

Consumption Functions of India: During, Before and After Covid-19 Pandemic

Keshab Bhattarai

Business School, FBLP, University of Hull, England

and

Asha Prasuna and SNV Shiv Kumar

Department of Economics, Vidyavihar University, Somaiya School of
Management, Mumbai, India

and

Alivelu Kasturi

Centre for Economic and Social Studies
NO Campus, Begumpet, Hyderabad 500016, India

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Seven Theories of consumption

1. Keynesian absolute income hypothesis
2. Kuznets long run estimate of constant APC; Permanent income hypothesis
3. Life cycle theory of consumption
4. Random Walk hypothesis of consumption
5. A simple intertemporal model of consumption
6. Overlapping generation model of consumption
7. A general equilibrium model of consumption, leisure demand and the labour supply

Related Issues:

- inequality in wages, income and consumption
- What is an ideal redistribution

Keynes (1936),

Ando and Modigliani (1963)

Brumberg and Modigliani (1954)

Kuznet (1955)

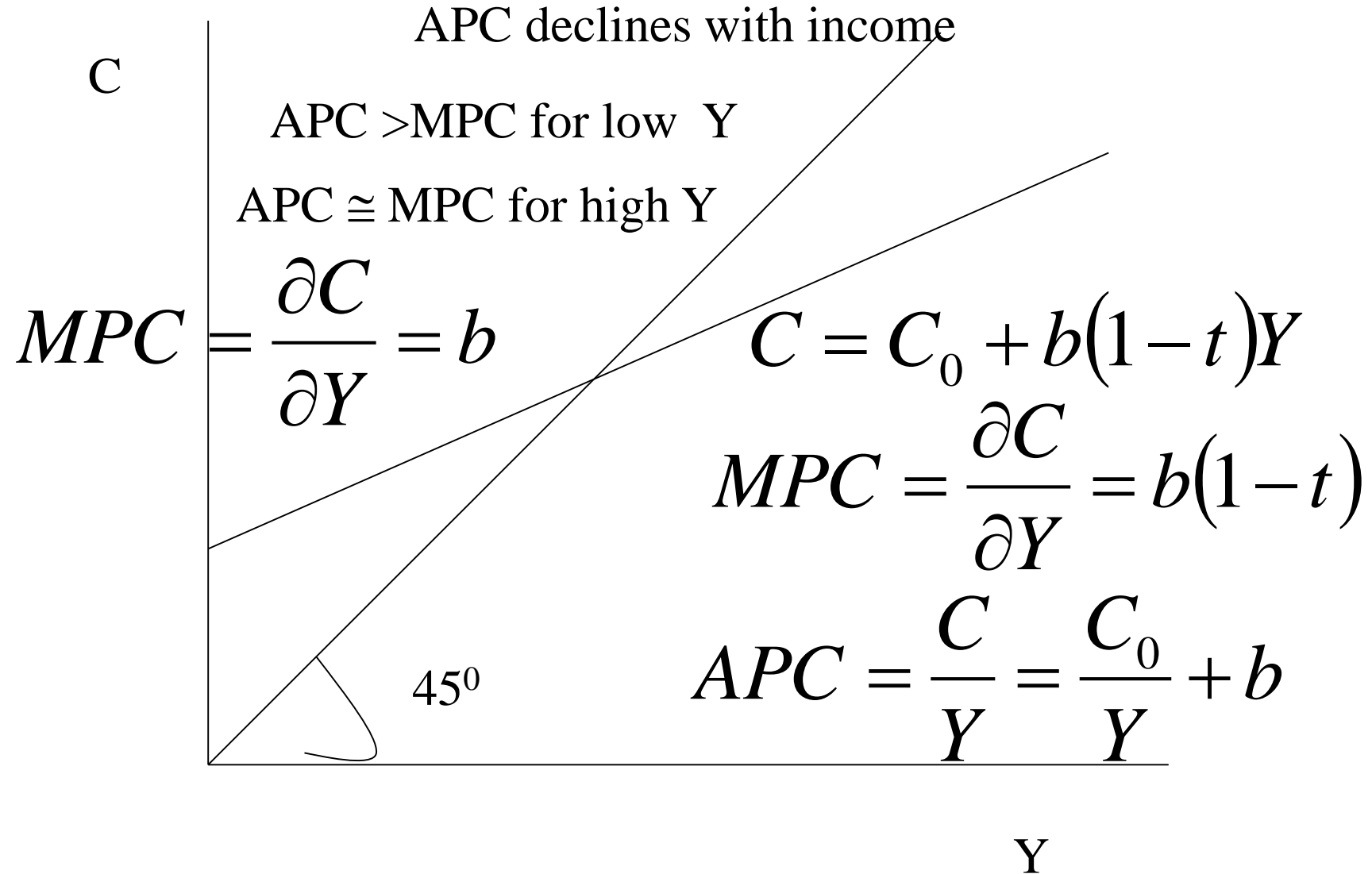
Samuelson (1958)

Deaton (1972, 2008 and 2021)

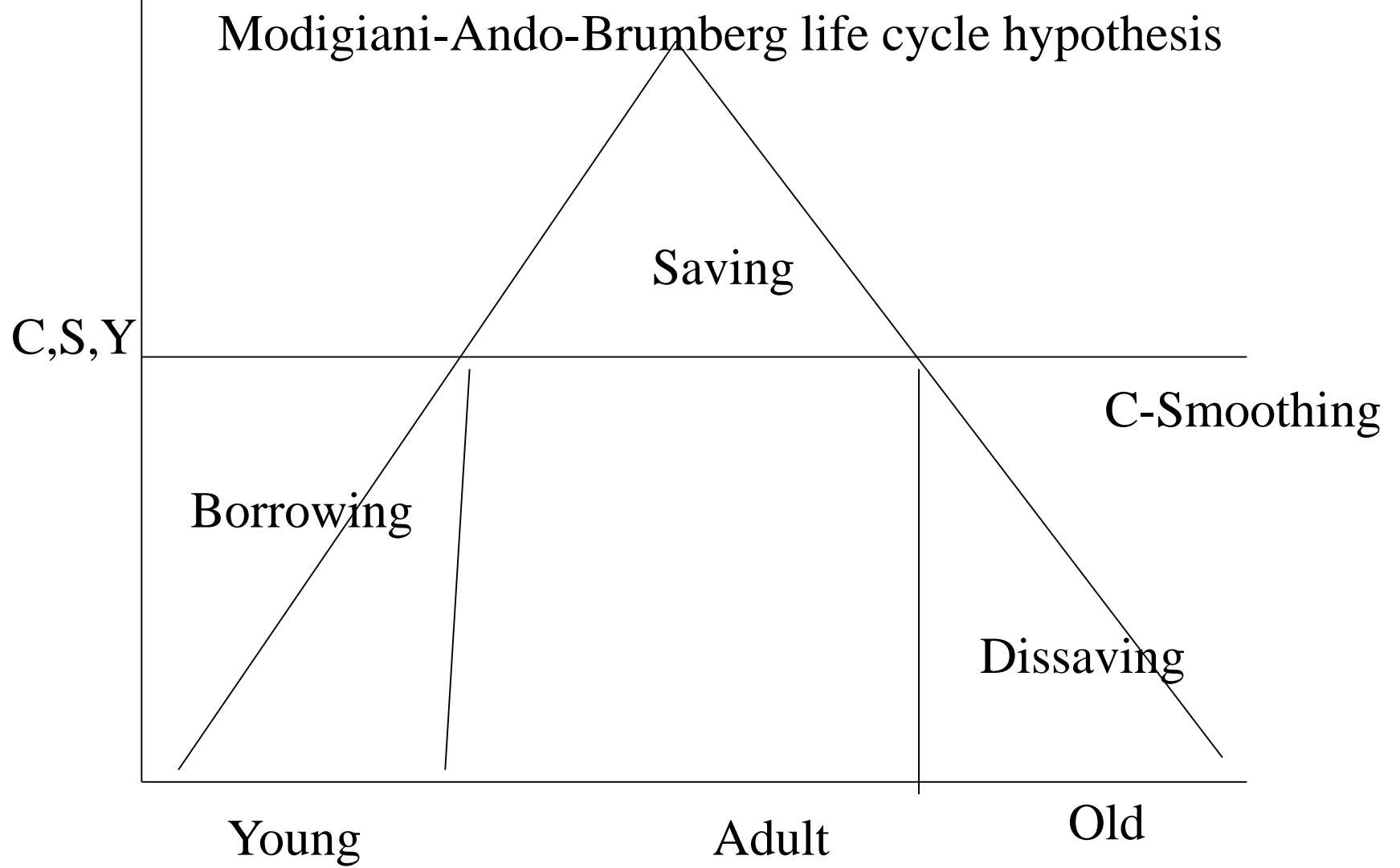
Banerjee, Duflo and Sharma (2021)

