bihar's growth trajectory over historical time based on an analysis of the structural features, volatility and susceptibility to both endogenous and exogenous factors and the social relations within which this growth is taking place are of much more relevance in the current conjuncture, to ascertain the causal factors defining Bihar's growth trajectory.

As a preliminary intervention in this exercise, we offer an overview of the various dimensions of Bihar's growth after bifurcation of the state in 2000. Out of the 10 years covered in our analysis, the official figures for 2007-08 are provisional estimates and that of 2008-09 are quick estimates. The advanced estimates for 2009-10 have been left out of this analysis.

Bihar's economy saw a fluctuating pattern of growth in total GDP since 2000-01 (Table 3.1). The primary sector has been growing at a highly volatile 3.4% with a decline in sector share every year. The standard method of studying the broad classifications of primary, secondary and tertiary sectors and disaggregating each sector's share in GDP in Table 3.1 shows that the decade since 1999-2000 has been primarily driven by growth in the secondary sector (13.9%) mainly due to growth and expansion in the sector share of construction (trend growth at 26.5% and a 17.7% average annual increase in sector share) and a slower but less volatile growth in the tertiary sector (trend growth at 8.2%) due to growth and expansion of the sector share in communication (trend growth at 23.1% and a 14.4% annual increase in sector share) and trade, hotels and restaurants (trend growth at 13.7% and a 5.8% annual increase in sector share). The first academic intervention questioning the construction-led growth miracle story came from Nagaraj and Rahman (2010) using this method with the demonstration that Bihar's growth in the three years under sushasan till 2008-09 has been mainly due to the public investment in construction, even though the multiplier effect from this investment has been overestimated in the commentaries that led to the hype around growth in the five years since 2004-05.

While as a first methodological exercise, this tells us the inconsistencies of explanation of construction as the driver of economic growth, this in itself leads to the question as to what is primarily driving economic growth in Bihar in the last decade. This paper proposes that contrary to the focus of commentaries on the growth miracle, the secular expansion of trade (hotels and restaurants being a small subset) in Bihar has been the most important driver of the growth process in Bihar in the decade since bifurcation. The political rhetoric on construction has led to occlusion over the missing link in the story that has been unravelling in Bihar throughout this decade. The inadequacy of standard statistical methods of sectoral disaggregation of growth also fails to take into account the *combined* impact of year to year change in absolute expansion of sectoral output (sectoral growth rates), the relative impact of this expansion process on the production structure of the economy (changes in sector shares) and the extent of sectoral volatility of the economic growth process. In the rest of this concluding section, we illustrate the role of trade in Bihar's economic growth in the last decade using a proposition and method that illustrates the combined impact of annual change in sectoral output, sector shares and extent of sectoral volatility.

Our method of disaggregating Bihar's growth in GDP is based on the following proposition:

$$g_{yt} = \sum w_{it} g_{it} + e_y \quad \text{Equation 1}$$

g_{yt} : log-linear trend growth of output in period t
 g_{it} : log-linear trend growth of output in ith sector in period t
 w_{it} : average percentage share of ith sector in overall composition of GDP in period t
 e_y : residuals due to annual volatility

The residual (e_y) for each period is the outcome of: (i) the effect of annual fluctuations of output which are the residuals of the log-linear trend equations in each sector over each period (indicator of annual fluctuations of absolute growth); (ii) the effect of annual variations in sector-share (indicator of annual fluctuations

of relative growth). We propose that the residuals can be considered insignificant for the purpose of our analysis since both components of e_y are by and large normally distributed (Tables 4.2A and 4.2B).

In Table 4.3 (p 60), we also analyse volatility of growth using the standard methods (Krishna 2004) of measurement of volatility but keeping to our periodisation.

On the basis of the results summarised in Tables 4.1 to 4.3, we conclude:

(1) More than 74% of the growth in GSDP in any period between 1999-2000 and 2008-09 consists of the sectoral contributions of four sectors – agriculture and allied activities, construction, communication, and, trade, hotels and restaurants; while the rest of the sectors together account for just a quarter of the growth process.

