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Economic Growth and the Income-Consumption Disconnect: Evidence from Indian States

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Abstract

There is a fairly vast literature, which attempts to explain cross-regional (between countries or between states within countries) differences in per capita income growth. But poverty rates have a more direct relationship with household per capita consumption growth, which has generally not gone hand-in-hand with per capita income growth. Based on data from Indian states, we find that conditional on several parameters of interest; poorer states grew faster across sectors – on average – than richer states, but only when output is measured in terms of consumption. This 'income-consumption disconnect' in the context of economic convergence may be indicative of migrant remittances from rich to poor states, welfare programs, or divergence in components of output other than consumption. Further, unlike the case of income, there is a robust negative relationship between consumption growth and the share of registered manufacturing in total output, perhaps indicative of the jobless growth that has characterized India's registered manufacturing sector. While the income-consumption disconnect is largely absent for all other variables, the share of agriculture in total output, the male-female literacy gap, population growth, road infrastructure, development expenditure and rainfall appear to have a robust association (albeit weak in some cases) with both consumption and income growth.

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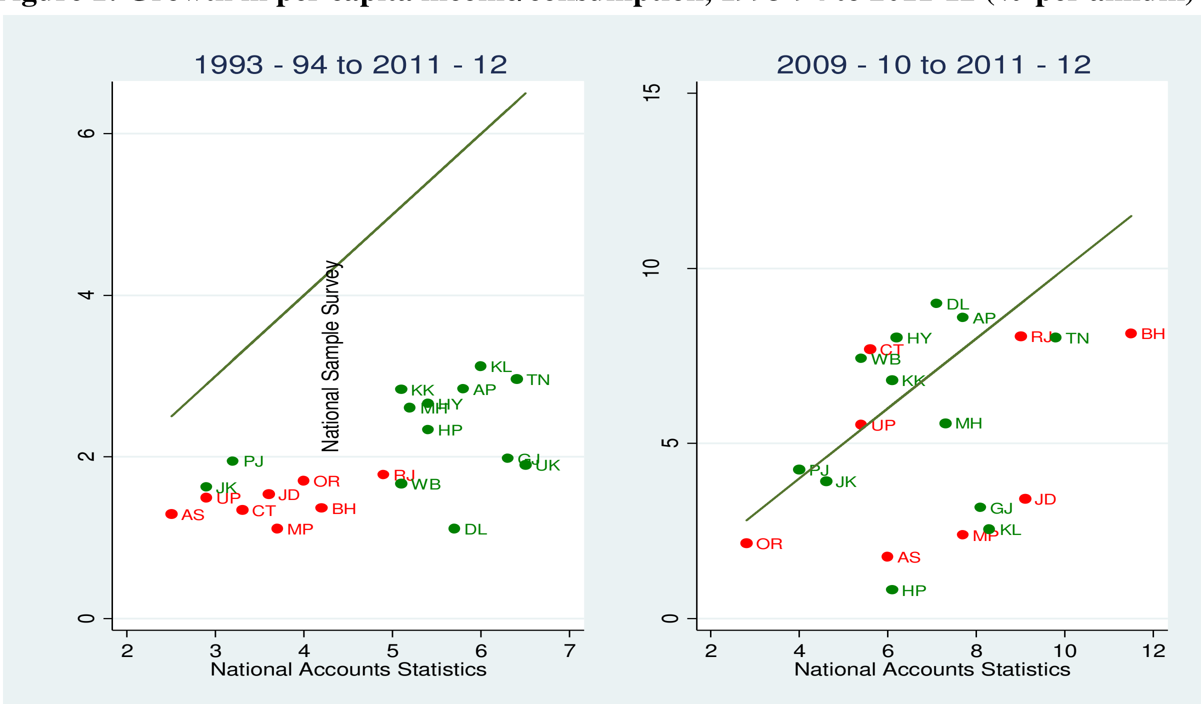
1. Introduction

Conventional wisdom, based on a large body of both theory and evidence, suggests that economic growth reduces poverty. There is also a vast literature which attempts to explain cross-country differences in rates of economic growth. Some authors have studied differences not across countries, but across regions within large countries such as India, because many country-wide institutions can be held constant. In these studies, economic growth is typically measured by growth in GDP per capita. However, poverty rates and living standards more generally have a more direct relationship with household per capita consumption compared to per capita income. And growth in per capita incomes and growth in household per capita consumption has not always gone hand-in-hand.

Figure 1 shows that for a cross-section of major Indian states between 1993-94 and 2011-12, growth in per capita gross state domestic product exceeded growth in household per capita consumption in each and every state. The apparent dichotomy – which declined between 2009-10 and 2011-12 – can be explained, at least in part, by the discrepancy between estimates of mean consumption data based on National Accounts Statistics (NAS) and those based on household surveys conducted by the National Sample Survey Organization (NSSO). This differential rate of growth in consumption estimates – with those from surveys being systematically lower than those from NAS – has been the topic of much discussion in recent times and is far from unique to India (Deaton and Kozel, 2005).

Figure 1: Growth in per capita income/consumption, 1993-94 to 2011-12 (% per annum)



Source: Author's estimates based on National Sample Survey Organization and Central Statistical Organization
Note: Scatter points under the 45-degree line show that growth in household per capita consumption was lower than growth in per capita income

Both types of estimates have their strengths and weaknesses, but NAS have been typically regarded as the more reliable yardstick for aggregate consumption expenditure owing to its better coverage. Yet, the heavy reliance on outdated rates and ratios in a growing economy experiencing structural change typically leads to systematic trend errors (Minhas, 1988). And when revision are incorporated, these are large and restricted to a few number of items, thereby adding to the fluidity of the national accounts estimates (Sundaram and Tendulkar, 2003). Survey estimates, in contrast, are based on direct observations relating to the survey period and avoid recourse to adjustments based on arbitrary assumptions. Further, estimates of household consumption are measured directly from a nationally representative survey rather than aggregate data from national accounts statistics, which derive consumption as a residual at the end of a long chain of calculations (Sundaram and Tendulkar, 2003).