Lancaster (1979, 2004)

Keynesian Absolute Income Hypothesis



Life Cycle Model of Consumption and Saving



Smooth consumption and erratic income over life

Three Overlapping Generations and consumption



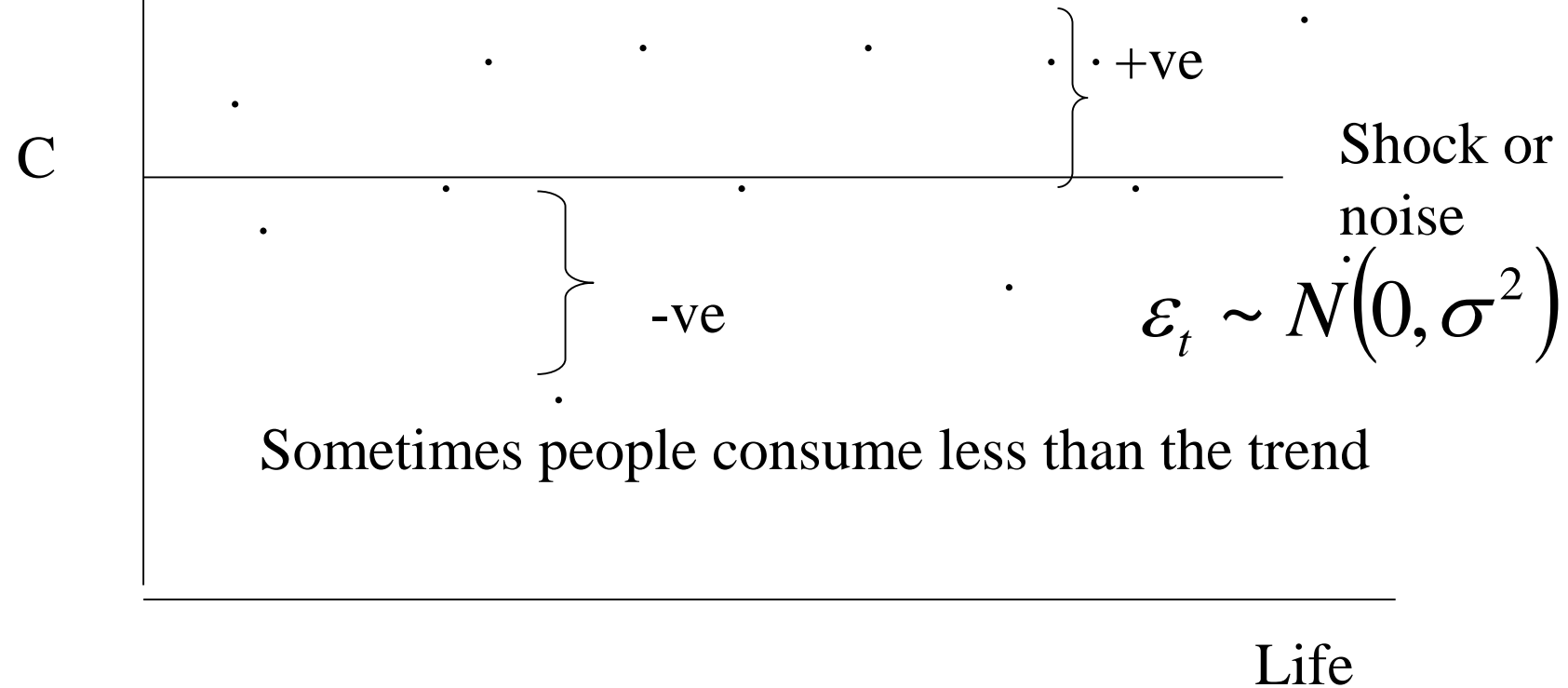
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Period1	g_{11}	g_{01}	g_{02}									
Period2		g_{21}	g_{11}	g_{01}								
Period3			g_{31}	g_{21}	g_{11}							
Period4				g_{41}	g_{31}	g_{21}						
Period5					g_{51}	g_{41}	g_{31}					
Period6						g_{61}	g_{51}	g_{41}				
Period7							g_{71}	g_{61}	g_{51}			
Period8								g_{81}	g_{71}	g_{61}		
Period9									g_{91}	g_{81}	g_{71}	
Period10										g_{101}	g_{91}	g_{81}