Table 4.1: Sectoral Contributions to Bihar's GSDP Growth

Period	t	1999-2000 to 2008-09	1999-2000 to 2004-05	2004-05 to 2008-09	2005-06 to 2008-09	2006-07 to 2008-09
Growth in GSDP	g_{yt}	7.5	4.4	12.8	15.1	12.6
Agriculture	$w_t g_t$	1	0.7	1.8	2.6	0.8
	Percentage contribution to overall growth of GSDP (%)	13	17	14	17	6
Construction	$w_t g_t$	1.8	0.5	3.7	3.3	2.6
	Percentage contribution to overall growth of GSDP (%)	24	11	29	22	21
Communication	$w_t g_t$	0.5	0.2	1.1	1.1	1.2
	Percentage contribution to overall growth of GSDP (%)	7	4	9	7	9
Trade	$w_t g_t$	2.7	2.2	4.2	5.4	5.1
	Percentage contribution to overall growth of GSDP (%)	36	49	33	36	41
Rest	$w_t g_t$	1.7	0.9	2.8	3.1	3.3
	Percentage contribution to overall growth of GSDP (%)	22	21	22	20	26
Residuals	e_y	-0.20	-0.10	-0.80	-0.40	-0.40

Table 4.2A: Normality Test of Log-linear Trend Residuals (Lilliefors Test for Small Samples††)

Sectors/Periods	1990-2000 to 2008-09	1990-2000 to 2004-05	2004-05 to 2008-09	2005-06 to 2008-09	2006-07 to 2008-09
Agriculture	0.20	0.27	0.18	0.26	0.28
Construction	0.22	0.17	0.29	0.27	0.28
Communication	0.16	0.27	0.23	0.31	0.39*
Trade	0.22	0.19	0.23	0.20	0.18
Rest	0.20	0.20	0.21	0.15	0.33

All values are less than the L (critical) at $\alpha=0.05$ and $\alpha=0.01$; * Less than critical L only at $\alpha=0.01$ †† It is often contended that small samples almost always pass the standard normality test, but Lilliefors modification of the Kolmogorov–Smirnov test provides a correction for this. Though the validity of the correction is also debatable depending on what purpose the test is being used for, for our purpose, it takes care of the two sources of bias in our estimates.

Table 4.2B: Normality Test of Average Sector Shares (Lilliefors Test for Small Samples)

Sectors/Periods	1990-2000 to 2008-09	1990-2000 to 2004-05	2004-05 to 2008-09	2005-06 to 2008-09	2006-07 to 2008-09
Agriculture	0.14	0.29	0.21	0.26	0.37
Construction	0.26**	0.27	0.23	0.15	0.26
Communication	0.27*	0.27	0.21	0.26	0.24
Trade	0.11	0.19	0.28	0.22	0.20
Rest	0.17	0.17	0.28	0.34	0.27

All values are less than L (critical) at $\alpha=0.05$ and $\alpha=0.01$; * Greater than L (critical) at $\alpha=0.05$; ** equal to L (critical) at $\alpha=0.05$.

(2) Out of these, agricultural growth was much more important in the overall explanation of GSDP growth in the period: 1999-2000 to 2004-05 when it accounted for 17% of overall growth in GSDP. In the subsequent period, despite the inconsistent figure of 34% growth in agriculture and allied activities reported in 2006-07; in the three years from 2006-07 to 2008-09, agricultural growth only contributed to 6% of overall growth of GSDP along with a faster decline in sector share. Once we remove the inconsistent figures of 2006-07, sectoral volatility in the period after 2004-05 shows a fourfold increase. Thus the role of agricultural policy since 2005-06 can hardly be adjudged to have made any positive impact on the macroeconomics of agriculture in Bihar if one goes only by the CSO data-series.