The objective of the paper therefore is to analyze inter-regional differences in rates of growth of household per capita consumption with Indian states as the unit of analysis. In doing so, it examines whether the same factors that explain differences in per capita income growth are also relevant for differences in household per capita consumption growth. This has been hitherto unexplored in the literature, either for India or elsewhere. The structure of the paper is the following. Section 2 outlines the relevant findings and limitations of the existing literature on the subject. Section 3 explains the statistical methodology used and discusses results. Section 4 presents conclusions.

2. The Empirical Literature

There is a fairly vast literature, which attempts to analyze, empirically, convergence or divergence of income levels across Indian states, based on measures of state output per capita. Much of the existing literature analyses major Indian states for a time period of thirty years, some starting in the 1960s and others extending up to the early 2000s (Cashin and Sahay,1996; Bajpai and Sachs, 1996; Rao, Shand and Kalirajan, 1999; Nagaraj et al., 2000; Trivedi, 2002; Aiyar, 2001; Nayyar, 2008). Two key points emerge for the period up to 2004-05. First, there is robust evidence that richer states have grown faster than poorer ones, thereby implying that states are not converging to the same long-run (steady-state) level of per capita income. Second, conditional on other determinants of economic growth, there is mixed evidence that poorer states have grown faster than richer ones, i.e. states are converging, albeit to divergent long-run (steady-state) levels of per capita income.

What else explains why growth in some Indian states was faster than others (see Table I)? In their examination of the conditional income convergence hypothesis, i.e. in analyzing the relationship between per capita income growth rates and the initial levels of per capita income, these studies control for a number of state-level characteristics which are also likely to matter for growth. Some studies correlate policy variables to a measure of growth differentials between rich and poor states.

There is skepticism about the value and validity of "cross-country" growth regressions employed by the aforementioned literature owing a variety of econometric problems (Durlauf, Johnson and Temple, 2005; Easterly, 2005). For instance, an individual variable's statistical significance may not be robust to the inclusion of several others. At the same time, the inclusion of a large number of explanatory variables in a single regression exercise results in multicollinearity, thereby making it difficult to ascertain an individual variable's statistical significance. For example, literacy rates or infant mortality rates may be insignificant because they are highly correlated with public spending on education and health, which is included in the government development expenditure variable. In order to overcome these shortcomings, Sala-i-Martin (1997) estimated several growth regressions with different subsets of explanatory variables. In this approach, if a given indicator is consistently significant with the same sign, it is deemed to be a robust factor explaining differences in growth across countries. Ghate and Wright (2013) follow this approach for Indian states.

Table I: What matters for differences in growth across Indian States?

Variable	List of Papers
Education (literacy rate/school enrolment rate)	Kalra and Sodsriwiboon, 2010 (insignificant); Paul and Sridhar (positive and significant); Nayyar, 2008 (positive and insignificant); Trivedi, 2002 (negative and insignificant); Purfield, 2006 (insignificant); Baddeley et al., 2006 (positive and significant)
Health (Infant mortality rate)	Paul and Sridhar (negative and significant); Nayyar, 2008 (insignificant); Trivedi, 2002 (negative and significant)
Gender bias	Baddeley et al., 2006 (positive and significant)
Development expenditure	Kalra and Sodsriwiboon, 2010 (positive & significant); Paul and Sridhar (insignificant); Baddeley et al., 2006 (positive and significant); Nayyar, 2008 (positive and significant); Rao et al., 1999 (positive and significant)
Private investment (credit/loans)	Kalra and Sodsriwiboon, 2010 (positive & significant); Baddeley et al., 2006 (positive and significant), Nayyar, 2008 (positive and significant); Rao et al., 1999 (positive and significant); Singh and Srinivasan, 2002 (positive and significant); Aiyar, 2001 (positive and significant); Purfield, 2006 (positive and significant)
Infrastructure	Baddeley et al., 2006 (insignificant); Aiyar, 2001 (positive and significant); Rao et al., 1999 (positive and significant); Trivedi, 2002 (positive and significant); Purfield, 2006 (positive and significant); Kalra and Sodsriwiboon, 2010 (positive & significant); Paul and Sridhar (positive and significant)
Share of agriculture in state domestic product	Bajpai and Sachs, 1996 (negative and significant); Rao et al., 1999 (negative and significant)
Share of services in state domestic product	Kalra and Sodsriwiboon, 2010 (positive & significant)
Birth rate	Baddeley et al., 2006 (insignificant)
Access to ports	Khar, Jha and Kateja, 2010 (positive and significant)
Labor regulations	Pufield, 2006 (insignificant)
Electricity transmission and distribution losses	Kalra and Sodsriwiboon, 2010 (negative & insignificant); Purfield, 2006 (negative and significant)
Political unrest/crime	Khar, Jha and Kateja, 2010 (negative and significant); Rao et al., 1999 (negative and significant); Baddeley et al., 2006 (positive and significant)
Urbanization	Paul and Sridhar, 2013 (positive and significant)
Centre-state transfers	Cashin and Sahay, 1996 (negative and significant); Rao et al., 1999 (negative and significant)

3. Contribution to the Existing Literature

3.1 Statistical Methodology

In a seminal study on the empirics of growth, Mankiw, Romer and Weil (1992) estimate an augmented Solow model, which expresses growth as an explicit function of the initial level of income and a set of other variables, included as determinants of the ultimate steady state. Much of the literature on the subject follows this approach. Here, the main point of departure is the dependent variable in order to analyze differences in the growth of household per capita consumption, rather than per capita net state domestic product (NSDP), across Indian states.

$$\ln(y_{i,s,t}) - \ln(y_{i,s,t-\tau}) = \alpha + \beta\,(y_{i,s,t-\tau}) + \gamma\, X_{i,t} + \mu_i + \rho_s + \varepsilon_{i,s,t} \qquad (1)$$

; where 'y' denotes household per capita consumption, 'i' indexes the industry, 's' indexes the state, 't' indexes the time period, τ denotes the number of years between each successive observation, μ is a state-fixed effect, ρ is an industry-fixed effect. X is a vector of explanatory variables.