Random Walk Theory of Consumption

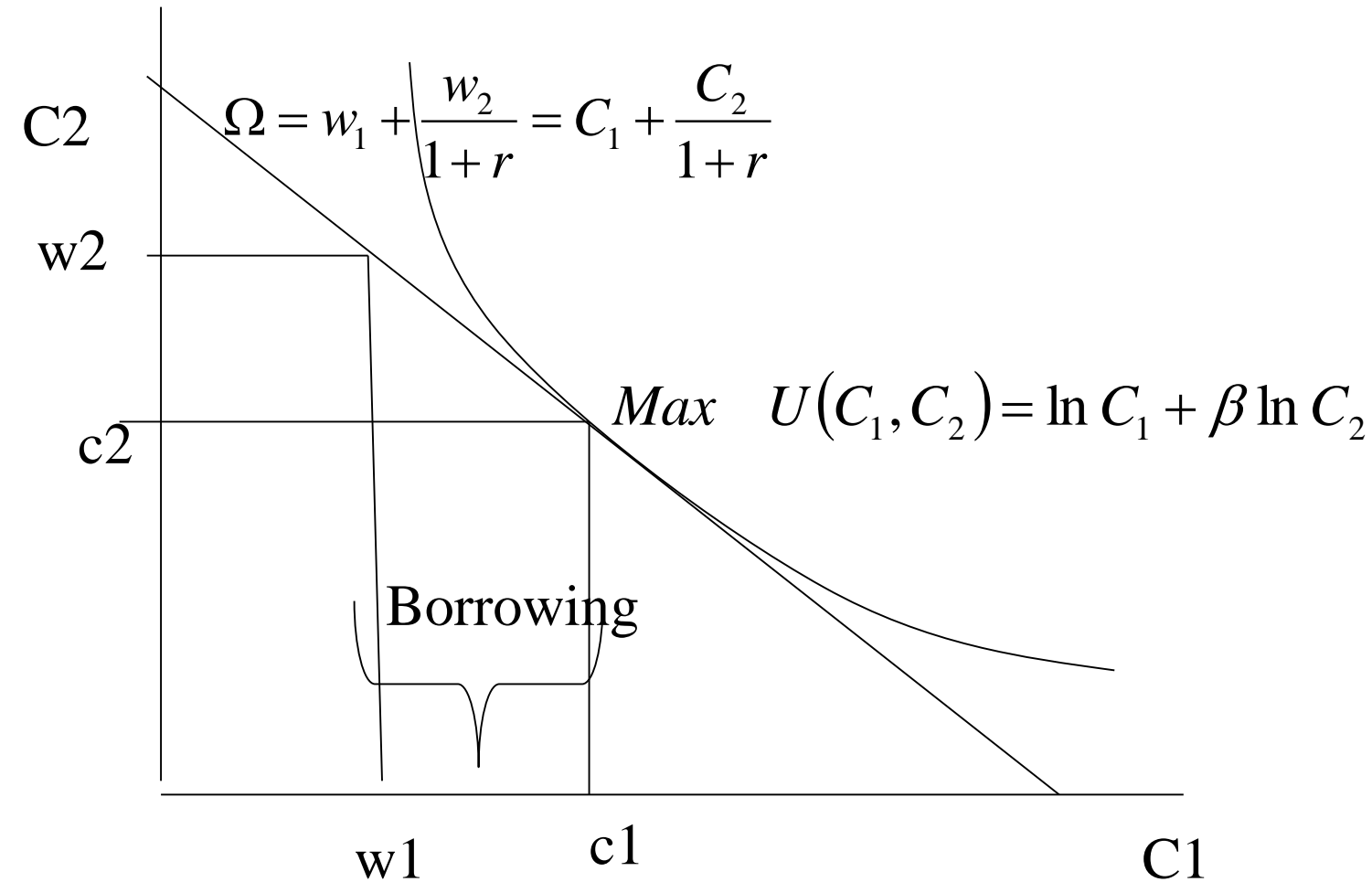
$$C_t = C_{t-1} + \varepsilon_t$$

Sometimes people consume more than the trend



Micro-foundation Model of Consumption

Two Period Model of Consumption and Saving





Consumption in Micro-Founded model of an economy

General Equilibrium with a representative household and firm

Market p and w such that

$$Y = C + S + G$$

$$LD = LS$$

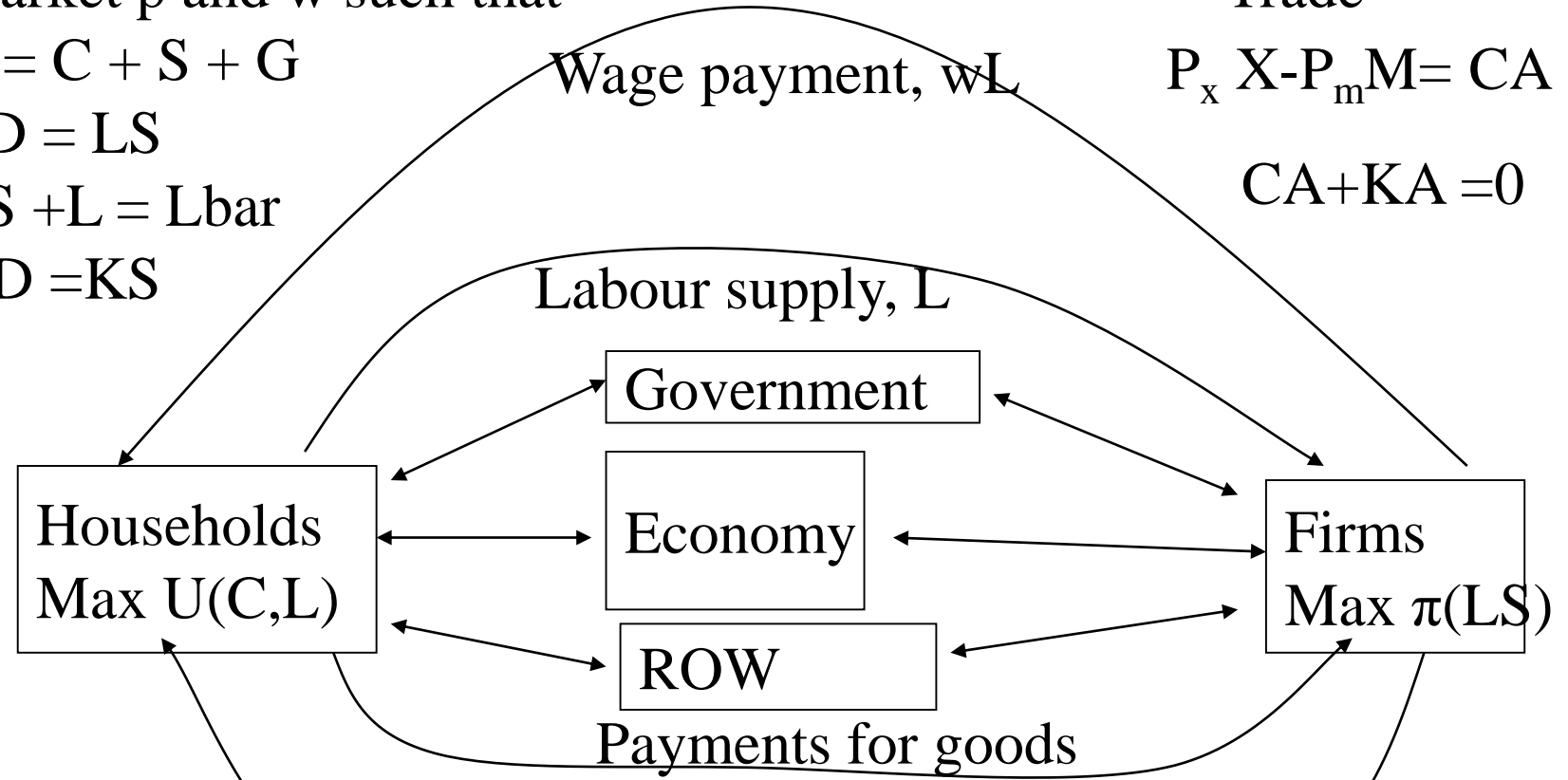
$$LS + L = \bar{L}$$

$$KD = KS$$

Trade

$$P_x X - P_m M = CA$$

$$CA + KA = 0$$



$$Max \quad U = c^\phi l^{1-\phi}$$

$$l + h^s = 1$$

$$pc = wh^s + \pi$$

$$c \geq 0; l \geq 0; h^s \geq 0$$

Supply of Goods

$$G = T = t^*Y + tw^*wL + tr + rk$$

$$K = (1-d)K_{t-1} + I$$

$$Max \quad \pi = py - wh^d$$

$$y \leq (h^d)^\alpha$$

$$y \geq 0; h^d \geq 0$$

Household Problem in Presence of Consumption and Income Taxes

$$\text{Max } U = c^\phi l^{1-\phi}$$

$$l + h^s = 1$$

$$p(1 + t_c)c = w(1 - t_l)h^s + \pi + R$$

$$pt_c c + wt_l h^s = R$$

$$c \geq 0; l \geq 0; h^s \geq 0 \quad (1')$$

$$p(1 + t_c)c = w(1 - t_l)h^s + \pi + R \quad wh^s + \pi = pc \quad (2')$$

$$L(c, l, \lambda) = c^\phi (1 - h^s)^{1-\phi} + \lambda [w(1 - t_l)h^s + \pi + R - p(1 + t_c)c] \quad (3')$$

First Order Optimisation Conditions in the Presence of Taxes

$$\frac{\partial L(c, l, \lambda)}{\partial c} = \phi c^{\phi-1} (1 - h^s)^{1-\phi} - \lambda p(1 + t_c) = 0 \quad (4')$$

$$\frac{\partial L(c, l, \lambda)}{\partial h^s} = (1 - \phi) c^\phi (1 - h^s)^{-\phi} (-1) + \lambda w(1 - t_l) = 0 \quad (5')$$

$$\frac{\partial L(c, l, \lambda)}{\partial \lambda} = w(1 - t_l) h^s + \pi + R - p(1 + t_c) c = 0 \quad wh^s + \pi = pc \quad (6')$$

$$\frac{\frac{\partial L(c, l, \lambda)}{\partial h^s}}{\frac{\partial L(c, l, \lambda)}{\partial c}} = \frac{(1 - \phi) c^\phi (1 - h^s)^{-\phi} (-1)}{\phi c^{\phi-1} (1 - h^s)^{1-\phi}} = \frac{w(1 - t_l)}{p(1 + t_c)} \quad (7')$$

$$c = \left(\frac{\phi}{1 - \phi} \right) (1 - h^s) \frac{w(1 - t_l)}{p(1 + t_c)} \quad (8')$$

$$h^s \frac{w}{p} + \frac{\pi}{p} = c = \left(\frac{\phi}{1 - \phi} \right) (1 - h^s) \frac{w}{p} \left(\frac{1 - t_l}{1 + t_c} \right) \quad (9')$$

Labour Supply in the Presence of Taxes

$$h^s \frac{w}{p} + \left(\frac{\phi}{1-\phi} \right) \frac{w}{p} \left(\frac{1-t_l}{1+t_c} \right) h^s = c = \left(\frac{\phi}{1-\phi} \right) \frac{w}{p} \left(\frac{1-t_l}{1+t_c} \right) - \left(\frac{\pi}{p} \right)$$

$$h^s = \frac{\left(\frac{\phi}{1-\phi} \right) \frac{w}{p} \left(\frac{1-t_l}{1+t_c} \right) - \left(\frac{\pi}{p} \right)}{\frac{w}{p} \left(\frac{\phi}{1-\phi} \left(\frac{1-t_l}{1+t_c} \right) + 1 \right)}$$

$$h^s = \frac{\left(\frac{\phi}{1-\phi} \right) \frac{w}{p} \left(\frac{1-t_l}{1+t_c} \right) - \left(\left(\frac{w}{p} \right)^{\frac{\alpha}{\alpha-1}} \left[\left(\frac{1}{\alpha} \right)^{\frac{\alpha}{\alpha-1}} - \left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \right] \right)}{\frac{w}{p} \left(\frac{\phi}{1-\phi} \left(\frac{1-t_l}{1+t_c} \right) + 1 \right)}$$

