Urbanization

As a pattern of development, the more developed the economy, the more urbanized.

This is what the Lewis model describes.

But many argue developing countries are often excessively urbanized or too-rapidly urbanizing

There are two measures of the degree of urbanization of a population.

The first, urban population, describes the percentage of the total population living in urban areas, as defined by the country.

The second measure, rate of urbanization, describes the projected average rate of change of the size of the urban population over the given period of time

Every country has a different way to determine what is a city and what isn't. Factors that are used often include population, services and infrastructure, and administrative declaration.

https://www.un.org/development/desa/pd/themes/urbanization.

Urbanization

TABLE I.1. TOTAL, URBAN AND RURAL POPULATIONS AND THEIR AVERAGE ANNUAL RATES OF CHANGE, FOR THE WORLD AND DEVELOPMENT GROUPS, SELECTED YEARS AND PERIODS, 1950-2050

	Population (billions)						*Average annual rate of change (per cent)*				
Development group	*1950*	*1970*	*1990*	*2018*	*2030*	*2050*	*1950-1970*	*1970-1990*	*1990-2018*	*2018-2030*	*2030-2050*
Total population											
World	2.54	3.70	5.33	7.63	8.55	9.77	1.89	1.83	1.28	0.95	0.67
More developed regions	0.81	1.01	1.15	1.26	1.29	1.30	1.07	0.64	0.34	0.17	0.03
Less developed regions	1.72	2.69	4.18	6.37	7.26	8.47	2.23	2.21	1.50	1.09	0.77
Urban population											
World	0.75	1.35	2.29	4.22	5.17	6.68	2.95	2.63	2.18	1.69	1.28
More developed regions	0.45	0.67	0.83	0.99	1.05	1.12	2.06	1.04	0.64	0.46	0.34
Less developed regions	0.30	0.68	1.46	3.23	4.12	5.56	4.02	3.82	2.83	2.03	1.50
Rural population											
World	1.79	2.35	3.04	3.41	3.38	3.09	1.37	1.30	0.41	-0.07	-0.45
More developed regions	0.37	0.33	0.32	0.27	0.24	0.17	-0.48	-0.27	-0.58	-0.95	-1.61
Less developed regions	1.42	2.01	2.72	3.14	3.14	2.92	1.75	1.52	0.51	0.00	-0.37

All Tables and Figures from UN World Urbanization Prospects, 2018 revision.

Urbanization

TABLE I.6. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, THE MORE DEVELOPED REGIONS AND THE LESS DEVELOPED REGIONS, 1950-2050

	Percentage urban				*Rate of urbanization (per cent)*		
Year	*World*	*More developed regions*	*Less developed regions*	*Period*	*World*	*More developed regions*	*Less developed regions*
1950	29.6	54.8	17.7	1950-1955	1.33	1.12	2.16
1955	31.6	57.9	19.7	1955-1960	1.30	1.06	2.11
1960	33.8	61.1	21.9	1960-1965	1.06	0.95	1.81
1965	35.6	64.1	24.0	1965-1970	0.56	0.84	1.05
1970	36.6	66.8	25.3	1970-1975	0.61	0.60	1.28
1975	37.7	68.8	26.9	1975-1980	0.84	0.42	1.75
1980	39.3	70.3	29.4	1980-1985	0.92	0.31	1.84
1985	41.2	71.4	32.2	1985-1990	0.84	0.27	1.59
1990	43.0	72.4	34.9	1990-1995	0.83	0.26	1.43
1995	44.8	73.3	37.5	1995-2000	0.83	0.26	1.32
2000	46.7	74.2	40.1	2000-2005	1.04	0.43	1.46
2005	49.2	75.9	43.1	2005-2010	0.99	0.36	1.37
2010	51.7	77.2	46.1	2010-2015	0.86	0.23	1.19
2015	53.9	78.1	49.0	2015-2020	0.82	0.24	1.09
2020	56.2	79.1	51.7	2020-2025	0.75	0.27	0.97
2025	58.3	80.2	54.3	2025-2030	0.71	0.30	0.87
2030	60.4	81.4	56.7	2030-2035	0.67	0.32	0.80
2035	62.5	82.7	59.0	2035-2040	0.63	0.32	0.74
2040	64.5	84.0	61.3	2040-2045	0.59	0.31	0.69
2045	66.4	85.4	63.4	2045-2050	0.58	0.29	0.66
2050	68.4	86.6	65.6				

