

# Studies in Population and Development

**No. 12-06**  
**Economic Growth in Gujarat**  
*50 Years Perspective*

Aalok Ranjan Chaurasia  
MN Pandya

**ECONOMIC GROWTH IN GUJARAT**  
**50 YEARS PERSPECTIVE**

Aalok Ranjan Chaurasia  
MB Pandya

## INTRODUCTION

Gujarat is one of those States of India where the economic production system has always performed better than the national average. The economic performance of the State may be termed as even more remarkable in view of the fact that Gujarat is poorly endowed with natural resources. The State has limited mineral base and its water resource are scarce with most of the rivers flowing through the State having reasonable. At the same time, the State faces some serious environmental challenges in terms of decreasing vegetation cover, soil erosion, deforestation, etc. as well as because of over use of water for both agricultural and industrial purposes. Despite these limitations, the entrepreneurial natural of the people of Gujarat and popular participation in development efforts is argued to have contributed significantly to all industrial economy and commercial nature of agriculture. An important contributing factor to better than average performance of the State economy has however been the fact that the State has the longest coastline in the country which has contributed to the growth and expansion of the economic system through international trade. For example, Lothal located in district Ahmedabad of the State is widely believed to be first sea-port in the world.

It is in the above context, the present paper attempts to analyse the evolution of the economy of the state since 1960-61 when Gujarat first came into existence after the division of the erstwhile Bombay State of the Republic of India on linguistic basis. The evolution of the State economy has been carried out in two contexts - the expansion of the economic production system and the change in the structure of the system since 1960-61. The expansion of the economic production system has been measured in terms of the trend growth rate of the output of the system while the structure of the system has been analysed in terms of the relative contribution of the output of different sectors of the system to the total output. Finally, on the basis of the trend in the output of the system, an effort has also been made to forecast the growth of the State economy during the XII Five-year Development Plan period, i.e. during the period 2012-2017. The forecasting exercise has been carried out separately for the three main sectors of the economic production system – primary or agriculture sector, secondary or manufacturing sector and tertiary of services sector. The sector-specific forecast also permit to analyse future changes in the structure of the State economy. Moreover, the output of the economic production system has been measured in real, not in nominal terms, to eliminate the effect of inflation on the output.

The paper is organised as follows. The next section of the paper describes the methodology employed for measuring the increase in the output of economic production system of the State. Essentially, the regression-based approach has been employed to measure the increase in the output of the system. The third section of the paper describes the data used in the analysis along with a discussion

on their quality. The fourth section of the paper presents the findings of the analysis in terms of the expansion of the economic production system as reflected through the increase in the output of the system and transition in its structure. In the fifth section of the paper, the project growth of the State economy has been presented in terms of the increase in the output of the economic production system in real terms during the period 2012 through 2017. At the same time, projected change or transition in the structure of the economic production system based on the projected increase in the output of different sectors of the economic production system has also been presented and discussed in this section. Finally, the sixth and the last section of the paper discusses the policy implications of the expansion of the economic productions system of the State during the 50 years between 1960-61 through 2010-11 in the context of the projected increase in the output of the economic production system in the State during the period 2010-11 through 2014-15.

## **METHODOLOGY**

The output of any production system, in monetary terms, can be measured in terms of market prices as well as in terms of the cost of factors of output or production. Estimation of the output in terms of market prices is sensitive to subsidies and indirect taxes. On the other hand, estimation of the output at the cost of factors of production is independent of any type of subsidy or indirect taxes from the value of the output. The indicator that is now universally used to measure the output of the economic production system is the domestic production which, in monetary terms, is cost involved in producing all goods and services during a given period within a specified administrative area without duplication. A decentralised approach is adopted for estimating the cost of goods and services produced. First, the economic production system is divided into three main sectors of the production system – primary or agriculture sector, secondary or manufacturing sector and tertiary or service sector. Subsequently, each sector of the system is further divided into sub-sectors and each sub-sector into specific goods and services. In other words, a nested system of production is evolved through which the cost of production of each goods and services is estimated. This cost when added for all sub-sectors and sectors of the economic production system provides estimates of the total output of the system. If the nominal cost is used in the estimation exercise, the output is in current prices. On the other hand, if real cost is used in estimation, the output is in real prices.

Four indicators are commonly used to measure the output of the economic production system – 1) gross domestic product in nominal terms; 2) gross domestic product in real terms; 3) net domestic product in nominal terms; and 4) net domestic product in real terms. The net domestic product takes into

consideration the cost of the capital stock of the economic production system used in the production process. The gap between gross and net domestic product reflects the obsolescence of the capital stock of the economic production system. The gross domestic product, on the other hand, does not take into consideration the depreciation in the capital stock. The gross domestic product (GDP) at nominal prices is the most crude, yet most widely used indicator of the output of the economy. However, GDP is a crude indicator of the output of the economic production system because it is influenced by the inflation or the increase in prices and it does not take into account the depreciation in the capital stock over time. On the other hand, the net domestic product at real prices is the most refined indicator of the output of the economic production system. Estimation of the net domestic product either at nominal or real prices is however problematic because of the problems associated with the estimation of the depreciation of the capital stock.

In the present paper, we use the gross domestic product at real or fixed prices to analyse the trend in the output of the economic production system of the State. Moreover, relative output of the three main sectors of the economic production system has been used to analyse the changes in its structure. The reference point for estimating the gross domestic product of the state at fixed prices has been taken as the year 2004-2005. This means that the output of the economic production of the State economy for different years of the period 1960-61 through 2010-11 has been estimated at prices that prevailed in the State during the period 2004-2005.