Determination of Real Wage Rate in the Presence of Taxes

$$h^d = \left(\frac{1}{\alpha} \frac{w}{p} \right)^{\frac{1}{\alpha-1}} = h^s = \frac{\left(\frac{\phi}{1-\phi} \right) \frac{w}{p} \left(\frac{1-t_l}{1+t_c} \right) - \left(\frac{w}{p} \right)^{\frac{\alpha}{\alpha-1}} \left[\left(\frac{1}{\alpha} \right)^{\frac{\alpha}{\alpha-1}} - \left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \right]}{\frac{w}{p} \left(\frac{\phi}{1-\phi} \left(\frac{1-t_l}{1+t_c} \right) + 1 \right)}$$

$$\left(\frac{w}{p} \right)^{\frac{1}{\alpha-1}} = \frac{\left(\frac{\phi}{1-\phi} \right) \left(\frac{1-t_l}{1+t_c} \right)}{\left[\left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \left(\frac{\phi}{1-\phi} \left(\frac{1-t_l}{1+t_c} \right) + 1 \right) + \left\{ \left(\frac{1}{\alpha} \right)^{\frac{\alpha}{\alpha-1}} - \left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \right\} \right]}$$

$$\frac{w}{p} = \left[\frac{\left(\frac{\phi}{1-\phi} \right) \left(\frac{1-t_l}{1+t_c} \right)}{\left[\left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \left(\frac{\phi}{1-\phi} \left(\frac{1-t_l}{1+t_c} \right) + 1 \right) + \left\{ \left(\frac{1}{\alpha} \right)^{\frac{\alpha}{\alpha-1}} - \left(\frac{1}{\alpha} \right)^{\frac{1}{\alpha-1}} \right\} \right]} \right]^{\alpha-1}$$

Labour Supply and Output in the Presence of Taxes

$$h^s = h^d = \left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}} \left[\frac{\left(\frac{\phi}{1-\phi}\right)\left(\frac{1-t_l}{1+t_c}\right)}{\left[\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\left(\frac{\phi}{1-\phi}\left(\frac{1-t_l}{1+t_c}\right)+1\right)+\left\{\left(\frac{1}{\alpha}\right)^{\frac{\alpha}{\alpha-1}}-\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\right\}\right]} \right]$$

$$\hat{y} = \left(\frac{1}{\alpha}\right)^{\frac{\alpha}{\alpha-1}} \left[\frac{\left(\frac{\phi}{1-\phi}\right)\left(\frac{1-t_l}{1+t_c}\right)}{\left[\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\left(\frac{\phi}{1-\phi}\left(\frac{1-t_l}{1+t_c}\right)+1\right)+\left\{\left(\frac{1}{\alpha}\right)^{\frac{\alpha}{\alpha-1}}-\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\right\}\right]} \right]^{\alpha}$$

Leisure and Consumption in the Presence of Taxes

$$\hat{l} = 1 - \left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}} \left[\frac{\left(\frac{\phi}{1-\phi}\right)\left(\frac{1-t_l}{1+t_c}\right)}{\left[\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\left(\frac{\phi}{1-\phi}\left(\frac{1-t_l}{1+t_c}\right)+1\right)+\left\{\left(\frac{1}{\alpha}\right)^{\frac{\alpha}{\alpha-1}}-\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\right\}\right]} \right]$$

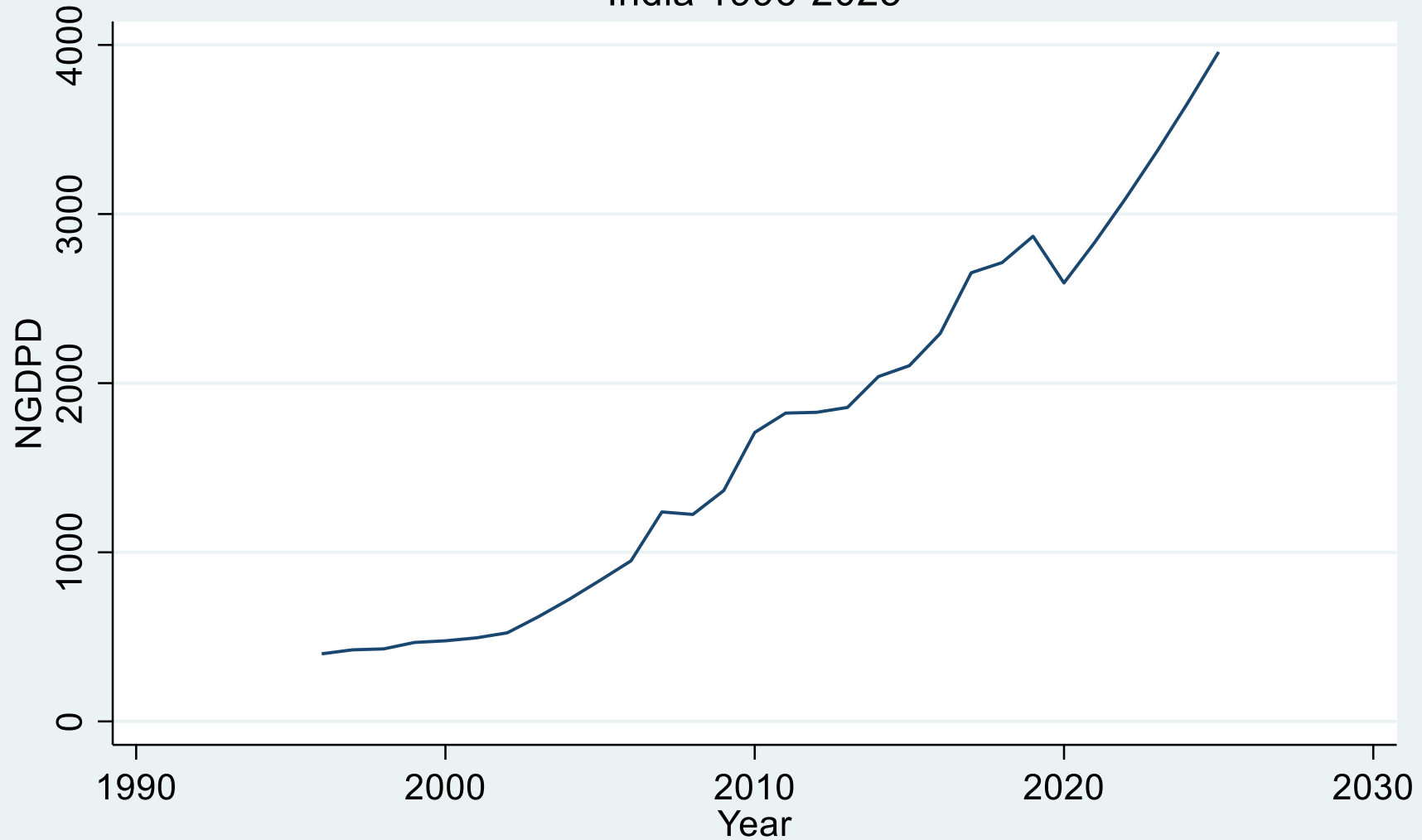
$$\hat{c} = \left(\frac{\phi}{1-\phi}\right) \left[1 - \left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}} \left[\frac{\left(\frac{\phi}{1-\phi}\right)\left(\frac{1-t_l}{1+t_c}\right)}{\left[\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\left(\frac{\phi}{1-\phi}\left(\frac{1-t_l}{1+t_c}\right)+1\right)+\left\{\left(\frac{1}{\alpha}\right)^{\frac{\alpha}{\alpha-1}}-\left(\frac{1}{\alpha}\right)^{\frac{1}{\alpha-1}}\right\}\right]} \right] \right] \frac{w(1-t_l)}{p(1+t_c)}$$