Equation (1) presented above specifies the analysis a pooled cross-section of states over time, i.e. it explores variations both across states and over time. This regression specification enlarges the sample size and improves upon a cross-sectional framework because time-invariant state-specific effects can be controlled for (Islam, 1995). In analyzing changes over time, growth in household per capita consumption is computed over two time intervals – 1993-94 to 2004-05 and 2004-05 to 2011-12. This choice of the time intervals is determined by the availability of reliable household consumption expenditure data, as collected by India's National Sample Survey Organization. During these two decades, there were four comprehensive surveys on consumer expenditure; 1993-94, 1999-2000, 2004-05 and 2011-12. The round in 1999-2000 was plagued with problems and hence excluded from the analysis.

Based on this household survey data, consumption expenditure is averaged by 13 industries across 17 major Indian states between 1993-94 and 2011-12. A household is classified as belonging to a particular sector if that sector contributes the maximum to total household earnings. In exploring the correlates of consumption growth, we expand the set of state-level indicators in Ghate and Wright (2013). Drawing on other studies in the literature, we include the following additional explanatory variables – infant mortality rate, the male-female literacy rate gap, the share of surfaced (all-weather) roads in total roads, an index of governance and consumer price in a state relative to the lowest in a sample of products. We also include more recent data, going up to 2011-12. The value of each explanatory variable is lagged relative to the dependent variable, thereby reducing the possibility of reverse causality. Typically, the value of an explanatory variable in the first year of each time interval[1] is used to represent an initial condition.[2] This is the standard approach employed in the growth literature when analyzing a pooled cross-section over time (Islam, 1995).

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[1] Therefore, when regressed, the growth in household per capita consumption between 1993-94 and 2004-05 and 2004-05 to 2011-12, respectively, corresponds to the value of the explanatory variables in 1993-94 and 2004-05.

[2] In the case of population growth and the governance index, an average of the value of the variable over 3 years before the first year in a given time interval is used, e.g. growth in household per capita consumption between 1993-94 and 2004-05 is stacked against average population growth over 1990-91, 1992-92 and 1992-93.

The robustness of the analysis is further enhanced by estimating a number of specifications of the growth regression with different permutations and combinations of explanatory variables. Following Ghate and Wright (2013), we include five state-level regressors in each regression. The first is the variable of interest. The second and third are always the initial level household per capita consumption expenditure and the share of agriculture in NSDP. These "first-tier" regressors were found to be strongly significant in a regression that included all possible explanatory variables (see Table II). The remaining two "second-tier" regressors are picked from the set of remaining eleven possible regressors. We therefore estimate 110 regressions including each "second-tier" indicator and a total of 1320 (110 times 12) regressions for each of the "top-tier" indicators. The number of observations in each regression is 441 and sector- and state fixed-effects are always included.

In this approach, if a given indicator's coefficients are all, or predominantly, of the same sign with a notional significance level (as captured by the p-value, or a t-test of the null hypothesis that the coefficient is zero) that is consistently strong, it is deemed to be a robust factor explaining differences in growth across states. It should be noted that the significance level used is purely notional because the methodology is not consistent with classical hypothesis testing; rather it should be viewed as a short-hand measure of predictive power (Sala-I-Martin, 1997). Appendix Figure 1 and Tables 2 and 3 summarize the results of this exercise.

In order to facilitate a comparison of consumption growth with income growth, we re-estimate our framework of regression equations described above using growth in NSDP per capita as the dependent variable. A direct comparison with the results presented in Ghate and Wright (2013) is unfortunately not meaningful due to the fact that we use a different time period, analyze changes both across states and over time, and include a set of additional explanatory variables.

3.2 Results

Figure 2 plots the frequency distribution, for each of the potential explanatory factors across all regressions, of the t-statistic that tests the (notional) null hypothesis that the coefficient on this indicator is zero. In a classical hypothesis test, the null hypothesis is rejected at conventional significance levels if this statistic, to a good approximation, is greater than 2, or less than -2. Therefore, if an indicator is robust, it will tend to have a high proportion of t-statistics that are (notionally) significant on this measure; and at a minimum will have all coefficients (and hence t-statistics) of the same sign. As noted previously, the t-statistics resulting from this exercise cannot be regarded as true hypothesis tests; presenting the results in this form simply allows easier comparability between different explanatory variables. All panels Figure 2 have the same range to ease comparisons. When all, or the greater part, of the distribution lies to the left or right of zero, this evidence is indicative of robustness. The left-hand-side and right-hand-side of each panel, respectively, contrast the case of per capita consumption and per capita NSDP for each explanatory variable.

Tables III and IV, respectively, provides a range of summary statistics of the distribution of coefficients in the regressions for growth in household per capita consumption and per capita NSDP. Columns (1) and (2) show the percentages of coefficient estimates that are either positive or negative. Columns (6), (7), (8) present the average, minimum and maximum value of the estimated coefficients. Consistent with Figure 2, Tables III and IV give the same information in terms of notional t-statistics. As an indicator of the range of implied economic rather than statistical significance, columns (3) to (5) standardize the results of different explanatory variables across different regressions to show the impact on predicted growth of a difference in the regressor of one standard deviation – using the average, minimum and maximum coefficient estimates.

In a conventional growth regression, the initial level of output is expected to be negatively correlated with subsequent growth if there is convergence between the different output series. The left-hand-side of Panel A in Figure 2 shows that coefficients on the initial level of household per capita consumption variable are always negative and statistically significant. It suggests that conditional on several parameters of interest; poorer states grew faster across sectors, on average, than richer states. When output is measured in terms of NSDP per capita, however, there is no robust evidence of conditional convergence (see right-hand-side of Panel A in Figure 2). This is consistent with the findings of Ghate and Wright (2013). Tables III and IV show that, for both indicators of initial per capita output, the range of estimated impacts across regression equations is relatively small. The 'income-consumption disconnect' in the context of economic convergence may due to the following.

