Urbanization Patterns – Is Bangladesh Urbanising Without Industrialising?

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Road Map and Five Takeaways

A.Urbanisation and Growth are intertwined – Growth cannot happen without urbanization. **But there can be "Urbanisation without industrialization."**. Five Takeaways - Some Points from Overview

B. Objectives and Methods.

C. Some Broad Patterns - Churning, Movement from Urban to Rural, Less Urbanized Districts

D. Urbanization effect on firm level output, productivity, marginal productivity

E. Urbanization Effect on firm level labor productivity and marginal effects of factors.

F. Urbanization Effect on Manufacturing Employment and Real Wages

G. Firm Location Decisions - Urban vs. Rural ; Urbanization Impact on Firm Location Decisions across Districts

H. Manufacturing Development Prospects and Strategy –case study of ttattagong and secondary cities. Concluding thoughts on some Policy Issues.

Five Takeaways (and Conclusion)

I. So far, urban and manufacturing growth have been significant drivers of development. Urban Population increased 9-10 times since 1974. Industrial value added increased 35 times. *Manufacturing output is concentrated in the most urbanized districts and average productivity is higher in the more urbanized districts*.....**It has been urbanization with industrialization**.

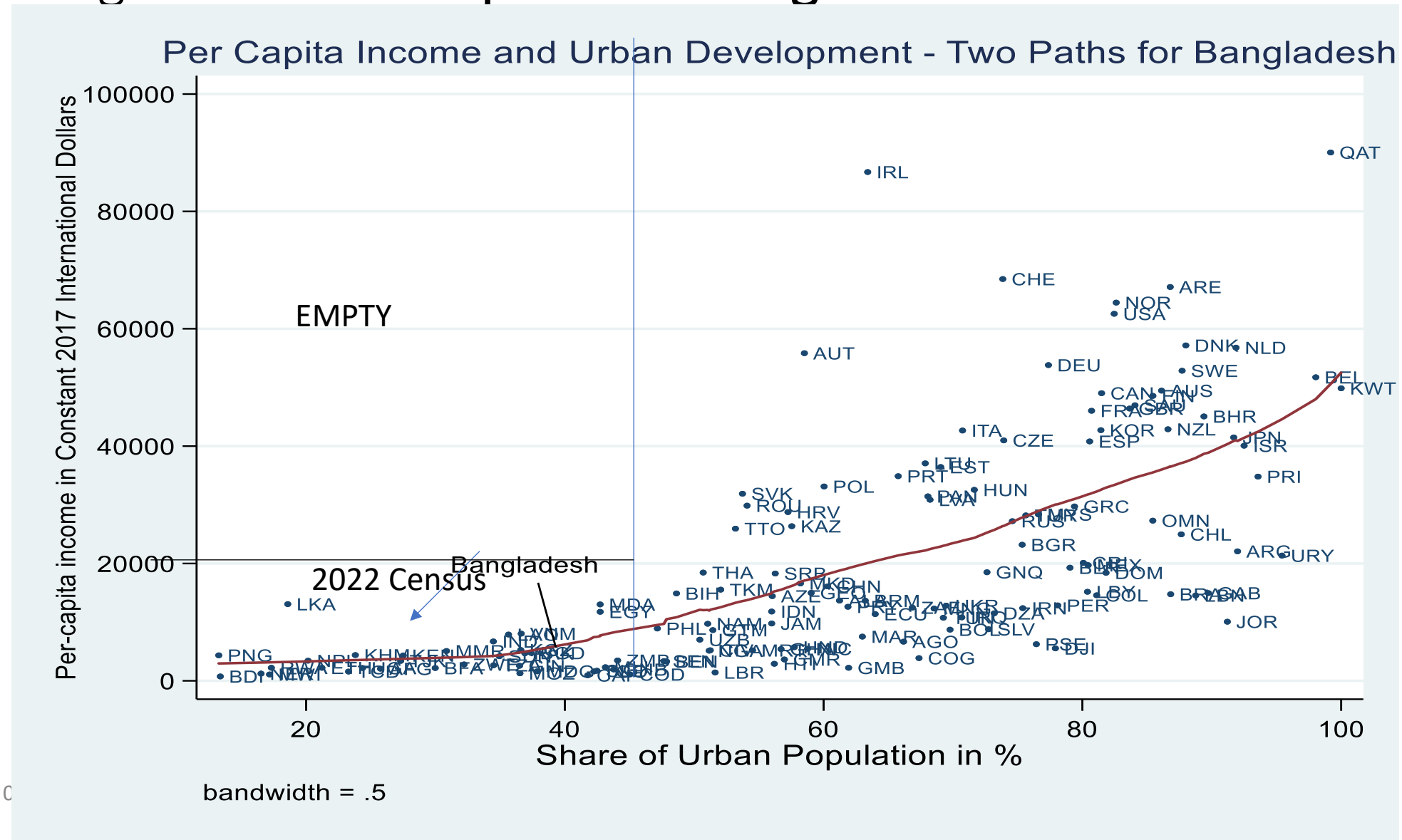
II. *But the linkage is weakening*. *Marginal Productivity of factors is often higher outside the most urbanized districts* . *Consequently, there is a beginning of a centrifugal movement of industry to outside Dhaka to Gazipur mainly, but also to Chattogram, Cumilla. M**ovement towards less urbanized and rural districts .***

III. ***Middle ranking urban districts such as Bogura ,Khulna, Rangpur, Mymensingh, Sylhet are not adequately supporting manufacturing;. Related to the decline of medium industries***. *That may be why there is an appreciable shift of industry location towards less urbanized districts and to rural areas.*

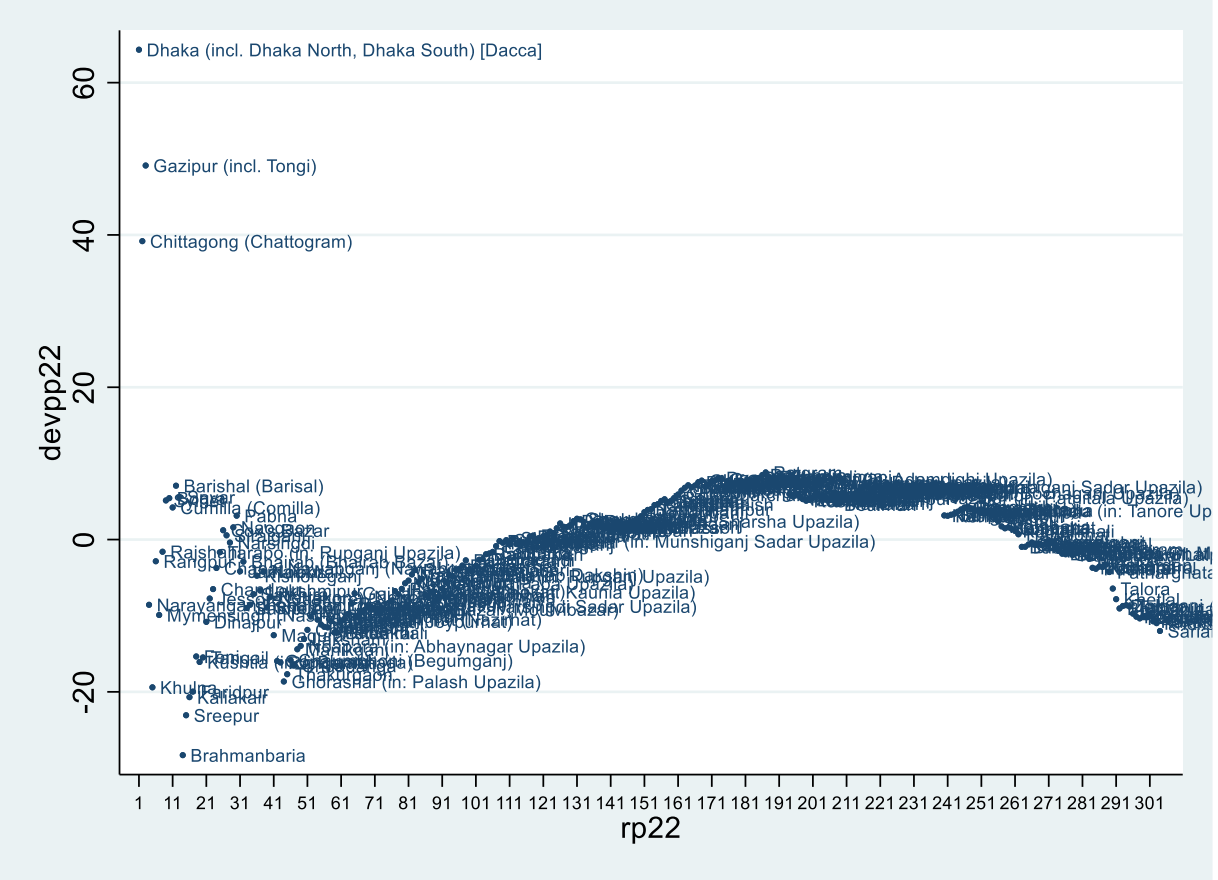
IV. ***Probability of Firms' Rural Location and less urbanized districts is higher and increasing*** *for all size groups except large. Lowest in the middle-urbanized districts. Despite this* ***Dhaka is the most preferred location choice by a significant margin*** *although that is weakening.*

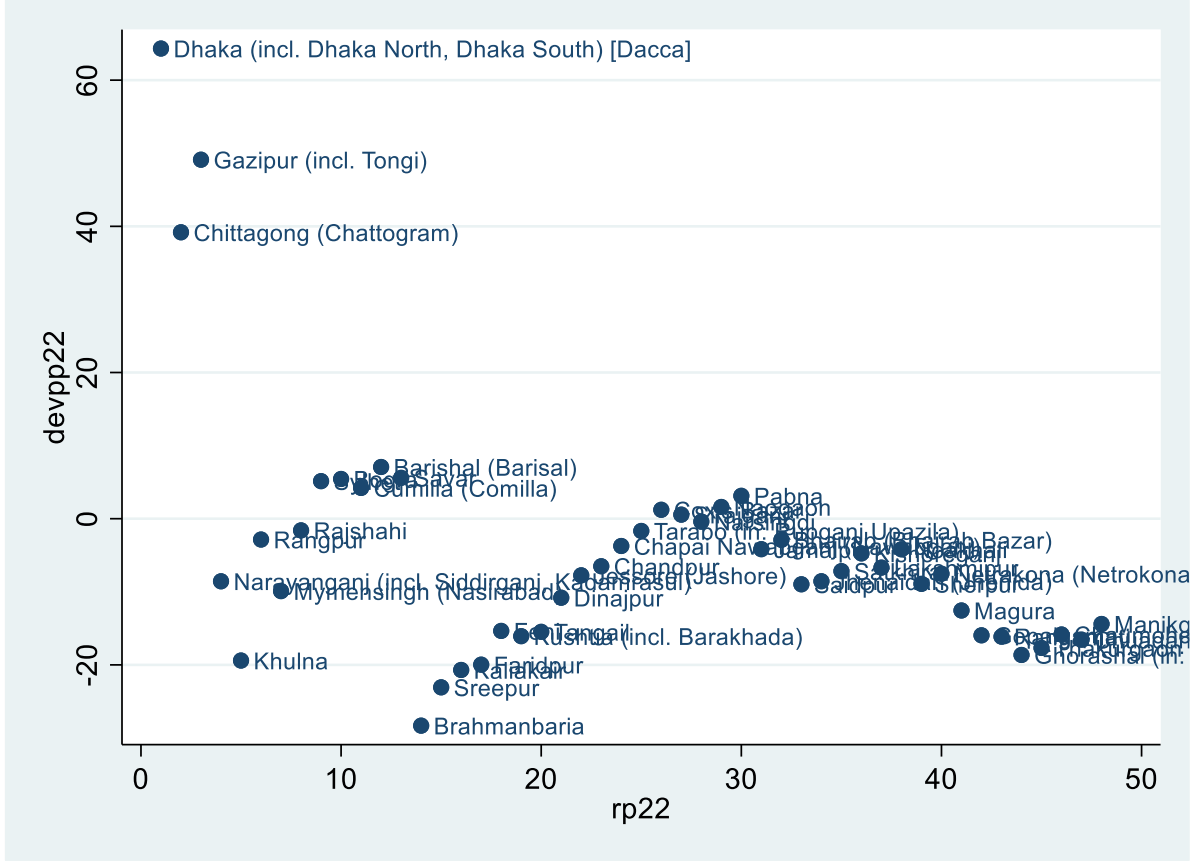
V. There is risk of loss of agglomeration benefits from this distribution. **Development of secondary cities and urbanized districts to attract industry important**. (Location Study of Chattogram and secondary cities). **Urgent** policy issues.

A. From Overviews : no growth without urbanization- but the opposite is not true: There is urbanization without industrialization and growth. **Which path will Bangladesh chose?**



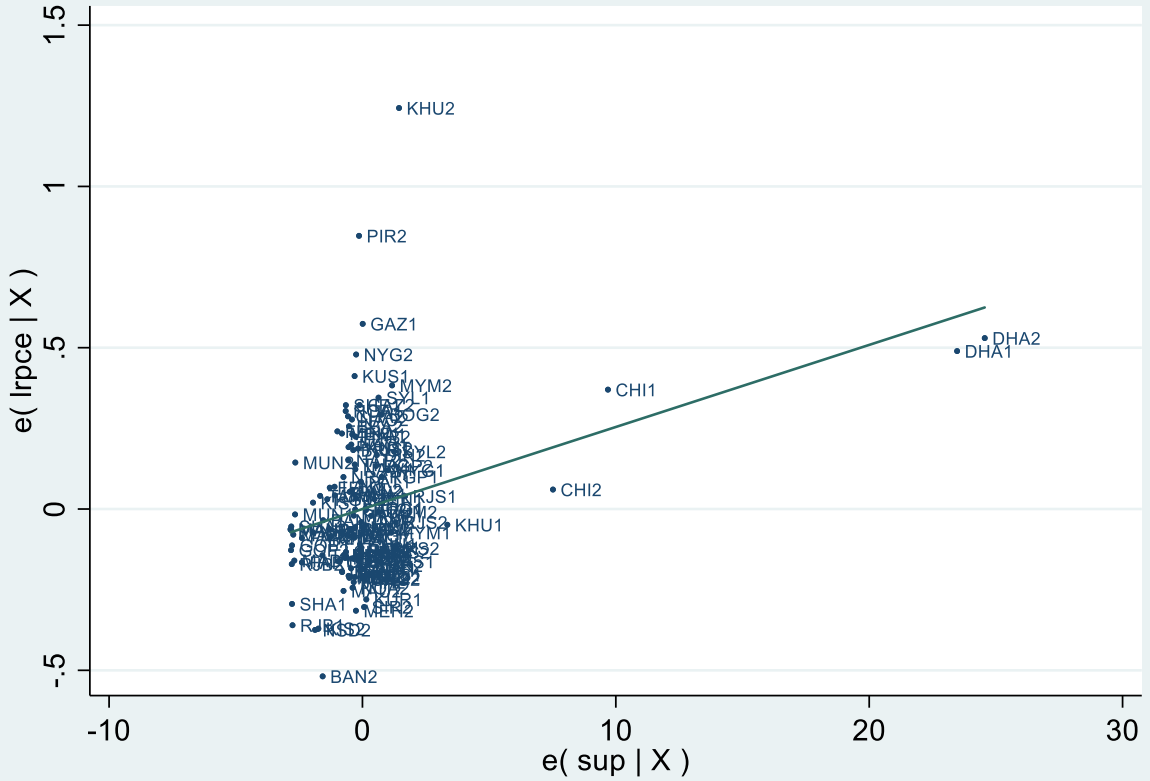
Important Point from Paper 1: High but reducing concentration. There is churning. But undergrowth of Secondary Cities and smallest towns – by Zipf's Law. Impact?