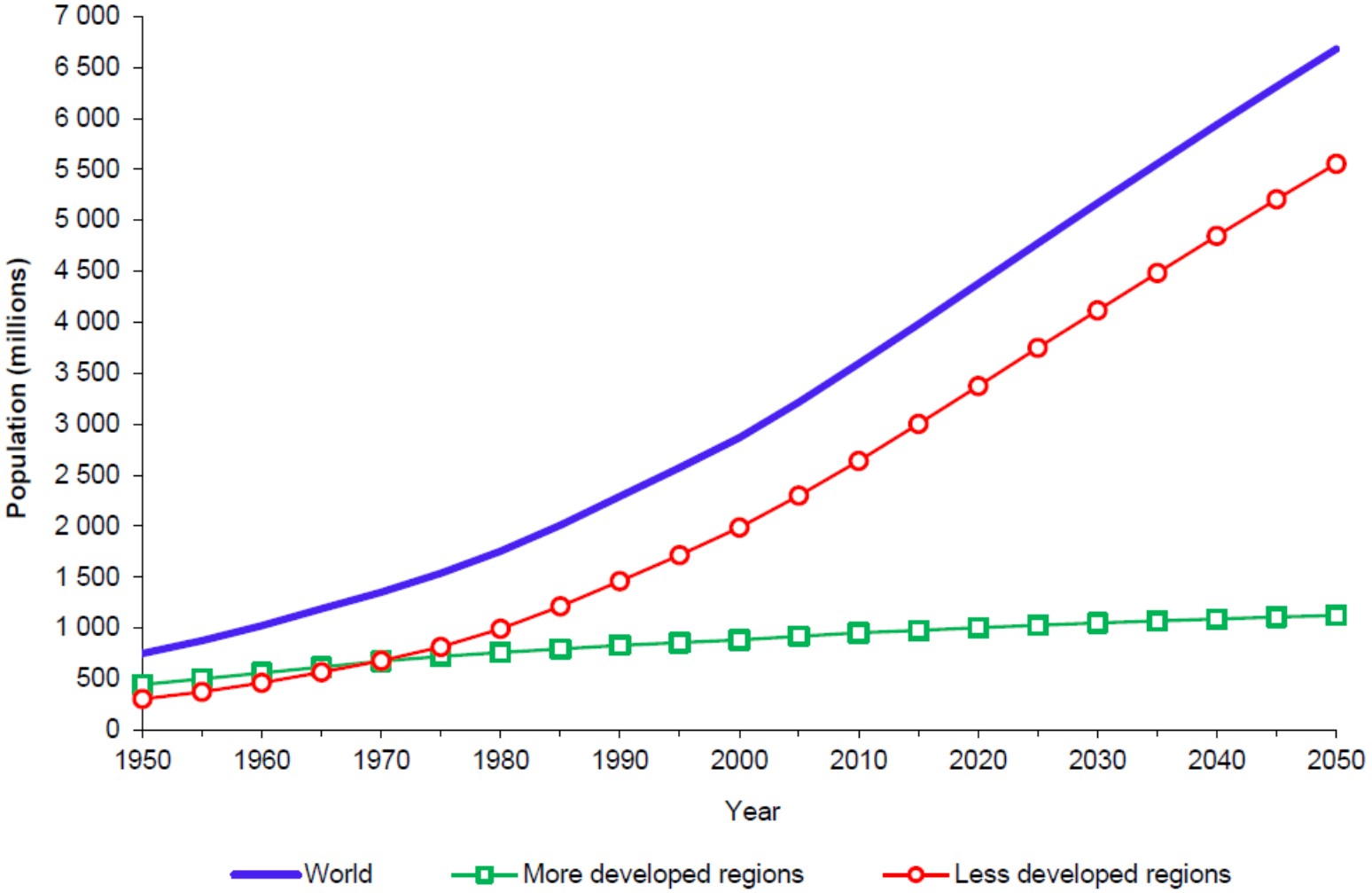
Urbanization

TABLE I.7. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, BY INCOME GROUP, SELECTED YEARS AND PERIODS, 1950-2050

	Percentage urban						*Rate of urbanization (per cent)*				
Income group	*1950*	*1970*	*1990*	*2018*	*2030*	*2050*	*1950-1970*	*1970-1990*	*1990-2018*	*2018-2030*	*2030-2050*
World	29.6	36.6	43.0	55.3	60.4	68.4	1.06	0.80	0.90	0.74	0.62
High-income countries	58.5	68.7	74.4	81.5	83.9	88.4	0.80	0.40	0.32	0.25	0.26
Middle-income countries	19.9	27.8	36.7	52.6	59.0	68.3	1.68	1.39	1.28	0.96	0.73
Upper-middle-income countries	22.1	32.2	42.9	66.6	74.8	82.6	1.89	1.44	1.57	0.96	0.50
Lower-middle-income countries	17.2	22.6	30.0	40.6	47.0	59.0	1.36	1.42	1.08	1.20	1.14
Low-income countries	9.3	15.7	22.8	32.2	38.3	50.2	2.60	1.87	1.24	1.44	1.35

