

1991 Liberalization - 30 since - Manmohan Singh.

Currency devaluation Delicensing Open to foreign trade

Data Visualization:

Timeline of 30 years since liberalization

Team of bureaucrats along with PV Narsimha Rao

Research papers - events of 1991

Data Viz - key variables - 10-15 visuals that tell the story of liberalization

Macroeconomic variables - GDP, FDI Market Cap of companies No. of STD Booths Development indicators Fiscal spending GDP growth rate Novel variables that reflect the effects of Liberalization

Explore State wise variations - GIS Launch - 1st and 2nd week July Development Data Lab - Aditi Bhoumik 900 page volume

Macro Economic Indicator

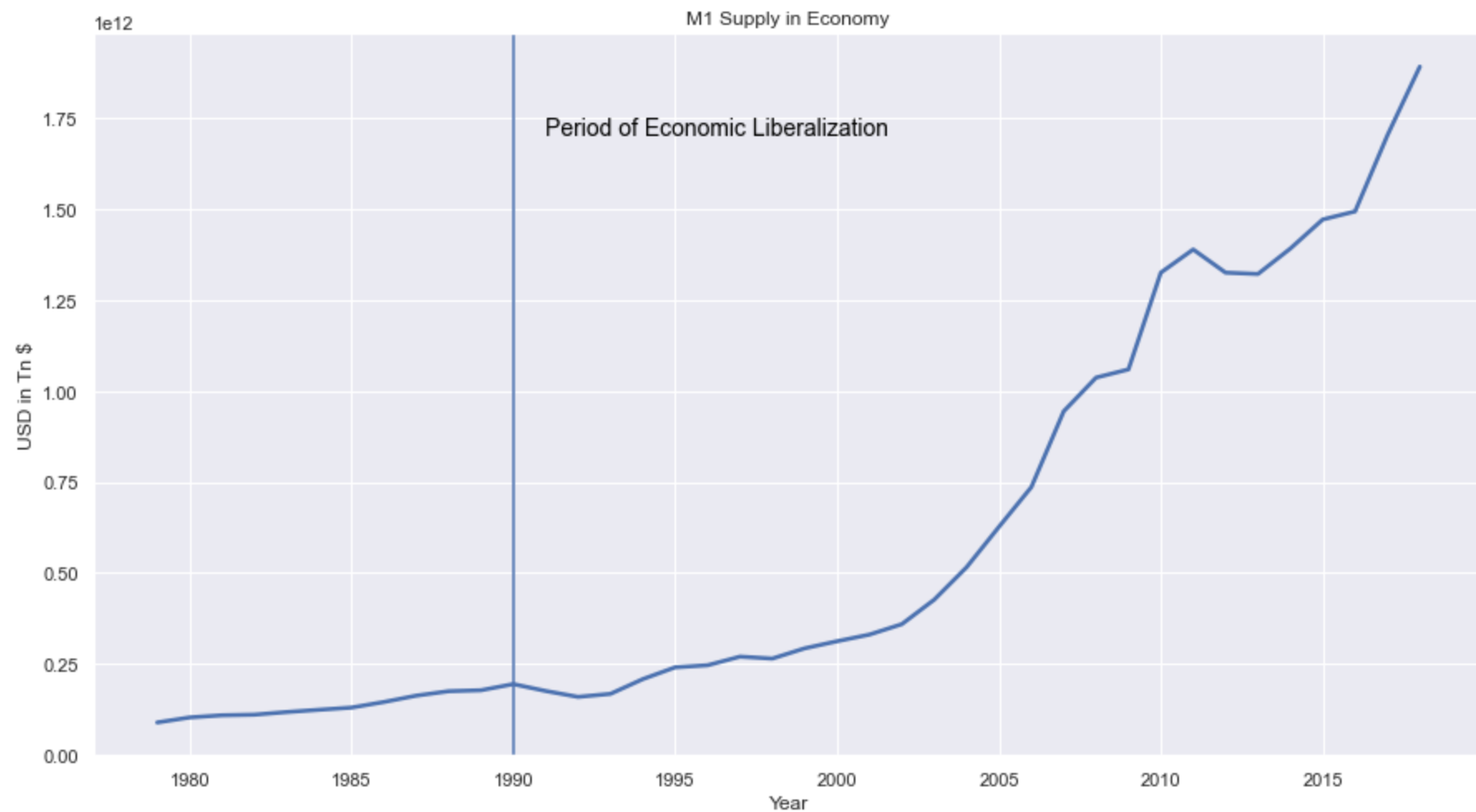
M1 Supply, money supply

Earnings and wages

Income per capita

Money Supply in Economy

	Years	M1_Supply	Exchange rate	USD
20	1999	12610319453226.39	43.06	292867165143.28
5	1984	1406286627313.44	11.35	123939906448.27
36	2015	94385324427760.50	64.13	1471781402538.41
26	2005	27612779569338.41	44.05	626833601278.58
21	2000	14036968778863.12	44.94	312361188401.76



M1 money supply includes sum of currency available to Households and Businesses to make payments. US currencies and balances in checking and savings account are part of M1 calculations.

Marcoeconomic theory suggests that increase in money circulation leads to lower interest rates and higher borrowing / lending and consumer spending in the economy.

Rate of Inflation

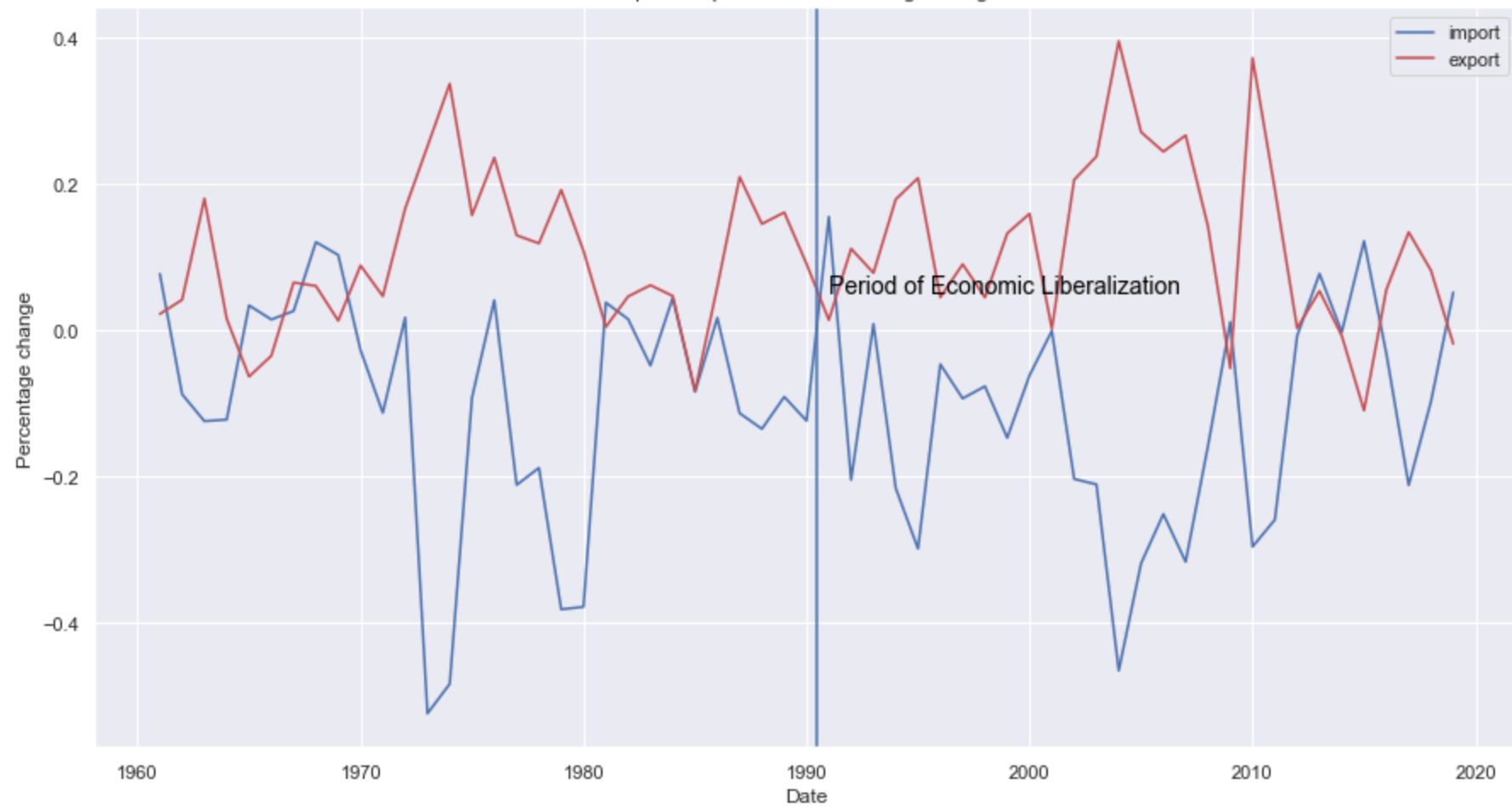
	Year	Rate
25	2011	9.50
29	2015	4.90
32	2018	3.43
16	2002	3.98