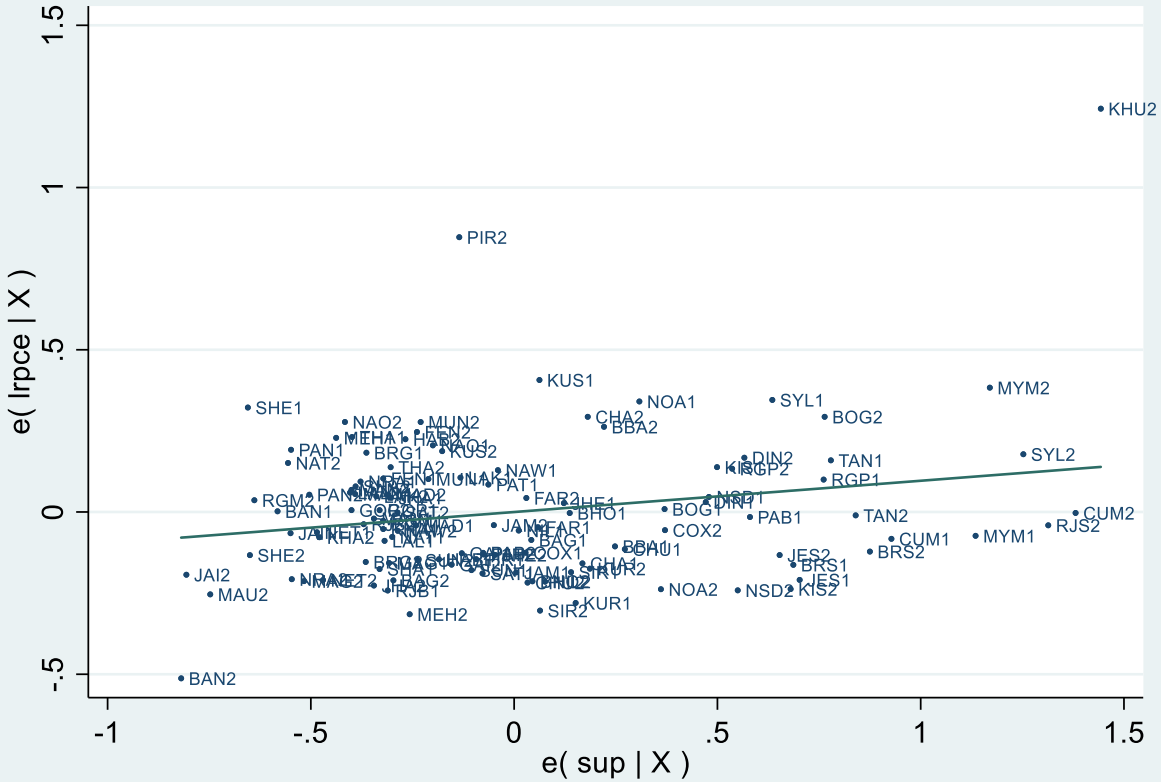




That has impact: Conditional Regression Plots. With and Without the largest urban districts: Real Per Capita Expenditures and Share of Urban Population, from Panel data

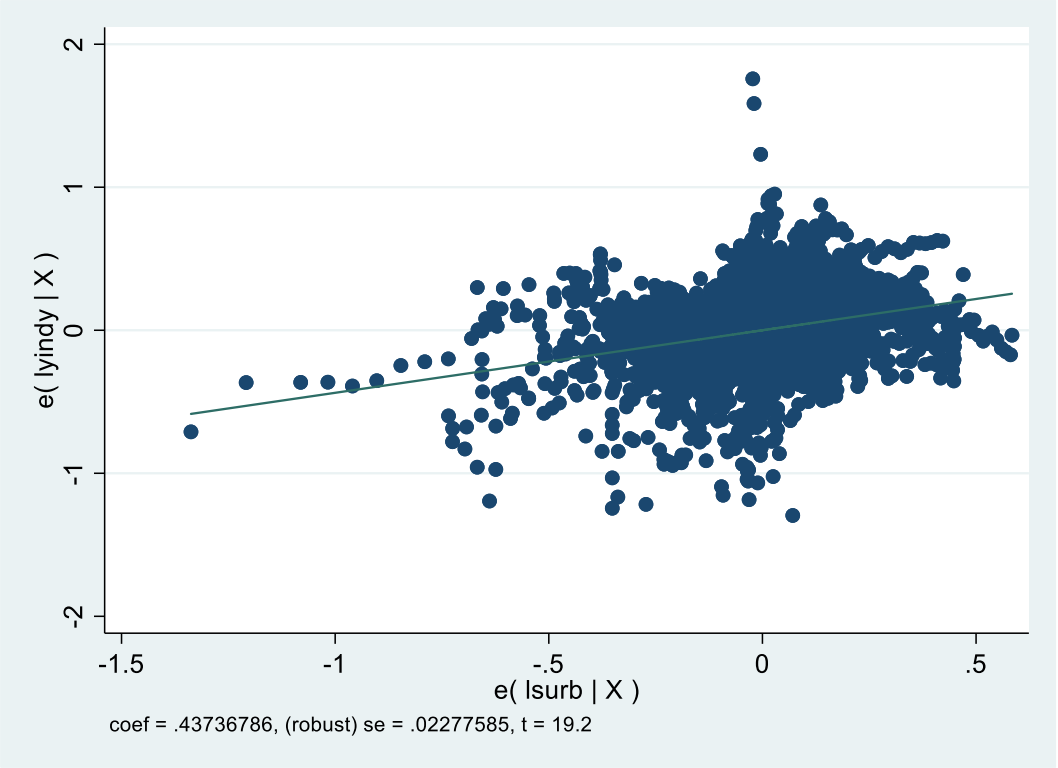
(using Angrist-Pischke specifications of state, time fixed effects and interaction.)



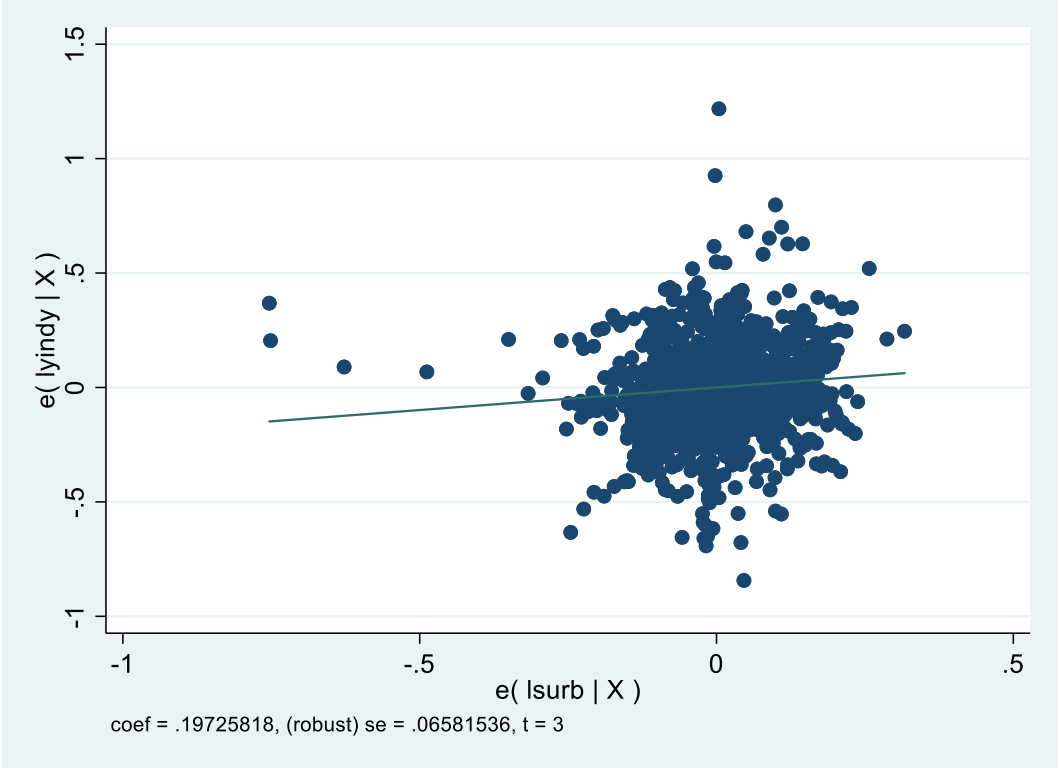


Motivation: Broad Patterns – National and International ; Conditional Elasticity Estimates of Share of Industry GDP and Urbanization, Panel of 203 countries from 1969-2020. Bangladesh has a stronger but weakening relationship.

Panel 1: All Countries (203): Significant relationship between urbanization and share of Industry in GDP with an estimated elasticity of 0.44.

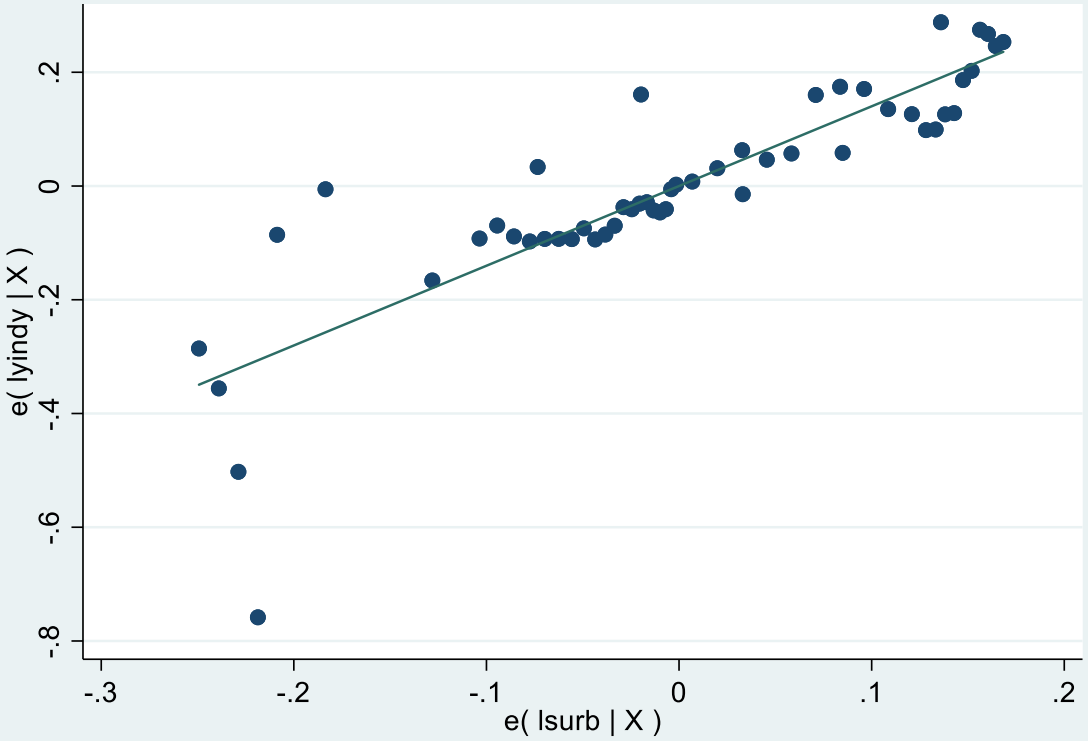


Panel 2: Emerging Economies (83 countries) Below Median Income of real PPP$ 13,600 and Population Above 5 million in 2019. In this case, also the elasticity estimate remains significant but drops to 0.2.

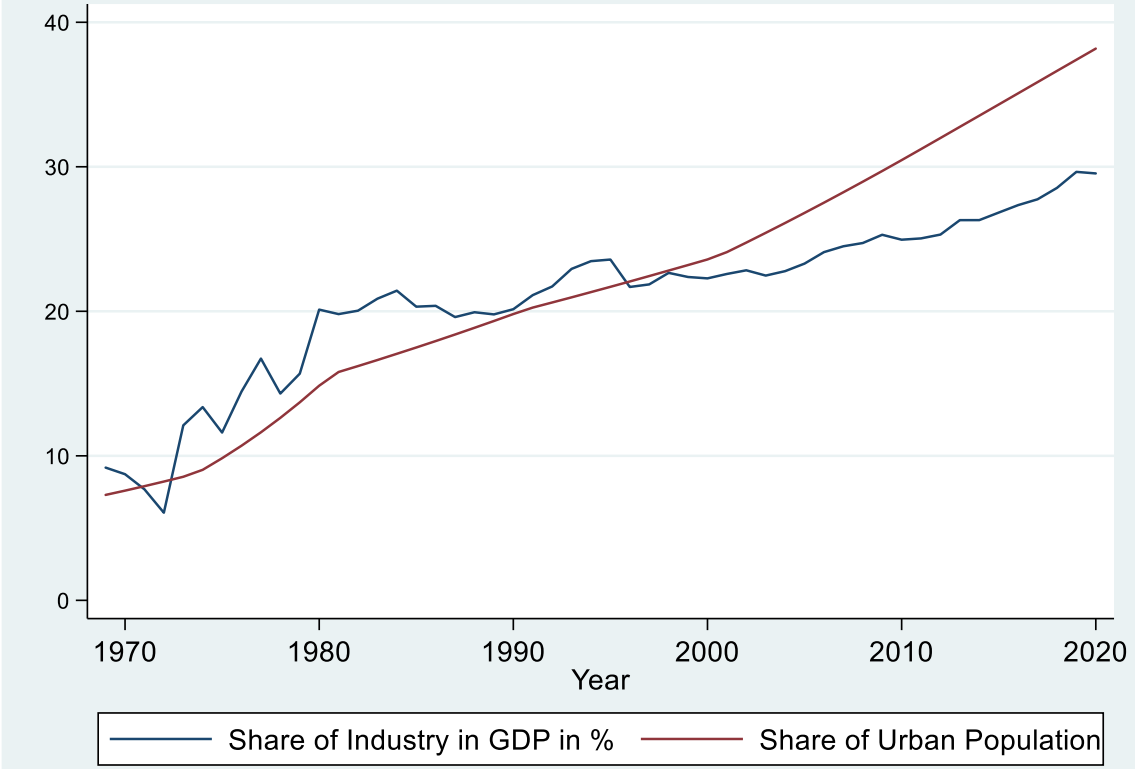


Industrialization and Urbanization - Bangladesh

Panel 3: Estimates from the Panel for only Bangladesh show a Higher Elasticity of 1.40 (over a 50-year period)



Bangladesh Weakening Relationship. The share of Industry is growing less than the Share of the Urban Population.



B. Objectives, Key questions, and Methods

- Motivated by these developments and the thin literature on this topic, our overarching question is whether urbanization promotes industrialization in Bangladesh. To that end, our research questions are as follows:

  - What are the salient patterns in the industry location in Bangladesh, and how have they evolved?
  - What are the effects of urbanization on firm-level average output and labour productivity? How does urbanization affect the marginal productivity of factors? How does urbanization interact with other important determinants, such as industry size and capital-labour ratio, to affect the output and productivity of firms?
  - What are the effects of urbanization on manufacturing employment and real wages? What are firms' urban location choice probabilities? What are the determinants of probabilities?
  - What are firms' district-group location choice probabilities for appropriately defined district groups that capture urbanization level? What are their significant determinants?

Data and Methods

- We use the unit (firm)-level data from SMI (SMI 2012 and SMI 2019), the population data from censuses (Census 2001, 2011, and 2022), and the employment and wage data from LFS (LFS 2010, 2017, 2022).
- BBS SMI reports only provide aggregated national-level information, by BSIC industry sectors and sizes **but do not provide spatial distribution at the administrative or rural-urban level**. We use firm-level data to cover this gap and a major contribution of this paper.
- Both descriptive data analysis and econometric models and tools are employed.
- We specify an augmented Cobb-Douglas production function, with 3-way interactions using a moderator variable (representing urbanization) to estimate both the impact of urbanization on production per unit (firm) and the firm-level labour productivity. We also control for a important factors such as time, size, and industry sectors.
- We also estimate two probabilistic location choice models for firms: a binary logit model for firms' choice of urban location and a multinomial logit model for firms' choice of district group location.
- The choice of variables is guided by economics, empirical literature, and the principle of simplicity and parsimony.
- In addition to following a forward step-wise variable selection procedure, we check the robustness of our chosen specifications against a number of alternative specifications, e.g., other forms of interaction terms, various sub-sample regressions. We found that our preferred specifications deliver quite robust results against various competing specifications and fit the data better.

Shaping The Unit-level SMI data

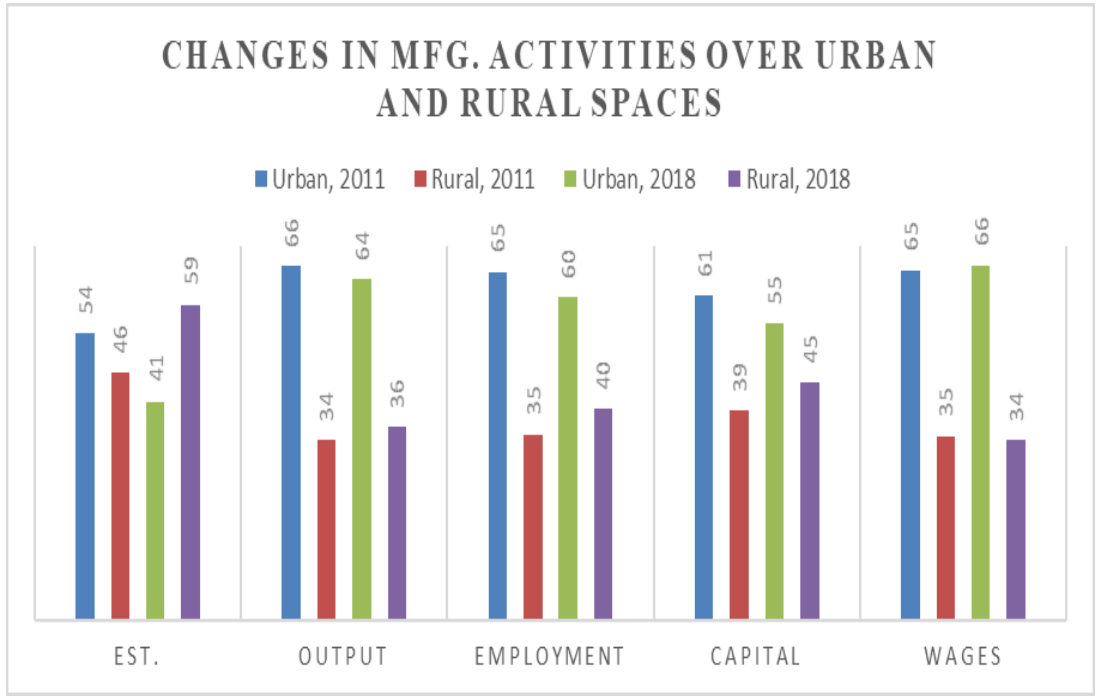
- SMI 2012 and SMI 2019 data (including price) correspond to FY2011 and FY2018, respectively. Mfg. GDP deflator estimated from national account data (Base year FY06) is used to covert all monetary data to 2018 prices. Also, we will use 2011 and 2018 to represent data obtained from SMI2012 and SMI 2019, respectively.
- After initial cleaning and imputation of missing output data (for 2018), two serious issues with the unadjusted data were observed:
  1. a few inexplicable spikes in the spatial distribution of urban labour productivity (e.g., Bagerhat, Cumilla, Kushtia, and Pabna in 2018 and 2011),
  2. abrupt increases in labor productivity over the two periods – a tenfold jump in some districts.
- To address these issues, separately for each year within each industry sector (BSIC 2 digit)-size groups, we decide to truncate the top 3% firms (in terms of labour productivity). This exercise left us with an adjusted sample size of 16393 (8165 in 2011 and 8228 in 2018 against BBS reported 8429 in 2011 and 8529 in 2018).
- The effects of truncating the data are fairly innocuous: they do not introduce biases in favour of one of our key hypotheses – that productivity outside the Dhaka is catching up. Our estimates of firm average output and labour productivity in districts outside Dhaka may suffer from an underestimation bias, not an overestimation bias.
- It is worth stressing that all estimates, including our unit-level econometric estimates, have used sample weights to make them nationally representative.