$$\hat{U} = \hat{c}^{\phi} \hat{l}^{1-\phi}$$



Nominal GDP of India in Billion of US Dollars

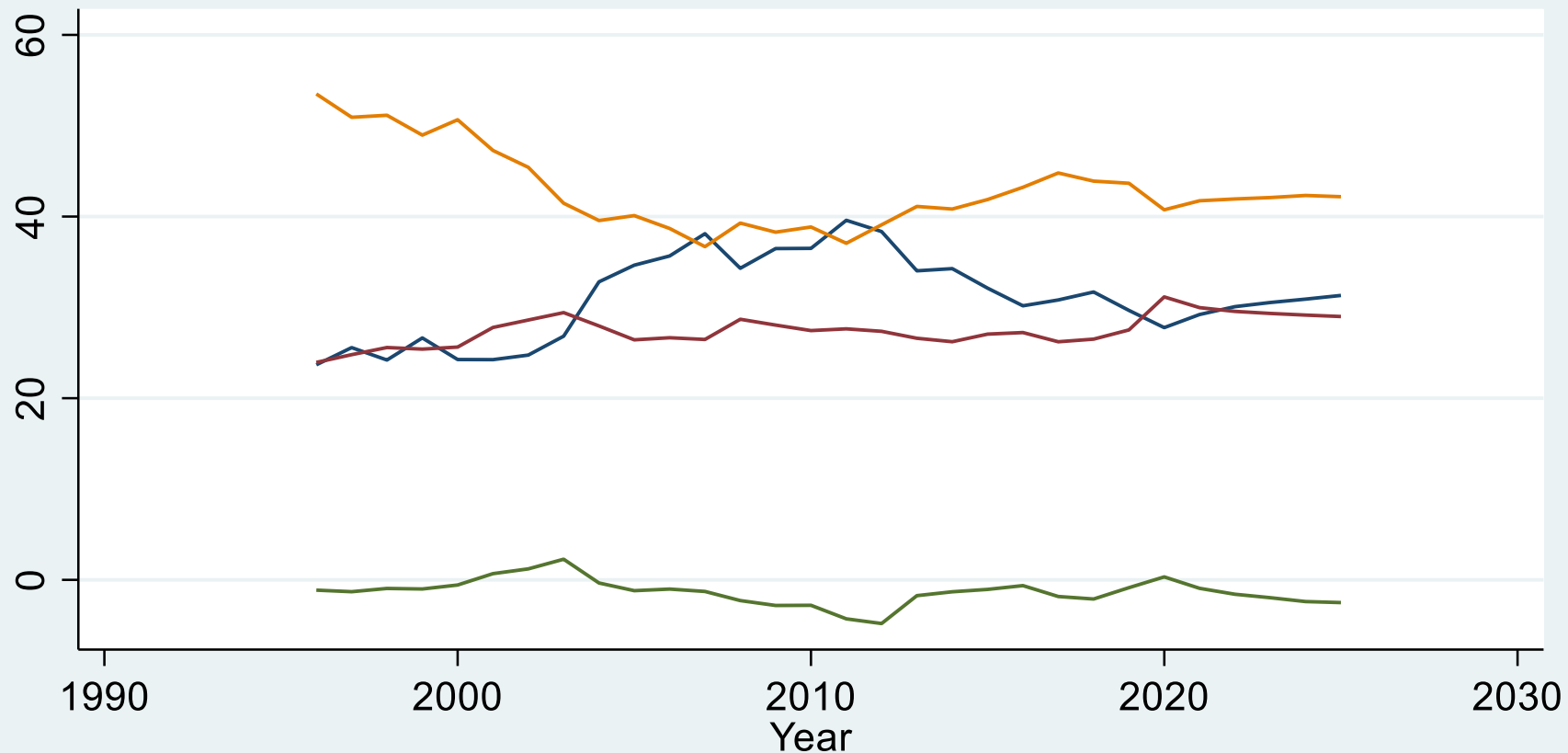
India 1996-2025



Datasource: WEO IMF

Aggregate Demand Share Components of GDP

India 1996-2025



Datasource: WEO



Consumption Function of India at National Level, 1990-2021

VARIABLES	(1) levels	(2) logs_elasticity	(3) differences	(4) C_change_Y
NGDPD	41.97*** (0.687)			
Lgdp		0.954*** (0.0167)		
dgdp			49.80*** (2.527)	
NGDP				3.868*** (0.801)
Constant	-72.53 (1,392)	4.274*** (0.188)	-88,754** (37,644)	10,894 (117,833)
Observations	30	30	29	29
R-squared	0.993	0.991	0.935	0.463
DW-stat	0.424	0.214	1.879	1.932

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Summary of Data for Consumption Function of India, August 2021

VARIABLES	(1) mean (sd)	(2) mean (sd)	(3) mean (sd)	(4) mean (sd)	(5) mean (sd)
TOTAL_EXP	12,311 (6,265)	11,128 (4,952)	12,840 (6,702)	10,280 (3,612)	11,746 (5,237)
TOTAL_INCOME	22,286 (19,838)	17,481 (20,462)	24,433 (19,168)	15,703 (19,508)	23,214 (17,239)
GOV_TRANSFER	251.7 (797.8)	376.1 (953.1)	196.2 (710.5)	299.1 (773.3)	91.20 (332.8)
Observations	134,436	41,520	92,916	14,258	27,792

1 India_all 2 India_rural 3 India-urban 4 5stateurban 5 state_rural

MMBBK

Data source: CMIE, Household Expenditure survey, 2021

Micro Consumption Function of India in Covid-19 Peak, August 2020

VARIABLES	(1) India_all	(2) India_rural	(3) India_urban	(4) 5State_rural	(5) 5State__urban
TOTAL_INCOME	0.170*** (0.000725)	0.0776*** (0.00113)	0.214*** (0.000908)	0.0432*** (0.00151)	0.162*** (0.00155)
GOV_TRANSFER	-0.327*** (0.0180)	-0.0534** (0.0242)	-0.265*** (0.0245)	-0.195*** (0.0381)	-0.0911 (0.0801)
Constant	8,606*** (22.19)	9,791*** (31.17)	7,668*** (28.86)	9,660*** (39.10)	7,991*** (45.78)
Observations	134,436	41,520	92,916	14,258	27,792
R-squared	0.293	0.102	0.377	0.055	0.285

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.4: Micro Consumption Function of India Pre and Post Covid-19 August 2019 and 2021



	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	2019M1	2019M2	2019M3	2021M1	2021M2	2021M3
TOTAL_INCOME	0.248*** (0.000717)		0.247*** (0.000717)	0.262*** (0.000672)		0.261*** (0.000672)
GOV_TRANSFER		0.790*** (0.0263)	0.426*** (0.0203)		1.184*** (0.0253)	0.608*** (0.0187)
Constant	6,288*** (20.97)	10,980*** (20.77)	6,226*** (21.15)	4,845*** (17.39)	9,043*** (18.42)	4,774*** (17.47)
Observations	174,405	174,405	174,405	178,677	178,677	178,677
R-squared	0.406	0.005	0.408	0.461	0.012	0.464

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

4.5: Micro Consumption Function of India, Pre-Covid-19 August 2017-18

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	2018M1	2018M2	2018M3	2017M1	2017M2	2017M3
TOTAL_INCOME	0.228*** (0.000761)		0.227*** (0.000762)	0.288*** (0.000822)		0.286*** (0.000821)
GOV_TRANSFER		0.502*** (0.0219)	0.155*** (0.0178)		2.024*** (0.0419)	1.141*** (0.0321)
Constant	6,550*** (23.52)	10,959*** (22.57)	6,533*** (23.60)	4,939*** (19.85)	9,266*** (20.07)	4,893*** (19.81)
Observations	173,181	173,181	173,181	168,165	168,165	168,165
R-squared	0.341	0.003	0.341	0.422	0.014	0.426

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

4.6: Micro Consumption Function of India, Post-Covid-19 July 2022

VARIABLES	(1) 2022M1	(2) 2022M2	(3) 2022M3
TOTAL_INCOME	0.311*** (0.000734)		0.308*** (0.000735)
GOV_TRANSFER		2.126*** (0.0389)	0.971*** (0.0278)
Constant	4,362*** (19.41)	8,997*** (22.34)	4,306*** (19.41)
Observations	178,677	178,677	178,677
R-squared	0.501	0.016	0.504

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Peak of Covid-19: Quantile regression for 2020