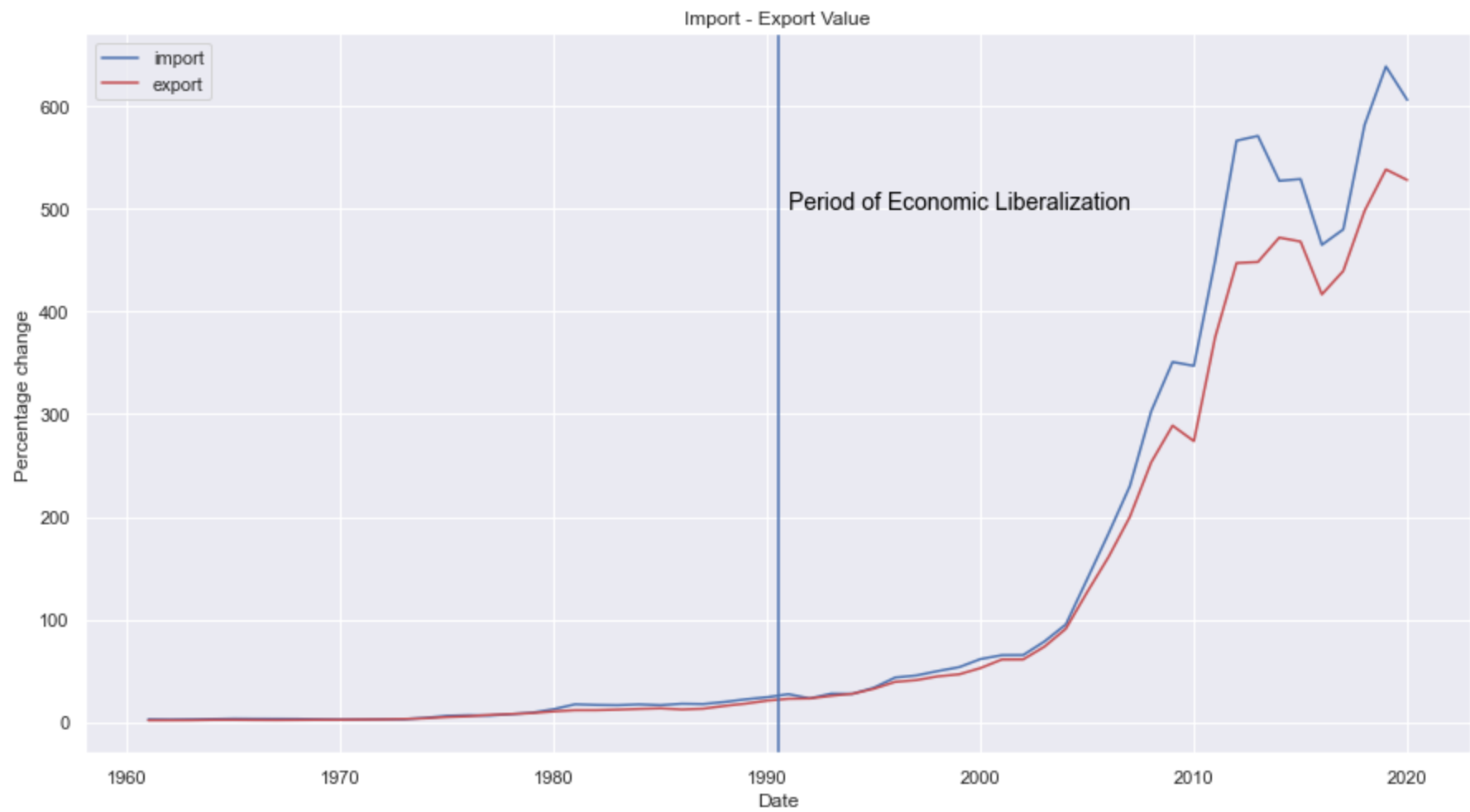
	Year	Rate
28	2014	5.80



Trade - Imports and Exports

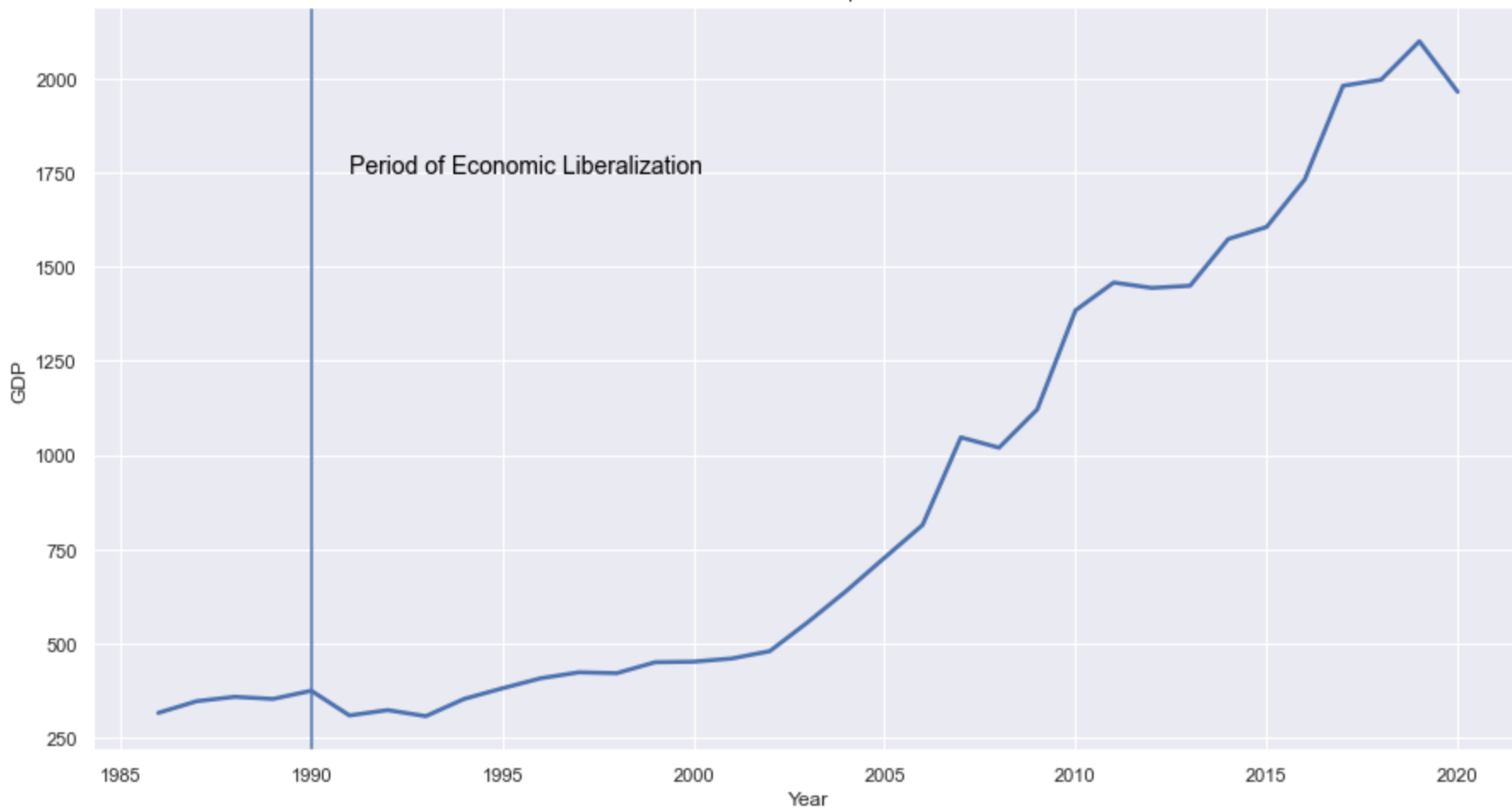
Import - Export Value - Percentage change