Classification of Districts into 10 District Groups using District's Incremental Share of National Urban Population (*sincup*)

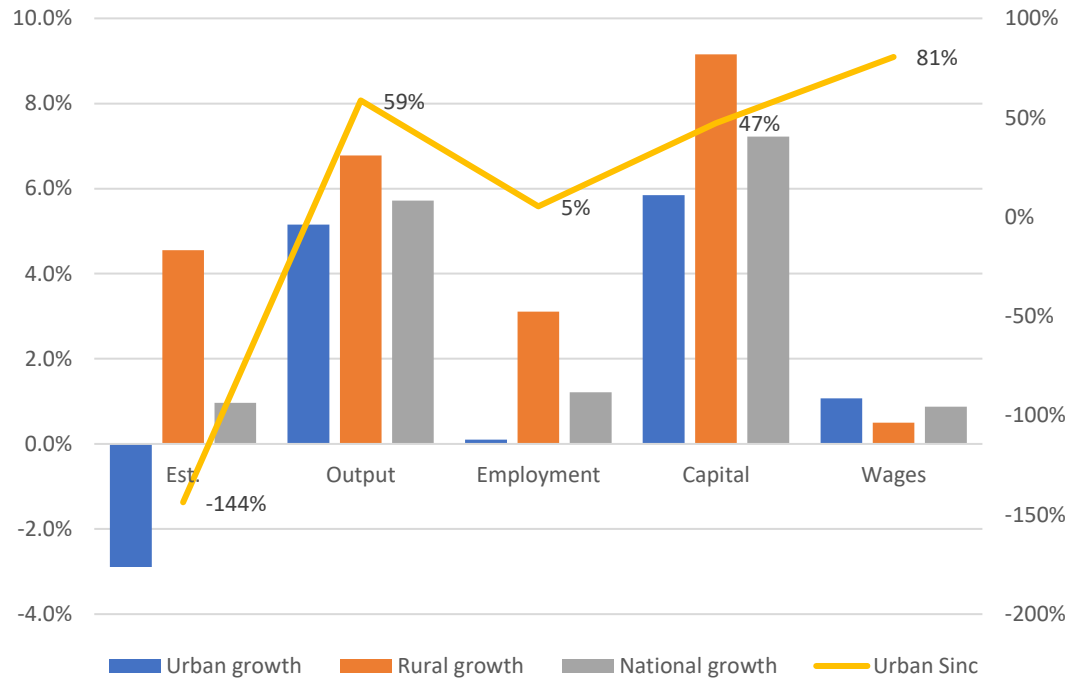
Districts/District-groups	classification criteria (sincup in 2022)	Share of Increment in Urban Population (sincup)		Share of National Urban Population (sup)		Mean Share of Urban Population in District-group Population (surb)	
		2001-2011	2011-2022	2011	2022	2011	2022
Gr1 (34 Districts)	sincup < Median (i.e., 1.06 %) in 2022)	34.9	22.1	22.1	22.1	15.9	22.4
Gr2 (17 districts)	median (1.06 %) <= sincup < mean (1.55%)	24.5	21.0	18.9	19.6	16.4	24.2
Gr3 (4 districts, namely, Kishoregonj, Tangail, Bhola, Bogura)	1.55% <= sincup < 2.5%	13.2	7.4	5.8	6.4	16.4	26.0
Gr4 (3 districts, namely, Cox's Bazar, Mymensingh, Rangpur)	2.5% <= sincup < 4.0%	8.5	10.3	5.2	6.9	17.7	33.2
Gr5	Khulna	-13.7	1.6	2.3	2.1	33.8	41.0
Gr 6	Cumilla	7.7	2.3	2.5	2.4	15.7	20.5
Gr 7	Narayangonj	-6.6	3.2	3.0	3.1	33.6	40.7
Gr 8	Chattogram	-7.3	9.4	9.4	9.4	41.7	53.4
Gr 9	Gazipur	2.4	12.9	3.1	6.5	30.6	64.4
Gr 10	Dhaka	36.4	9.9	27.8	21.6	77.8	76.4
National (All Districts)		100.0	100.0	100.0	100.0	18.3	26.1

C. Aggregate Analysis Reveals Movements to Rural Areas and Outside the Main Districts.

Changes in Mfg. Activities over Urban and Rural Spaces -Shares add to 100 by Year



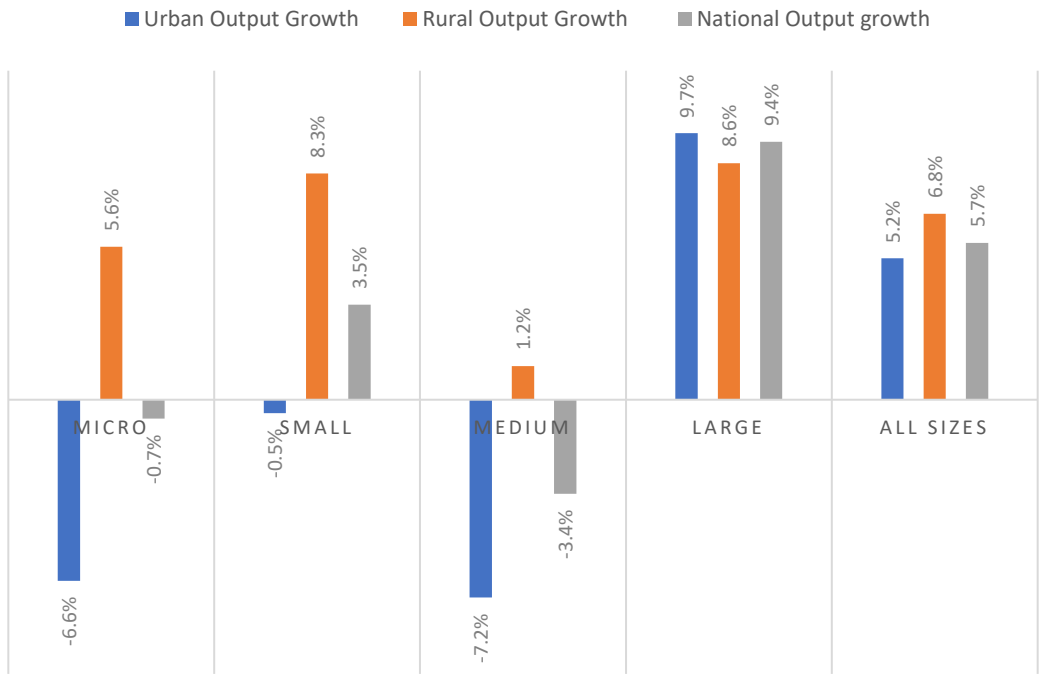
Urban Vs. Rural Industries: Growth 2011-18 (left axis) and % Share of Increase (right axis)



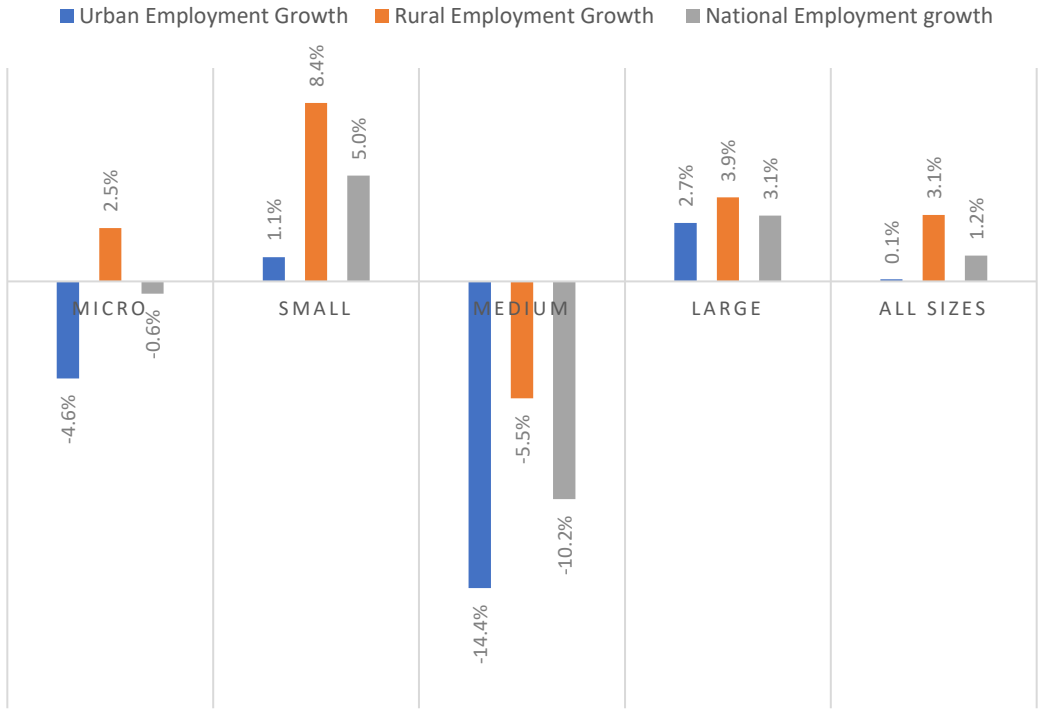
Striking findings given the poor rural infrastructure. This probably implies that over time urban areas suffered a significant fall in competitive advantages, become less hospitable, and too expensive for locating new industries.

C1. Slow growth of the mfg. sector is primarily driven by the decline of medium-sized industries in Bangladesh.

Output Growth in Urban Areas Have Been Lower Than Rural Areas for All Groups except Large Industries



Negative Employment Growth of Medium Industries in Both Rural and Urban Areas



- Urban output of all sizes, except large, had negative growth (particularly, urban micro and medium industries).
- For rural industries, strong output and employment growth for large and small industries. Negative growth for rural medium size.

Movement of 2-Digit Sectors to Rural Areas

Districts	# of Operating 2-digit Sectors in 2018		Changes in 2-digit Sectors (between 2018 and 2011)		% Change (between 2018 and 2011)	
	Urban	Rural	Urban	Rural	Urban	Rural
National	349	259	54	114	15.5	44
Dhaka	25	17	-2	-3	-8	-17.6
Gazipur	15	11	5	8	33.3	72.7
Chattogram	24	11	-5	0	-20.8	0
Narayangonj	11	10	8	3	72.7	30
Cumilla	10	11	2	1	20	9.1
Khulna	9	10	-2	-2	-22.2	-20
Barishal	3	0	14	5	466.7	
Kushtia	7	8	5	5	71.4	62.5
Manikganj	2	4	2	8	100	200
Bhola	0	0	5	4		
Bogura	8	6	3	5	37.5	83.3
Rangamati	0	1	4	5		500
Rajshahi	9	4	3	3	33.3	75
Rangpur	9	4	3	3	33.3	75

Movement to Rural by Sectors

Sectors	Share of Total Mfg. Employment, 2011	Share of Total Mfg. Employment, 2018	Share of Total Urban Mfg. Employment, 2011	Share of Total Urban Mfg. Employment, 2018	Urban share of National Employment, 2018 (%)	Change in Urban Shares in National Employment	National Employment Growth (%)	Urban Employment Growth (%)	Rural Employment Growth (%)
RMG	56.3	60.2	67.3	74.6	74.7	-3.2	2.2	1.6	4.2
Textiles	16.3	12.2	12.9	7.5	37.1	-14.6	-2.8	-7.3	0.9
Other Non-Metallic Mineral	9.4	10.8	2.0	1.7	9.4	-4.2	3.2	-2.1	3.9
Food	5.3	5.3	3.7	3.7	41.6	-4.1	1.3	0.0	2.4
Leather	1.5	2.1	1.8	2.7	77.0	0.7	6.0	6.1	5.5
All Industries	100.0	100.0	100.0	100.0	60.3	-4.8	1.2	0.1	3.1

C2. Movement to outside Dhaka. Still highly concentrated output with initial spatial diffusion: Few encouraging, albeit slow, movements.

Rank (SINC in Outpt)u	Urban District Name	SINC in Urban Output	Share, 2011	Share, 2018	Urban Output Growth (pa)	Rural District Name	SINC in Rural Output	Share, 2011	Share, 2018	Rural Output Growth (pa)
1	Chattogram	36.9	22.4	26.7	7.8	Gazipur	21.8	23.9	23.1	6.3
2	Dhaka	36.2	43.5	41.3	4.4	Dhaka	17.6	16.1	16.7	7.3
3	Gazipur	15.0	13.9	14.3	5.5	Mymensingh	8.2	1.8	4.1	20.7
4	Cumilla	5.9	1.0	2.5	19.3	Pabna	7.8	0.5	3.1	41.0
5	Barishal	2.6	0.0	0.8	59.6	Natore	5.5	0.2	2.2	50.3
6	Narayangonj	1.8	7.3	5.7	1.4	Dinajpur	5.5	0.1	2.0	81.0
7	Manikganj	1.7	0.0	0.5	81.0	Nilphamari	5.1	0.1	1.9	75.6
8	Sherpur	1.2	0.1	0.4	34.9	Munshiganj	3.9	0.3	1.7	33.9
9	Jashore	1.2	0.6	0.7	9.6	Manikganj	3.7	0.4	1.7	29.5
10	Naogaon	0.8	0.0	0.3	37.2	Khulna	3.7	2.2	2.7	10.4
Total (Top 10)		103.3	88.9	93.2			82.7	45.5	59.2	
Memo districts/ District Groups										
59	Kushtia	-0.6	0.5	0.1	-11.6	Cumilla	-2.0	2.9	1.1	-6.9
62	Khulna	-1.5	1.3	0.5	-9.4	Kushtia	-3.1	3.7	1.2	-9.3
63	Sylhet	-1.7	0.8	0.0	-31.4	Chattogram	-10.5	10.8	3.0	-11.2
URBC Group	Gr 1 (34 dis)	3.4	3.5	3.5	5.0	Gr 1 (34 dis)	33.5	8.1	17.5	19.1
URBC Group	Gr 2 (17 dis)	0.0	5.7	4.0	0.0	Gr 2 (17 dis)	23.9	16.7	19.3	9.0
URBC Group	Gr 3 (4 dis)	1.4	0.4	0.7	15.6	Gr 3 (4 dis)	5.2	3.0	3.8	10.5
URBC Group	Gr 4 (3 dis)	0.9	1.0	1.0	4.5	Gr 4 (3 dis)	6.4	3.5	4.6	10.9

Still highly concentrated employment with initial spatial diffusion: Encouraging, albeit at a slow pace, movements of location.