VARIABLES	(1) QSt_Rural	(2) QSt_Rural	(3) QSt_Rural	(4) QSt_Urban	(5) QSt_Urban	(6) QSt_Urban
TOTAL_INCOME	0.0325*** (0.00171)	0.0392*** (0.00246)	0.0528*** (0.00314)	0.114*** (0.00224)	0.153*** (0.00271)	0.212*** (0.00349)
GOV_TRANSFER	-0.00264 (0.0407)	-0.135*** (0.0313)	-0.251*** (0.0883)	-0.332*** (0.0852)	0.200** (0.0930)	0.579*** (0.116)
Maharastra	1,361*** (85.14)	1,734*** (76.96)	2,457*** (147.7)	1,805*** (53.45)	2,277*** (68.69)	2,966*** (89.79)
Mpradesh	2,250*** (84.67)	3,028*** (93.40)	4,035*** (133.7)	2,763*** (60.08)	3,318*** (72.59)	3,746*** (105.2)
Bihar	918.9*** (55.23)	380.0*** (66.88)	-200.4** (90.03)	1,580*** (46.29)	1,252*** (61.53)	929.9*** (80.45)
Wbangal	650.6*** (96.94)	854.7*** (95.97)	1,567*** (149.6)	1,986*** (62.01)	2,047*** (72.54)	2,254*** (103.8)
o.Karnatak	-	-	-	-	-	-
Constant	6,530*** (58.10)	7,884*** (75.81)	9,408*** (109.7)	5,017*** (66.45)	5,675*** (76.42)	6,451*** (94.28)
Observations	14,258	14,258	14,258	27,792	27,792	27,792

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.6: Micro Consumption Functions across states of India from 2017 to 2021



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VARIABLES	(1) 2021M	(2) 2020M	(3) 2019M	(4) 2018M	(5) 2017M
TOTAL_INCOME	0.143*** (0.000678)	0.252*** (0.000691)	0.226*** (0.000747)	0.208*** (0.000770)	0.268*** (0.000821)
GOV_TRANSFER	-0.452*** (0.0168)	0.125*** (0.00983)	0.508*** (0.0201)	0.144*** (0.0173)	1.177*** (0.0313)
Assam	-1,496***	-371.0***	-1,895***	-619.4***	4.777
Bihar	(148.5)	(122.5)	(165.9)	(200.3)	(167.9)
Chandigarh	-1,248***	1,528***	749.4***	-585.2***	-620.1***
Chhattisgarh	(79.34)	(71.30)	(95.88)	(110.4)	(91.12)
Delhi	8,517***	852.7***	6,257***	8,913***	3,418***
Goa	(232.8)	(224.3)	(303.6)	(351.5)	(309.4)
Gujarat	1,373***	978.2***	1,026***	395.6***	-1,208***
Haryana	(95.02)	(84.98)	(115.0)	(132.5)	(109.6)
Himachal Pradesh	7,888***	3,524***	3,889***	3,826***	1,985***
Jammu & Kashmir	(145.4)	(136.0)	(186.2)	(214.8)	(176.9)
Jharkhand	2,135***	1,245***	4,670***	7,577***	7,241***
Karnataka	(204.4)	(151.4)	(205.3)	(237.5)	(195.6)
Kerala	2,326***	1,202***	3,032***	1,746***	1,367***
Madhya Pradesh	(80.08)	(71.70)	(96.93)	(111.4)	(92.62)
Maharashtra	4,503***	2,616***	3,251***	3,434***	1,814***
Meghalaya	(87.25)	(82.05)	(111.9)	(128.2)	(105.4)
Odisha	-92.38	4,360***	4,832***	3,142***	6,390***
Puducherry	(164.9)	(140.0)	(190.1)	(219.6)	(182.0)
Punjab	3,146***	-848.9***	-3,257***	4,140***	3,630***
Rajasthan	(147.0)	(105.3)	(142.6)	(164.9)	(135.9)
Sikkim	447.3***	1,927***	1,303***	507.4***	628.9***
Tamil Nadu	(98.16)	(85.63)	(115.7)	(133.3)	(110.5)
Telangana	-2,072***	-284.8***	488.2***	-1,151***	774.8***
Tripura	(83.37)	(70.67)	(95.25)	(109.6)	(90.59)
Uttar Pradesh	2,669***	3,586***	3,562***	1,499***	4,082***
Uttarakhand	(95.05)	(84.63)	(115.1)	(132.7)	(109.2)
West Bengal	1,650***	2,399***	584.3***	-631.7***	-789.7***
Assam	(79.75)	(71.41)	(96.42)	(112.1)	(93.01)
Bihar	343.7***	919.9***	2,177***	1,504***	876.4***
Chandigarh	(70.50)	(62.22)	(83.91)	(96.38)	(80.17)
Chhattisgarh	5,147***	-58.49	4,082***	3,676***	-2,034***
Delhi	(203.5)	(153.3)	(208.6)	(239.7)	(99.00)
Goa	-131.9	-425.7***	1,179***	-1,131***	-2,228***
Gujarat	(94.87)	(77.17)	(104.1)	(119.9)	(189.3)
Haryana	4,347***	3,577***	3,850***	-1,852***	4,736***
Himachal Pradesh	(143.4)	(146.6)	(199.3)	(230.1)	(99.68)
Jammu & Kashmir	5,103***	5,650***	5,739***	6,599***	837.7***
Jharkhand	(84.56)	(77.78)	(104.9)	(120.8)	(88.58)
Karnataka	2,159***	3,605***	3,318***	1,887***	-721.3***
Kerala	(77.09)	(69.22)	(93.27)	(107.6)	(89.23)
Madhya Pradesh	72.27	-695.7***	-1,126***	-3,386***	-1,734***
Maharashtra	(463.3)	(170.5)	(231.3)	(267.1)	(103.6)
Meghalaya	-437.7***	642.1***	1,638***	-537.4***	-2,013***
Odisha	(78.15)	(68.89)	(92.79)	(107.2)	(189.3)
Puducherry	77.31	1,018***	-474.6***	-812.5***	-539.3***
Punjab	(90.18)	(79.88)	(108.2)	(125.0)	(78.09)
Rajasthan	1,250***	2,568***	2,454***	5,920***	2,256***
Sikkim	(161.6)	(143.9)	(195.2)	(225.6)	(148.5)
Tamil Nadu	-2,113***	1,114***	459.9***	-820.3***	-1,027***
Telangana	(67.52)	(61.26)	(82.21)	(94.28)	(89.58)
Tripura	12,074***	6,469***	6,671***	4,506***	
Uttar Pradesh	(128.2)	(115.5)	(156.6)	(180.4)	
Uttarakhand	66.53	-1,269***	706.3***	328.0***	
	(84.06)	(69.63)	(93.63)	(108.4)	
Urban	621.2***	961.6***	677.4***		
	(28.25)	(23.89)	(32.18)		
Constant	8,056*** (65.23)	2,293*** (54.95)	4,565*** (73.89)	6,150*** (81.57)	4,769*** (67.59)
Observations	134,436	174,405	174,405	173,181	168,165
R-squared	0.452	0.558	0.448	0.387	0.471

Bayesian Estimation of the parameters of the consumption function

Due to parameter uncertainty, the Bayesian model is becoming increasingly popular in recent years (see Lancaster(1979, 2004)).

Bayesian regard true parameter to be a random variable, priors are updated frequently upon arrival of the new data.

Thus in Bayesian analysis the value of true parameter θ , such as the MPC of the consumption function, is unknown like in the classical approach but it is not fixed.