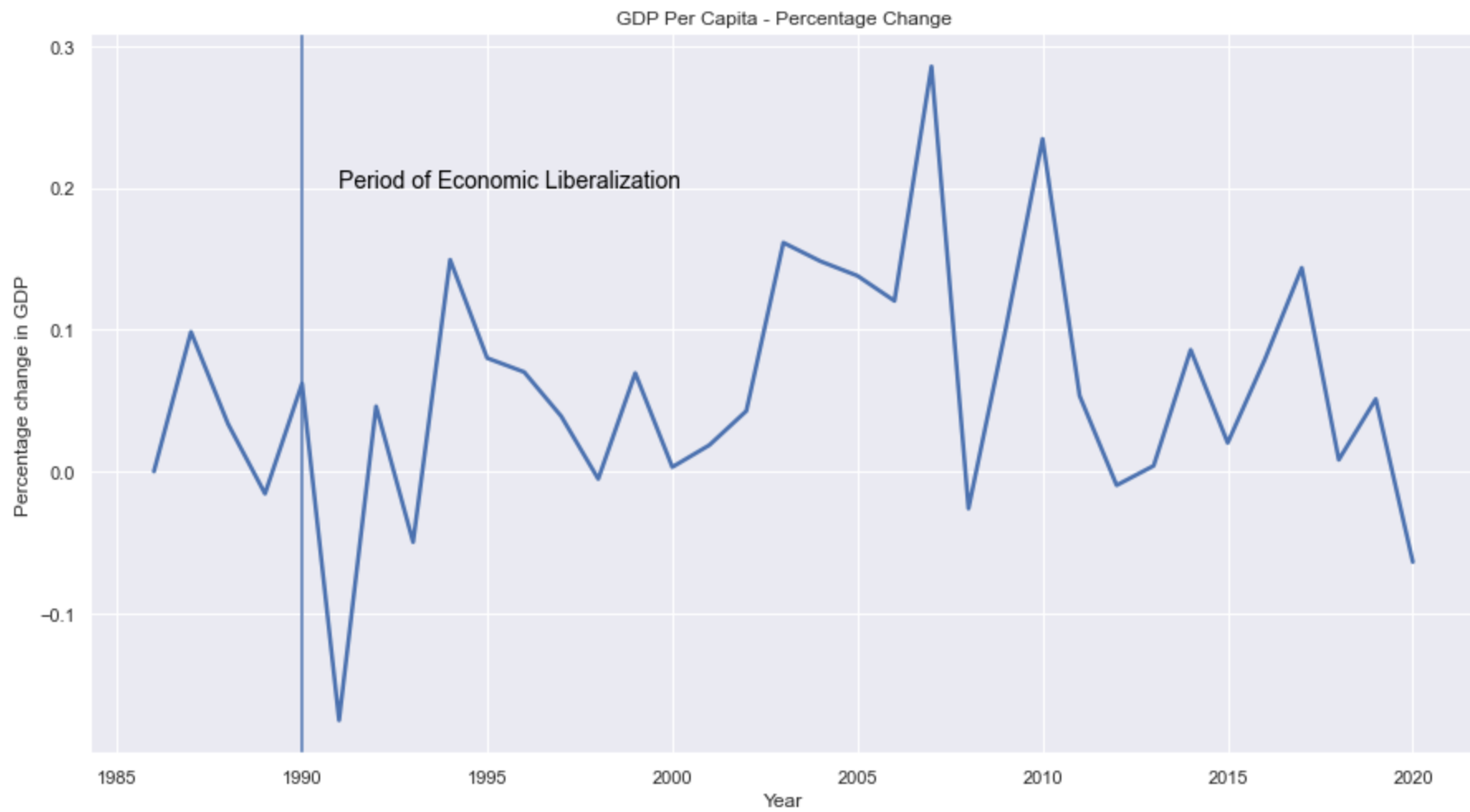




GDP Per Capita

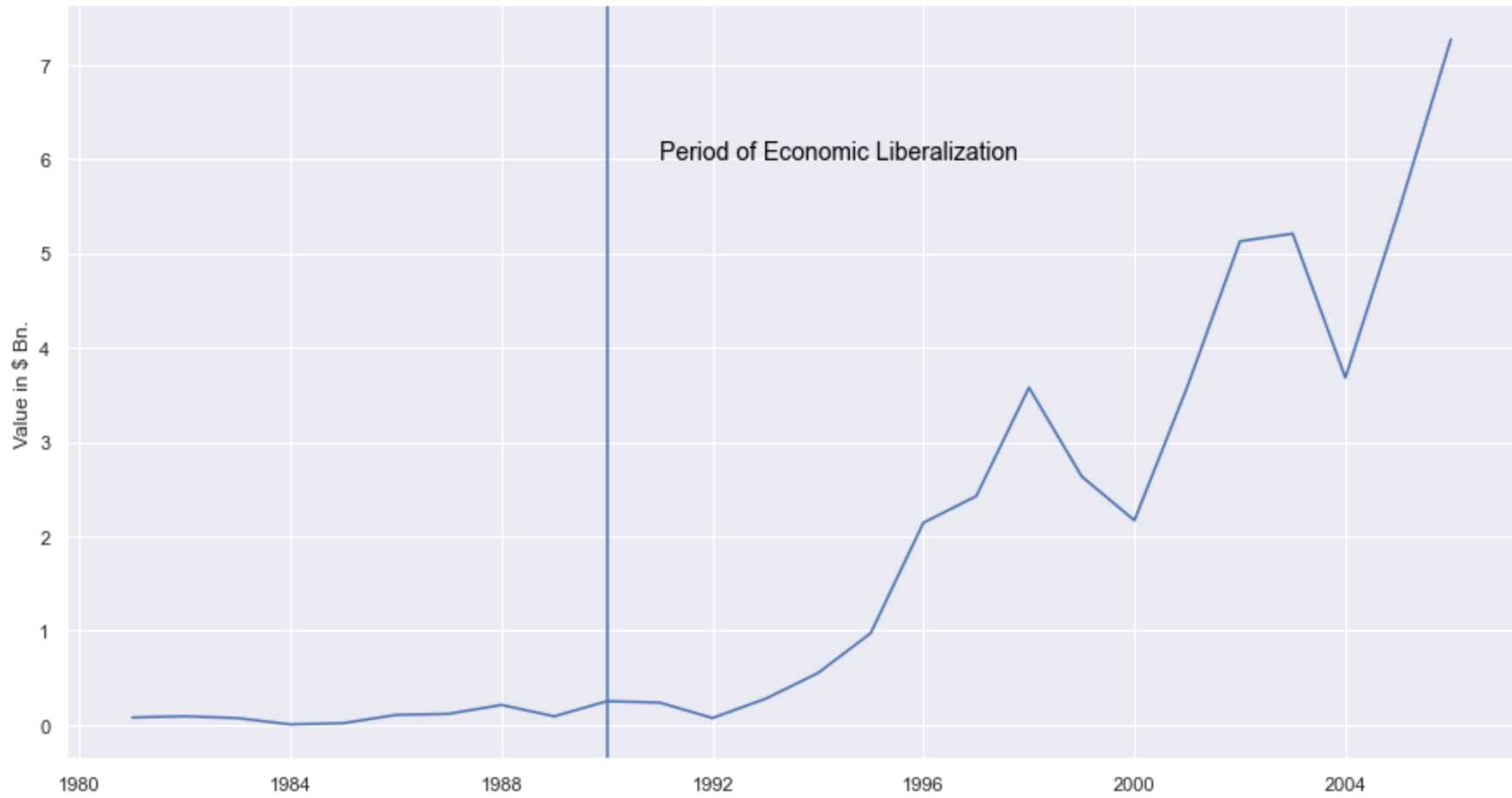
GDP Per Capita

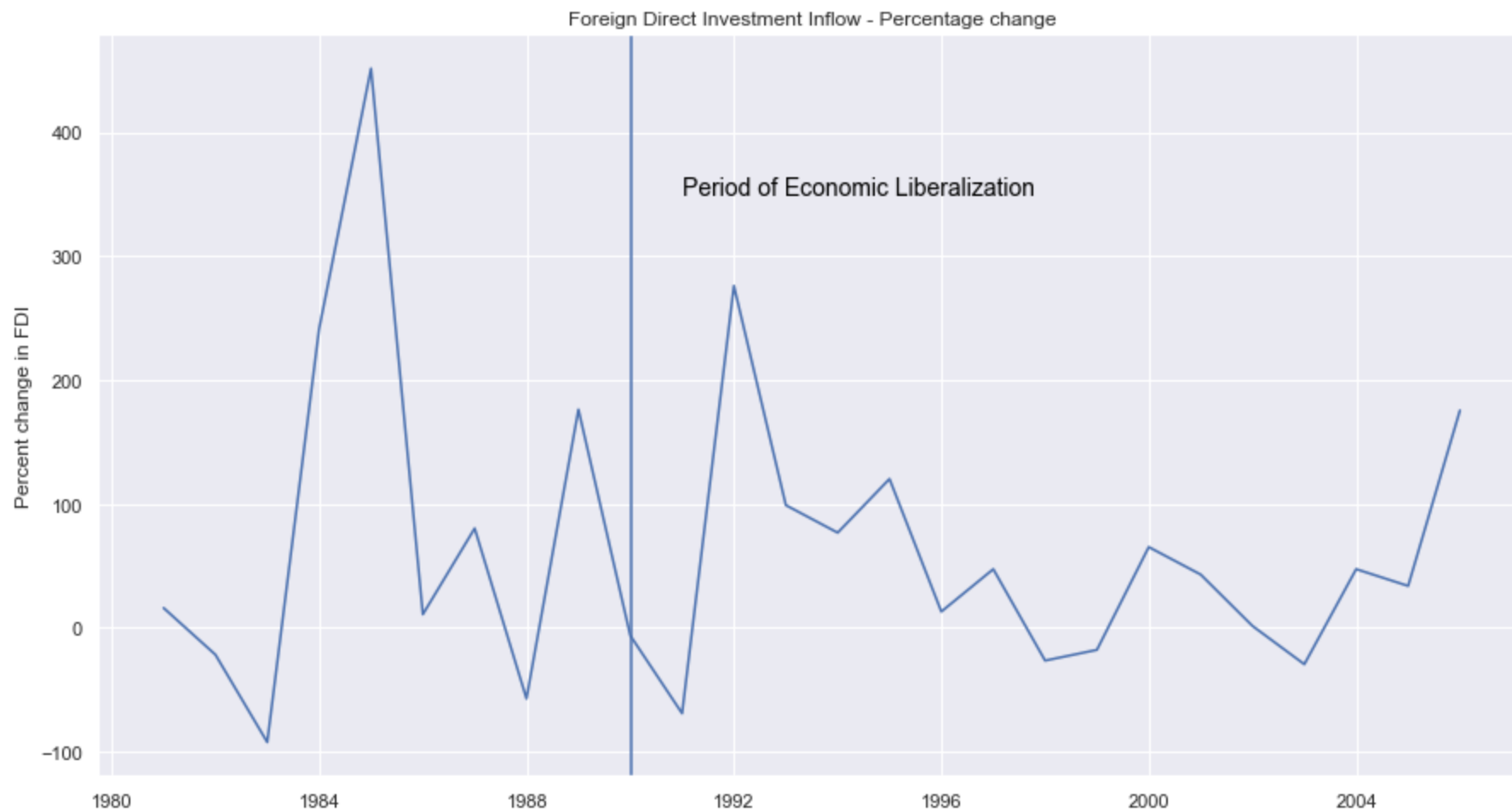