Rank (SINC in employment)	Urban District Name	SINC in Urban employment	Share, 2011	Share, 2018	Urban employment Growth (pa)	Rural District Name	SINC in Rural employment	Share, 2011	Share, 2018	Rural employment Growth (pa)
1	Chattogram	805.8	20.6	26.2	3.6	Dhaka	15.1	19.0	18.3	2.5
2	Gazipur	321.1	14.4	16.6	2.1	Nilphamari	14.5	0.2	3.0	52.5
3	Cumilla	182.2	0.6	1.8	18.9	Tangail	10.3	1.8	3.5	13.0
4	Sirajganj	94.3	0.7	1.3	10.4	Gazipur	10.0	20.9	18.8	1.6
5	Sherpur	90.9	0.1	0.7	45.3	Mymensingh	9.8	1.5	3.1	14.5
6	Barishal	62.7	0.1	0.6	25.8	Manikganj	9.1	0.6	2.3	23.7
7	Manikganj	46.2	0.0	0.3	73.1	Sirajganj	8.5	7.0	7.3	3.7
8	Rangpur	43.1	0.3	0.6	10.3	Dinajpur	8.2	0.1	1.6	61.5
9	Habiganj	41.9	0.1	0.4	32.2	Barishal	6.7	0.0	1.3	
10	Jashore	25.2	0.4	0.6	5.1	Munshiganj	6.6	0.2	1.5	33.4
Total (Top 10)		1713.5	37.2	49.1			98.6	51.3	60.5	
Memo districts										
61	Sylhet	-48.4	0.4	0.0	-27.5	Kushtia	-11.0	3.8	0.9	-15.8
63	Narayangonj	-164.7	8.1	6.8	-2.2	Chattogram	-12.1	5.7	2.3	-9.6
64	Dhaka	-1149.0	45.3	36.8	-2.8	Narayangonj	-13.0	11.6	6.9	-4.4
URBC Group	Gr 1 (34 dis)	27.7	3.7	3.8	0.8	Gr 1 (34 dis)	36.5	11.4	16.2	8.5
URBC Group	Gr 2 (17 dis)	24.5	4.8	5.0	0.5	Gr 2 (17 dis)	40.7	19.9	23.9	5.8
URBC Group	Gr 3 (4 dis)	15.6	0.6	0.7	2.4	Gr 3 (4 dis)	21.7	2.5	6.2	17.6
URBC Group	Gr 4 (3 dis)	36.4	0.9	1.2	3.7	Gr 4 (3 dis)	7.5	3.2	4.0	6.6

D. Productivity and Urbanization

The Specifications of Model M1 (average firm Output) and M2 (Firm and Labour Productivity)

Model M1: Augmented Cobb-Douglas Labour Production Function

$$\ln(y_i) = \alpha + \beta_1 \ln(l_i) + \beta_2 \ln(k_i) + \delta_1 y18_i + \delta_2 urban_i + \sum_{l=1}^{3} \delta_{3,l} stratum_{i,l} + \sum_{k=1}^{9} \delta_{4,k} urbc_{i,k} + \sum_{m=1}^{9} \delta_{5,m} ind_{i,m} + \theta_1[urbc_i * y18_i * urban_i] + \theta_2[urbc_i * stratum_i] + \theta_3[urbc_i * \ln(l_i)] + \theta_4[urbc_i * \ln(k_i)] + u_i, \qquad i = 1, \dots, n$$

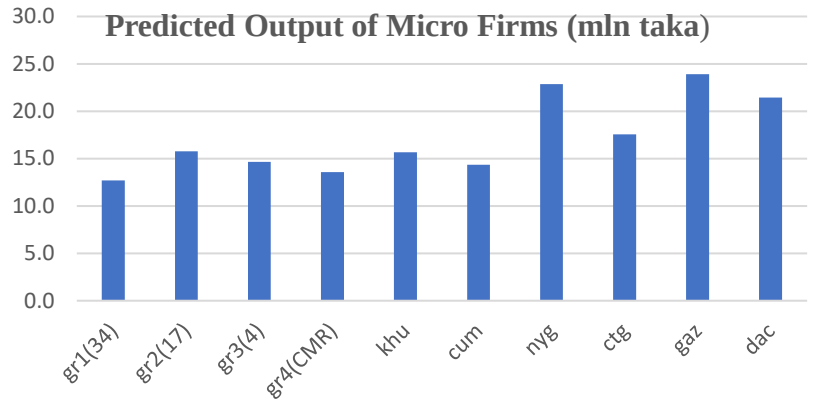
where y is the firm-level output (dependent variable), and l is labour, k is capital, $y18$ and $urban$ are two dummy variables to capture time and urban location effect, *stratum* is the 4-category industry size variable, *ind* is a 10-category industry sector variable, urbc is our moderator variable (to capture urbanization). Finally ***one 3-way interaction term*** $(urbc_i * y18_i * urban_i)$ **and *three 2-way interaction terms*** $(urbc_i * stratum_i, urbc_i * \ln l_i,$ and $urbc_i * \ln k_i)$ are introduced.

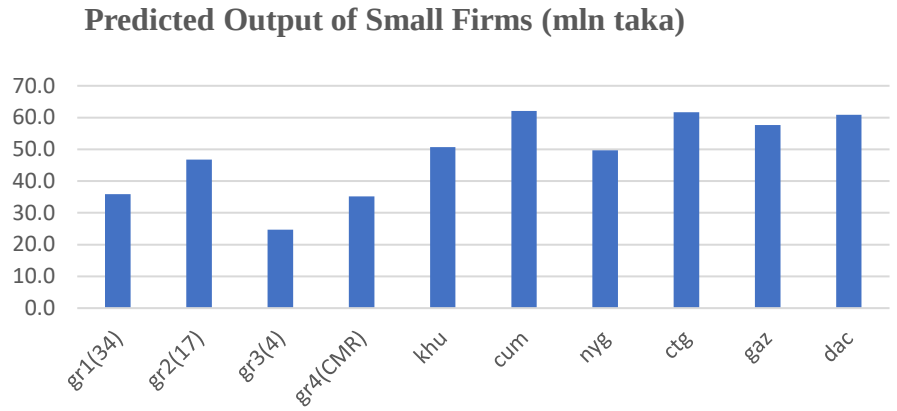
Model M2: Augmented Labour Productivity Function

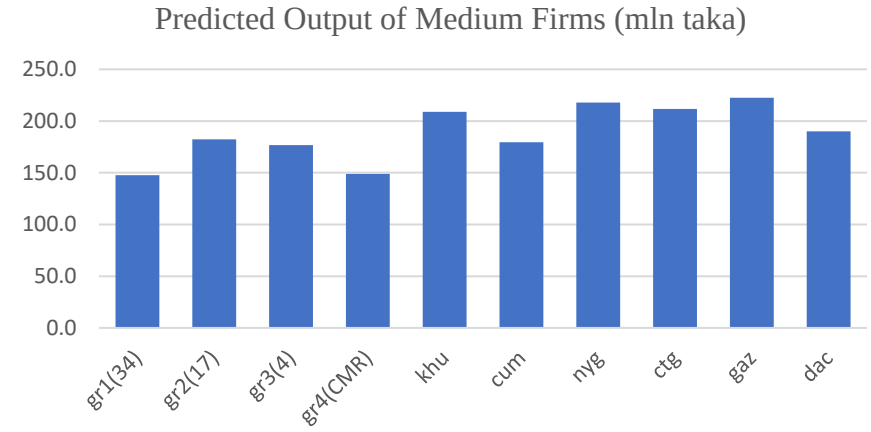
$$\ln(yl_i) = \alpha + \beta \ln(kl_i) + \delta_1 y18_i + \delta_2 urban_i + \sum_{l=1}^{3} \delta_{3,l} stratum_{i,l} + \sum_{k=1}^{9} \delta_{4,k} urbc_{i,k} + \sum_{m=1}^{9} \delta_{5,m} ind_{i,m} + \theta_1[urbc_i * y12_i * urban_i] + \theta_2[urbc_i * stratum_i] + \theta_3[urbc_i * \ln(kl_i)] + u_i, \qquad i = 1, \dots, n\ \theta_2$$

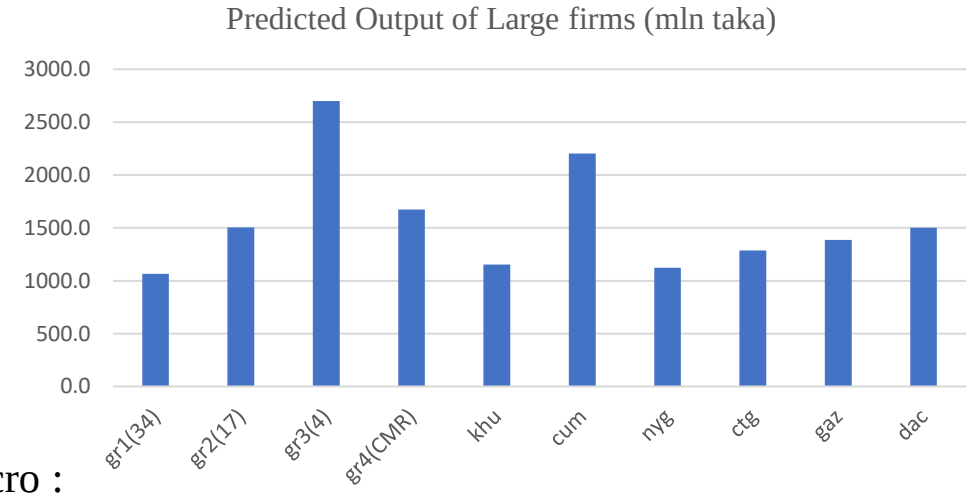
where yl_i is output per employee, kl_i is capital per employee of the i^{th} firm. All other variables are defined above.

Firm Output and Urbanisation by different firm sizes – Typically Rises except for Large firms. Sectoral controls used, but needs more study.



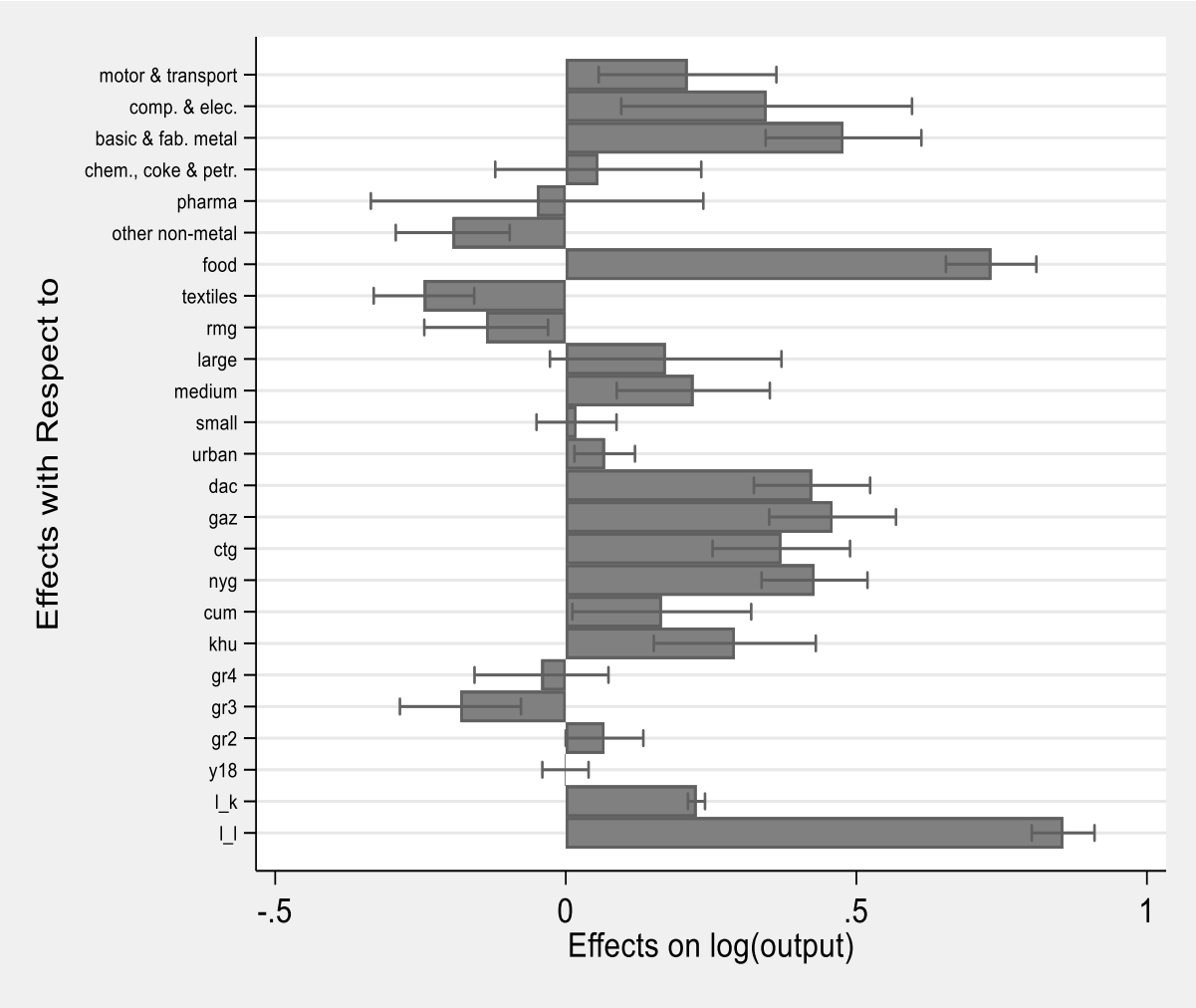






- Ratios of output/firm (averaged over district groups) is estimated as Micro : Small : Medium : Large = 1:2.8:11.0:90.7.

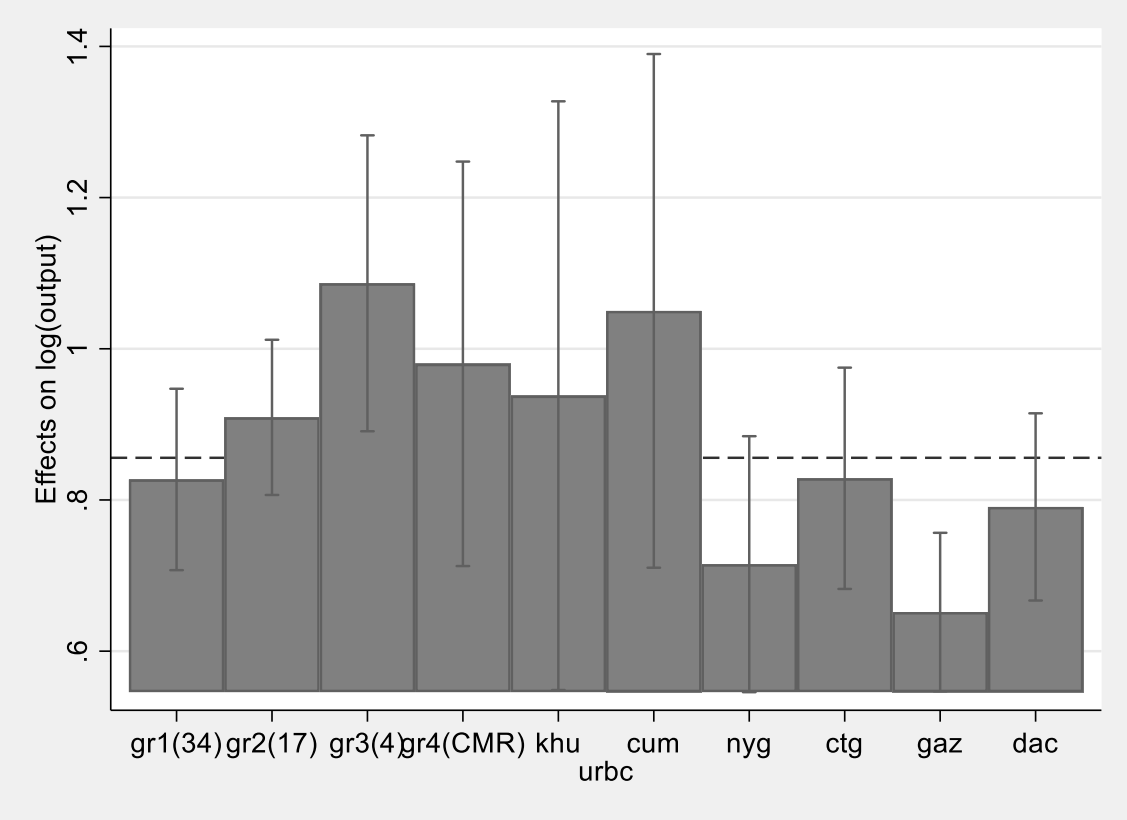
Marginal Effects: Marginal productivity of labour has a significantly larger impact on output per unit than other factors.



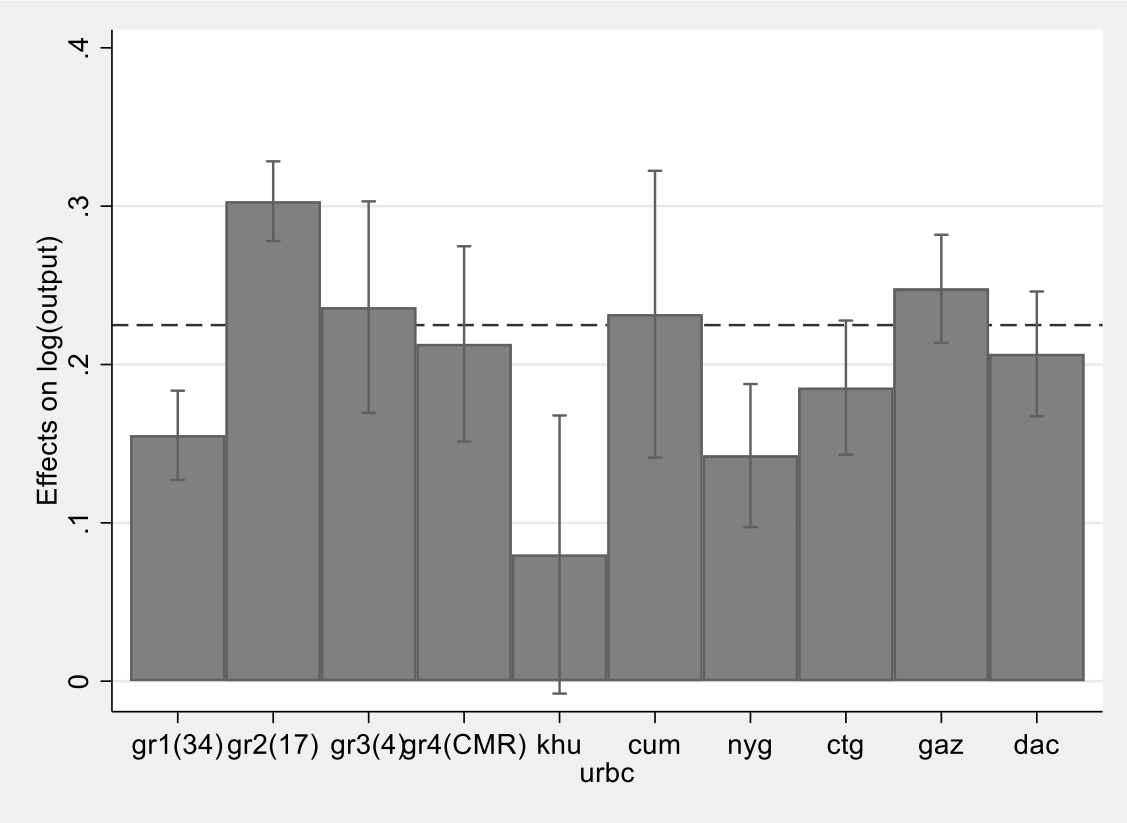
- Urban location has a significant positive impact, but not large numerically.
- 4 most urban districts (Dac, Gaz, Ctg, and Nyj) and Khulna, all have a significant positive impact on per-unit output. Cumilla has nearly insignificant impact. The effect of all other less urbanized district groups is insignificant.
- Marginal productivity of capital has a positive but weaker impact compared to labour.