The joint density of y and MPC (θ) is result of the product of prior density and the sample likelihood function.

$$p(\theta/y) = p(y/\theta)p(\theta)$$

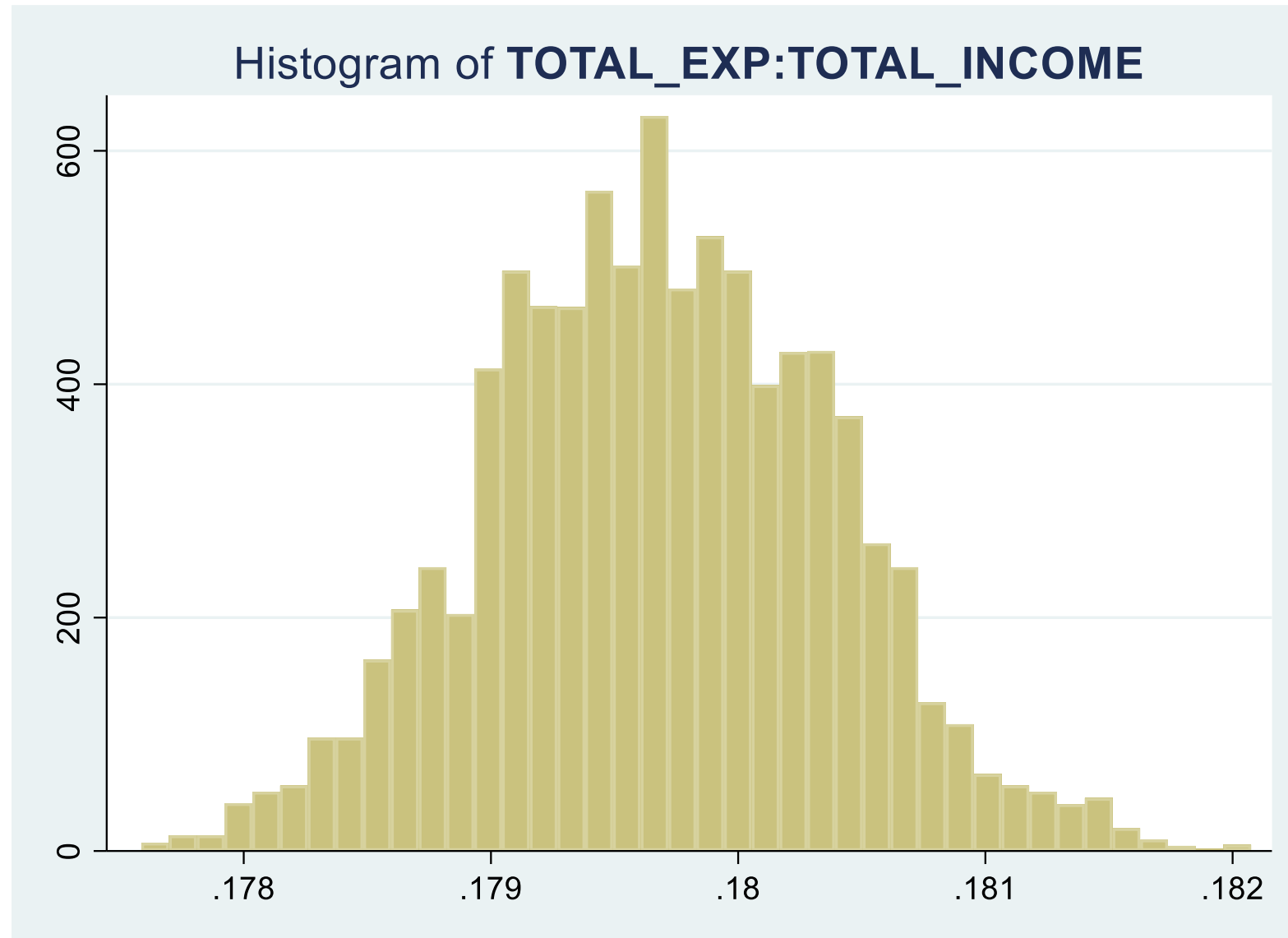
$$C_h = C_{0.h} + b.(Y_h - T_h) + d.TR_h + e_h$$

The Bayesian estimation generates the distribution of the consumption function parameters as presented in Figures



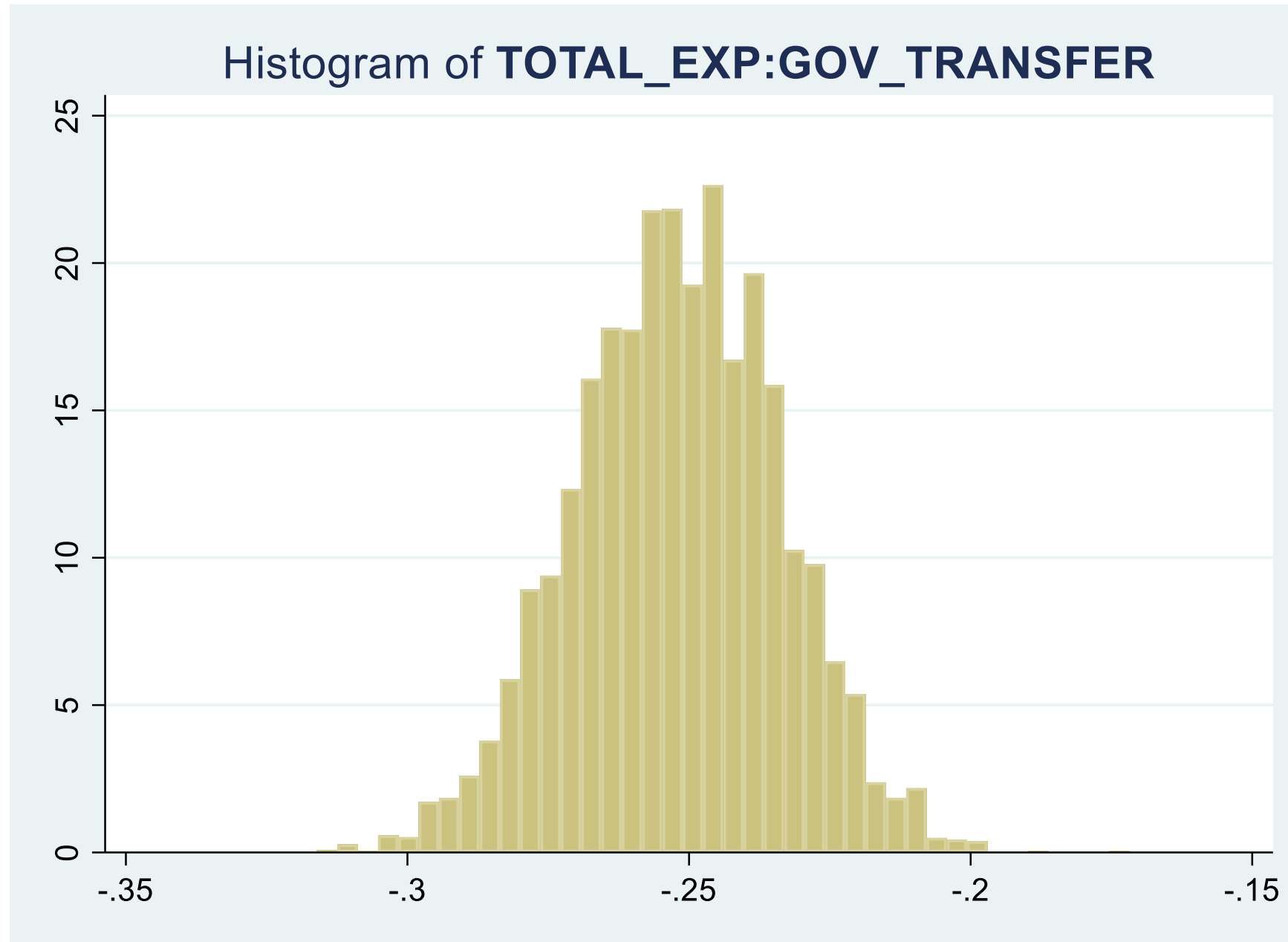
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$$C = C_0 + bY + dTr + e$$