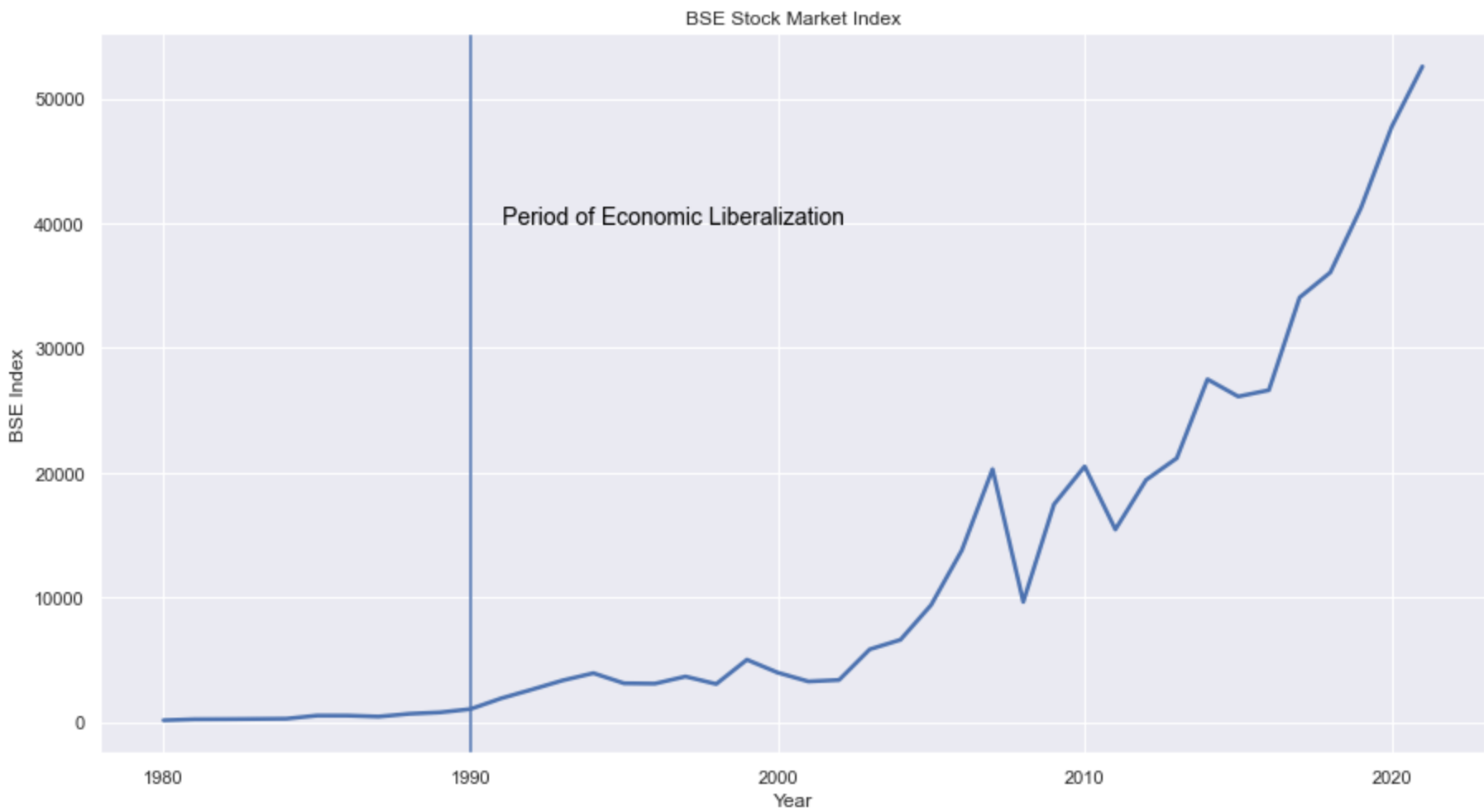
India Foreign Direct Investment

Foreign Direct Investment Inflow in \$ Bn.