Factor Productivity over District Groups- High Productivity in Less Urbanized Districts

Marginal Productivity of Labour



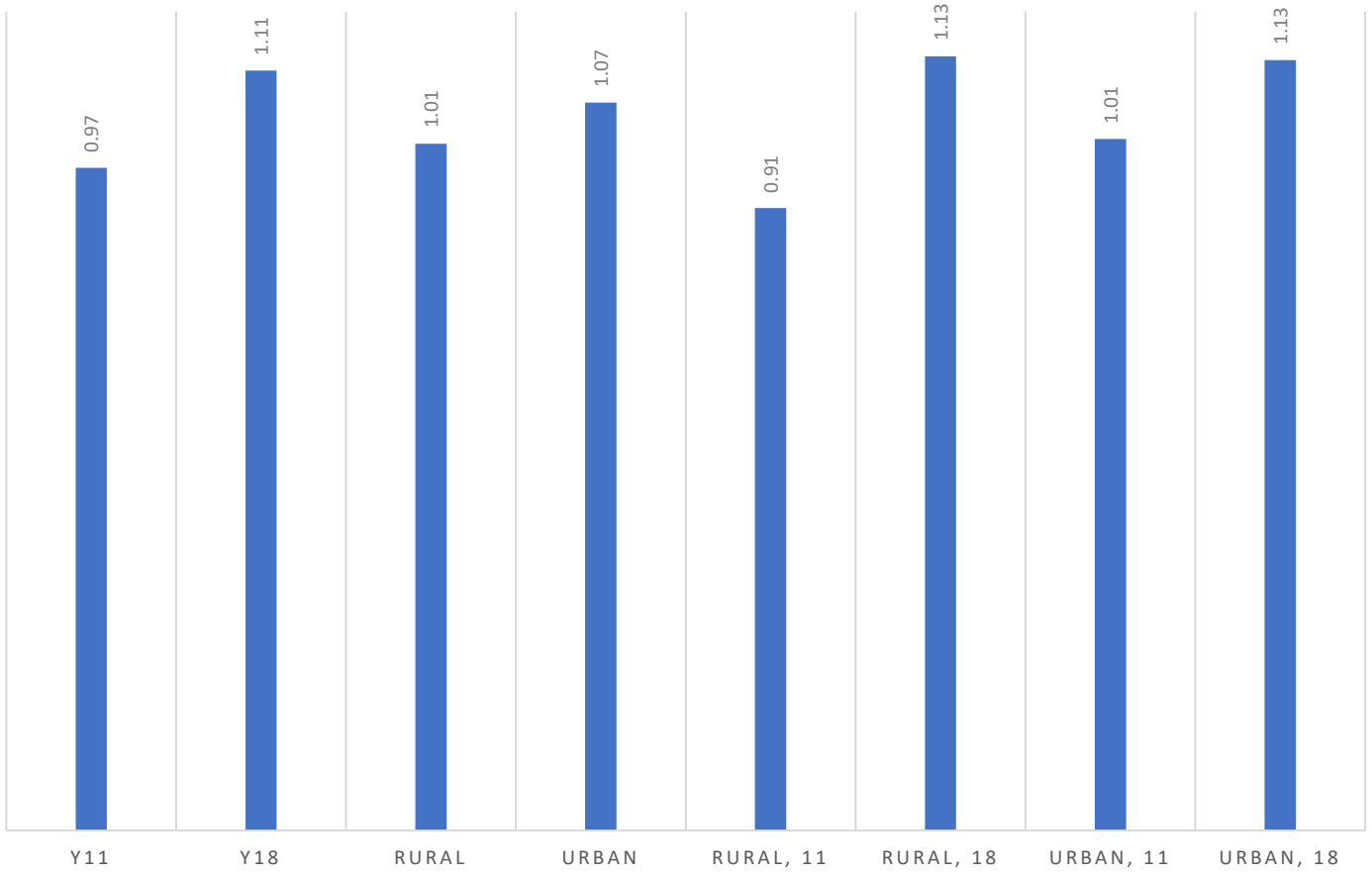
Marginal Productivity of Capital



E. M2 Impact on Labour Productivity

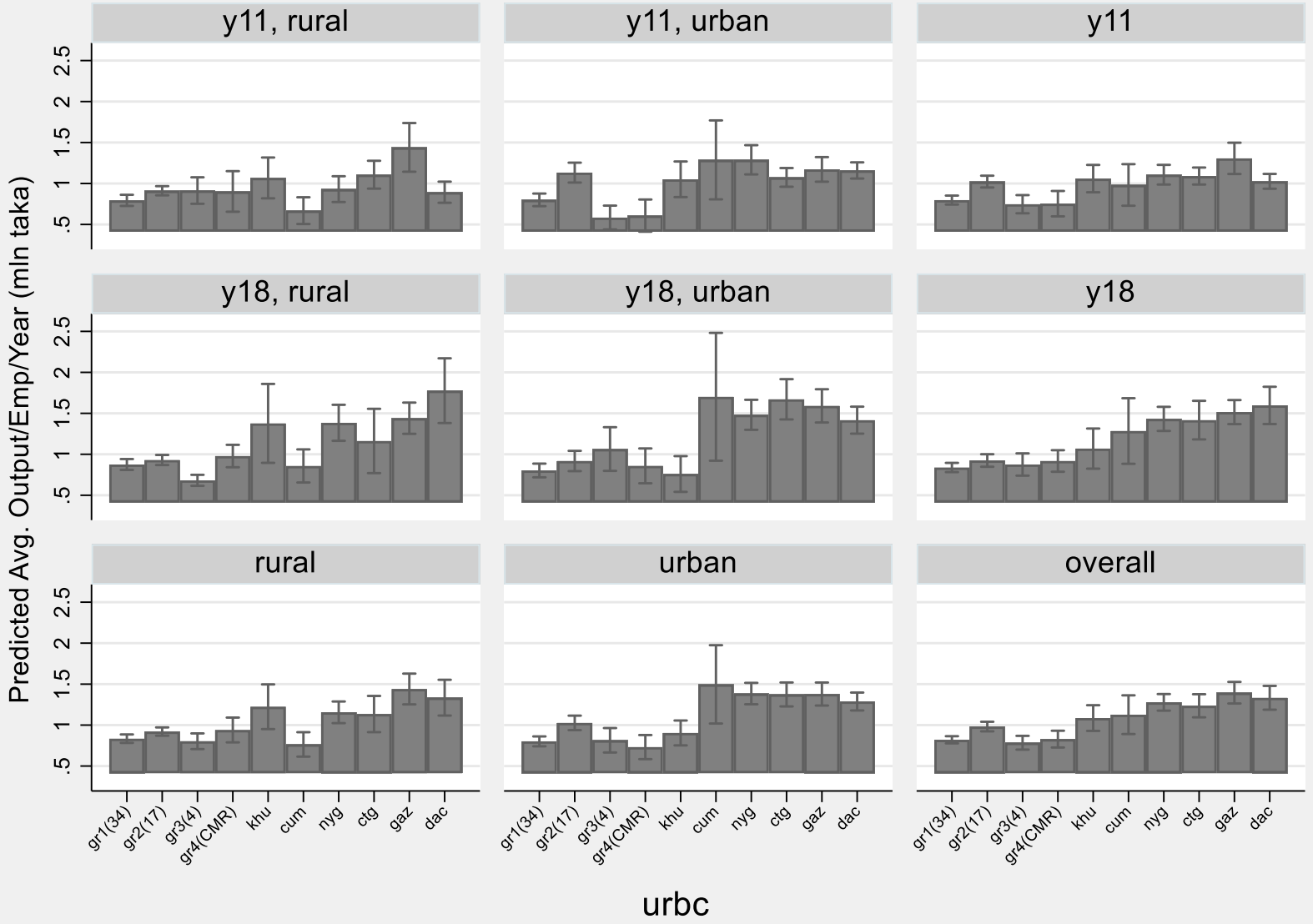
Model M2: Augmented Labour Productivity Function

$$\ln(yl_i) = \alpha + \beta \ln(kl_i) + \delta_1 y18_i + \delta_2 urban_i + \sum_{l=1}^{3} \delta_{3,l} stratum_{i,l} + \sum_{k=1}^{9} \delta_{4,k} urbc_{i,k} + \sum_{m=1}^{9} \delta_{5,m} ind_{i,m} + \theta_1 [urbc_i * y12_i * urban_i] + \theta_2 [urbc_i * stratum_i] + \theta_3 [urbc_i * \ln(kl_i)] + u_i, \quad i = 1, \ldots, n \; \theta_2$$

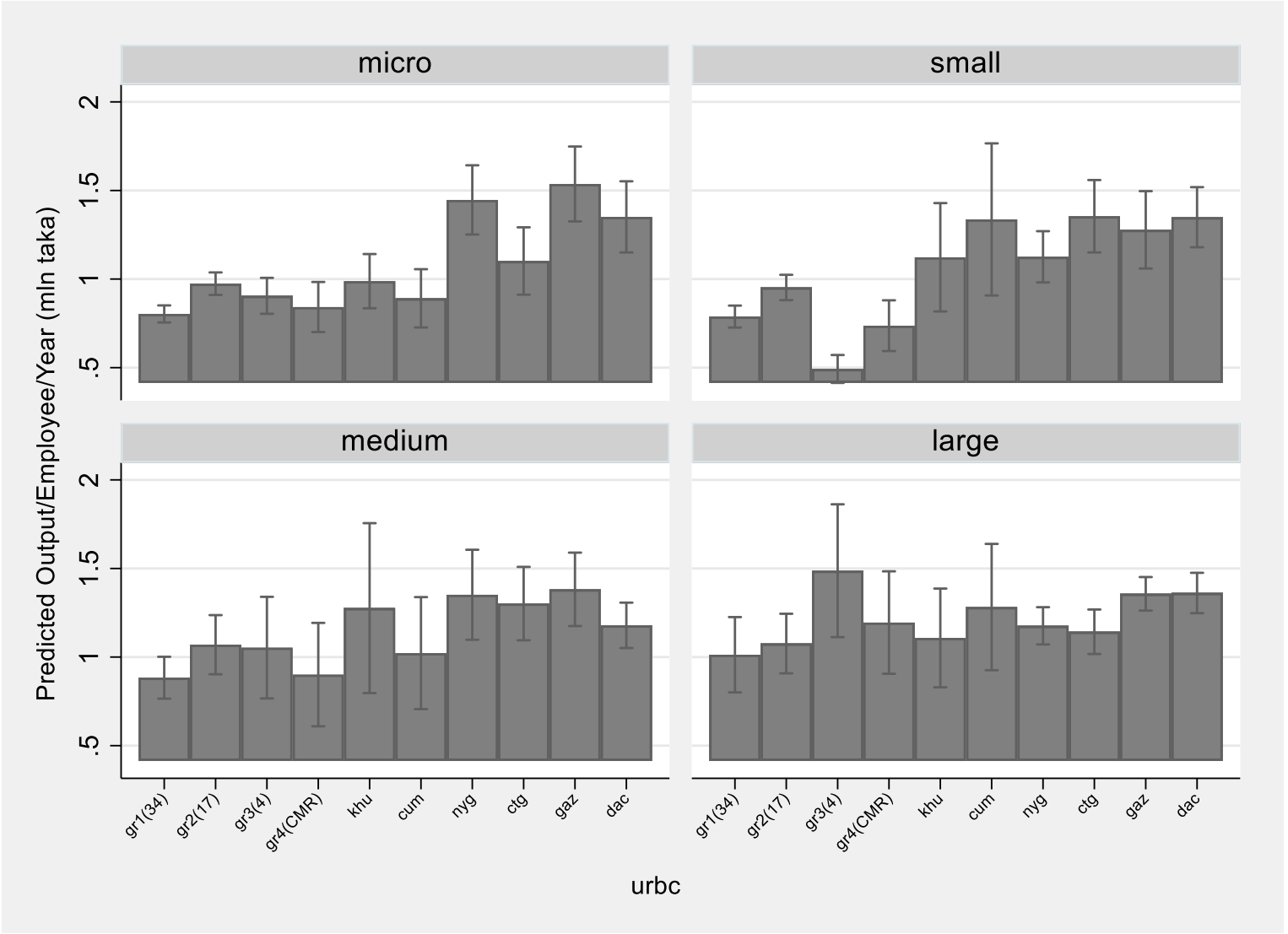


- where yl_i is output per employee, kl_i is capital per employee of the i^{th} firm. All other variables are defined above.
- Firms' Predicted Average Labour Productivity for different years and rural-urban locations (in million takas, 2018 price) o
- on average labour productivity grew by nearly 2% per annum this growth was markedly higher in rural areas (3.2% p.a.) than in urban areas (1.1%). This catching-up of rural firms' productivity lead to a remarkable result: the 11% higher labour productivity of urban firms in 2011 disappeared by 2018.

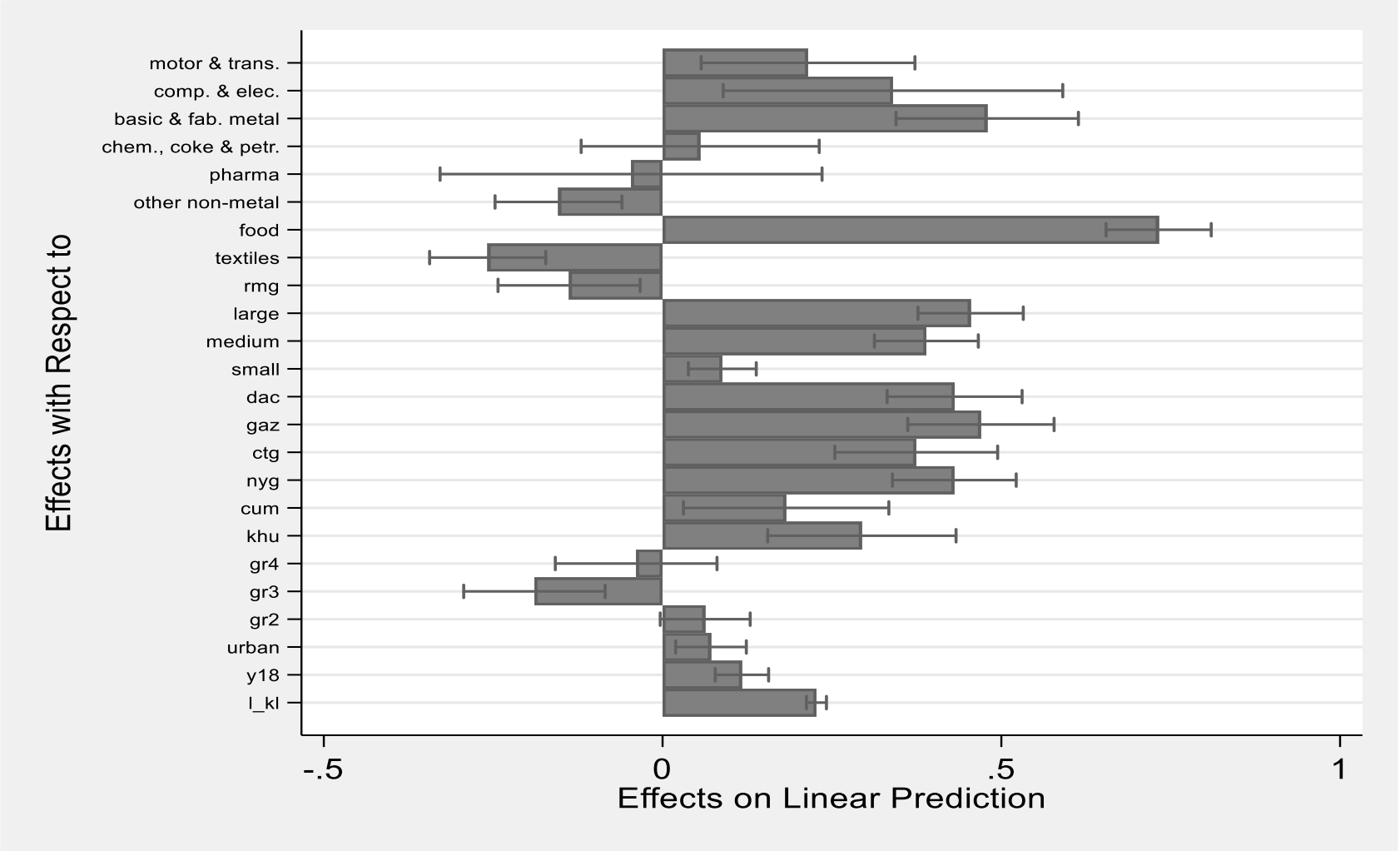
Average Estimated Labour Productivity by Districts and years