First, even if rates of growth of per capita income are higher in richer states, it is possible that rates of growth of household expenditure do not vary as much as poorer states are likely to consume more and save less out of their total income. In fact, for most sectors, annualized rates of growth of average household per capita consumption vary much less across states compared to NSDP per capita.[3] Second, if investment or exports are a large part of NSDP, then divergence in these components could drive overall NSDP divergence even if consumption is converging. Consider the fact that total factor productivity growth, which is much higher in high-income states (Chanda and Chatterjee, 2013) is likely to matter more for investment and exports than for consumption. Third, there is the issue of migrant remittances. Poor states, such as Uttar Pradesh and Bihar, have a relatively high stock of out-migrants to other states and remittances received are likely to matter most for consumption. The 'income-consumption disconnect' may also be attributable, in part, to a host of welfare schemes which focus on consumption rather than asset generation.

The share of the agricultural sector in NSDP has an extremely robust negative relationship with the growth of household per capita consumption expenditure. The left-hand-side of Figure 2's Panel B shows that coefficients on this variable are always negative and always statistically significant. The same holds true when the dependent variable is NSDP per capita (see right-hand-side of Figure 2's Panel B). Ghate and Wright (2013) argue that the negative correlation between economic growth and the share of agriculture in total output may be attributable to negative externalities imposed by government intervention in the sector on the rest of the economy. For example, if free electricity to farmers leads to power cuts – and these are more likely to occur in predominantly agricultural states – this will impose external costs on other sectors. Reversing the direction of causality, the aforementioned negative association may also be indicative of structural change, whereby the share of the agricultural sector in total output declines with economic development.

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[3] Estimates based on National Sample Survey Organization and National Accounts Statistics are available on request

The left-hand-side of Figure 2's Panel C shows that coefficients on the share of registered manufacturing in NSDP are also always negative and (almost always) statistically significant when the dependent variable in growth in household per capita consumption. Ghate and Wright (2013) posit that the negative externality argument may also hold true for the registered manufacturing sector, which has been subject to considerable government intervention in the recent past. However, when per capita NSDP growth is the dependent variable, there is no robust negative relationship with coefficients on the share of registered manufacturing in total output variable more or less symmetrically distributed around zero (see the right-hand-side of Figure 2's Panel C). These two results may be reconciled by the jobless growth that has characterized India's registered manufacturing sector. On the basis of the average coefficient estimate, a difference of one standard deviation in the share of agriculture in NSDP implied a predicted change in consumption growth rates of 12 percentage points. The implied negative impact of the registered manufacturing share is even stronger (see Tables III and IV).

The income-consumption disconnect is absent (or much less pronounced) for all other variables. Coefficients on the population growth variable are always negative and (almost always) statistically significant (Panel D of Figure 2). This conforms to the result implied by a conventional Solow growth model. The relationship with the level of population, however, is not robust (Panel E of Figure 2). Among the human development indicators, the association between consumption growth and literacy and infant mortality rates is not robust with coefficients of both signs, depending on the specification of the regression (Panels G and H of Figure 2). However, coefficients on the male-female literacy rate gap were always negative with a reasonably high proportion notionally significant (t-statistics greater than 2 as shows in Panel I of Figure 2).

There is some evidence, albeit weak, of a positive association between the quality of road infrastructure and the development expenditure as a percentage of NSDP on the one hand, and consumption growth on the other (Panels J and L of Figure 2). Table III shows that while coefficients are always positive, the associated minimum t-statistic is greater than -2, while the maximum t-statistic is less than 2. The same holds true for the relationship between consumption growth and rainfall, which is indicative of the lack of progress made with respect to irrigation facilities and other water-related infrastructure for the agricultural sector (Panel N of Figure 2).

There appears to be no robust association between household per capita consumption growth and the inter-state consumer price gap (Panel M of Figure 2). And the same holds true for the urbanization variable (Panel F of Figure 2). It is possible that the percentage of the population in urban areas does not adequately capture rural-urban production links and therefore the growth effect of increasing urban demand. Coefficients on Basu's (2008) index of governance[4] are of varying signs and never statistically significant (Panel K of Figure 2). This lack of robustness may be attributable to the fact that political stability, people's sensibility, social equality are slow to change and therefore reflected in the state fixed- effects.

In sum, there are two variables that highlight the 'income-consumption' disconnect in explaining economic growth – the initial level of output per capita and the share of registered manufacturing in NSDP. These explanatory variables are statistically significant and robust in the 'per capita consumption growth' regression but not in the 'per capita net state domestic product (NSDP)'

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[4] An index on a zero to 10 scale with higher valued indicating worse governance

regression. Other explanatory variables, including the share of the agricultural sector in NSDP, the male-female literacy rate gap, population growth, road infrastructure, development expenditure and rainfall, have a statistically significant and robust association with both per capita consumption and per capita income growth. Therefore, while not explaining the 'income-consumption' disconnect, these factors are also associated with growth dynamics across Indian states.

4. Conclusion

There is a fairly vast literature, which attempts to explain cross-regional (between countries or between states within countries) differences in per capita income growth. But poverty rates have a more direct relationship with household per capita consumption growth, which has generally not gone hand-in-hand with per capita income growth. This discrepancy has been highlighted, for example, in the context of India. In light of the above, we identify robust correlates of household per capita consumption growth and make a meaningful comparison with correlates of per capita income growth based on data from Indian states. In doing so, we draw on the analysis presented in Ghate and Wright (2013), but include additional explanatory variables, use more recent data and analyze changes both across states and over time.

We find that conditional on several parameters of interest, poorer states grew faster across sectors – on average – than richer states when output is measured in terms of household per capita consumption. The same result does not hold when output is measured in terms of per capita income. This 'income-consumption disconnect' in the context of economic convergence may be indicative of migrant remittances from rich to poor states, welfare programs, or divergence in components of output other than consumption. The 'income-consumption disconnect' also extends to the share of registered manufacturing in total output, which shares a robust negative relationship with household per capita consumption growth but not with per capita NSDP growth. This may reflect the jobless growth that has characterized India's registered manufacturing sector.

The 'income-consumption disconnect' is largely absent in terms of the sign and statistical significance of the coefficients on all other variables. Yet, some of these are important in explaining growth differences across Indian states – the share of the agricultural sector in NSDP, the male-female literacy rate gap, population growth, road infrastructure, development expenditure and rainfall have a robust association (albeit weak in some cases) with both consumption and income growth. At the same time, literacy and infant mortality rates, governance, urbanization and inter-state price gaps do not seem to matter. This statistical insignificance, however, should not be interpreted as them being unimportant; it may reflect measurement problems or their effects are likely subsumed in other closely related variables or in the state fixed-effects.