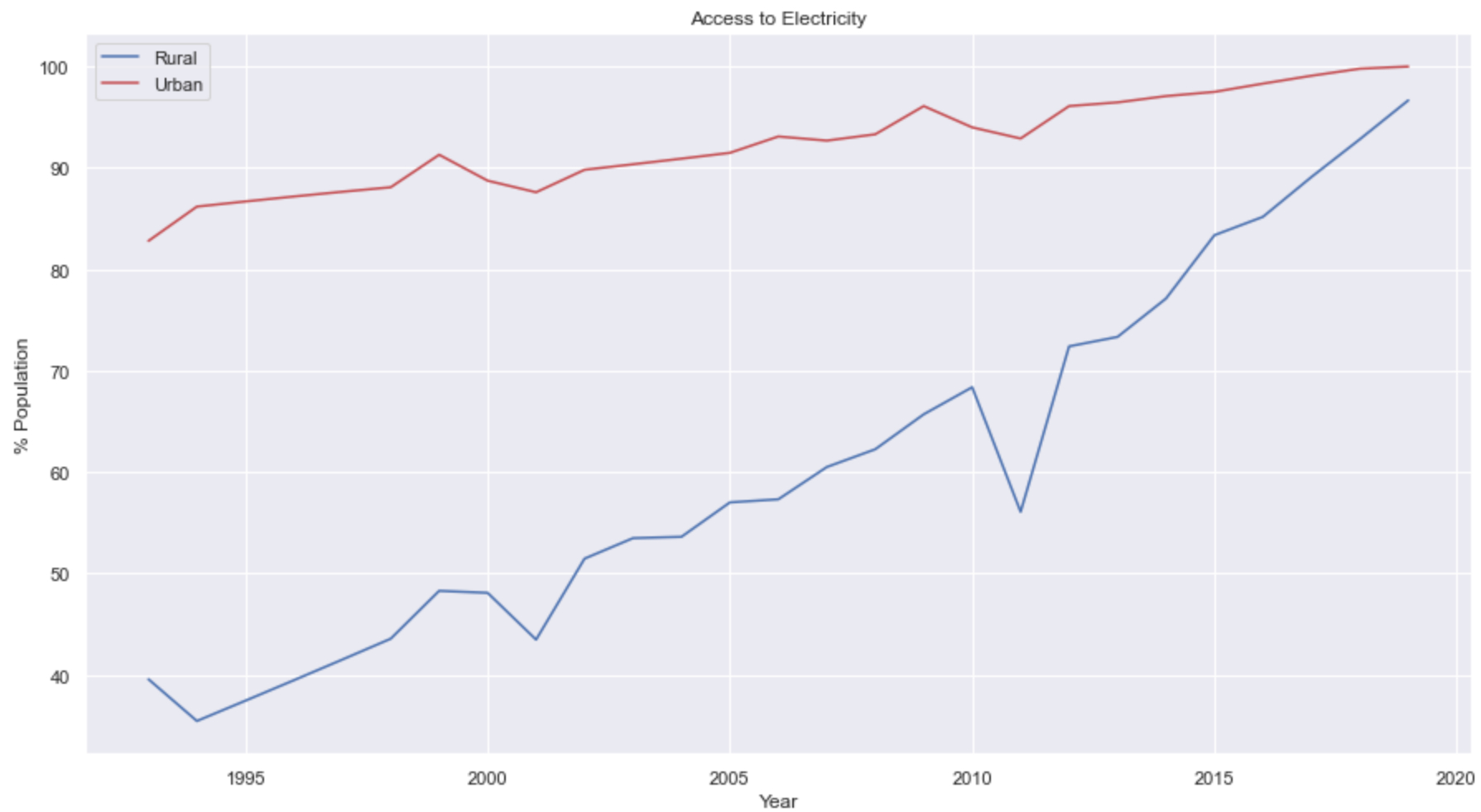




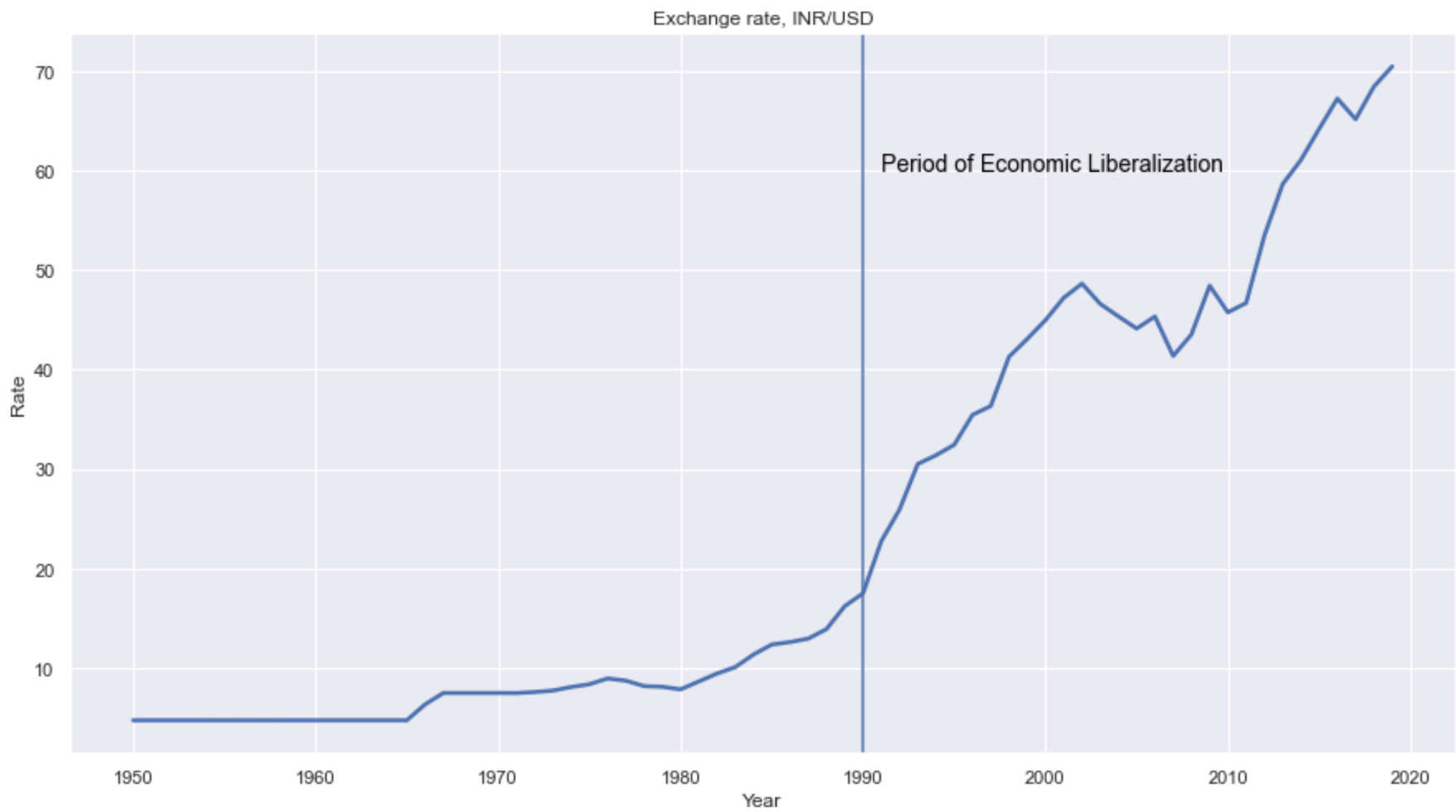
S&P BSE Stock Market Index



Access to Electricity

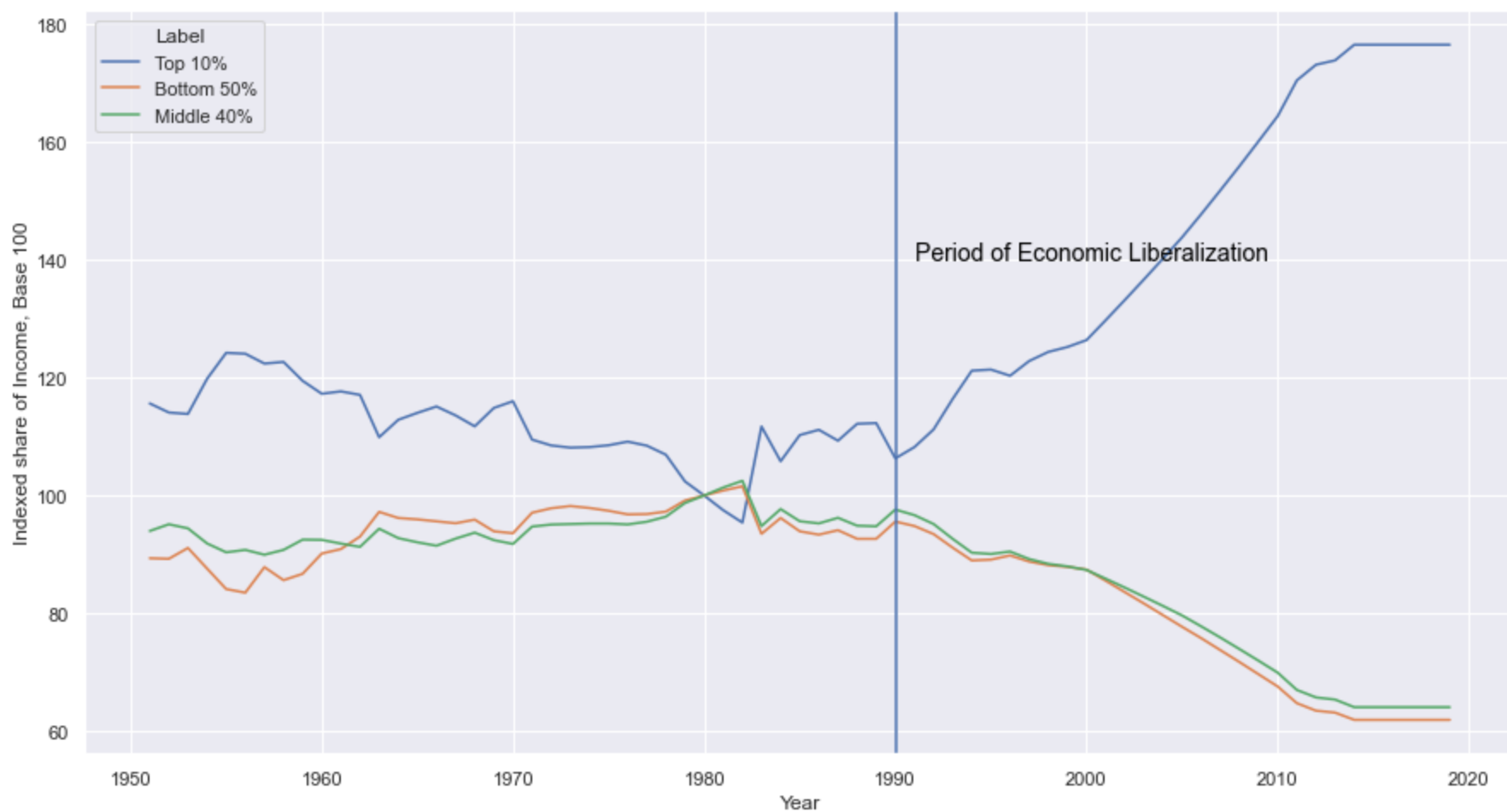


Exchange rate USD/INR



Income Inequality

	Percentile	Label	Year	Pre-tax national income
152	p50p90	Middle 40%	1965	92.05
50	p90p100	Top 10%	2001	129.76
22	p90p100	Top 10%	1973	108.13
188	p50p90	Middle 40%	2001	85.87
67	p90p100	Top 10%	2018	176.55



The effect of high growth contributed to income inequality as those in the 90th percentile were in the best position to obtain the benefits on liberalized policies.

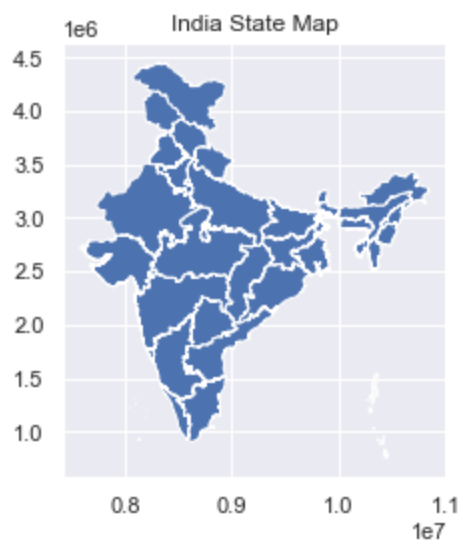
Explore statewise variations - Literacy

	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share
19	Mizoram	0.53	0.59	0.48	0.62	0.66	0.57
2	Telengana	0.24	0.33	0.15	0.41	0.50	0.32
29	West Bengal	0.41	0.52	0.31	0.53	0.62	0.43
30	Jammu and Kashmir	0.00	0.00	0.00	0.00	0.00	0.00
14	Madhya Pradesh	0.25	0.36	0.13	0.46	0.57	0.34