(3) The contribution of construction in overall growth saw a remarkable rise from 11% between 1999-2000 and 2004-05 to 29% between 2004-05 and 2008-09. However, the peak period of share of construction in the overall growth process seems to have been in 2004-05. In the three years between 2006-07 and 2008-09, the contribution of construction to overall growth declined to 21%. Thus the growth spurt in construction precedes the policies adopted in and after 2005-06, and has very little to do with the pros and cons of the NDA government's public expenditure-led construction drive.

(4) The contribution of communication to Bihar's overall GSDP growth doubled from 4% between 1999-2000 and 2004-05 to 9% between 2004-05 and 2008-09. However this leap seems to be concentrated in the year 2004-05 and remained at that level in subsequent years. This has also been one of the less volatile sectors of the economy all through the decade under consideration. The expansion in communication would find a more plausible explanation in the "telecom boom" in India since 2004-05 than to any particular state-specific policy after 2005-06.

(5) The contribution of trade, hotels and restaurants to economic growth in Bihar in the CSO data has hardly been picked up by any commentators. And yet, its significance lies in accounting for the single largest sectoral contribution to overall growth (36% between 1999-2000 and 2008-09), consistently reflected over every period in the last decade. Moreover, absolute contribution of trade, hotels and restaurants is reflected in the expansion of the sector by almost 6 percentage points in a decade-long secular expansion with sectoral volatility remaining relatively low in every period. In size, trade, hotels and restaurants is equal to the entire secondary sector in Bihar. Contrary to Aiyar's (2010b) assertion about the causal link of construction and communication spurt incubating a boom in small trade, the spurt in trade precedes the spurt in construction and communication. Neither can this spurt in trade be mapped linearly to "feelings of safety" due to restoration of "law and order" per se as the acceleration in trade precedes by many years the "law and order" measures of the NDA government. In fact, trade had been the single driver of overall growth in Bihar till Bihar caught up with the "communication boom" in 2004-05 with the rest of India. Both of these phenomena preceded the tenure of the NDA government.

These results confirm our contention in the earlier sections that the debate around the "construction-led-growth-miracle under the NDA government" hypothesis in Bihar is misplaced. The obsession of the neoliberal mainstream with "law and order" and

Table 4.3: Growth and Volatility: Bihar's GSDP

	Period		Agriculture	Construction	Communication	Trade	Rest	Total GSDP
Growth rate(%)	1999-2000 to 2008-09	Trend	3.4	26.5	23.1	13.7	3.9	7.5
		CAGR taking terminal years	5.3	24.0	21.1	14.8	4.4	8.5
	Average of annual growth rates	7.6	25.8	22.3	15.2	4.5	8.9	
	1999-2000 to 2004-05	Trend	2.4	12.2	11.0	12.2	2.0	4.4
		CAGR taking terminal years	5.0	13.1	10.2	13.0	2.4	5.6
	Average of annual growth rates	7.8	14.2	10.8	13.2	2.4	6.0	
	2004-05 to 2008-09	Trend	6.8	38.0	36.2	18.7	7.1	12.8
		CAGR taking terminal years	5.8	39.1	36.2	17.1	7.0	12.2
	Average of annual growth rates	8.9	40.7	32.0	18.5	6.3	12.4	
Volatility (%) (coefficient of variation of annual growth rates)	1999-2000 to 2008-09		304	88	82	70	71	109
	1999-2000 to 2004-05		343	126	113	63	91	168
	2004-05 to 2008-09		215	44	50	65	39	63
Volatility (%) (adjusted for outliers)	1999-2000 to 2008-09		263	94	68	74	81	89
	1999-2000 to 2004-05		158	136	62	66	112	108
	2004-05 to 2008-09		579	51	57	76	44	63
Growth/decline in sector share of GSDP	1999-2000 to 2008-09		-3.84	17.70	14.47	5.80	-3.35	Not applicable
	1999-2000 to 2004-05		-1.93	7.42	6.32	7.50	-2.29	Not applicable
	2004-05 to 2008-09		-5.31	22.34	20.75	5.25	-5.11	Not applicable

We drop two outliers in the CSO data: the year, 2001-02 when Bihar's economy plummeted due to the impact of bifurcation, and the year, 2006-07 in which inconsistencies in agricultural output and income figures significantly affect the overall growth figures.

the neo-Keynesian's with "development expenditure" has led to flawed propositions and consequent neglect of the most important driver of Bihar's economy in the last decade – trade. Thus, any study of Bihar's growth needs to take on board this staid secular expansion of trade despite the structural constraints of Bihar's economy and the overall volatility of the agrarian economic base.