The simple graph of the trend in GSDP at 2004-2005 over time suggests that the growth of the state economy has not been the same during the 50 years under reference. To capture the differential growth of the output of the economic production system of the State in different periods, we have divided the fifty-year period between 1960-61 through 2010-11 into five periods, each of 10 years interval, and have analysed the growth of the output of different sectors of the economic production system in different 10-year intervals separately. With the above assumption, we have analysed the trend in the output of the economic production system of the State through the application of the following statistical model:

$$\ln(G) = a_0 + b_0 T + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 \quad (1)$$

where G is the gross State domestic production (GSDP) at 2004-05 prices, T is the time with origin at 1960-61 and  $X_1, \dots, X_4$  are dummy variables which have been defined in the following manner:

$$\begin{aligned} X_1 &= 0 \text{ if Year} \leq 1970-71 \\ &= 1 \text{ if Year} > 1970-71 \end{aligned}$$

$$\begin{aligned} X_2 &= 0 \text{ if Year} \leq 1980-81 \\ &= 1 \text{ if Year} > 1980-81 \end{aligned}$$

$$\begin{aligned} X_3 &= 0 \text{ if Year} \leq 1990-91 \\ &= 1 \text{ if Year} > 1990-91 \end{aligned}$$

$$\begin{aligned} X_4 &= 0 \text{ if Year} \leq 2000-01 \\ &= 1 \text{ if Year} > 2000-01 \end{aligned}$$

Finally, on the basis of the results of the regression analysis, the average annual rate of growth of output during different 10-year period during the time interval between 1960-61 and 2010-11 has been calculated according to the following equations:

Period	Growth rate
1960-61 to 1970-71	$\exp(b_0) - 1$
1970-71 to 1980-81	$\exp(b_0+b_1) - 1$
1980-81 to 1990-91	$\exp(b_0+b_1+b_2) - 1$
1990-91 to 2000-01	$\exp(b_0+b_1+b_2+b_3) - 1$
2000-01 to 2010-11	$\exp(b_0+b_1+b_2+b_3+b_4) - 1$

On the other hand, in order to analyse the structure or the composition of the output of the economic production system of the State, we have used the identity

$$G = A + M + S$$

Where A is the gross output of the primary (agriculture) sector of the economic production system at 2004-05 prices, M is the gross output of the secondary (manufacturing) sector and S is the gross output of the tertiary (service) sector. The change in the total gross output of the economic production system over time can now be decomposed as

$$G_2 - G_1 = (P_2 - P_1) + (M_2 - M_1) + (S_2 - S_1).$$

One limitation of the above simple approach is that it does not takes into account the effect of the change, for example, in the primary or the agriculture sector of the economy on the remaining two sectors, etc. It is well known that output of one sector of the economic production system has an impact on the output of other sectors of the production system. A more appropriate model of analysing the change in the structure of the economic production system is to use a multiplicative model.

## **DATA SOURCE**

The analysis is based on the estimates of GSDP prepared by the Directorate of Economics and Statistics for different years of the period 1960-61 through 2010-11. These estimates are based on the methodology suggested by the Government of India, Ministry of Statistics and Programme Implementation from time to time. Estimates of GSDP for the State as a whole are available at current or nominal as well as real or fixed prices. The reference period for estimating GSDP at fixed prices, however, has not been the same for different periods of the 50-year period under reference. Estimates of GSDP for the period 1960-61 through 1970-71 are available at 1960-61 prices. Similarly, estimates of GSDP for the period 1970-71 through 1980-81 are available at 1970-71 prices; estimates for the period 1980-81 through 1993-94 are available at 1980-81 prices; estimates for the period 1993-94 through 1999-2000 are available at 1993-94 prices; estimates for the period 1999-2000 through 2004-05 are available at 1999-2000 prices; and estimates of GSDP for the period 2004-05 onwards are available at 2004-05 prices. As such, the integrated series of GSDP at 2004-05 was arrived at by using the method of splicing for analysing the growth in the output of the economic production system of the State. It may however be pointed out here that different series of the production of the output of the economic system are not strictly comparable as there have been changes in the list of goods and services used for estimating the output keeping into consideration the change in the demand for goods and services with time. However, the difference is not found to be substantial as may be seen from the simple graph of the time trend in the output of the economic production system. As such the integrated series of the output at 2004-05 prices has been used in the present analysis. This integrated series of output at 2004-05 has been prepared for the economic production system as a whole as well as separate for its primary, secondary and tertiary sectors. These integrated series of output in different sectors of the economic production system as well as for the system as a whole constitute the basic data set for the present analysis.

## **RESULTS**

The GSDP of Gujarat, at 2004-05 prices, was estimated to be Rs 17020 crore during the financial year 1960-61 which increased to Rs 365295 crore during the financial year 2009-10. If the increase in the output of the economic production system is an indication than the economic production system in the State appears to have expanded by almost 20 times during the 50 years between 1960-61 and 2010-11. This is a remarkable achievement given the fact that the State is constrained in terms of natural endowments. Such a massive increase in

the output of the economic production system also reflects the versatility of the production system of the State (Table 1). During the same period, the output of the primary sector increased by around 5 times from Rs 7951 crore during 1960-61 to Rs 40429 crore during 2009-10 while that of the manufacturing sector increased by around 31 times – from Rs 3575 crore during 1960-61 to 110093 crore during 2009-10. Similarly, the output of the service sector increased by around 33 times – from 5494 crore in 1960-81 to 180149 crore during 2009-10. This shows that the expansion of the economic production system of the State, during the 50 years under reference has virtually been confined to the secondary or manufacturing and tertiary or service sector. By comparison, the expansion of the primary or agriculture sector has been very small.