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Table II: Baseline regression estimates

Dependent variable → Explanatory variables ↓	Growth in household per capita consumption
Initial level of output per capita	-0.0120*** (0.00111)
Share of agriculture in NSDP	-0.107*** (0.0231)
Share of registered manufacturing in NSDP	-0.0674** (0.0333)
Share of urban population	0.00168 (0.0358)
Literacy rate	0.0418* (0.0238)
Rainfall	0.0004 (0.0004)
Population level	6.77e-09 (5.15e-09)
Population growth	-0.225 (0.195)
Share of development expenditure in NSDP	0.0177 (0.0538)
Infant mortality rate	0.00743 (0.0111)
Male-female literacy gap	0.00813 (0.0508)
Governance index	-0.202** (0.0916)
Share of surfaced roads	0.0193 (0.0124)
Consumer price gap	-5.619 (3.559)
Constant	10.85** (4.586)
Observations	441
Adjusted R-squared	0.256

Table III: Summary properties of coefficient estimates, Household per capita consumption

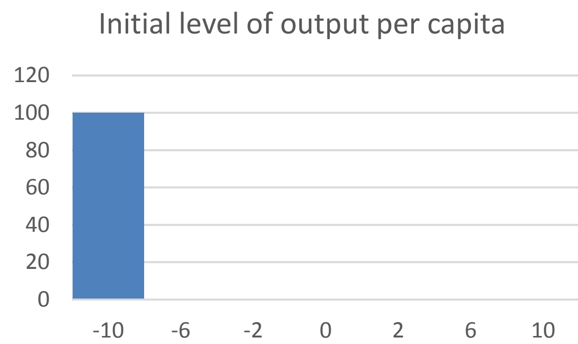
Dependent→ variable	Growth in household per capita consumption							
Explanatory variables ↓	% Positive Coefficients	% Negative Coefficients	Coefficient			"t-statistic"		
	(1)	(2)	Min (3)	Ave (4)	Max (5)	Min (6)	Ave (7)	Max (8)
Initial level of output per capita	0	100	-0.013	-0.012	-0.012	-13.001	12.705	12.4
Population	89	11	0.001	0.001	0.002	0.001	0.001	0.003
Annual average rate of population growth	0	100	-0.669	-0.543	-0.511	-9.146	-4.034	-2.249
Rainfall	98	2	-0.001	0.001	0.002	0.001	0.007	0.019
% Urban population	76	24	-.0180	0.042	0.128	-1.363	0.109	0.634
Literacy rate	85	15	-0.024	0.039	0.092	-0.038	0.233	1.746
Share of agriculture in NSDP	0	100	-0.200	-0.120	-0.040	-19.41	-6.42	-0.120
Share of reg. manufacturing in NSDP	0	100	-0.203	-0.139	-0.055	-8.829	-3.401	-0.103
Development expenditure as a % of NSDP	100	0	0.015	0.088	0.117	0.017	0.477	0.992
Surfaced roads as a % of total roads	100	0	0.011	0.022	0.034	0.022	0.144	0.560
Male-female literacy rate gap	0	100	-0.414	-0.284	-0.187	-12.571	-6.205	-0.552
Basu's Governance index	57	43	-0.082	0.005	0.072	-0.175	0.006	0.142
Infant mortality rate	35	65	-0.044	-0.001	0.059	-0.319	0.036	0.523
Consumer price gap	36	64	-2.005	-0.357	1.362	-3.480	-0.547	1.841

Table IV: Summary properties of coefficient estimates, Per Capita Net State Domestic Product

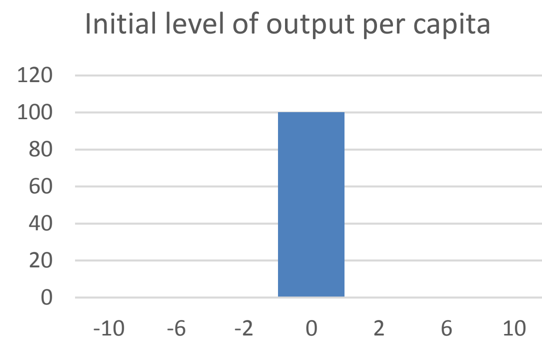
Dependent→ variable	Growth in per capita NSDP							
Explanatory variables ↓	% Positive Coefficients	% Negative Coefficients	Coefficient			"t-statistic"		
	(1)	(2)	Min (3)	Ave (4)	Max (5)	Min (6)	Ave (7)	Max (8)
Initial level of output per capita	0	100	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001
Population	96	0	-0.002	0.001	0.003	-0.001	0.002	0.004
Annual average rate of population growth	0	100	-0.549	-0.425	-0.275	-3.588	-1.699	-0.545
Rainfall	100	0	0.003	0.005	0.006	0.029	0.982	3.321
% Urban population	40	60	-0.293	-0.155	-0.008	-2.965	-0.562	-0.008
Literacy rate	100	0	0.057	0.143	0.196	0.096	2.411	9.292
Share of agriculture in NSDP	0	100	-0.077	-0.044	-0.016	-29.391	-1.907	-0.029
Share of reg. manufacturing in NSDP	52	48	-0.136	0.014	0.229	-0.397	0.078	1.601
Development expenditure as a % of NSDP	100	0	-0.231	-0.091	-0.025	-1.805	-0.252	-0.029
Surfaced roads as a % of total roads	100	0	0.012	0.041	0.065	0.018	0.316	1.427
Male-female literacy rate gap	2	98	-0.976	-0.475	0.071	-18.757	-6.763	0.087
Basu's Governance index	67	33	-0.286	-0.002	0.114	-1.682	-0.064	0.206
Infant mortality rate	31	69	-0.079	-0.017	0.115	-0.601	-0.072	0.827
Consumer price gap	78	22	-3.459	1.294	4.223	-5.784	1.998	8.043

Figure 2: Robustness of Correlates of Economic Growth
Frequency distribution of t-statistics of coefficient estimates across different regressions (%)