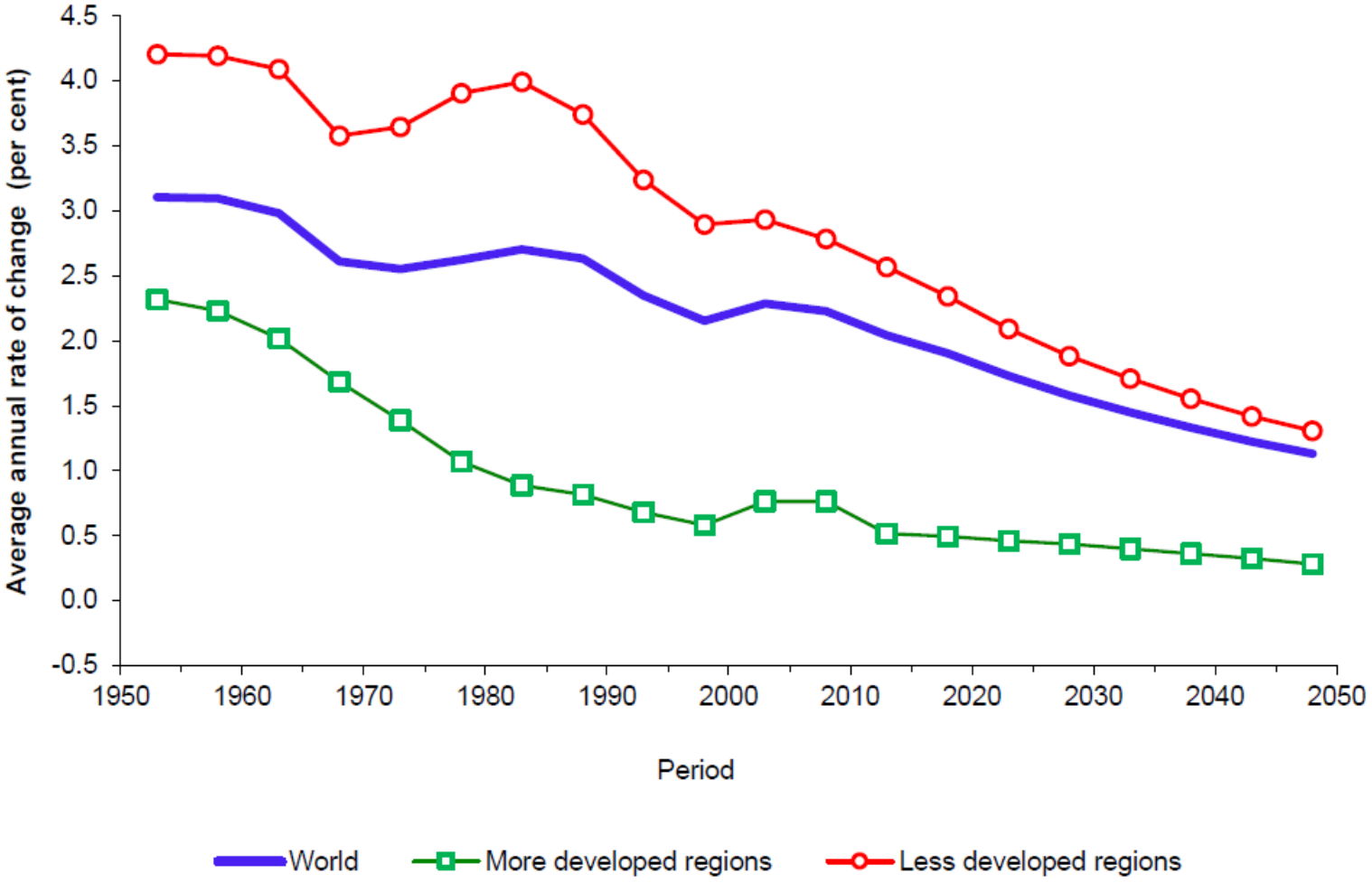
Urbanization

Figure I.1. Estimated and projected urban populations of the world, the more developed regions and the less developed regions, 1950-2050