Conclusions

Our interpretation of the CSO data for the decade since 1999-2000 reveals a cyclical move towards a higher growth continuum rather than any structural break under the NDA government. It represents the resumption of a long, fluctuating and volatile movement towards a trade-led higher growth continuum that had started in 1994-95 but was interrupted by the impact of bifurcation in 2001-02.

Our preliminary explanation, deriving from political economy leads us to propose that the process of movement to a higher growth continuum since 1994-95 in Bihar follows from the diversified patterns of accumulation through the agency of new entrants to accumulation as an outcome of the social justice movement in Bihar. This is a preliminary proposition that informs our ongoing work on growth and structural change in Bihar based on GSDP data from the 1960s and more recent district level income data. We conclude this article with this contending hypothesis on Bihar's growth. Two kinds of culmination of interlinked social churning, one traced to the political history of land struggles in Bihar and the other to the aspirations for social justice that emerged out of caste oppression (Kumar 2004) were evident in Bihar since the late 1970s. It was from within the outcomes of these wider political struggles that change in the political economy of accumulation started in Bihar in the 1990s (Das Gupta 2009a) and led to the diversification into trade with social empowerment of the backward castes.

We also find that the policy impact at the macro-level after 2005-06, if any, has very little positive implications for agriculture

which is the lifeline of the bulk of the workforce in Bihar. Contrary to assertions of community-based bottom-up empowerment of the agrarian social base through political alliances, the recent politics of the alliance reflects the attempts to reconcile this conflict and change within the regime of accumulation between the traditional upper-caste landed ruling classes and the emerging contending factions of the backward upwardly mobile nouveau aspirants who combine a mix of agrarian and mercantile capital. This long drawn out conflict had been reconciled for a brief period through the power-sharing arrangements reached from 2005-06 up to the 2009 general elections. However, the

recurrent breaking down of these arrangements and the realignments of the upper caste political leadership with the various contending sections of the nouveau elite that are emerging reveal the antagonisms in the struggle over dominating the strategic channels of accumulation. Though the NDA government held in abeyance the implementation of the recommendations of the Land Reform Commission it had itself appointed, one of the main ploys against Nitish Kumar used by the disenchanted sections of the upper-caste political leadership in the NDA as well as his major regional political opponents has been the bogey of land reforms. If indeed a structural break had taken place in Bihar's economy due to sushasan, should we not expect a shift away from agrarian accumulation as the main source of political power in Bihar society with reduction of land-reform to a non-issue?

On the contrary, the accumulation regime has become more and more fractious under "good governance" straddling contradictions that are characteristic of economic growth under neoliberalism. The structural vulnerability in Bihar's economy emanate from two sources: first, the four growth sectors in this decade have been the more "integrated" components of the economy which is primarily driven by conditions beyond the remit of state government and the government has no writ under the present structure of centre-state relations or policy tools in its sushasan agenda to intervene in the particularities of the accumulation process driving this growth to garner resources for public investment either for service delivery or for "economic transformation".

One of the most visible contradictions is that in the period of the so-called growth miracle in Bihar and the brief three-year period of stepped-up development expenditure, the state's dependence on the union government for resources for public expenditure has almost doubled. From a share of 40% in 2004-05, the proportion of central government devolution to the state government's total expenditure went up to 72% in 2008-09. While a larger unconditional quantum of financial devolution is necessary and Bihar along with

other low income states has been the victim of historical neglect in the political frameworks of financial devolution in post-independence India, the increasing dependence on the centre for development expenditure also indicates that the movement to the higher growth continuum is having no significant impact on resource mobilisation at the state level. Second, the public expenditure policy agenda under sushasan is committed to more “integration”, primarily based on large nodal infrastructure development that facilitates this particular kind of lopsided growth, which in turn, reinforces the dependence on the union government for resources.