In order to analyse the trend in the output of the economic production system and in its different sectors, we have applied the regression model (1) to the data given in table 1. Results of the application of the model are given in table 1 which shows that the regression model (1) provided an excellent fit to the trend in real GSDP as well as the trend in the output of the three sectors of the economic production system as revealed through figures 1 through 4. In case of real GSDP, the fitted regression model accounted for nearly 99 per cent of the actual variation over time whereas in case of the out of different sectors of the production system, the adjust coefficient of determination is estimated to be around 83 per cent in care of primary sector and more than 99 per cent in case of secondary and tertiary sectors of the economic production system (Table 2). The excellent fit of the regression model (1) to the data given in table 1 is also confirmed by the analysis of variance. Results of the regression model have then been used to estimate the rate of growth of GSDP in different 10-year periods and the average annual growth rates in different 10-year periods so obtained are presented in table 3 along with the average annual growth rate of the output of different sectors of the economic production function which reflect how the economic production system has evolved over time during the 50 years of the existence of the State of Gujarat.

It may be seen from table 3 that the growth of the output of the production system or GSDP of the State has not been the same throughout the period under reference, although, it has continuously been picking the momentum. During the period 1960-61 through 1970-71, the GSDP at 2004-05 prices increased at an average annual rate of less than 1.9 per cent per year. However, during the period 1970-71 through 1980-81, the State witnessed a rapid growth in the output of the production system so that the GSDP of the State increased at an average annual rate of more than 7.7 per cent per year. This indicates that during the period 1970-71 through 1980-81, there has been a very rapid expansion of the economic production system of the State. However, during the period 1980-81 through 1990-91, there has been considerable slow-down in the growth of the output so that GSDP increased at an average annual rate of only around 5.9 per cent per



year during this period. During the period 1990-91 through 2000-01, the economic production system of the State picked up the momentum again resulting in acceleration in the growth of real GSDP which increased at an average annual rate of more than 6 per cent per year during this period. The momentum of growth accelerated further during the period 2000-01 through 2009-10 with the result that the GSDP of the State, at 2004-05 prices, recorded an average annual growth rate of very close to 9 per cent per year during this period.

On the other hand, an examination of the growth of the output in three sectors of the economic production system suggests that the growth of the output in the primary sector has been the slowest amongst the three sectors of the economic production system throughout the 50 years under reference. During the period 1960-61, the output of the primary sector increased at an average annual rate of only around 1.1 per cent. Although, the output of the primary sector recorded a very impressive average annual growth rate of more than 6.5 per cent per year during the period 1970-71 through 1980-81, yet the growth of the output slumped again to around 1.2 per cent during the period 1980-81 through 1990-91. The slow-down in the growth of output of the primary sector had a reflection on the growth of GSDP which increased at an average annual rate of less than 6 per cent per year – the slowest during the period 1970-71 through 2009-10. Since 1990-91, however, the output of this sector has picked the momentum and during the period 2000-01 through 2009-10, it has recorded an impressive average annual growth rate of very close 6 per cent per year which is a remarkable achievement for the State.

Compared to the primary sector, the growth of the secondary and tertiary sector has been more consistent in the State during the period under reference, although there are some variations in the growth of the output in the two sectors as may be seen from table 3. The output of the secondary sector recorded the fastest growth, very close to 9 per cent per year, during the period 1980-81 through 1990-91, although the average annual growth of the output of this sector has also been almost equally rapid during the period 2000-01 through 2009-10. On the other hand, growth of the output of the tertiary sector was the most rapid during the period 2000-01 through 2009-10 when it recorded double digit growth on average. Growth of the output of the tertiary sector was also very rapid during the period 1970-71 through 1980-81 when the output of the sector increased at an average annual rate of more than 9 per cent.

It is also evident from table 3 that both the manufacturing and the service sector of the economic production system of the State actually picked up the momentum after 1970-71 and followed a high growth trajectory throughout the 40 years period from 1970-71 through 2009-10. In both the manufacturing and the service sector the growth of the output has always be more than 7 per cent per year during this period. This sustained growth in the output of secondary and

tertiary sectors is perhaps the most remarkable feature of the performance of the State economic system. Gujarat has been able to not only substantially expand the manufacturing and service sectors of its economic production system but also to sustain the expansion for almost four decades. This is a major achievement and reflects the fact that a favourable investment climate could be maintained in the State continuously for almost four decades. Sustenance of a favourable investment climate for such a long period is a reflection of the entrepreneurial nature of the people of Gujarat and their commitment towards active participation in the economic production system as well as a result of the sustenance of innovative yet investment friendly policies and programmes of the State Government.