Except for large sector productivity increases with urbanisation

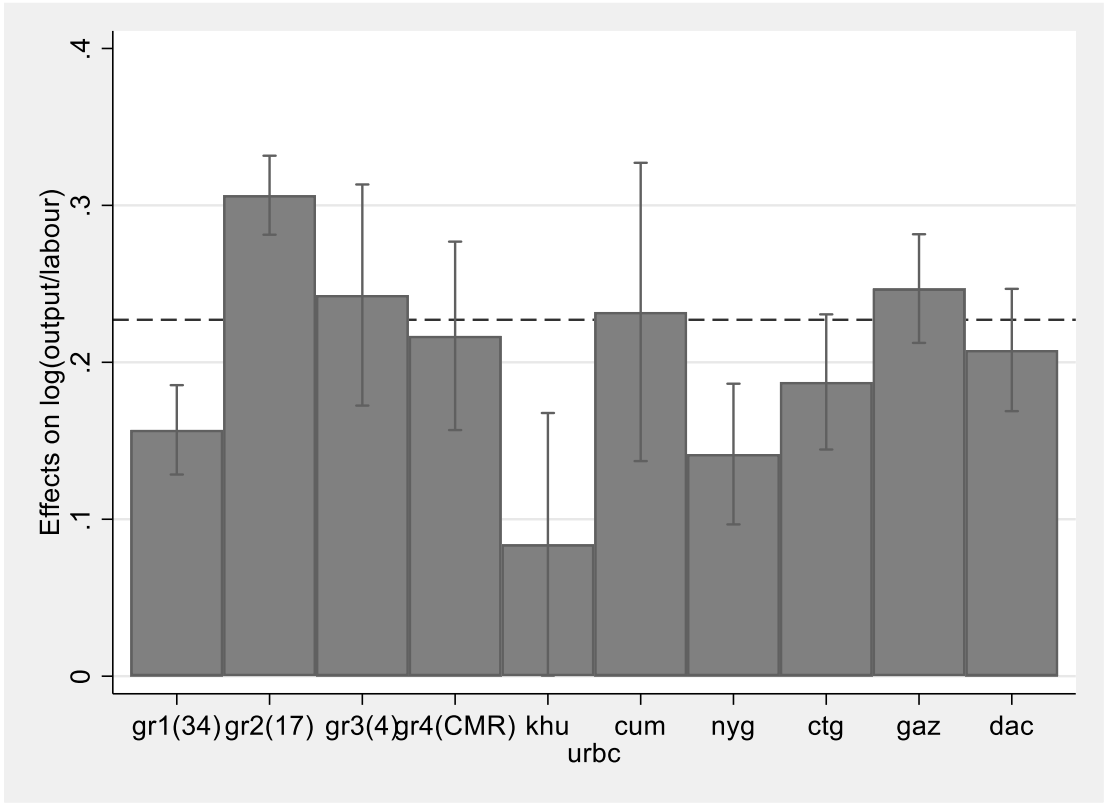


Marginal Effects of factors: More Urbanized Districts have higher labor productivity

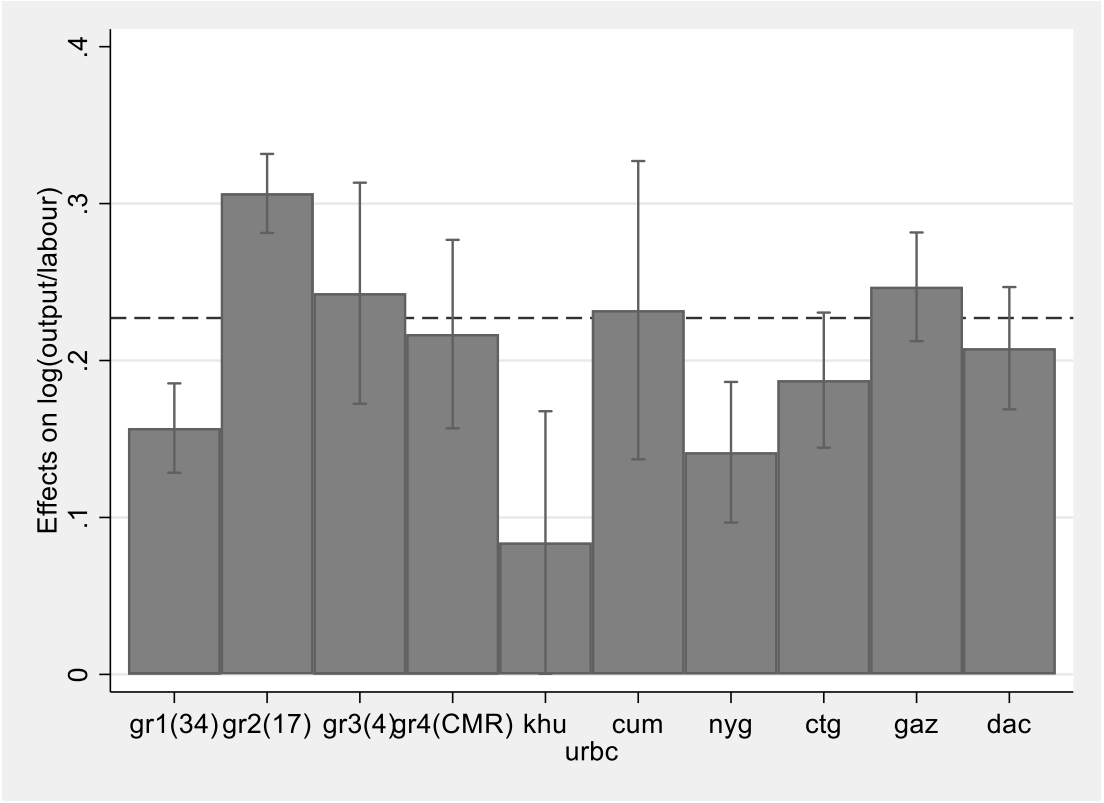


Marginal Effects on Labor Productivity

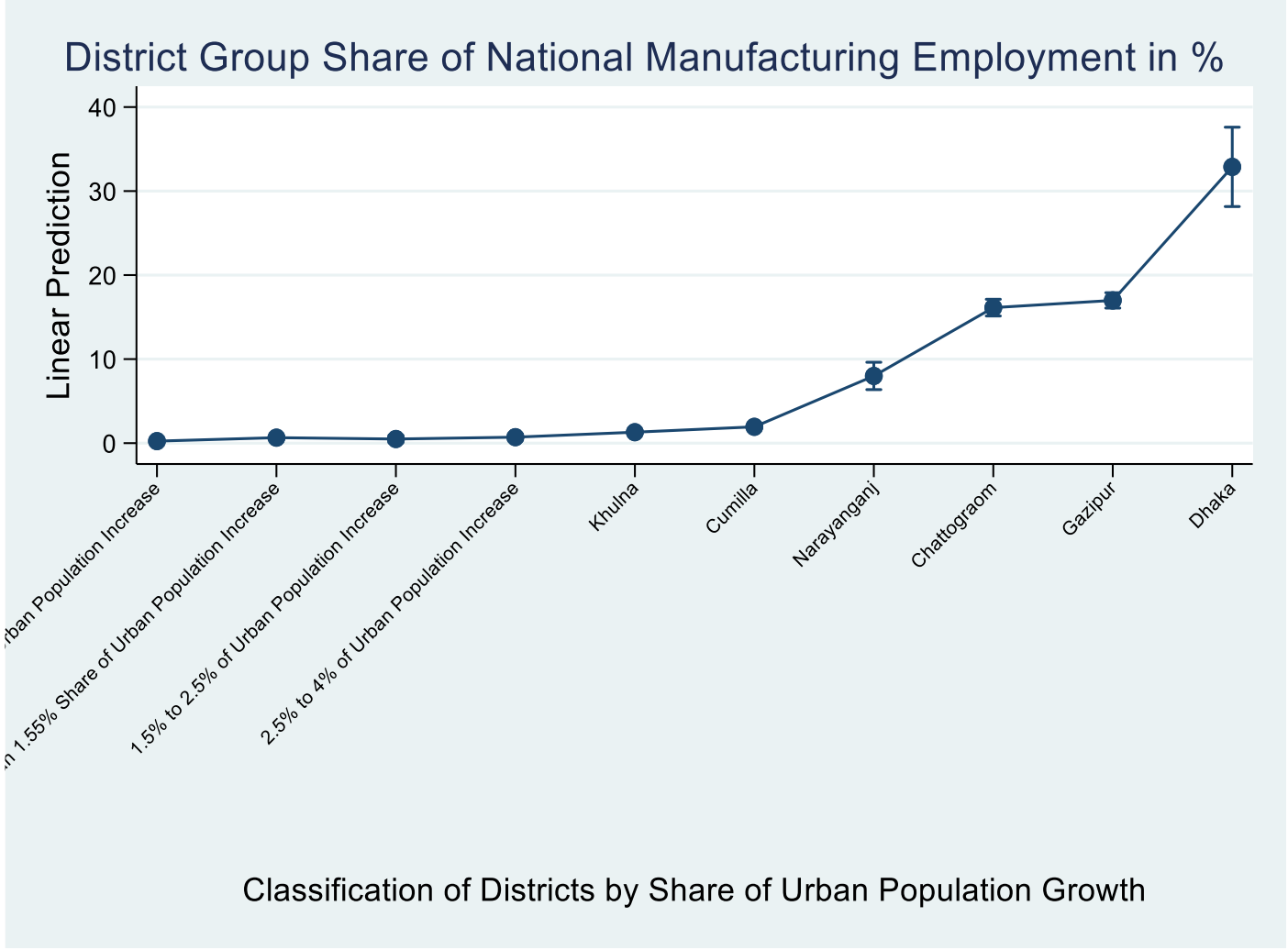
Marginal Effect of Capital /Labor Ratio over districts



Year Effect



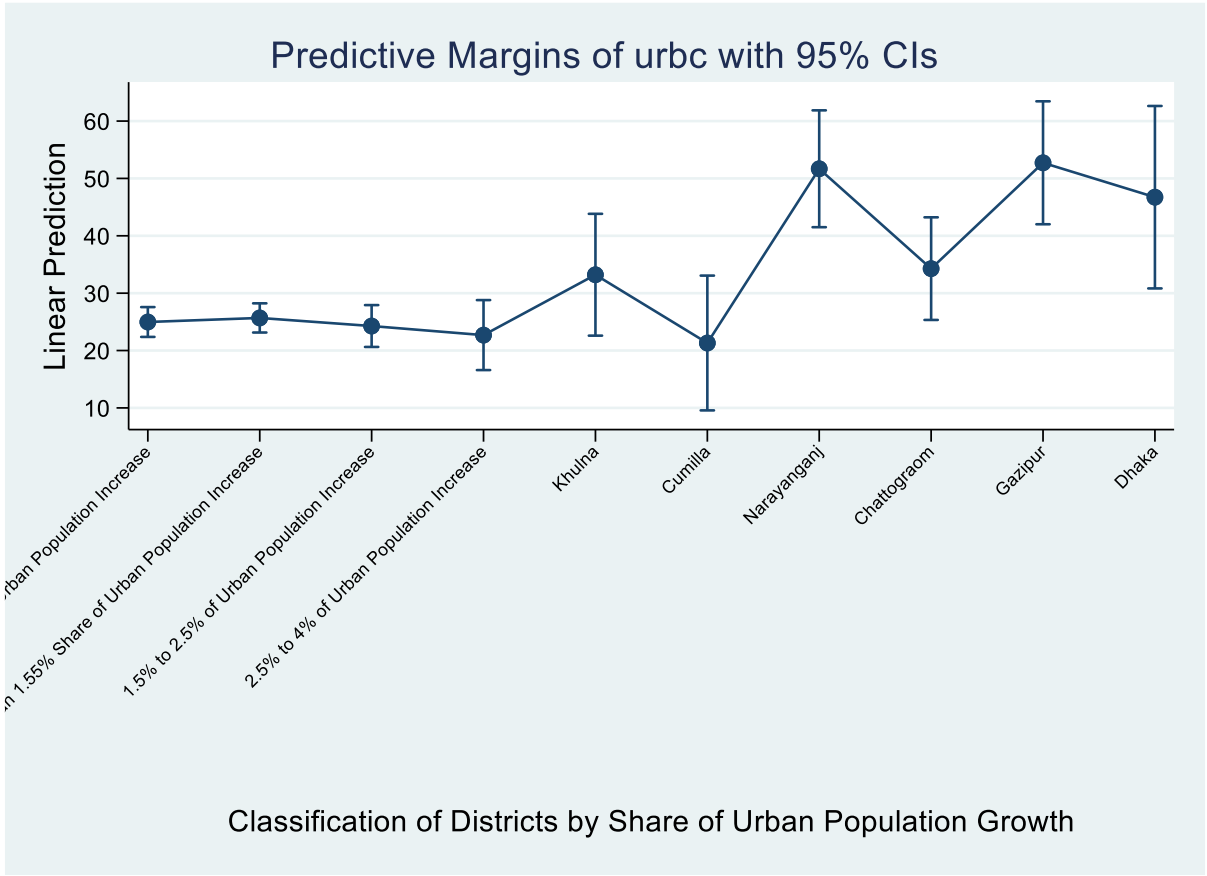
F Urbanization Effects on Employment and Wages

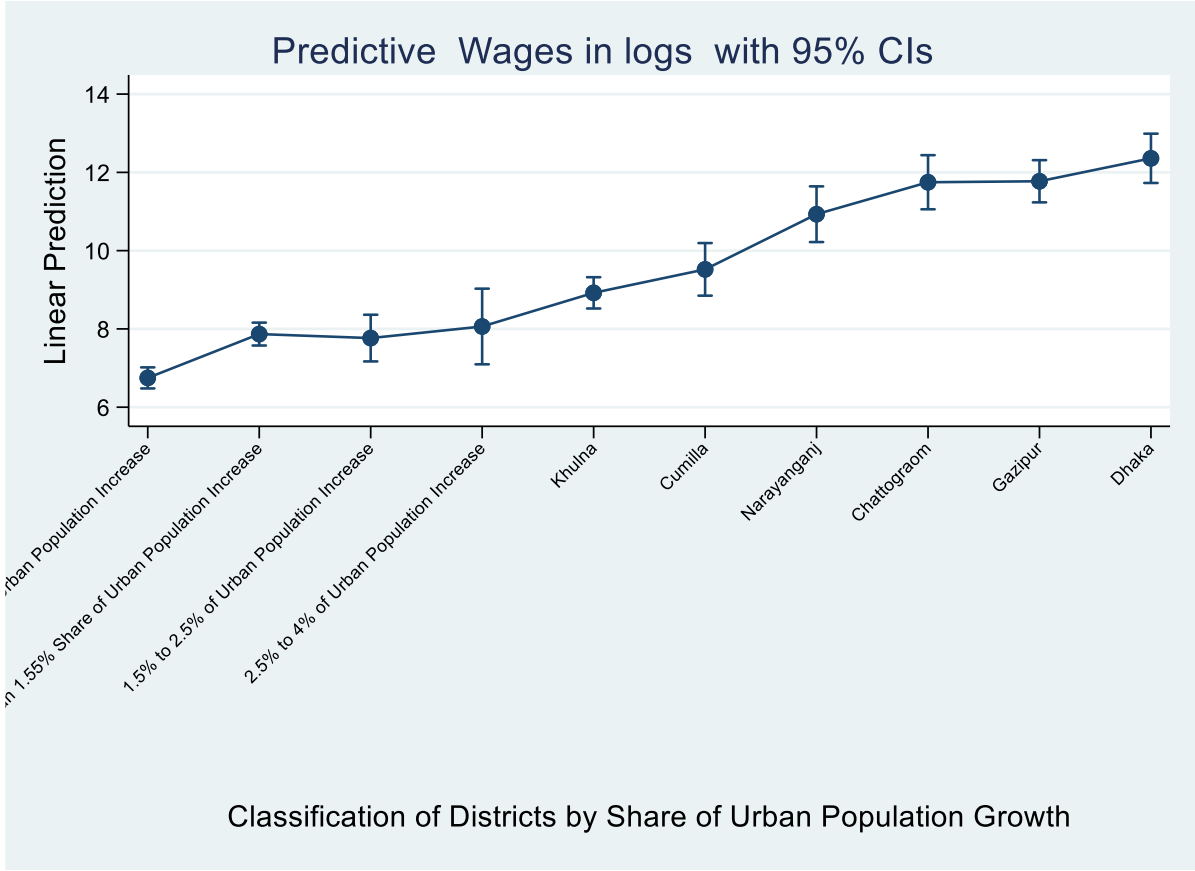


- $log(y_i) = \alpha + \sum_{k=1}^{1} \beta_k \text{urbc}_{\text{i,k}} + \sum_{l=1}^{8} \delta_l \text{div}_{\text{i,l}} + \gamma t_i + \sum \theta_m \text{div}_{\text{i,m}} \cdot t_i + u_i,$ where

urbc_{k} , $k = 1, 2, \ldots, 10$, are ten regional dummy variables, divl are eight divisional HQ dummies, t is time, and he second last term are interactions.