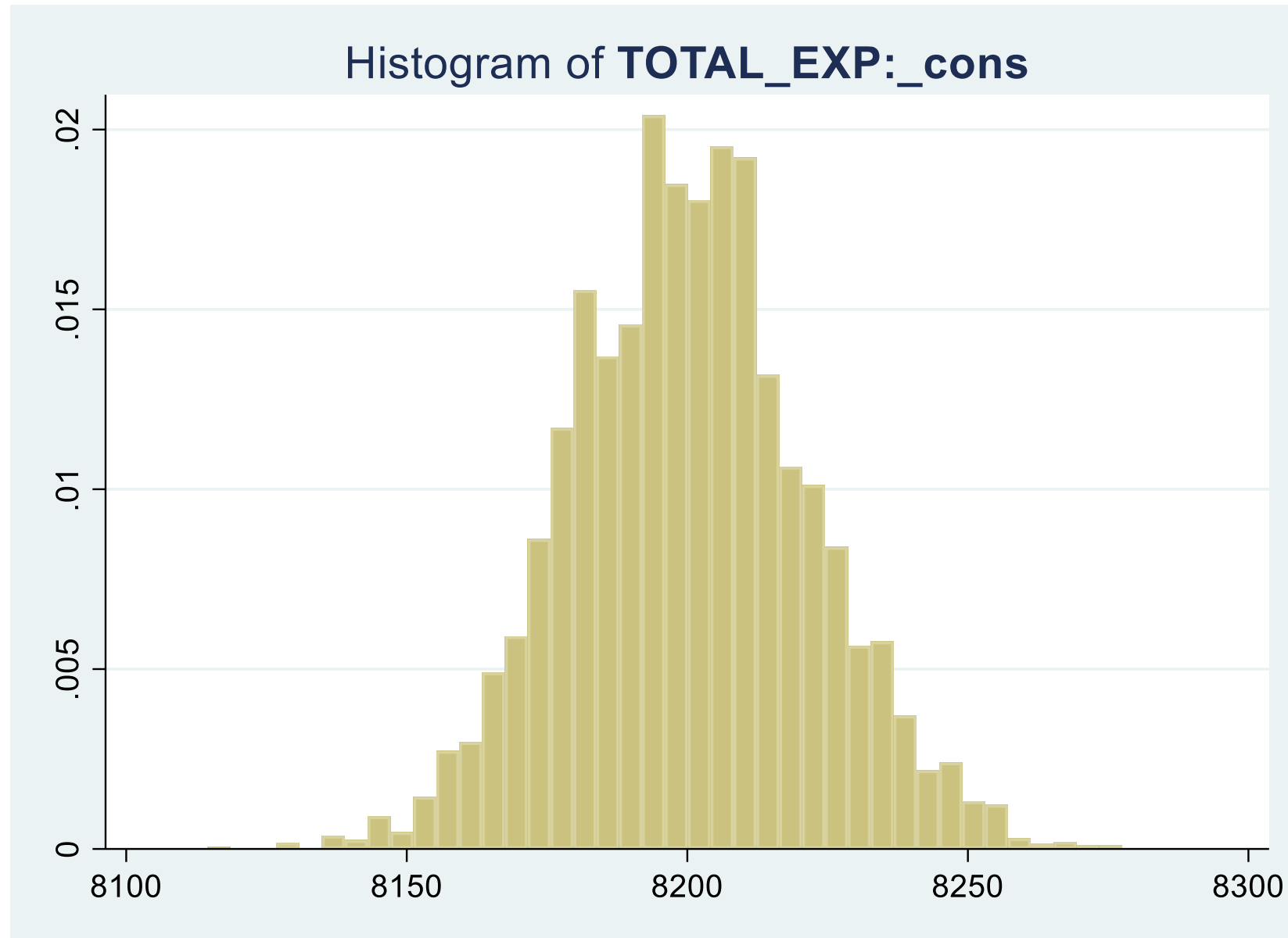


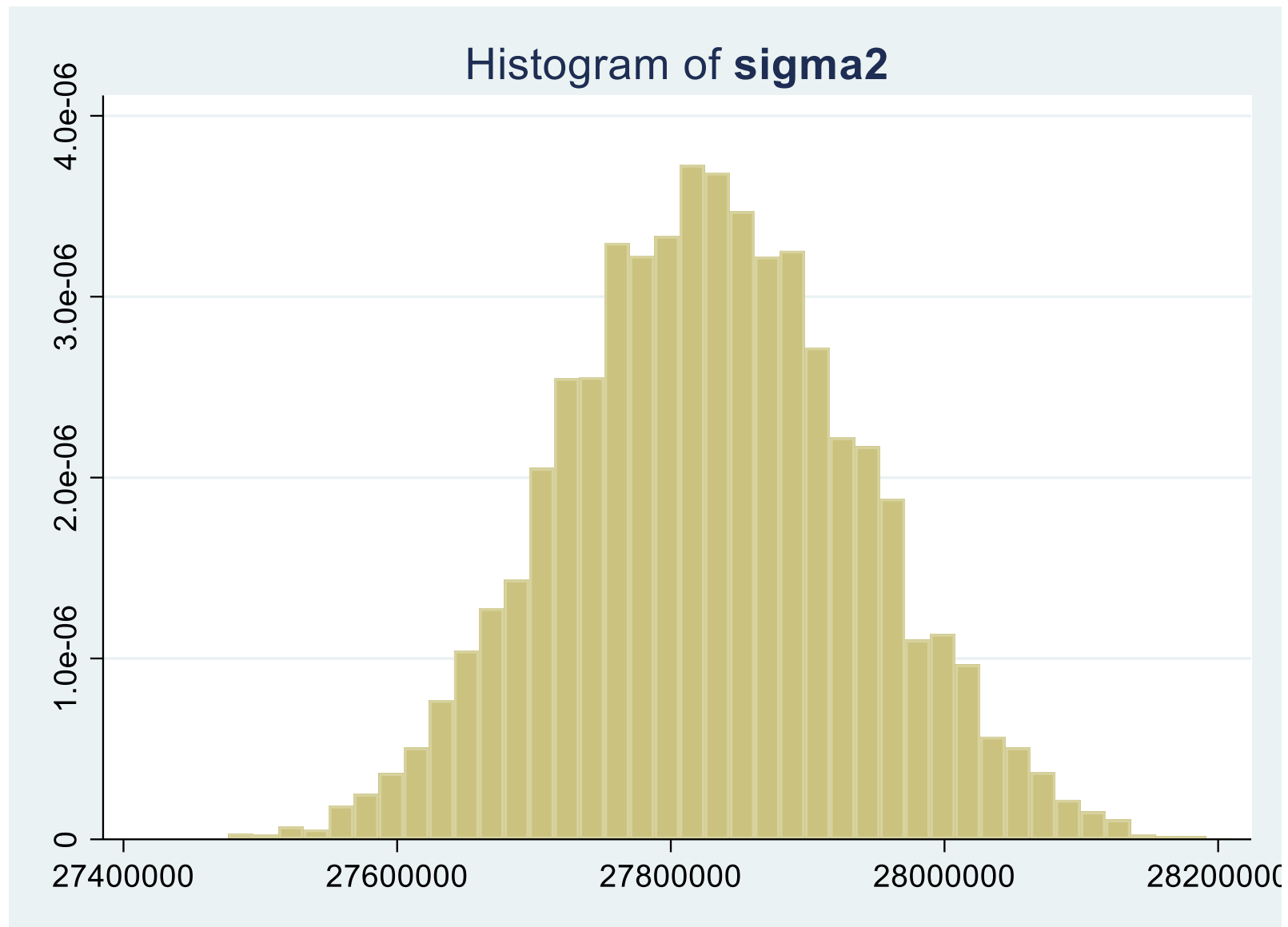
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Conclusions of the study-1

1. Marginal propensity to consume is 49.8 percent in India from macro time series for 1990-2020
2. Household level data still shows positive and significant impact of income in consumption but the MPC is a lot lower than at the macro level
3. Urban areas have higher consumption than that of rural area
4. There are big differences across states.
5. The Bayesian analyses based on priors and likelihood functions that provide posterior distribution of parameters of the consumption functions

Conclusions of the study-2

6. At micro household level data still shows positive and significant impact of income in consumption but the MPC is a lot lower than at the macro level.
7. Government transfers have positive effects on consumption in non-Covid-19 years but it had negative and significant effect during the pandemic, as consumers raised their precautionary savings during that period.
8. Urban areas have higher consumption than rural areas.
9. There are big differences in MPC and autonomous consumption across states.
10. Lancaster (1979, 2004) style Bayesian analyses are better.

References on Consumption Theory



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Mishra, A.K., Gupta, A. and Bhardwaj, V., 2022. CMIE

Permanent inequality versus earnings instability and transmission of income shocks to consumption expenditure in India.

eight different models to examine the earning dynamics

The individuals' starting point determines their lifetime earning profile. It also implies that low-paid individuals will see lower incomes throughout their life.

...further examines the transmission of income shocks to consumption, based on the association at lags of unexplained income and consumption expenditure growth

Using the CMIE data for the 18 waves, this paper deals with the dynamic structure of earnings in India for the period of six years (2014-2019) by decomposing the covariance structures of earnings into the permanent and transitory/temporary components.

“The study observes that the inequality in consumer expenditure has increased in both the rural and the urban parts of India during the post-reform period.

Non-food expenditure is more unevenly distributed, and it has been found to be more pro-rich in nature. Expenditure on cereals and pulses still exhibits higher inequality-reducing effect in rural and urban India.

Education and health-care expenses have been inequality-increasing in the country.

Contribution of expenditure on miscellaneous consumer services, durable goods, education and health care to the overall expenditure inequality is significantly higher.”

Consumer spending in India from January 2017 to March 2021

(in billion Indian rupees)



Source: Statista