The expansion of the State economy has also been associated with a significant change in the structure of the economic production system. When the State came into existence, the production system of the State was dominated by the productive activities related to the primary or the agriculture sector so that primary sector accounted for accounting for very close to half of GSDP at 2004-05 prices. Today, productive activities of the service sector dominate the production system of the State and the service sector output accounts for nearly 55 per cent of the GSDP of the State whereas output of the primary or the agriculture sector accounts for only around 12 per cent of GSDP. An implication of this transition is that the output of the economic production system of the State is now only marginally sensitive to the vagaries of agriculture production system which still continues to depend heavily on rains.

The decrease in the share of the output of the primary sector to the total output of the economic system of the State has been associated with the increase in the share of output of the secondary or manufacturing sector and the output of the tertiary or service sector. The share of the secondary or the manufacturing sector has increased in the State from around 21 per cent during 1960-61 to more than 33 per cent during 2009-10. On the other hand, the share of the tertiary or the service sector increased from around 32 per cent to more than 54 per cent during this period which indicates that the transition in the structure of the economic production system of the State has been quite significant during the 50 years under reference. The economic production system of the State now depends primarily on the tertiary or the service sector and not on the secondary or the manufacturing sector or the primary or agriculture. This transition in the structure of the economic production system of the State has important implications for development planning and programming and for sustaining the growth of the production system as a whole. Moreover, because of the rather limited dependence of the economic dependence on the secondary or the manufacturing sector, the State appears to have been able to bear the impact of the economic shocks that the country is now witnessing. Provisional and quick estimates of GSDP for 2010-11 and 2011-12 suggest that Gujarat has been able to maintain

rapid growth in the output of its economic production system at a time when there has been a significant slow-down in the output of the economic production system at the national level.

### **FUTURE OUTPUT GROWTH**

It is also possible to project the growth of GSDP in the State in the near future on the basis of the fitted regression model which provides an excellent fit to the growth of the output of the economic production system during the 50 years between 1960-61 through 2009-10. This exercise has been carried out separately for the three sectors of the economic production system and projected output levels have then been added to arrive at the project GSDP for the entire economic production system of the State. This exercise suggests that the output of the primary sector of the state economy is expected to increase to around Rs 58343 crore by the year 2014-15 if the trend in the output of this sector during the last 50 years continues during the next five years also. Similarly, the output of the secondary or the manufacturing sector of the economy is expected to increase to around Rs 159436 crore while that of the tertiary or the service sector of the economy is expected to increase to around Rs 282638 crore by the year 2014-15. In other words, the projection exercise based on the trend in the output during the last 50 years suggests that the real GSDP of the State at 2004-05 prices is expected to increase to more than Rs 500000 crore by the year 2014-15. This will be an achievement by itself. The projection exercise also suggests that structural transition in the economic production system of the state will also gather pace during the years to come. It is expected that, by the year 2014-15, the tertiary sector of will be accounting for more than 56 per cent of the total output of the economic production system of the State. By contrast, the contribution of the primary sector to the output of the economy of the State is expected to reduce to less than 12 per cent. On the other hand, it is projected that there will be little change in the contribution of the secondary sector of the economy to the gross domestic product of the state in real terms. In fact, the regression modeling exercise attempted in the present paper suggests a marginal decline in the contribution of the secondary sector to the total output of the economic production system of the state. It may however be pointed out that the projected trend in the output of the production system may get modified as the result of the policies and programmes of the Government. Similarly, it is also possible that the projected trend in the output of the economic production system of the state may also get modified as the result of external shocks such as natural factors and market forces. However, given the trend in the output of the economic production system, there is every possibility that rapid growth in the economy will continue at least in the immediate future.

## CONCLUSIONS

The present paper has presented the historical perspective of the evolution of the economic production system in Gujarat right since the State of Gujarat came into existence way back in 1960. The growth in the real gross state domestic product during the 50 years from 1960-61 through 2009-10 has been analysed by fitting a regression model which provided a very good fit to the observed trend in the gross domestic product as well as sector specific outputs. The very excellent fit of the regression model to 50-year trend in the gross State domestic product has also promoted to project the growth of GSDP in the near future which suggests that the total output of the economic production system of the State will cross Rs 500000 crore mark at 2004-05 prices. This obviously will be a major achievement for the State.

The state domestic product is commonly known as the State income in common parlance. It is a measure of the volume of all goods and services produced by the State in monetary terms during a given period without duplication. Estimates of the State domestic product over a period of time reveal the extent and direction of the change in the levels of economic development. The composition of the State domestic product by sectors of the economic production system gives an idea about the relative position of different sectors of production over a period of time which indicates not only the real structural changes taking place in the economic production system of the State but also provides the much needed insight into the economic production system that is critical for effective development planning and programming.