Apart from the internal inconsistency of expenditure priorities and policy rhetoric mismatched under the sushasan defined development paradigm in Bihar (Das Gupta 2010), and fundamental questions about the sustainability of political processes and contradictory outcomes that have been unleashed by the national level policy consensus on sound finance; the evidence presented here belies the propositions around the “growth miracle” under the NDA government and indicates a politically fractious movement of Bihar’s economy since bifurcation to a volatile higher growth continuum that is lopsided in three dimensions – regional, sectoral and social.

Postscript

The results of the recently concluded assembly elections in Bihar, in continuation of the opinion building in the corporate media, have further deepened perceptions of the “growth miracle” in

Bihar. While most columnists in some way or other have attributed the victory to the chief minister’s performance, noted economists have started attributing the victory to the perception that Bihar Chief Minister Nitish Kumar “successfully placed Bihar on a high-growth trajectory” (Arvind Panagariya, *Times of India*, 11 December 2010). If indeed election results are solely determined by high economic growth trajectories, then one would be at a loss to explain why the Congress lost the Indian general elections in 1996 and the National Democratic Alliance in 2004. Neither can the individual effort and performance of a political functionary be both a necessary and sufficient condition for structural transformation of an economy. Nor is it a yardstick to measure the determinants and outcomes of economic growth.

Four other low income states have been growing as fast as or faster than the national average in the same period – Uttarakhand, Jharkhand, Orissa and Chhattisgarh. The analysis that we have seen so far in the mainstream media and by professional opinion-makers, based on perceptions and parameters of individualised performance, have not provided a starting point to understand the structural basis of movement of low income states of India towards a higher growth trajectory. This article, which was written much before the recently concluded Bihar elections, remains an attempt, against the tide, to provide a pointer to this process.

NOTES

- 1 This figure stands at 12.8% based on the figures released by CSO as on April 2010.
- 2 One of these theorems is that, in a market economy, benefits flow to all participants, be they individuals or countries or institutions, from all voluntary acts of economic intercourse (“or else they would not engage in those acts”). Since every body benefits from such economic intercourse, all societies are happy little islands of equilibrium as long as they keep to the rules of the market.
- 3 All data on Bihar’s GSDP that have been used in this article are at constant (1999-2000) prices as on April 2010 sourced from the website of the Central Statistical Organisation at http://mospi.nic.in/rep%20%20pubn/ftest.asp?rept_id=nado3_1999_2000&type=NSSO
- 4 See Pritchett (1997); Cashin and Sahay (1996); Rao et al (1999); Nagaraj et al (2000); Aiyar (2000); Dasgupta et al (2000); Sachs et al (2002); Ahluwalia (2002); Sakthivel and Bhattacharya (2004); Krishna (2004); Purfield (2006); Ghosh and Das Gupta (op cit).

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Appendix I: Difference in GSDP Figures for Bihar between CSO Numbers and Government of Bihar (GOB) at Factor Cost (1999-2000 prices)