State_Name

geometry

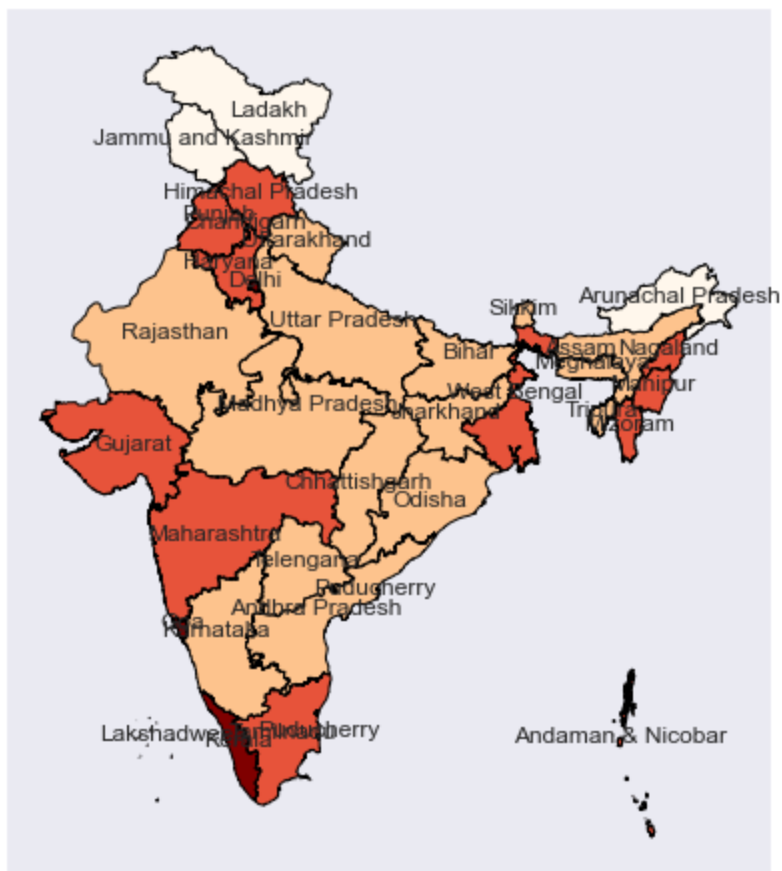
	State_Name	geometry
14	Chhattishgarh	POLYGON ((9275926.808 2765881.317, 9276185.437...
5	Jharkhand	POLYGON ((9762288.285 2772949.712, 9762301.816...
19	Himachal Pradesh	POLYGON ((8548682.698 3929291.879, 8548760.706...
36	Jammu and Kashmir	POLYGON ((8550375.654 3927668.327, 8550332.102...
35	Ladakh	POLYGON ((8550375.654 3927668.327, 8548619.625...



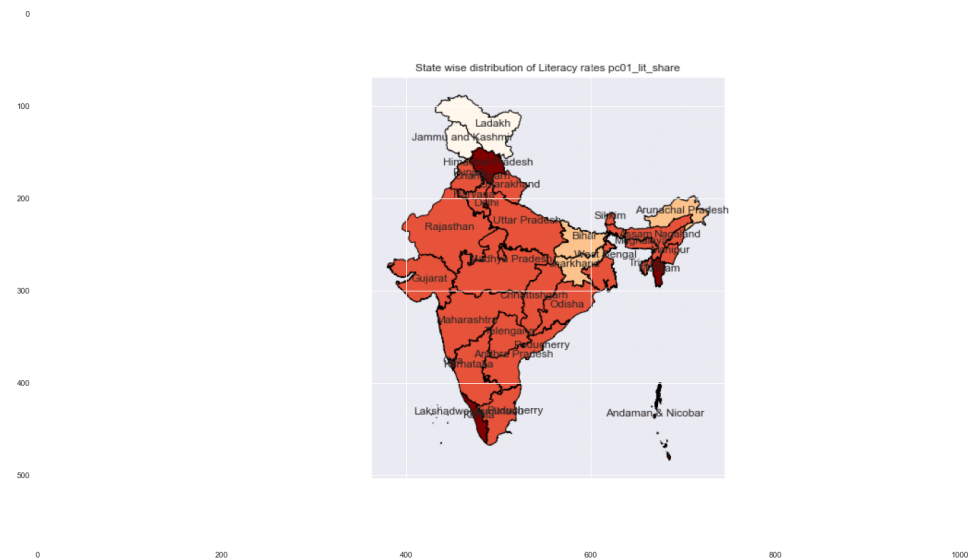
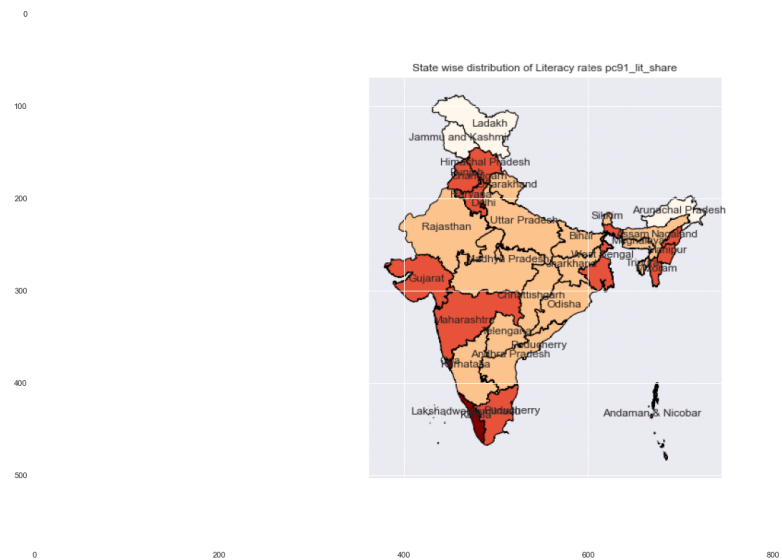
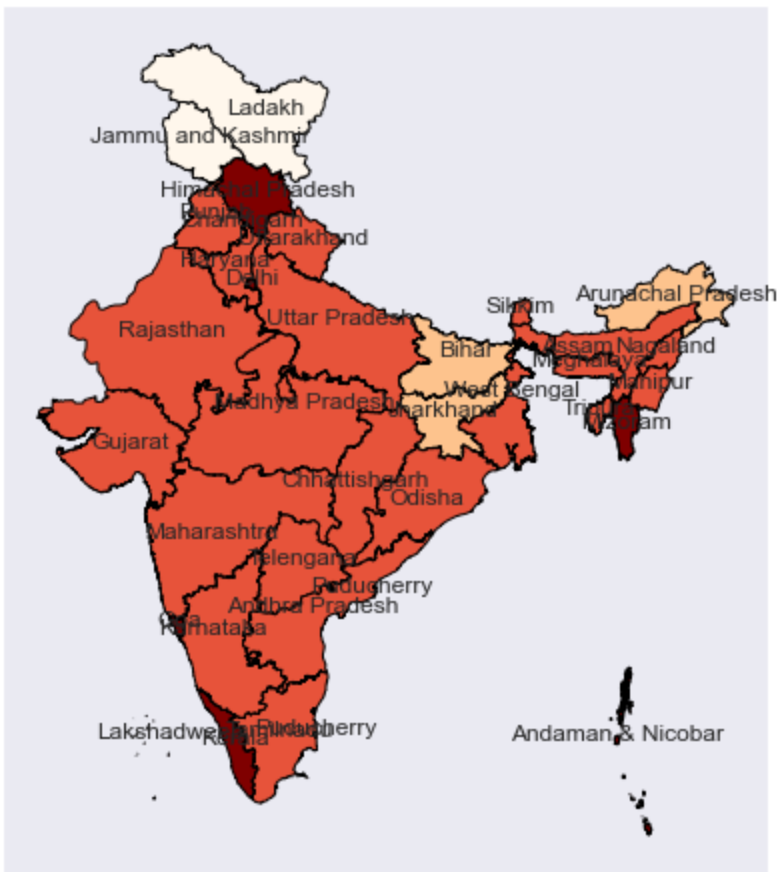
	State_Name	geometry	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share
30	Ladakh	POLYGON ((8550375.654 3927668.327, 8548619.625...	Ladakh	0.00	0.00	0.00	0.00	0.00	0.00
7	Maharashtra	MULTIPOLYGON (((8280974.863 2515416.345, 82809...	Maharashtra	0.42	0.53	0.30	0.57	0.67	0.47
28	West Bengal	POLYGON ((9800305.279 3151090.311, 9800377.779...	West Bengal	0.41	0.52	0.31	0.53	0.62	0.43
1	Delhi	POLYGON ((8583390.570 3359116.190, 8583476.212...	Delhi	0.62	0.69	0.55	0.70	0.75	0.63
20	Sikkim	POLYGON ((9864726.992 3265074.341, 9865469.610...	Sikkim	0.40	0.48	0.31	0.52	0.58	0.45

Plot India State Map

State wise distribution of Literacy rates pc91_lit_share



State wise distribution of Literacy rates pc01_lit_share



Literacy rates improved in some of India's poorest states of UP, MP, Bihar, and Orissa in the decade post liberalization.