A. Dependent variable: growth in household per capita consumption



A. Dependent variable: growth in per capita NSDP



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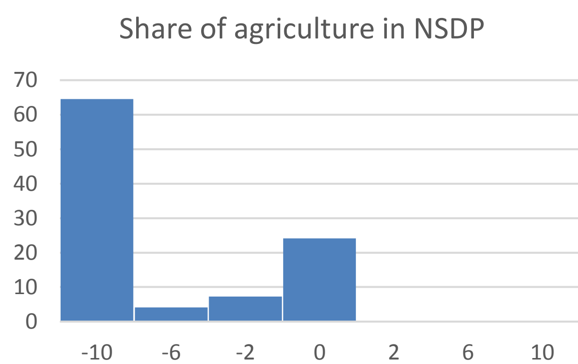

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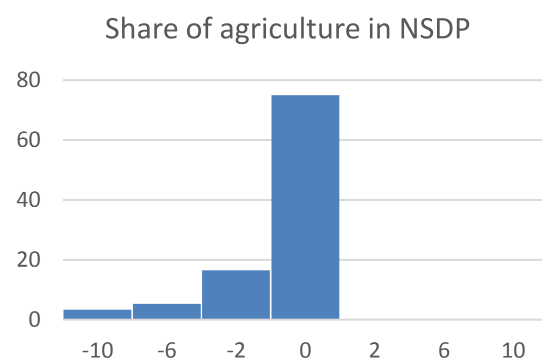
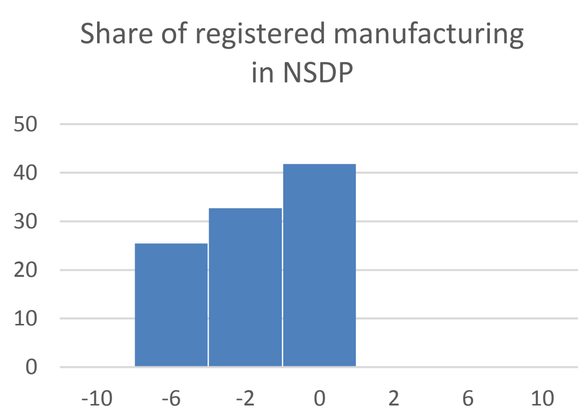
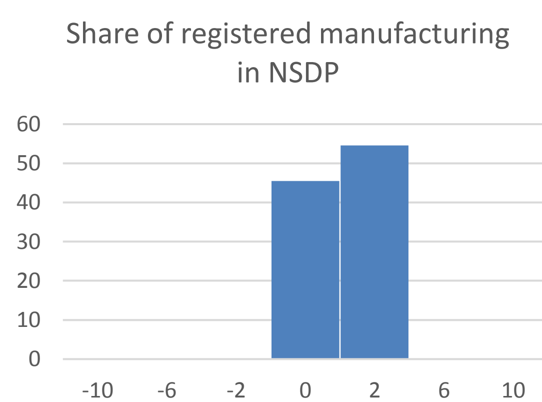


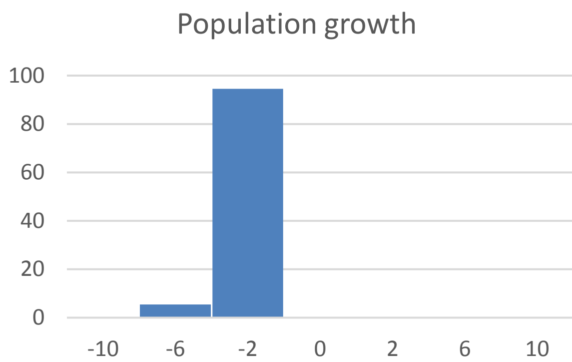
C. Dependent variable: growth in household per capita consumption



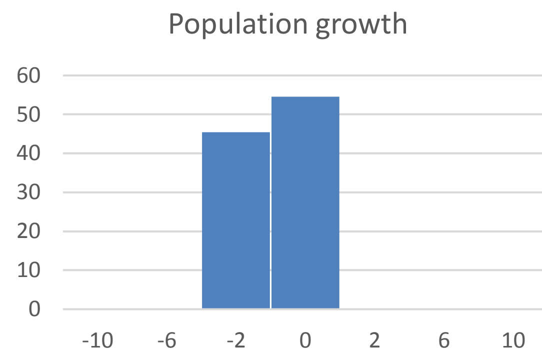
C. Dependent variable: growth in per capita NSDP



D. Dependent variable: growth in household per capita consumption



D. Dependent variable: growth in per capita NSDP



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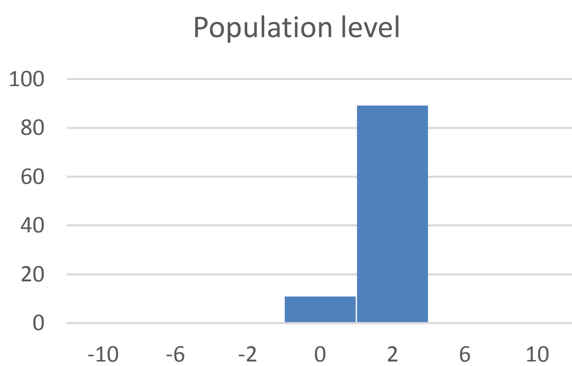
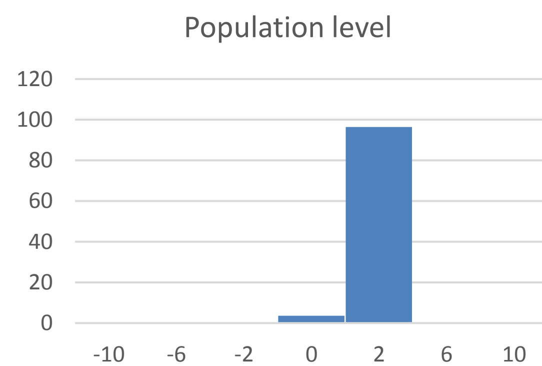