Table 1  
GSDP at 2004-05 prices in Gujarat: 1960-61 through 2009-10

Year	Gross output (Crore Rupees)				Structure of the output			
	Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
1960-61	7951	3575	5494	17020	46.72	21.00	32.28	100.00
1961-62	9324	3714	5835	18873	49.40	19.68	30.92	100.00
1962-63	8874	3877	5986	18737	47.36	20.69	31.95	100.00
1963-64	9405	4185	6339	19929	47.19	21.00	31.81	100.00
1964-65	10621	4508	6681	21810	48.70	20.67	30.63	100.00
1965-66	8628	4667	6757	20052	43.03	23.27	33.70	100.00
1966-67	8488	4906	7067	20461	41.48	23.98	34.54	100.00
1967-68	10722	4586	7289	22597	47.45	20.29	32.26	100.00
1968-69	8480	4680	7413	20573	41.22	22.75	36.03	100.00
1969-70	10141	5090	7817	23048	44.00	22.08	33.92	100.00
1970-71	13725	5063	8228	27016	50.80	18.74	30.46	100.00
1971-72	14358	4777	8706	27841	51.57	17.16	31.27	100.00
1972-73	7729	5742	8334	21805	35.45	26.33	38.22	100.00
1973-74	11480	6134	9249	26863	42.74	22.83	34.43	100.00
1974-75	7537	6159	9022	22718	33.18	27.11	39.71	100.00
1975-76	13684	6003	10028	29715	46.05	20.20	33.75	100.00
1976-77	14063	6606	10871	31540	44.59	20.94	34.47	100.00
1977-78	14478	7510	11651	33639	43.04	22.33	34.64	100.00
1978-79	15179	7903	12775	35857	42.33	22.04	35.63	100.00
1979-80	18847	11042	18965	48854	38.58	22.60	38.82	100.00
1980-81	19485	10855	19685	50025	38.95	21.70	39.35	100.00
1981-82	23051	11207	20977	55235	41.73	20.29	37.98	100.00
1982-83	19528	12369	22053	53950	36.20	22.93	40.88	100.00
1983-84	23619	16031	23895	63545	37.17	25.23	37.60	100.00
1984-85	23887	14806	25396	64089	37.27	23.10	39.63	100.00
1985-86	17947	16760	26753	61460	29.20	27.27	43.53	100.00
1986-87	17815	18270	28818	64903	27.45	28.15	44.40	100.00
1987-88	9494	18117	29752	57363	16.55	31.58	51.87	100.00
1988-89	25558	21236	34247	81041	31.54	26.20	42.26	100.00
1989-90	22384	20726	36754	79864	28.03	25.95	46.02	100.00
1990-91	20846	23425	36440	80711	25.83	29.02	45.15	100.00
1991-92	17444	19704	37961	75109	23.22	26.23	50.54	100.00
1992-93	25937	29557	41254	96748	26.81	30.55	42.64	100.00
1993-94	19520	29088	44886	93494	20.88	31.11	48.01	100.00

Year	Gross output (Crore Rupees)				Structure of the output			
	Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
1994-95	27909	34315	48460	110684	25.22	31.00	43.78	100.00
1995-96	24120	39353	52689	116162	20.76	33.88	45.36	100.00
1996-97	32815	44553	55704	133072	24.66	33.48	41.86	100.00
1997-98	29772	43220	62734	135726	21.94	31.84	46.22	100.00
1998-99	31769	46580	67043	145392	21.85	32.04	46.11	100.00
1999-00	21988	49983	73933	145904	15.07	34.26	50.67	100.00
2000-01	19301	45244	74230	138775	13.91	32.60	53.49	100.00
2001-02	25739	45090	80067	150896	17.06	29.88	53.06	100.00
2002-03	23719	52167	86910	162796	14.57	32.04	53.39	100.00
2003-04	34320	58535	94394	187249	18.33	31.26	50.41	100.00
2004-05	31715	65743	105915	203373	15.59	32.33	52.08	100.00
2005-06	39735	76803	117238	233776	17.00	32.85	50.15	100.00
2006-07	39157	84493	129743	253393	15.45	33.34	51.20	100.00
2007-08	43518	91644	146111	281273	15.47	32.58	51.95	100.00
2008-09	39941	96063	164337	300341	13.30	31.98	54.72	100.00
2009-10	40429	110093	180149	330671	12.23	33.29	54.48	100.00

Source: Authors' calculations based on data available through the Directorate of Economics and Statistics, Government of Gujarat.

Table 2  
Results if the regression model

Particulars	GSDP	Primary sector output	Secondary sector output	Tertiary sector output
R <sup>2</sup>	0.988	0.827	0.992	0.995
'F'	795.192	47.722	1169.670	2057.958
a <sub>0</sub>	9.820	9.078	9.078	8.670
b <sub>0</sub>	0.019	0.011	0.011	0.024
b <sub>1</sub>	0.056	0.053	0.053	0.063
b <sub>2</sub>	-0.017	-0.052	-0.052	-0.012
b <sub>3</sub>	0.002	0.011	0.011	-0.009
b <sub>4</sub>	0.027	0.034	0.034	0.031

Source: Authors' calculations

Table 3  
Trend growth rates  
Average annual growth (%)

Period	GSDP	Primary sector output	Secondary sector output	Tertiary sector output
1960-61/1970-71	1.892	1.101	2.307	2.458
1970-71/1980-81	7.717	6.575	7.918	9.140
1980-81/1990-91	5.908	1.211	8.954	7.864
1990-91/2000-01	6.097	2.375	7.265	6.846
2000-01/2009-10	8.999	5.921	8.855	10.171

Source: Authors' calculations.

Table 4  
Project growth in GSDP of Gujarat at 2004-05 prices

Year	Gross output (Crore Rupees)				Structure of the output			
	Primary sector	Secondary sector	Tertiary sector	GSDP	Primary	Secondary	Tertiary	Total
2010-11	46715	114444	193356	354515	13.18	32.28	54.54	100.00
2011-12	49396	124365	212659	386420	12.78	32.18	55.03	100.00
2012-13	52223	135126	233845	421195	12.40	32.08	55.52	100.00
2013-14	55202	146789	257110	459101	12.02	31.97	56.00	100.00
2014-15	58343	159439	282630	500417	11.66	31.86	56.48	100.00

Source: Authors' calculations.