Explore Statewise variations - Farm / Agricultural employment

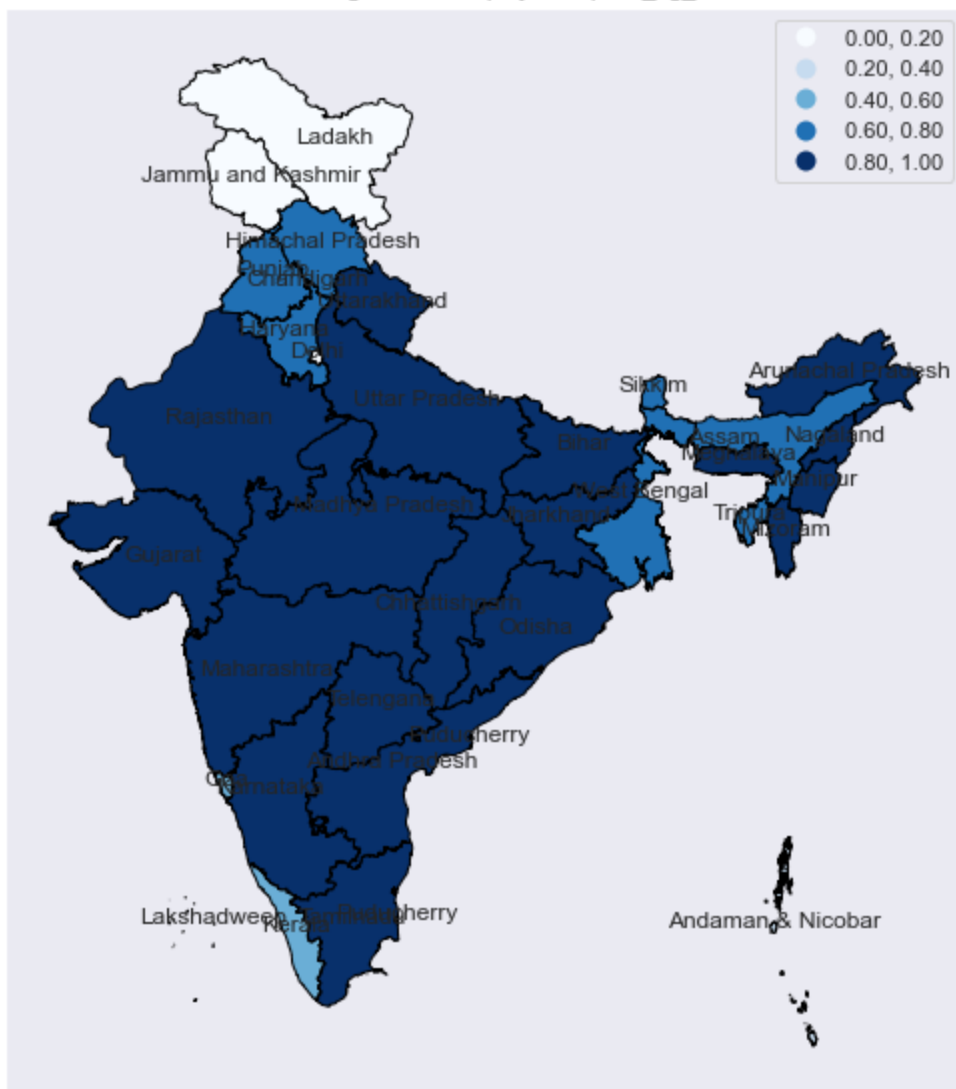
	state_name	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share	pc91_urb_share	pc91_m_urb_share
15	karnataka	Karnataka	0.39	0.49	0.28	0.51	0.61	0.42	0.78	0.57
27	punjab	Punjab	0.45	0.52	0.38	0.57	0.62	0.52	nan	0.53
18	madhya pradesh	Madhya Pradesh	0.25	0.36	0.13	0.46	0.57	0.34	0.91	0.53
3	arunachal pradesh	Arunachal Pradesh	0.20	0.26	0.13	0.28	0.36	0.21	nan	0.58
7	chandigarh	Chandigarh	0.66	0.71	0.61	0.71	0.75	0.66	0.90	0.58

5 rows × 36 columns

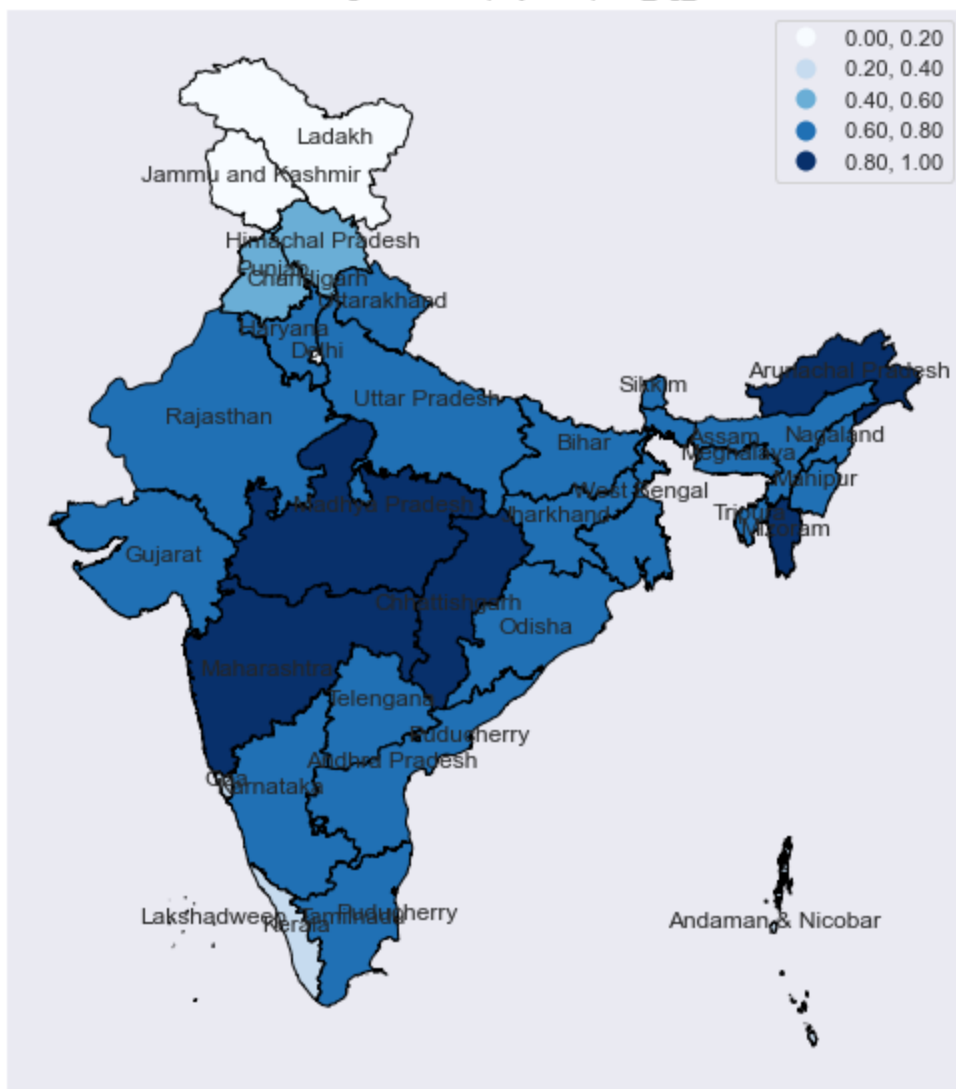
	State_Name	geometry	state_name	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share	...
21	Gujarat	POLYGON ((7914780.837 2837315.493, 7915101.603...	gujarat	Gujarat	0.40	0.51	0.28	0.48	0.59	0.37	...
6	Kerala	POLYGON ((8347733.191 1436381.747, 8347795.745...	kerala	Kerala	0.77	0.80	0.73	0.79	0.82	0.76	...
25	Assam	POLYGON ((10380499.251 2872443.723, 10380499.2...	assam	Assam	0.39	0.46	0.30	0.50	0.57	0.42	...
9	Maharashtra	MULTIPOLYGON (((8280974.863 2515416.345, 82809...	maharashtra	Maharashtra	0.42	0.53	0.30	0.57	0.67	0.47	...
2	Delhi	POLYGON ((8583390.570 3359116.190, 8583476.212...	delhi	Delhi	0.62	0.69	0.55	0.70	0.75	0.63	...

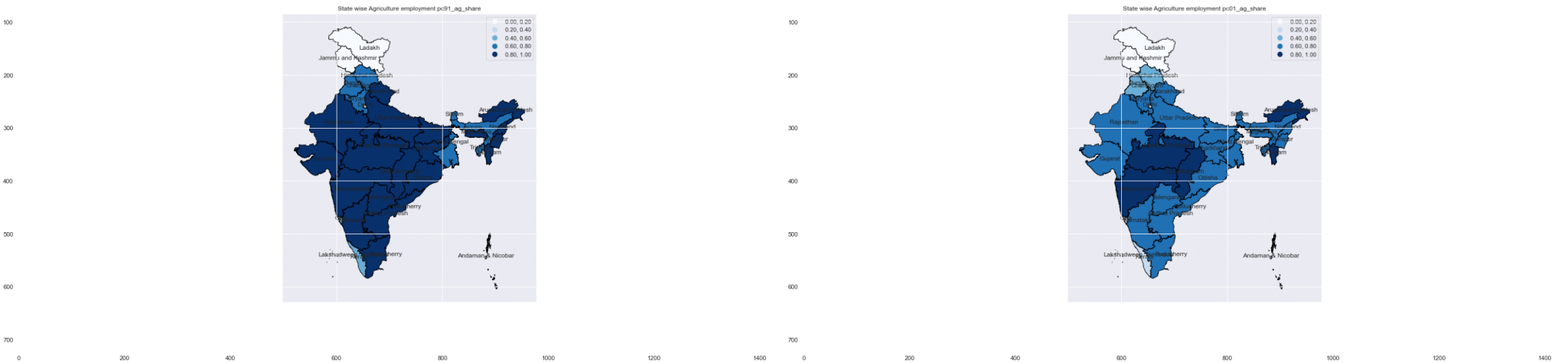
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State wise Agriculture employment pc91_ag_share



State wise Agriculture employment pc01_ag_share





India moved from an economy that was heavily reliant on Agriculture for employment to other industries and services. About 40% of India's workforce is still employed in Agriculture sector.