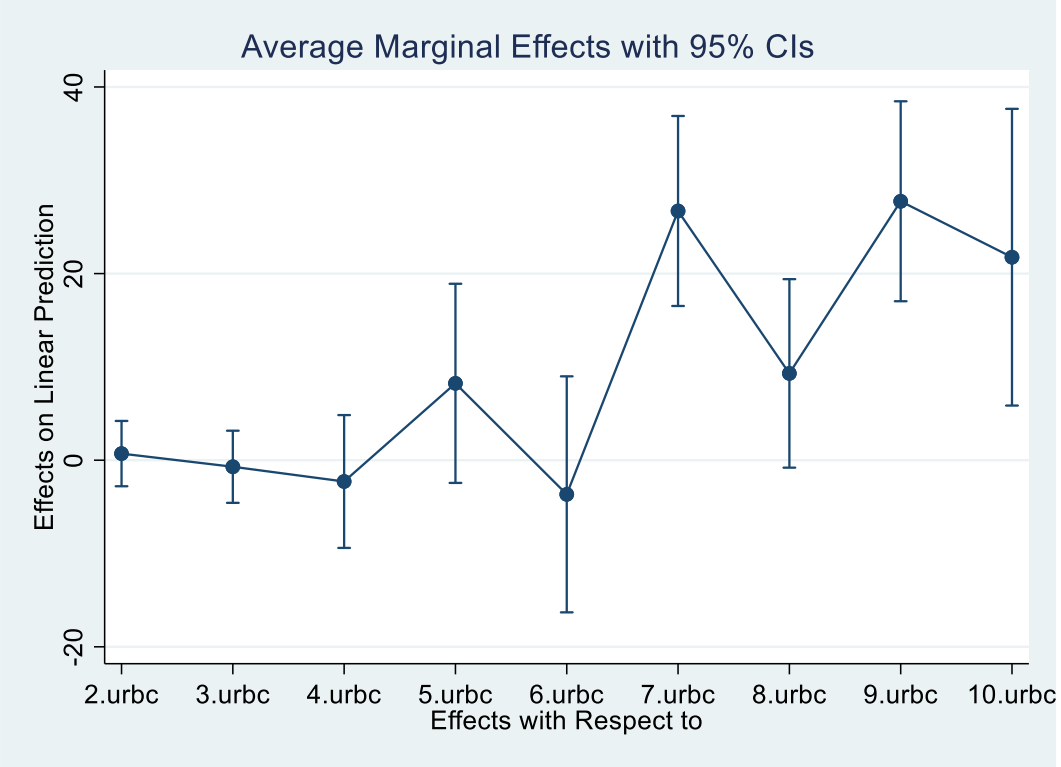
Predicted National Share of Employment and Ln of Wages



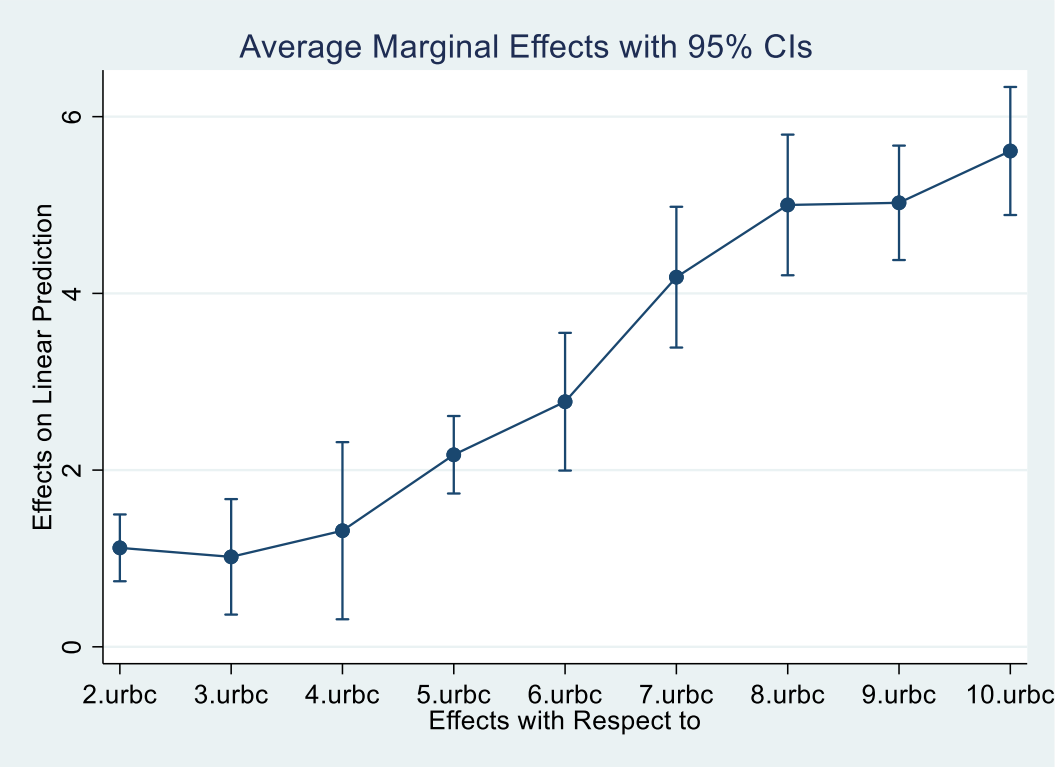


Marginal Effects of Urbanization on

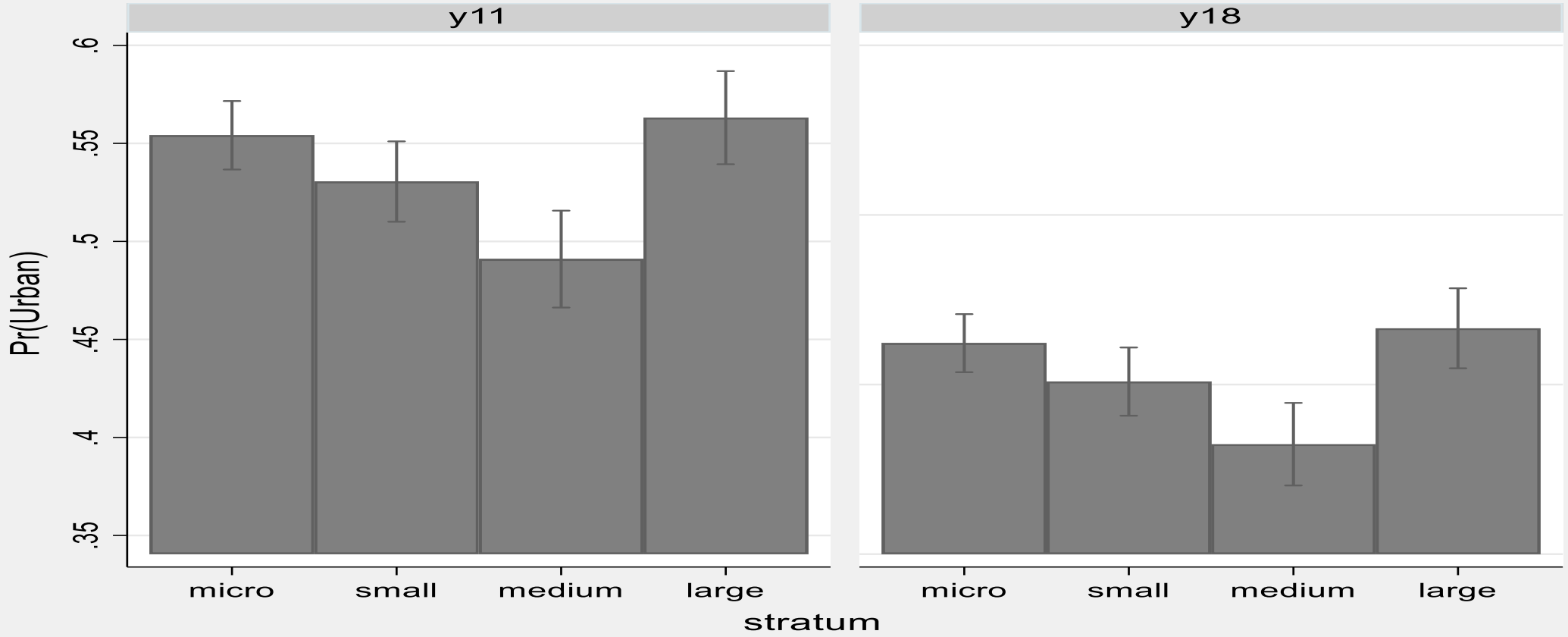
Share of Manufacturing Employment in national employment



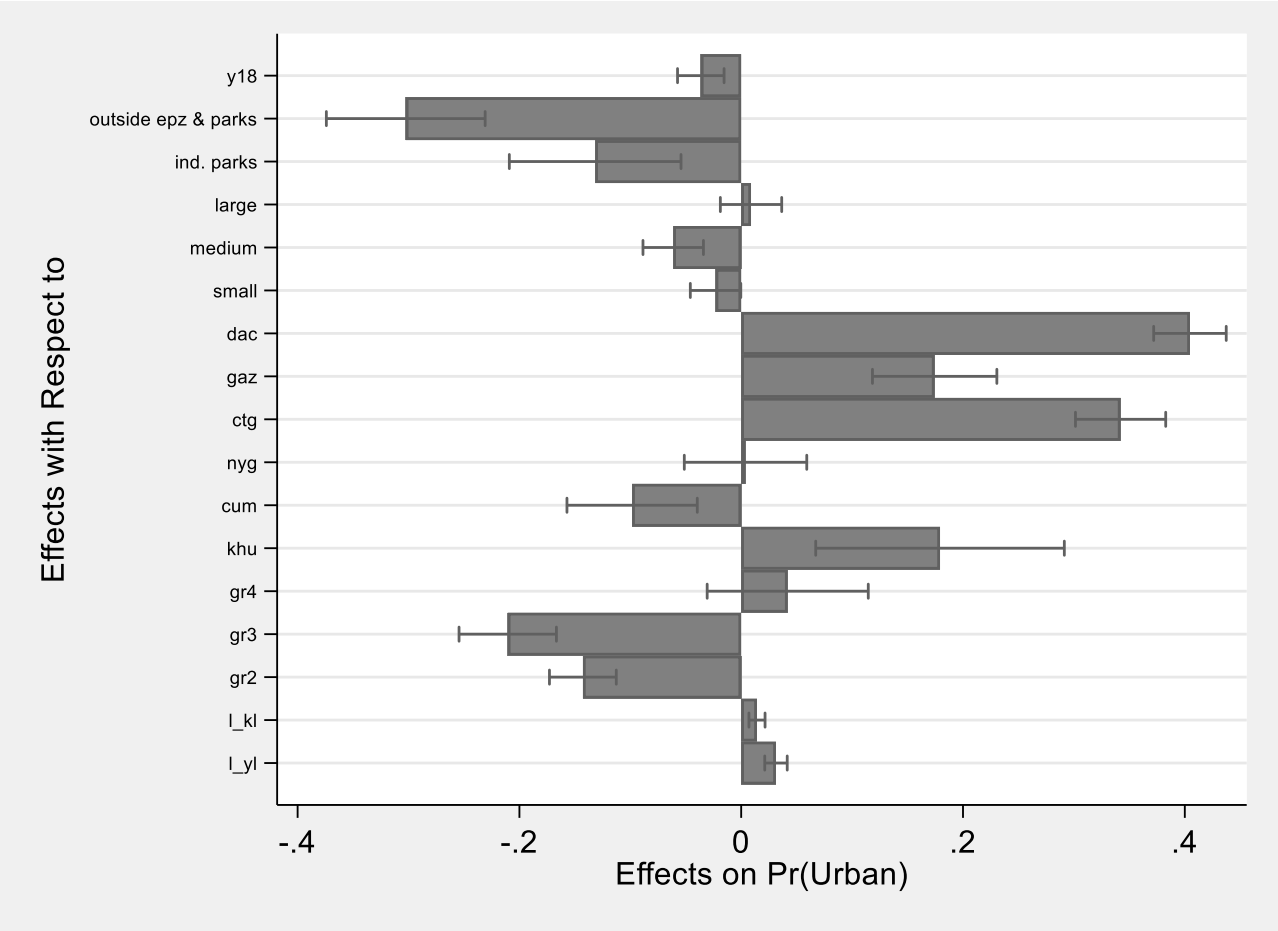
Log of Real Wages



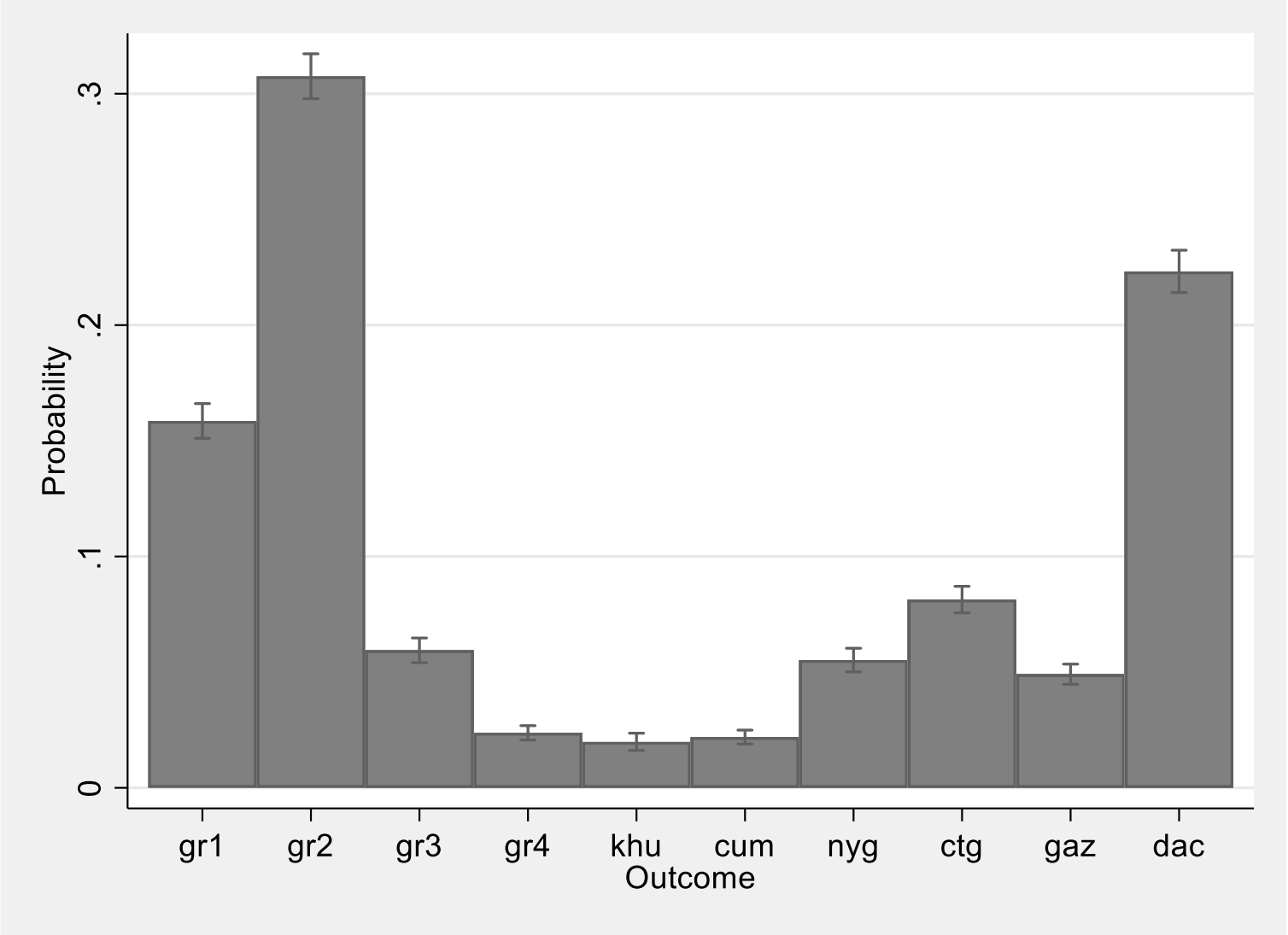
G. Probability of (i) Urban and (ii) District Location. G1. Urban Location Probability by Firm Size. Medium Firms Have Lowest Probability . Probability Falling.