Figure 1  
Actual, fitted and projected GSDP in Gujarat

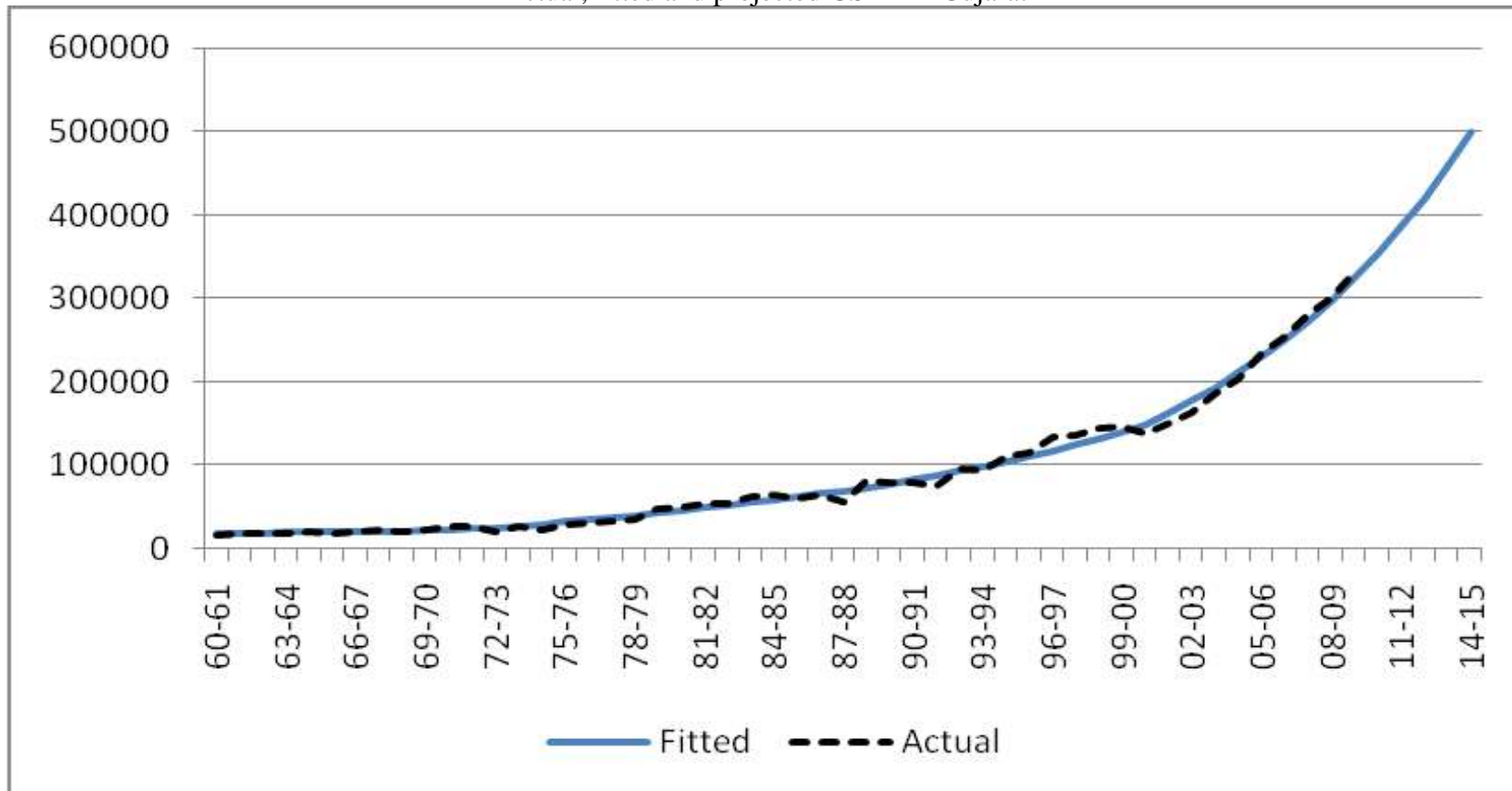


Figure 2  
Actual, fitted and projected output of primary sector in Gujarat