Explore Statewise variations - Labor force

	state_name	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share	pc91_urb_share	pc91_m_urb_share	..
4	assam	Assam	0.39	0.46	0.30	0.50	0.57	0.42	nan	0.54	..
8	dadra nagar haveli	Dadra Nagar Haveli	0.23	0.32	0.13	0.35	0.46	0.22	nan	0.55	..
10	delhi	Delhi	0.62	0.69	0.55	0.70	0.75	0.63	0.90	0.55	..
16	kerala	Kerala	0.77	0.80	0.73	0.79	0.82	0.76	0.55	0.49	..
9	daman diu	Daman Diu	0.57	0.67	0.46	0.65	0.74	0.53	nan	0.49	..

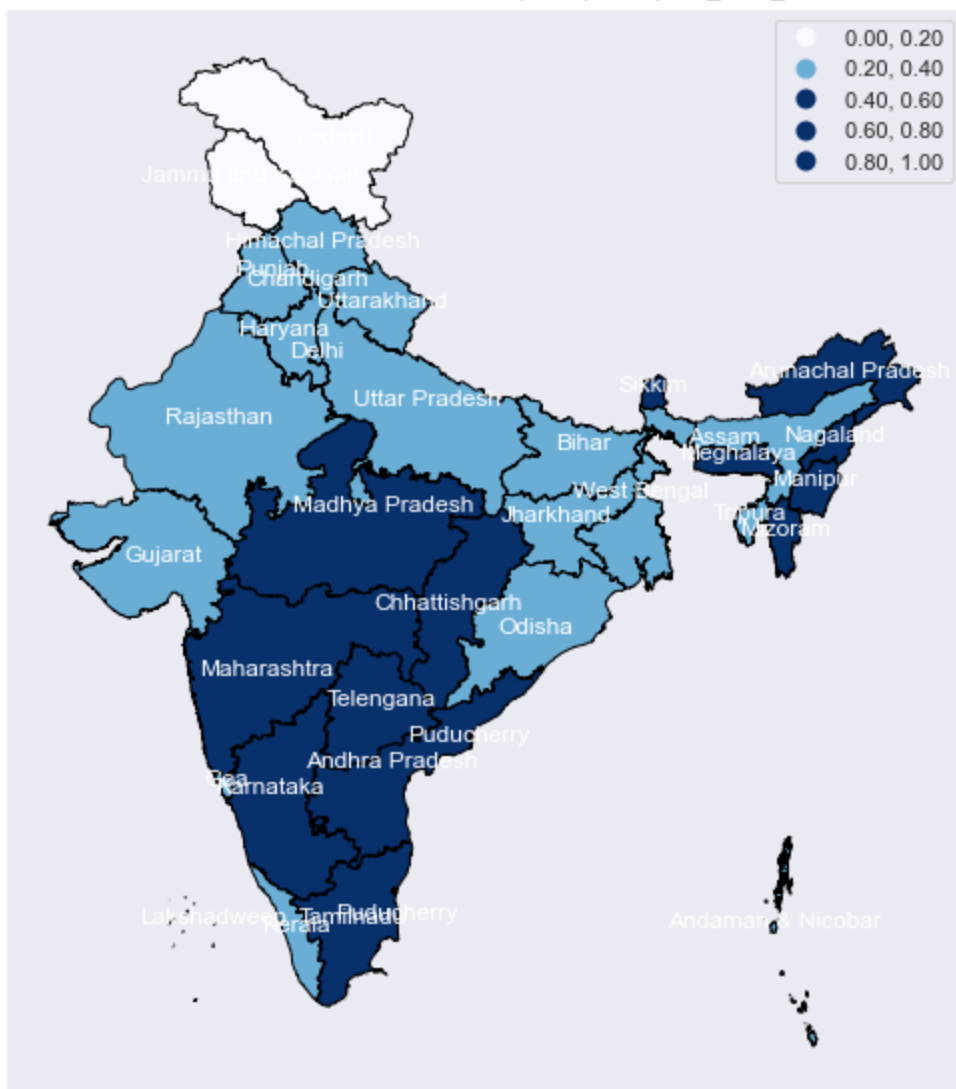
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	State_Name	geometry	state_name	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share	...
11	Puducherry	MULTIPOLYGON (((8878474.160 1232399.360, 88784...	puducherry	Puducherry	0.55	0.64	0.45	0.63	0.71	0.55	...
6	Kerala	POLYGON ((8347733.191 1436381.747, 8347795.745...	kerala	Kerala	0.77	0.80	0.73	0.79	0.82	0.76	...

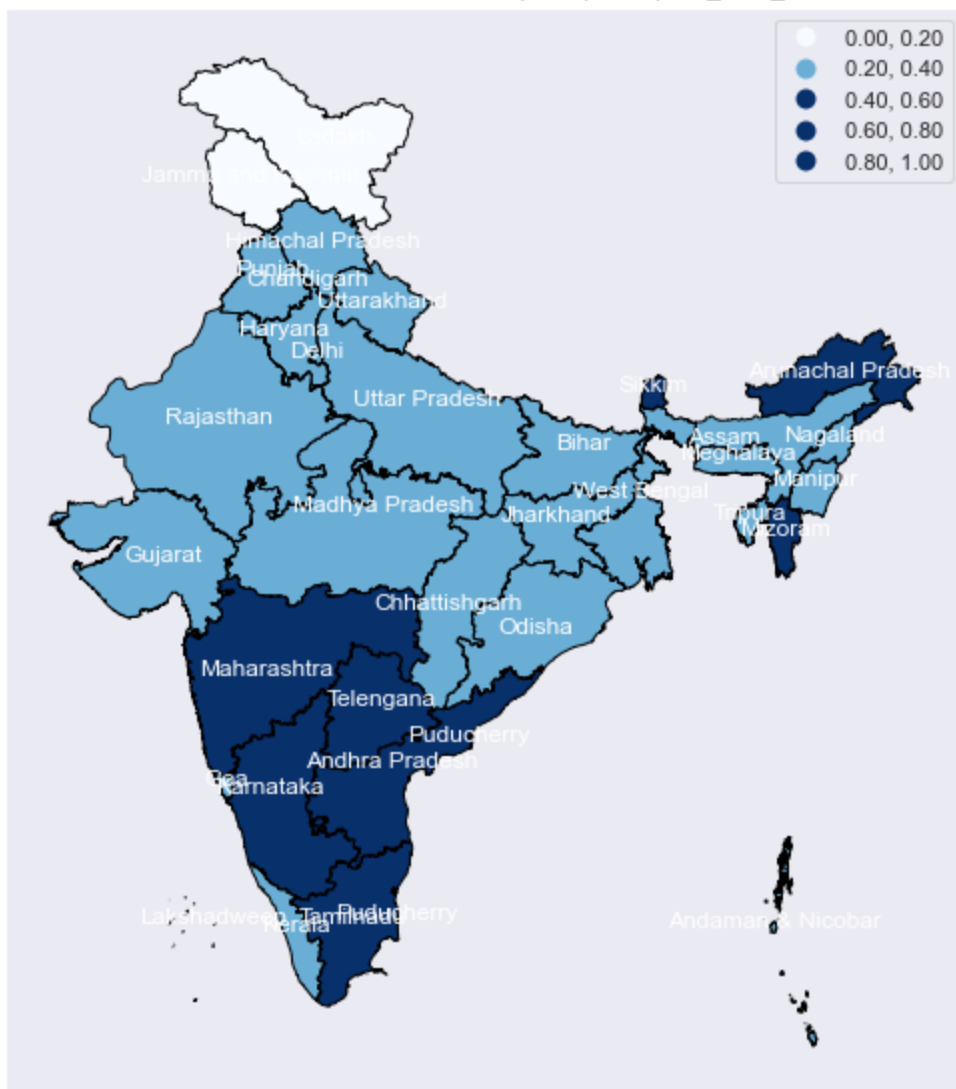
	State_Name	geometry	state_name	State	pc91_lit_share	pc91_mlit_share	pc91_flit_share	pc01_lit_share	pc01_mlit_share	pc01_flit_share	...
23	Uttar Pradesh	POLYGON ((8637489.9973555885.598, 8637654.287...	uttar pradesh	Uttar Pradesh	0.30	0.43	0.16	0.45	0.56	0.32	...
35	Jammu and Kashmir	POLYGON ((8550375.6543927668.327, 8550332.102...	NaN	Jammu and Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	...
15	Telengana	POLYGON ((8720284.8762259244.214, 8720421.528...	NaN	Telengana	0.24	0.33	0.15	0.41	0.50	0.32	...

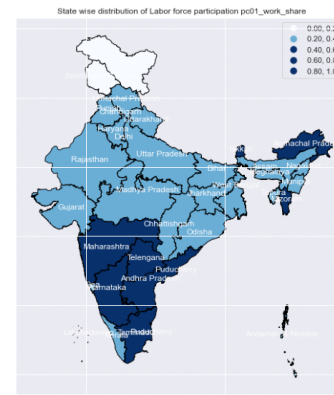
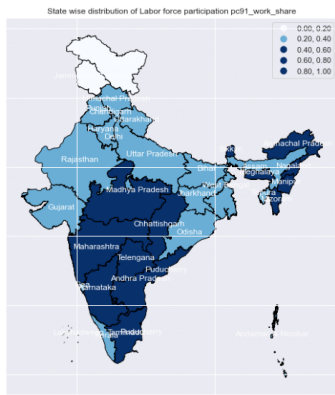
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State wise distribution of Labor force participation pc91_work_share



State wise distribution of Labor force participation pc01_work_share





It's interesting to note that in the State of Madhya Pradesh, labor force participation declined in the decade since 1990 Liberalization reforms.