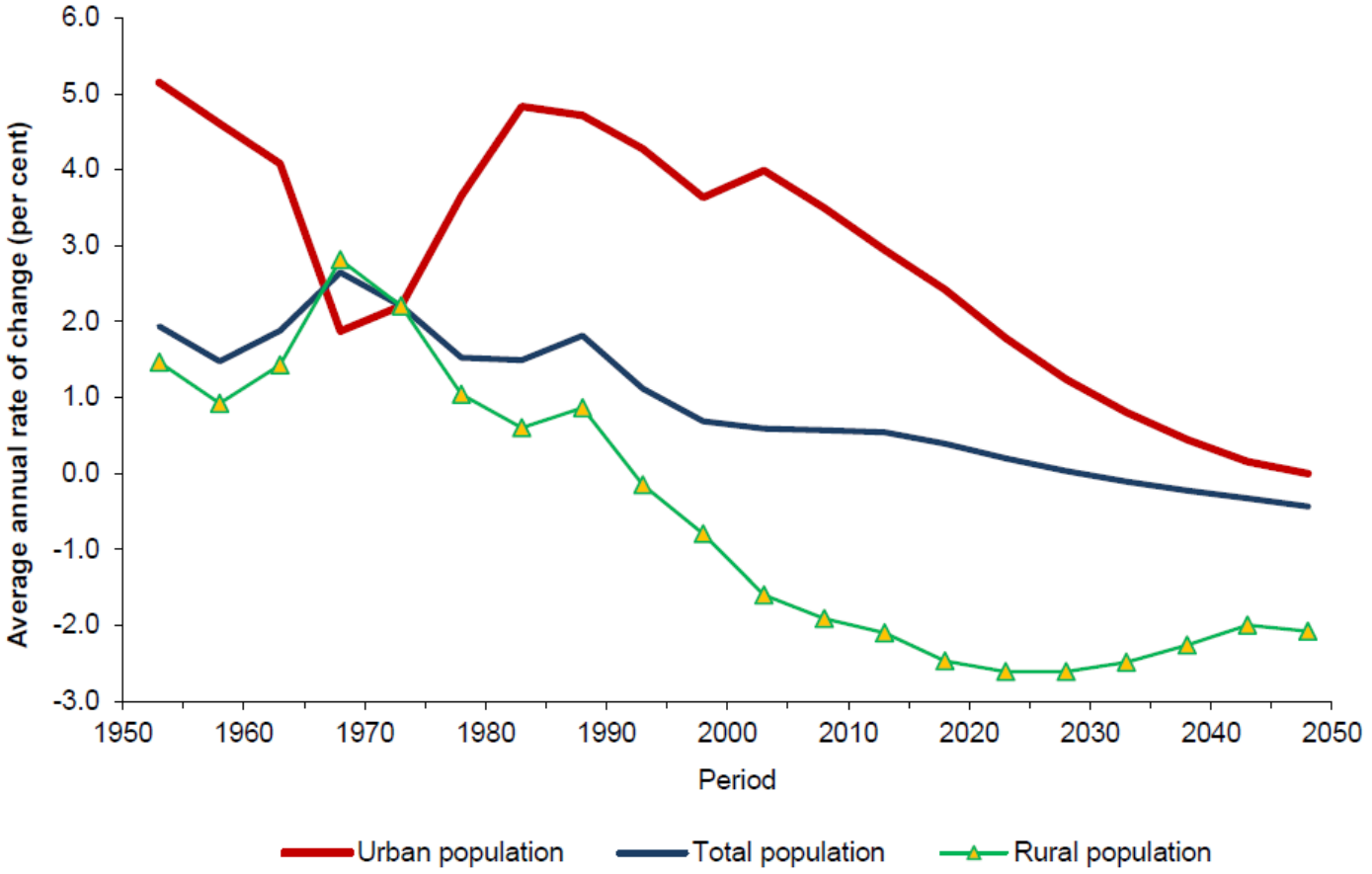
Urbanization

Figure I.4. Average annual rate of change of the urban populations of the world, the more developed regions and the less developed regions, 1950-2050



Urbanization

Figure I.6. Average annual rate of change of the urban, rural and total population of China, 1950-2050



Urbanization

Figure I.7. Average annual rate of change of the rural populations of the world, the more developed regions and the less developed regions, 1950-2050

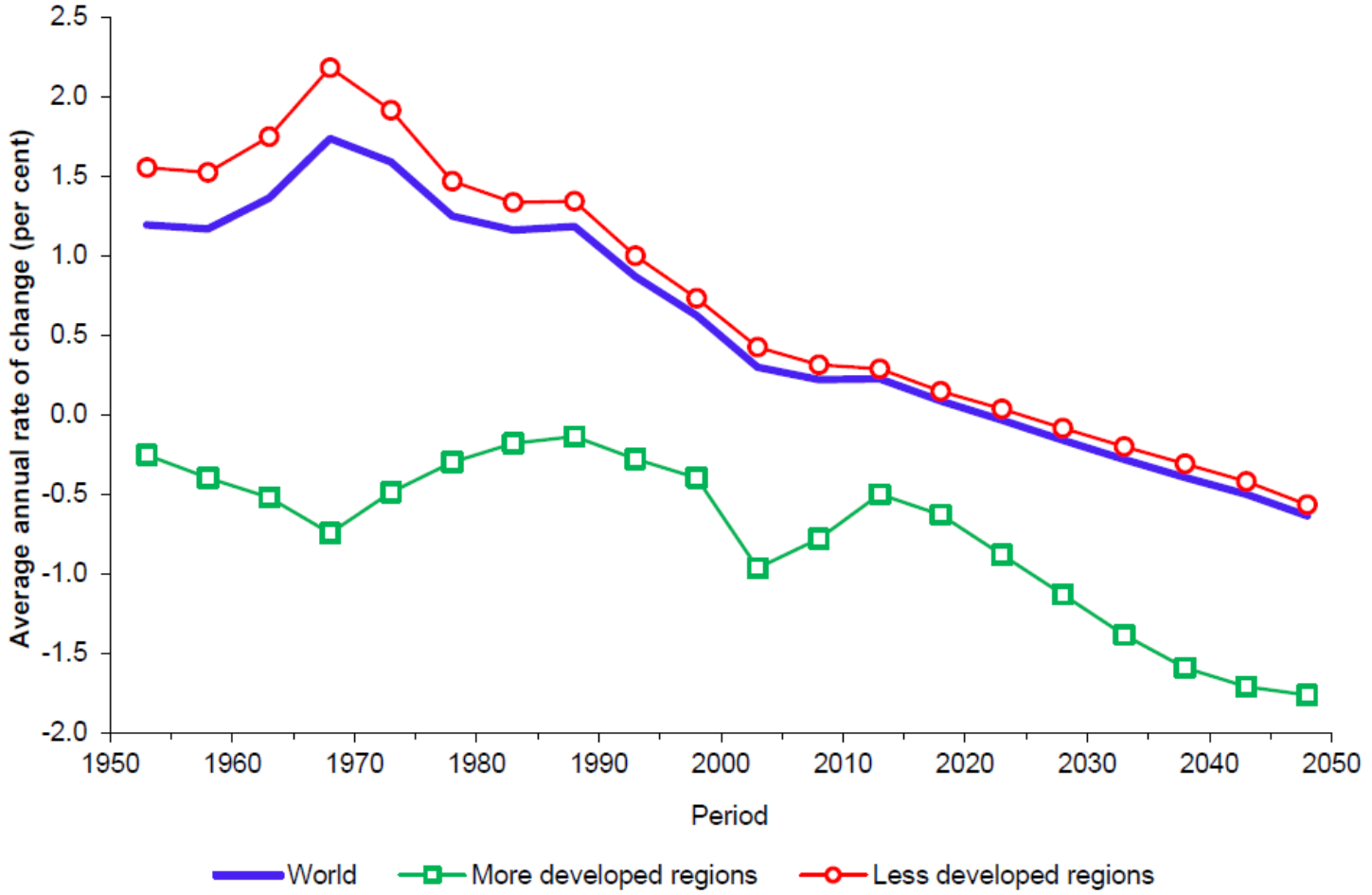


Figure II.1. Percentage of population residing in urban areas for all countries of the world, by geographic region and population size, 1950, 2018 and 2050