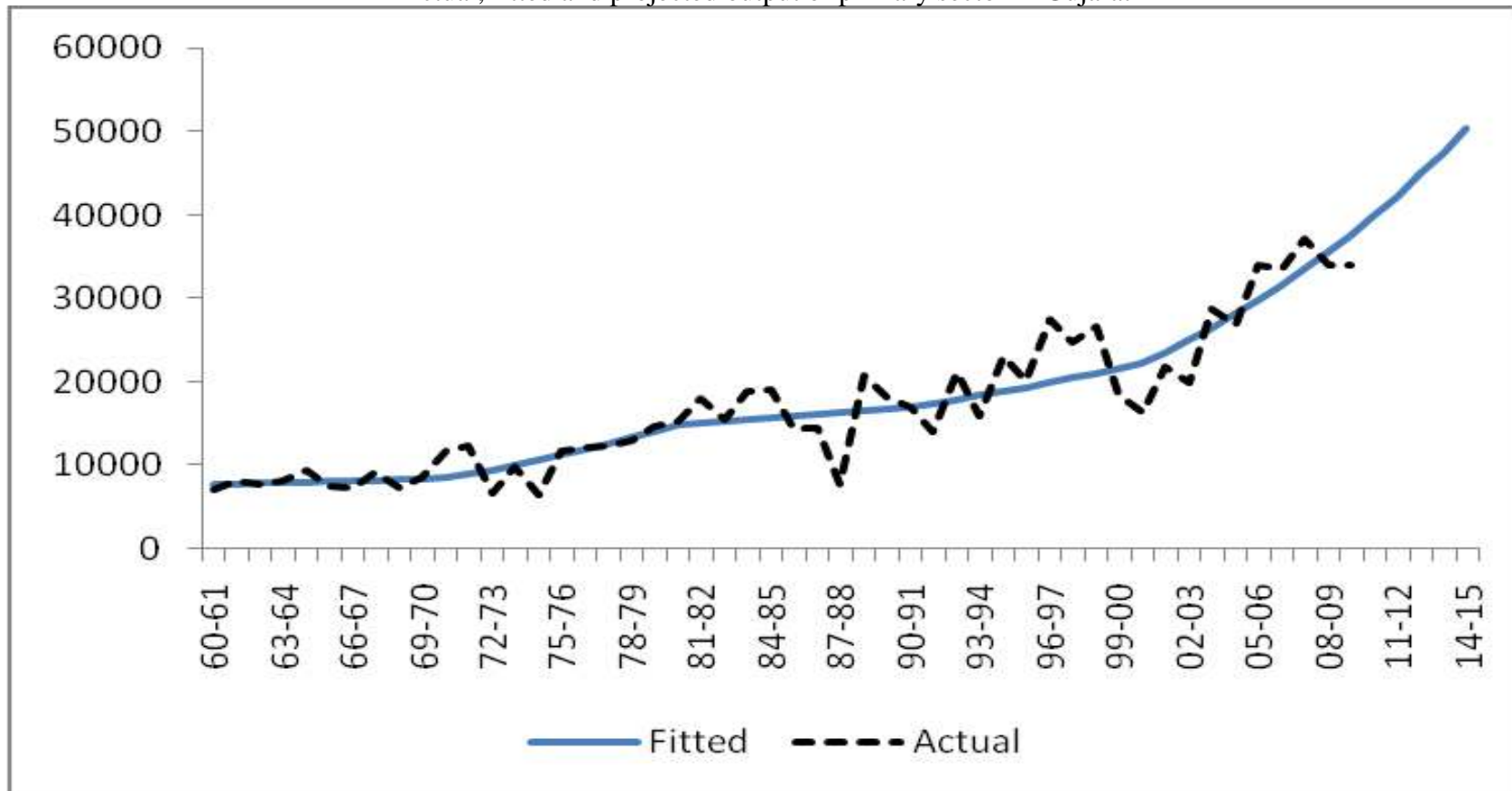


Figure 3  
Actual, fitted and projected output of secondary sector in Gujarat

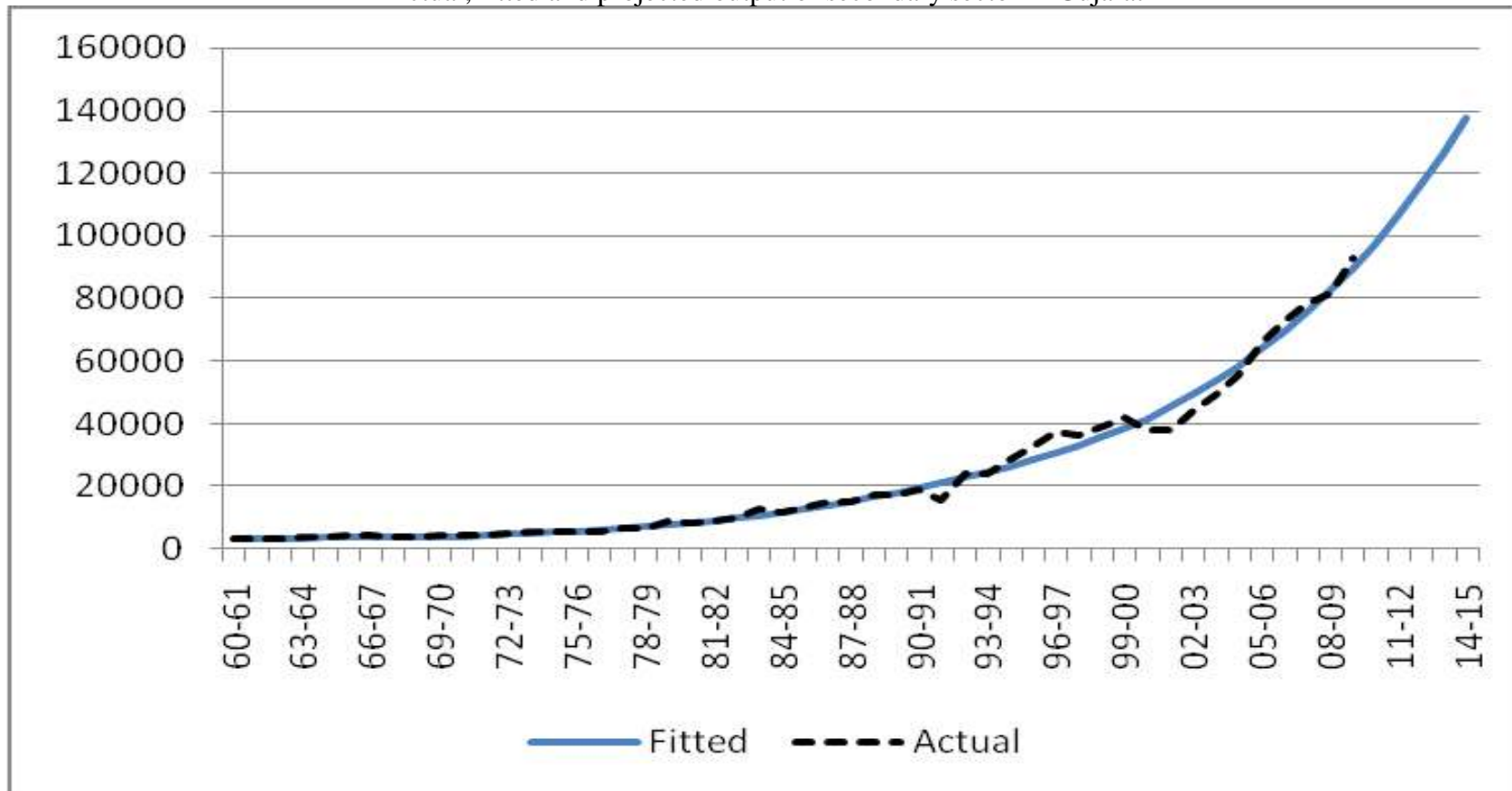