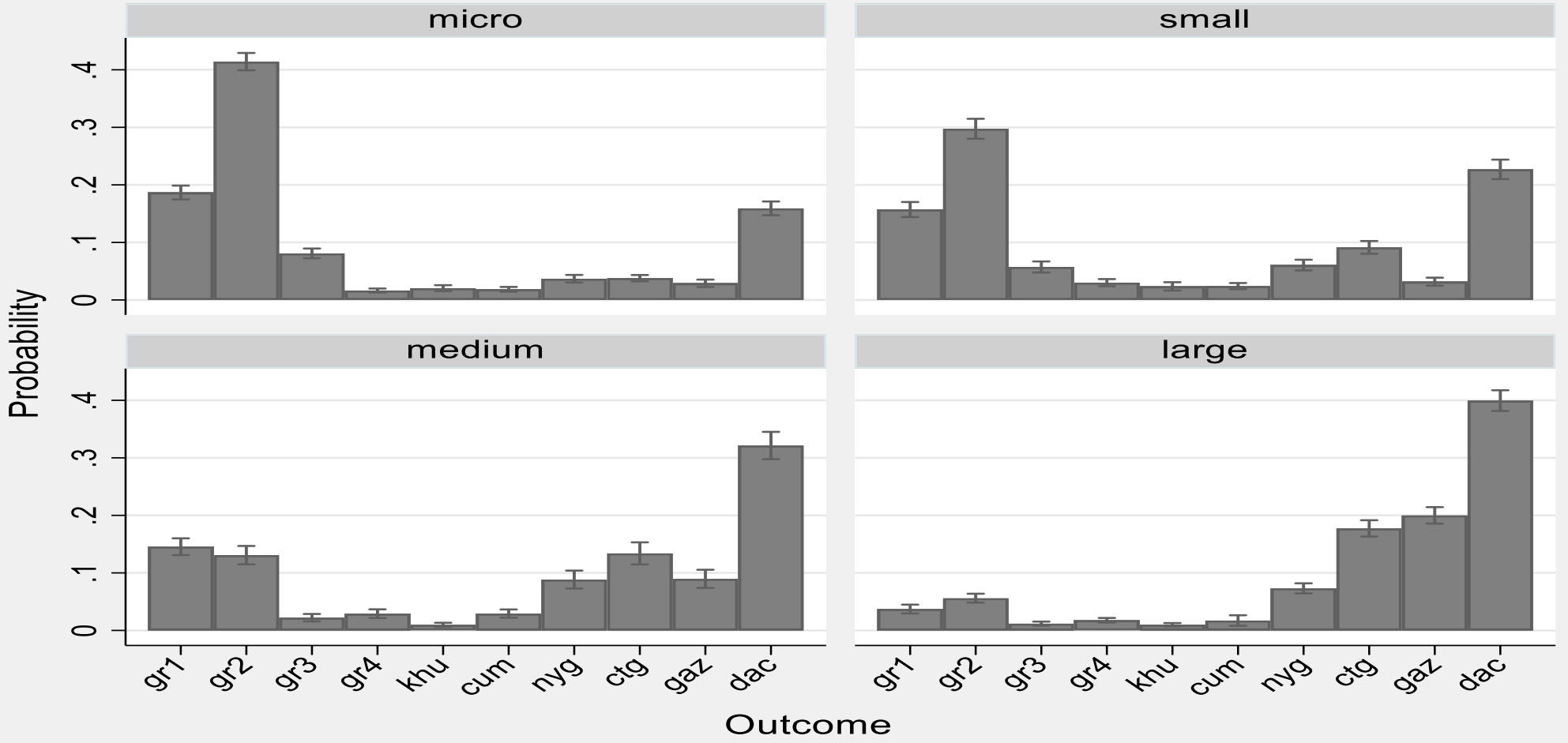
G1. Drivers of Firms' Urban Location Choice



G2. Overall Probability of Firms' District Locations – Middle Districts are Not Hospitable.

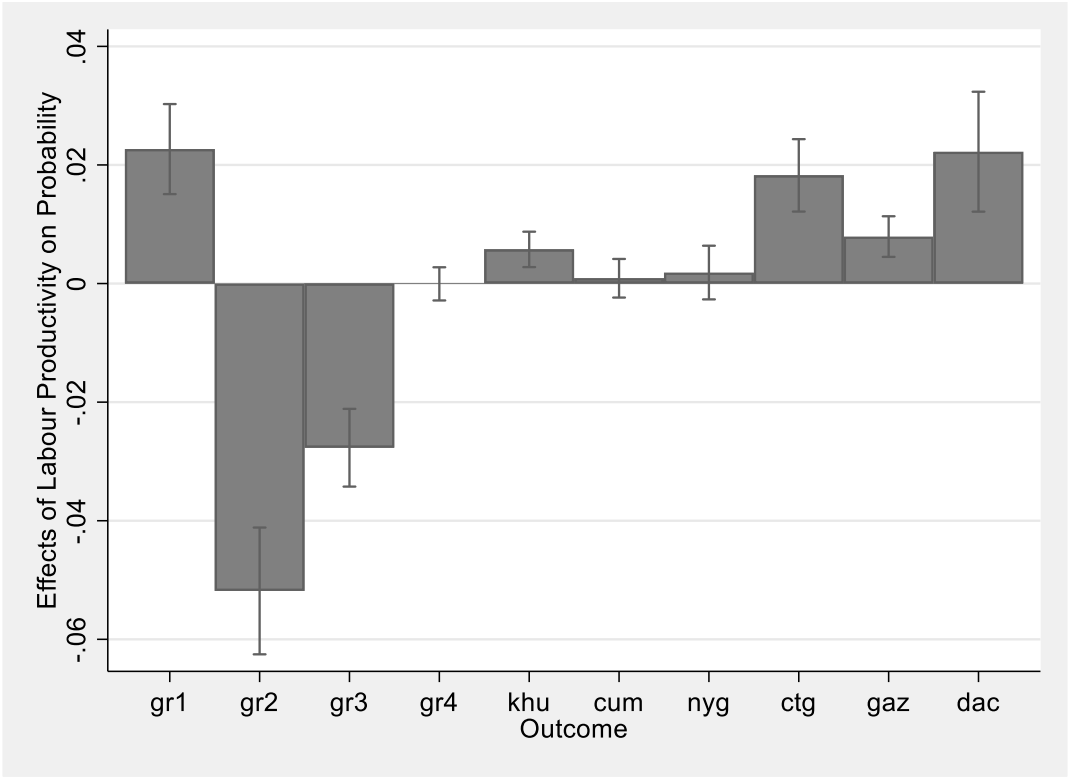


G2 Results Hold for All firm sizes.

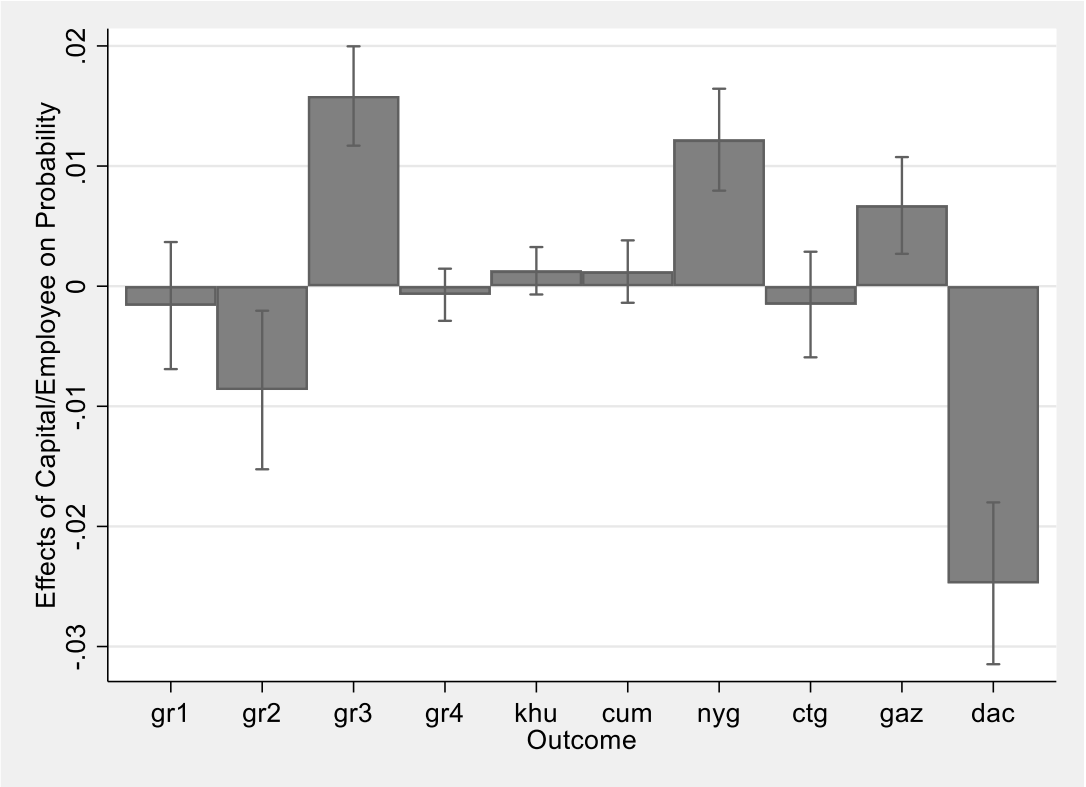


G2 Factors Affecting District Location Choice Probabilities

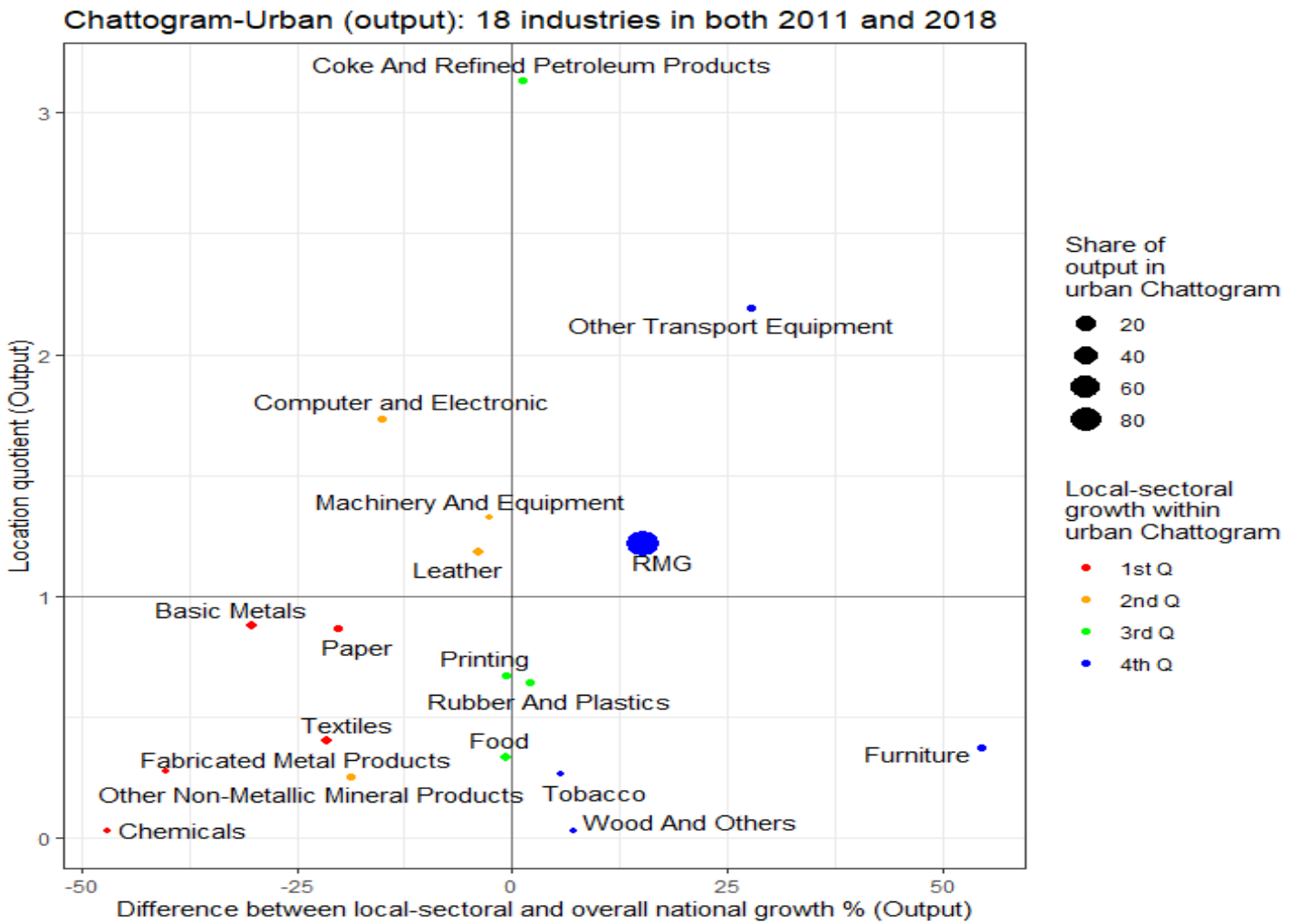
Marginal Effects of labour productivity



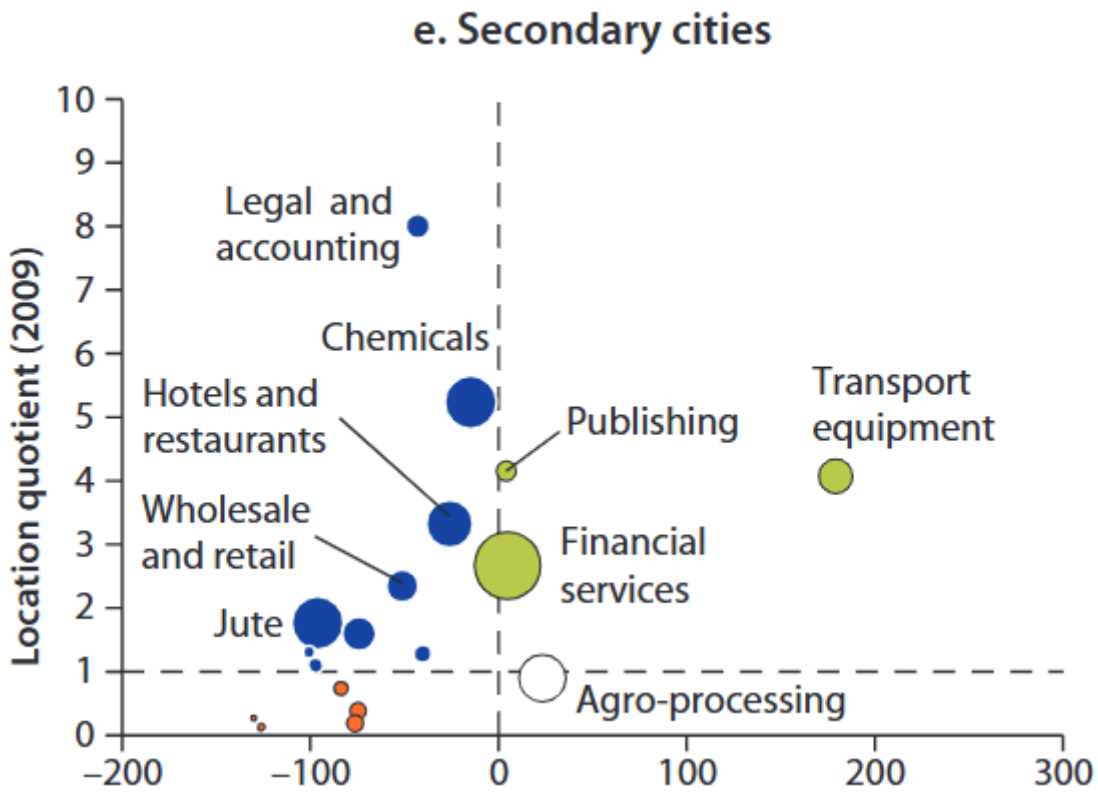
Marginal Effects of Capital Intensity



H. Chattogram Urban Manufacturing Growth – Prospects and Strategy



Secondary Cities: Khulna, Rajshahi, Sylhet and Barisal Corporations. (Muzzini and Aparacio, 2013)



Concluding thoughts on Policy Issues – From Overview Paper

- Absence of Planning : Industrial strategy, regional and spatial planning need to be integrated.

Three Major Issues. In Urban Development

1. Weak/absent Planning. According to the LGRD website, **5 out of 256 Parasabhas Master Plans have been Gazetted. [including Tungipara, Kotalipara, Tangail, Kishoreganj] . These twenty year plans starting 2011 or 2031 were approved 5 to 7 years after preparation**. Outdated .

- **The absence of planning leads to Putty-Clay problems: Once structures, roads and expressways are built without proper consultative planning, the cost will have to be borne for decades.** The Dhaka DAP was approved last year, after a long process.

- A highly ambitious, praiseworthy Chattogram DAP is under preparation. But as the Mayor pointed out a few years ago, the last Chattogram Master Plan 1995 implementation suffered from the absence of clear implementation authority .

Fragmented Governance, Little authority and accountability

2. Aside from planning, Governance is highly fragmented. 12 City Corporations and 325 Pourasabhas managed by Mayors, Deputy Commissioners, and Development Authorities (Dhaka, Gazipur, Chattogram, Khulna, Cox's Bazaar, Rajshahi) work under two Ministries and about 40 agencies and Department.s

- Urban Development Directorate (UDD), National Housing Authority (NHA), Public Works Dept – **Mo Housing and Public Works;** Local Government and Engineering Department, Dept. of Public Health Engineering (DPHE) , WASA. – Min. of LGRD and Cooperative; Roads and Highways- Min of Road Transport and Bridges; Bangladesh Power Development Board (BPDB); Ministries of Health and Education

3. Sustainable and healthy urban development will need strong, local governments with authority that are both locally and centrally accountable - Sustainable, robust urban development will not happen other wise.

Thank You