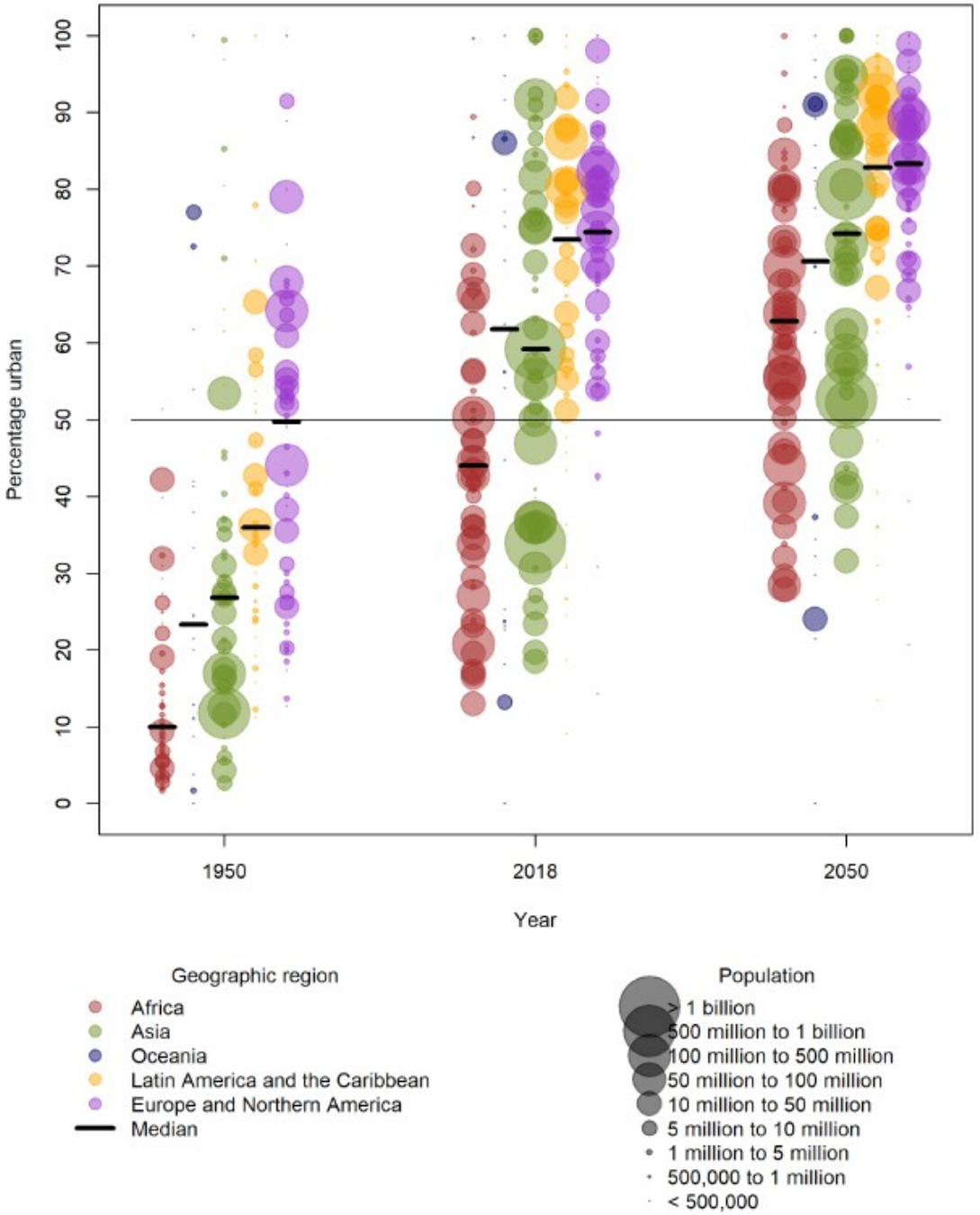


Figure II.2. Association between levels and rates of urbanization and gross national income (GNI)