Figure 4  
Actual, fitted and projected output of service sector in Gujarat

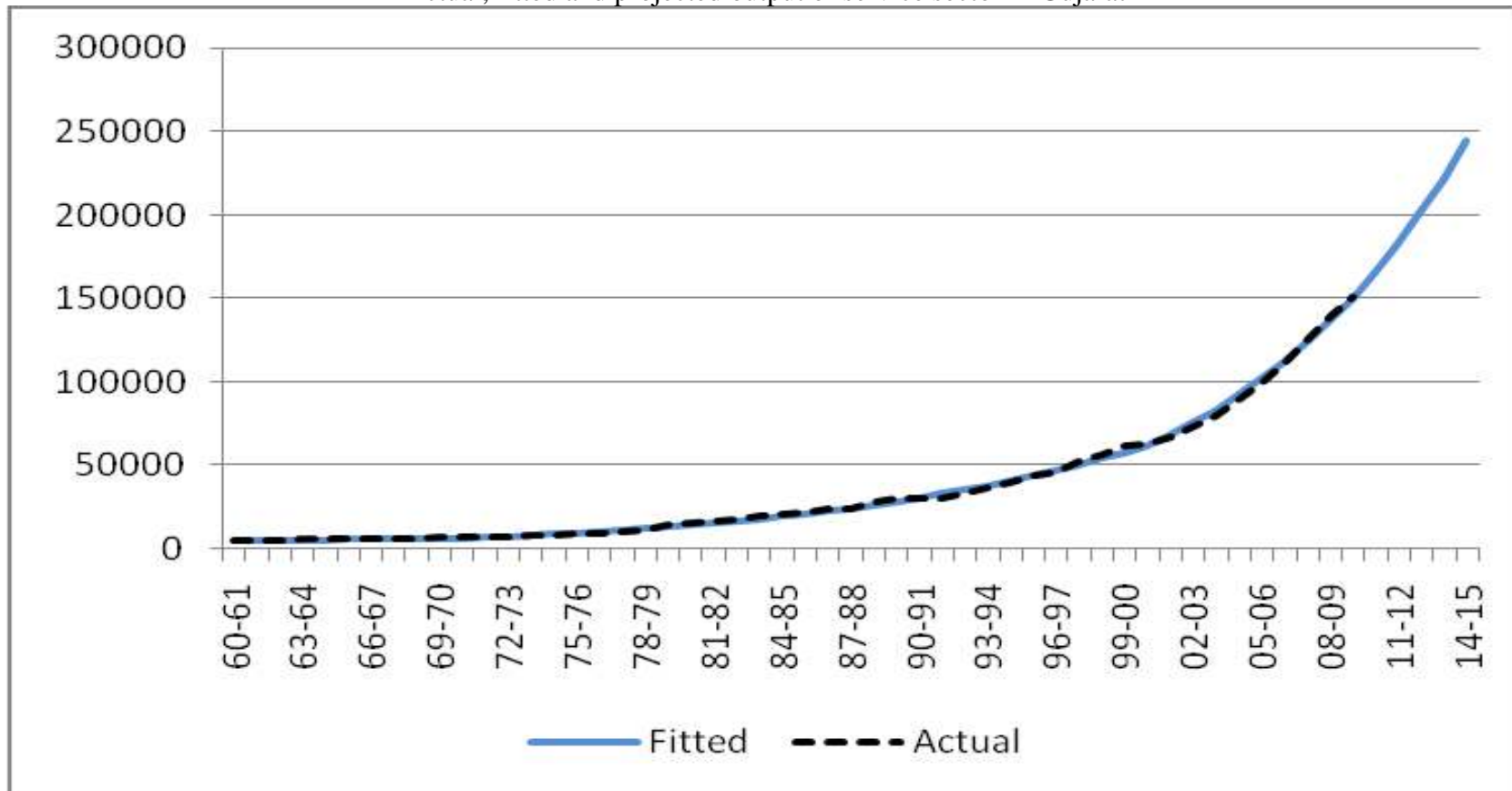


Figure 5  
Structure of GSDP in Gujarat