Sector	2005-06		2006-07		2007-08		2008-09	
	Absolute Difference between CSO and GOB Figures (Rs Crore)	Percentage Variation between CSO and GOB Figures	Absolute Difference between CSO and GOB Figures (Rs Crore)	Percentage Variation between CSO and GOB Figures	Absolute Difference between CSO and GOB Figures (Rs Crore)	Percentage Variation between CSO and GOB Figures	Absolute Difference between CSO and GOB Figures (Rs Crore)	Percentage Variation between CSO and GOB Figures
1 Agriculture/animal husbandry	0.0	0.0	-14.5	-0.1	528.0	2.6	1,094.4	4.7
2 Forestry/logging	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0
3 Fishing	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.7
4 Mining and quarrying	0.0	0.0	-4.0	-5.7	-12.6	-16.9	-12.2	-16.5
Sub-total (primary)	0.0	0.0	-18.6	-0.1	515.5	2.2	1,090.8	4.2
5 Manufacturing	0.0	0.0	-145.8	-3.7	266.9	6.1	-47.7	-1.0
5.1 Registered	0.0	0.0	-143.7	-22.7	278.0	41.9	-31.7	-4.5
5.2 Unregistered	0.0	0.0	-2.1	-0.1	-11.1	-0.3	-16.0	-0.4
6 Construction	0.0	0.0	121.2	1.4	-392.7	-3.7	1,261.1	10.5
7 Electricity, water supply and gas	0.0	0.0	-0.4	-0.1	-9.9	-1.2	0.6	0.1
Sub-total (secondary)	0.0	0.0	-25.0	-0.2	-135.7	-0.9	1,214.0	7.0
8 Transport, storage and communication	264.2	5.5	695.9	13.2	1,639.6	29.2	2,257.5	37.4
8.1 Railways	-35.6	-2.2	92.8	5.5	239.2	13.9	400.7	23.1
8.2 Other transport and storage	0.0	0.0	-7.0	-0.4	-3.4	-0.2	-2.0	-0.1
8.3 Communication	299.8	18.6	610.0	32.3	1,403.8	65.3	1,858.7	76.1
9 Trade, hotels and restaurant	0.0	0.0	-11.2	-0.1	-281.2	-1.3	1,278.7	5.1
Sub-total (8 and 9)	264.2	1.4	684.7	3.0	1,358.4	5.0	3,536.2	11.5
10 Banking and Insurance	0.0	0.0	16.1	0.5	309.3	9.1	677.4	18.3
11 REODB	0.0	0.0	-0.4	0.0	10.5	0.3	-14.9	-0.4
Sub-total (10 and 11)	0.0	0.0	15.7	0.3	319.8	4.9	662.5	9.4
12 Public administration	0.0	0.0	27.4	0.6	-568.5	-10.2	290.3	5.1
13 Other services	0.0	0.0	-6.2	-0.1	-159.6	-1.6	-695.7	-6.0
Sub-total (tertiary)	264.2	0.7	721.6	1.7	950.1	1.9	3,793.2	6.9
Total GSDP	264.2	0.4	678.0	0.8	1,329.9	1.5	6,098.0	6.2

Source: CSO; *Economic Survey of Bihar 2009-10*.

Appendix II: Overview of Crime in Bihar (1998-2008)

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Murder	3,766	3,632	3,851	3,619	3,634	3,652	3,861	3,423	3,225	2,963	3,029
Dacoity	1,718	1,486	1,471	1,293	1,259	1,203	1,297	1,191	967	646	640
Road dacoity	354	272	272	257	252	247	287	224	211	151	146
Bank dacoity	21	24	16	22	28	14	30	26	15	19	16
Robbery	2,292	2,133	2,216	2,175	2,236	2,425	2,909	2,379	2,138	1,729	1,536
Road robbery	1,226	1,242	1,216	1,296	1,323	1,430	1,875	1,310	1,251	1,109	897
Bank robbery	17	16	11	18	15	15	27	8	5	9	7
Burglary	4,176	3,480	3,420	3,036	3,172	2,925	3,191	3,166	3,529	3,254	3,343
Kidnapping	2,323	2,145	2,237	1,689	1,948	1,956	2,566	2,226	2,301	2,092	2,735
Kidnapping for ransom	412	345	418	385	396	335	411	251	194	89	66
Rape	751	741	837	746	875	804	1,063	973	1,083	1,122	1,041
Riot (in '000)	9	9	9	9	9	8	9	8	9	8	8
Theft (in '000)	10	10	10	9	10	10	12	12	13	12	14
Total cognisable crime (in '000)	100	96	100	96	101	98	115	105	111	118	131

Source: CID, Government of Bihar.