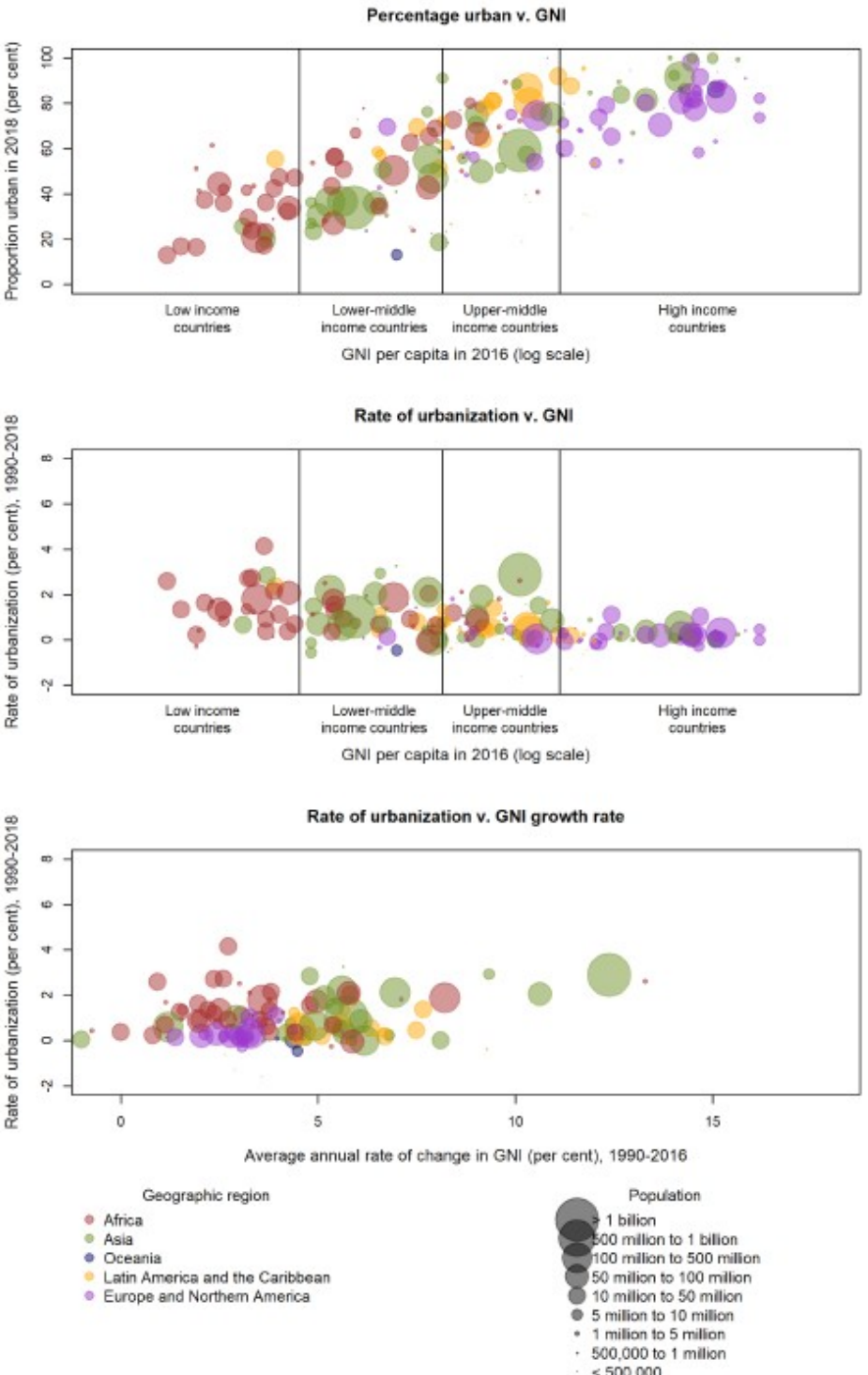


Figure III.3. Urban population of the world and geographic regions and number of cities, by size class of urban settlement, 2018