E. Dependent variable: growth in per capita NSDP



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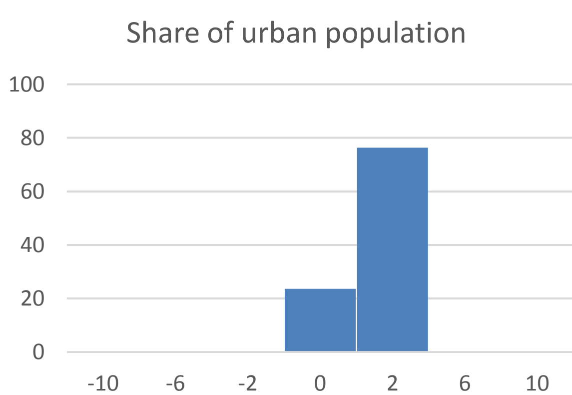

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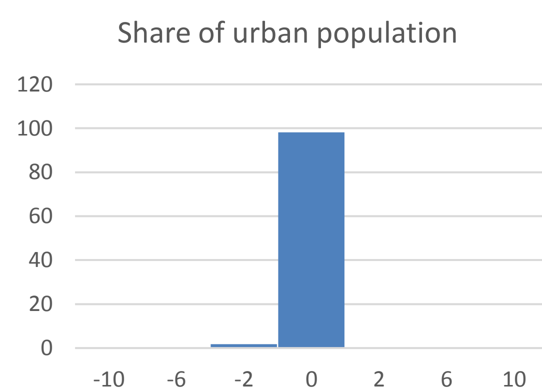
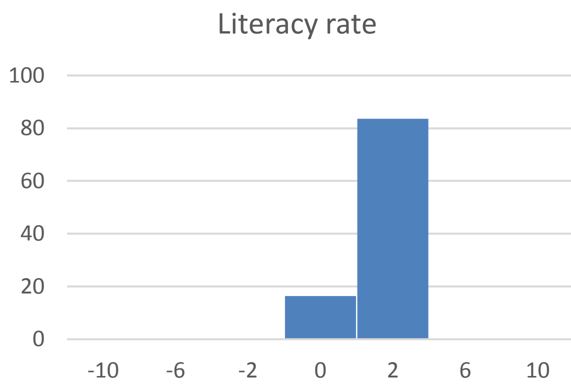


G. Dependent variable: growth in household per capita consumption



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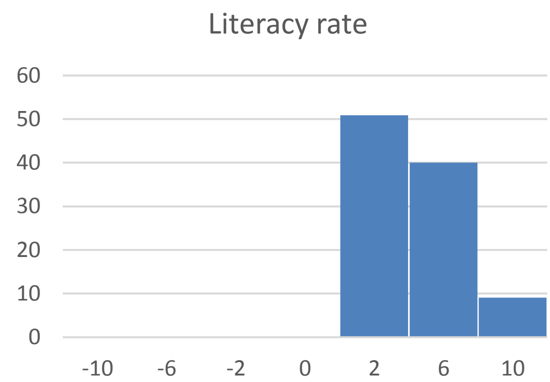
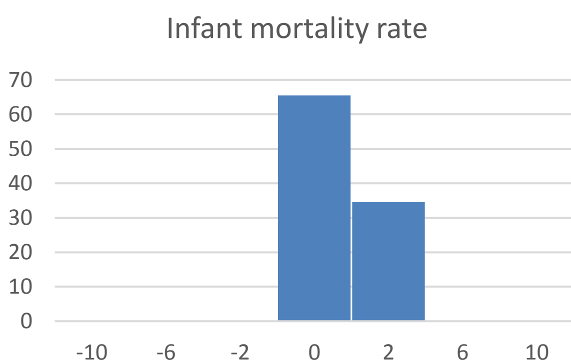
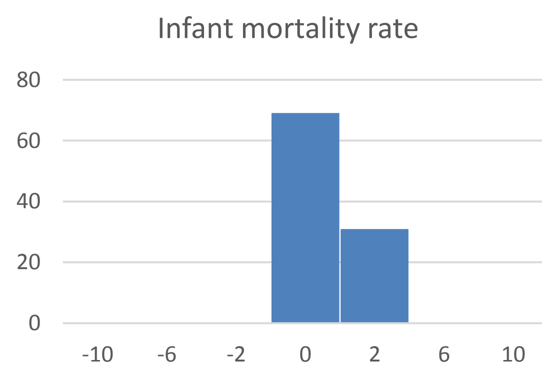


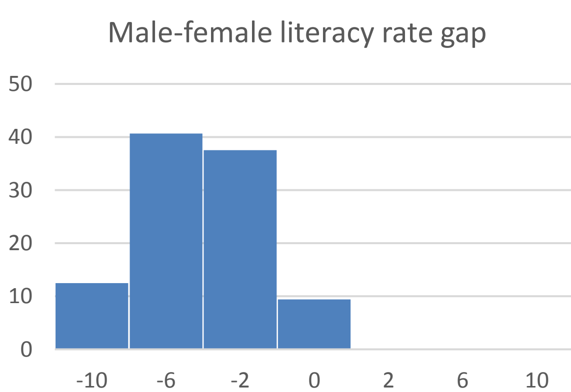
H. Dependent variable: growth in household per capita consumption



H> Dependent variable: growth in per capita NSDP



I. Dependent variable: growth in household per capita consumption



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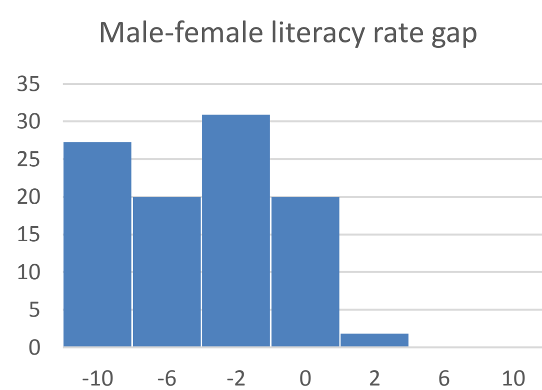