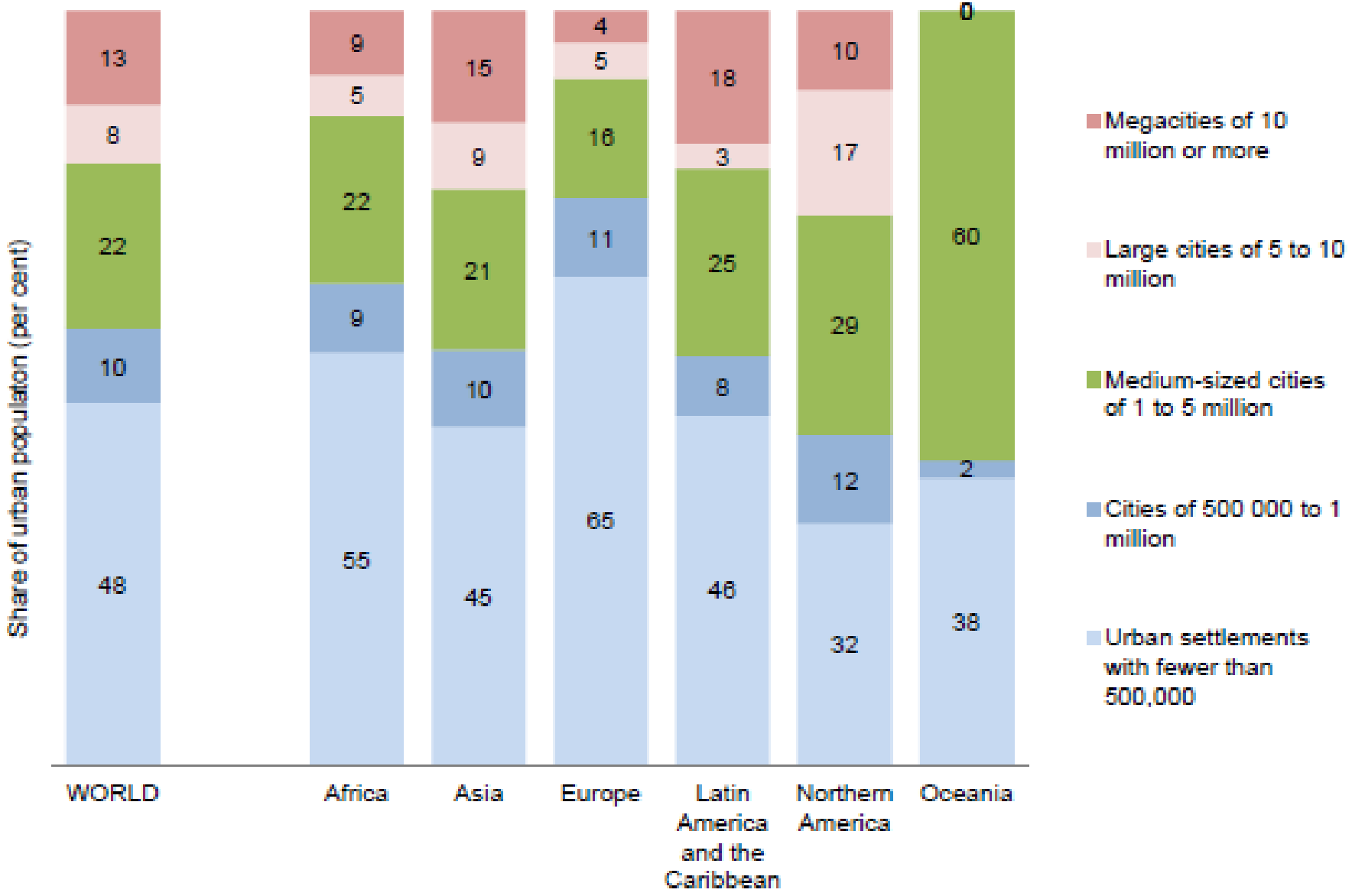
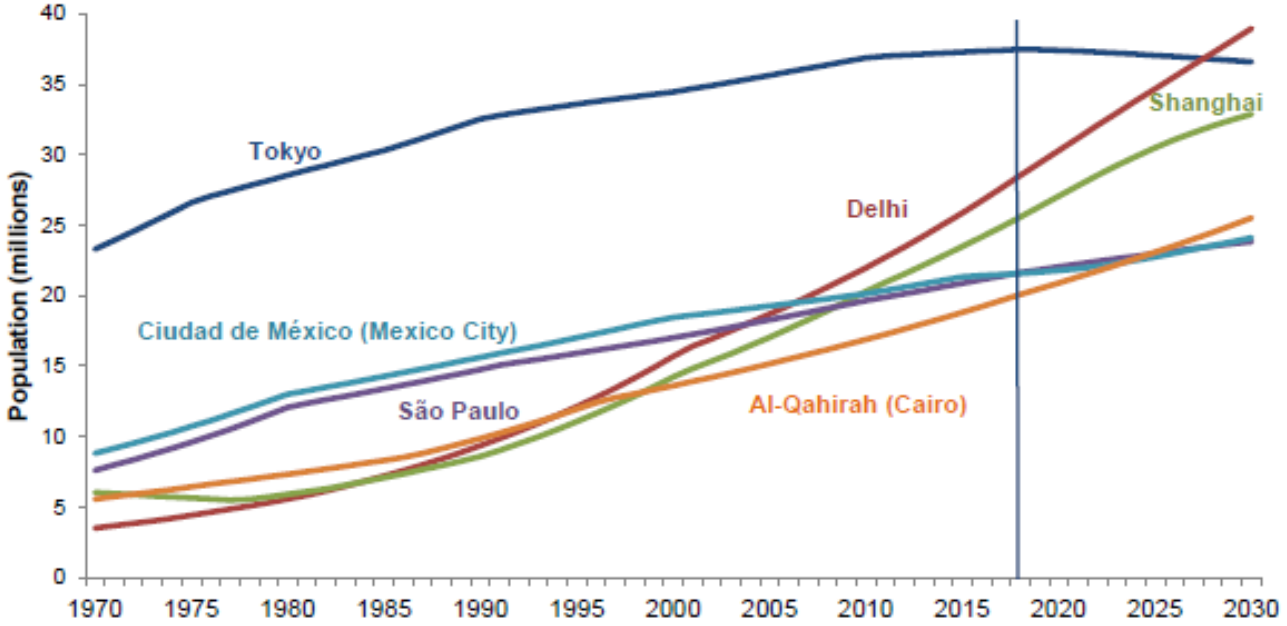


TABLE III.5. POPULATION SIZE AND AVERAGE ANNUAL RATE OF CHANGE OF THE FASTEST-GROWING URBAN AGGLOMERATIONS IN 1990-2018 AND 2018-2030