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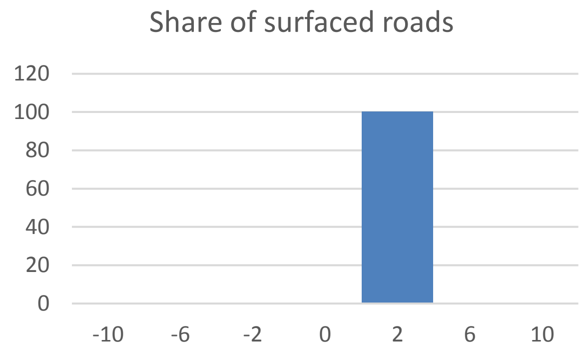

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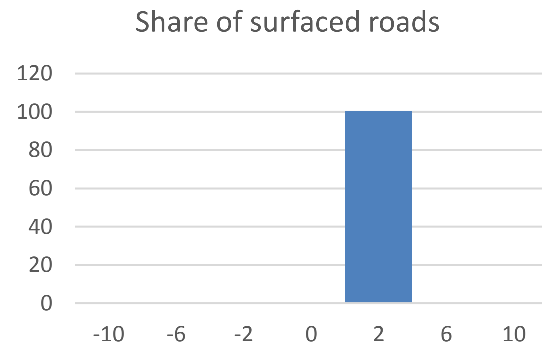
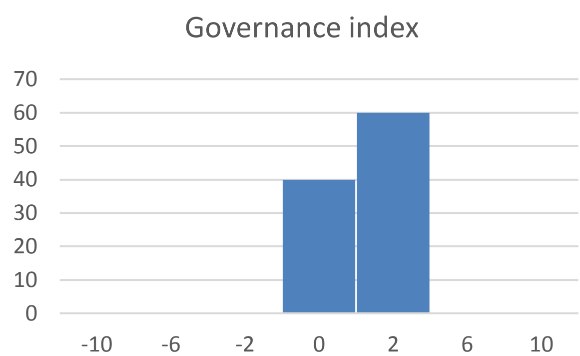
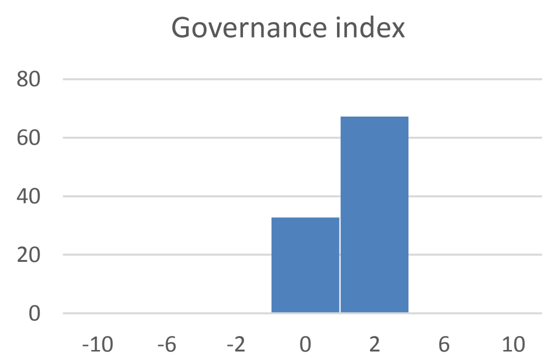


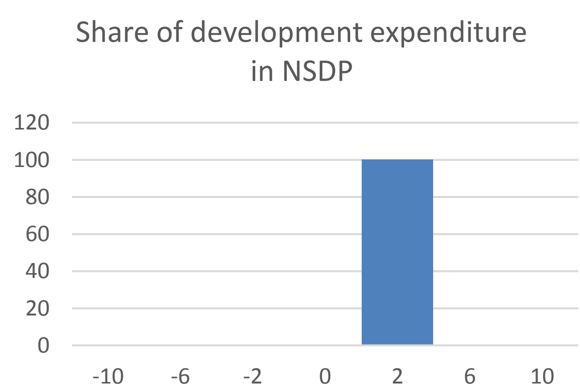
K. Dependent variable: growth in household per capita consumption



K. Dependent variable: growth in per capita NSDP



L. Dependent variable: growth in household per capita consumption



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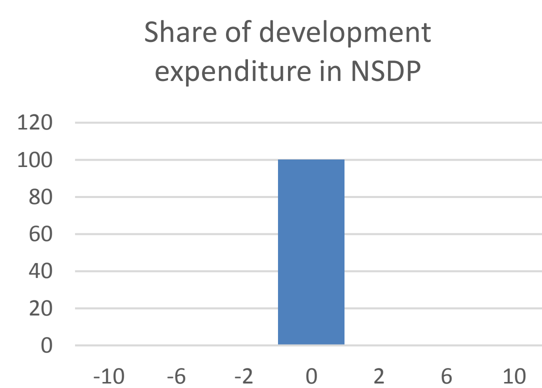
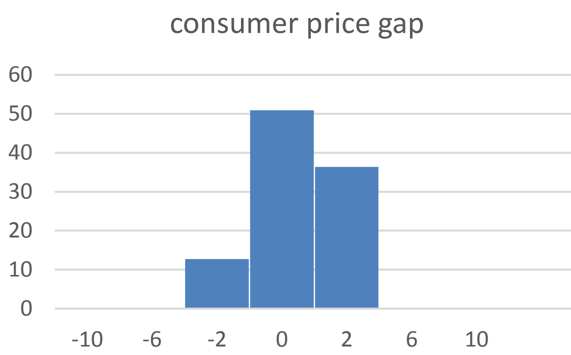


M. Dependent variable: growth in household per capita consumption



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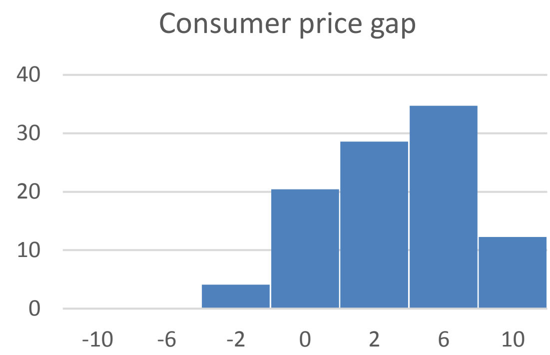
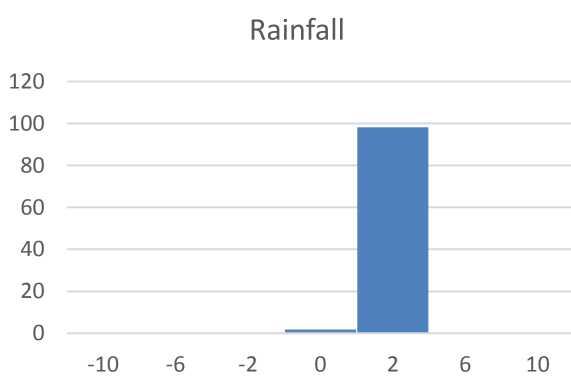


N. Dependent variable: growth in household per capita consumption



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