Rank	Country	Urban agglomeration	Population (thousands)			Average annual rate of change (per cent)	
			1990	2018	2030	1990-2018	2018-2030
1	China	Shenzhen	875	11 908	14 537	9.3	1.7
2	China	Dongguan	552	7 360	8 279	9.2	1.0
3	Nigeria	Abuja	330	2 919	5 119	7.8	4.7
4	India	Malappuram	359	2 950	4 976	7.5	4.4
5	China	Zhongshan	393	2 872	3 302	7.1	1.2
6	China	Foshan	1 008	7 196	8 350	7.0	1.2
7	China	Huai'an	384	2 420	3 430	6.6	2.9
8	China	Suzhou, Jiangsu	1 067	6 339	9 389	6.4	3.3
9	United Arab Emirates	Dubayy (Dubai)	473	2 785	3 315	6.3	1.5
10	China	Shantou	724	4 174	5 083	6.3	1.6
11	China	Xiamen	639	3 585	4 376	6.2	1.7
12	China	Yantai	422	2 359	3 135	6.1	2.4
13	China	Putian	311	1 712	2 529	6.1	3.3
14	Angola	Luanda	1 474	7 774	12 129	5.9	3.7
15	Mozambique	Matola	319	1 635	2 418	5.8	3.3
16	China	Ningbo	752	3 815	5 169	5.8	2.5
17	Indonesia	Bekasi	624	3 159	4 332	5.8	2.6
18	India	Kollam	346	1 670	2 557	5.6	3.5
19	Burkina Faso	Ouagadougou	537	2 531	4 426	5.5	4.7
20	Cameroon	Yaoundé	777	3 656	5 734	5.5	3.8
21	China	Nanning	790	3 628	4 734	5.4	2.2
22	China	Nantong	470	2 123	2 828	5.4	2.4
23	India	Thrissur	615	2 774	4 221	5.4	3.5
24	China	Shaoxing	525	2 350	3 200	5.4	2.6
25	India	Surat	1 466	6 564	9 711	5.4	3.3
26	Ghana	Kumasi	696	3 065	4 681	5.3	3.5
27	China	Handan	575	2 528	3 423	5.3	2.5
28	China	Zhengzhou	1 134	4 940	6 669	5.3	2.5
29	China	Hangzhou	1 666	7 236	9 260	5.2	2.1
30	China	Changzhou, Jiangsu	784	3 372	4 526	5.2	2.5
31	United Arab Emirates	Abu Zaby (Abu Dhabi)	331	1 420	1 739	5.2	1.7
32	United States of America	Raleigh	310	1 327	1 767	5.2	2.4
33	Yemen	Sana'a'	653	2 779	4 174	5.2	3.4
34	China	Chaozhou	334	1 389	1 654	5.1	1.5
35	United Republic of Tanzania	Dar es Salaam	1 474	6 048	10 789	5.0	4.8
		Masqat (Muscat)	353	1 447	1 838	5.0	2.0
36	Oman	Charlotte	461	1 886	2 520	5.0	2.4
37	United States of America						

Figure III.6. Population of the world's urban agglomerations with 15 million inhabitants or more in 2018, 1970-2030

A. Urban agglomerations with 20 million inhabitants or more in 2018



B. Urban agglomerations with 15 to 20 million inhabitants in 2018

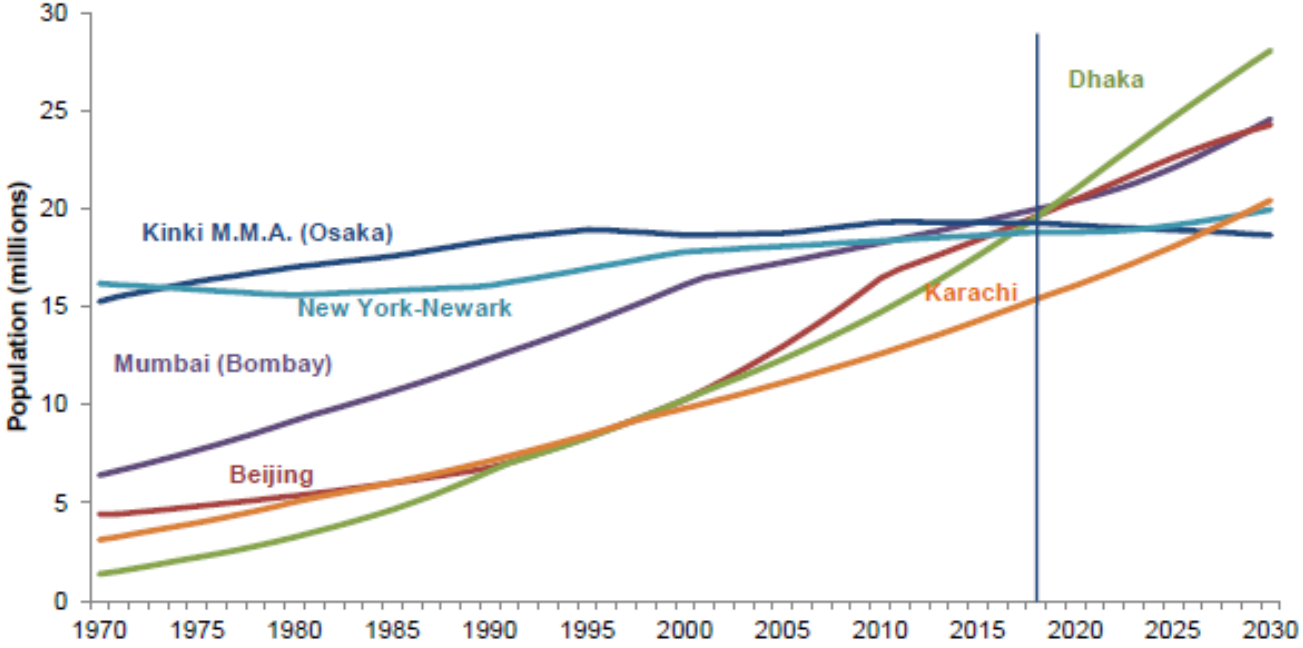


TABLE III.6. URBAN AGGLOMERATIONS WITH 5 MILLION INHABITANTS OR MORE, 1970, 2018 AND 2030

1970			2018			2030					
Rank	*Urban agglomeration*	*Population (thousands)*	*Rank*	*Urban agglomeration*	*Population (thousands)*	*Rank*	*Urban agglomeration*	*Population (thousands)*	*Rank*	*Urban agglomeration*	*Population (thousands)*
1	Tokyo	23 298	1	Tokyo	37 468	1	Delhi	38 939	56	Ningbo	5 169
2	New York-Newark	16 191	2	Delhi	28 514	2	Tokyo	36 574	57	Abuja	5 119
3	Kinki M.M.A. (Osaka)	15 272	3	Shanghai	25 582	3	Shanghai	32 869	58	Douala	5 112
4	Ciudad de México	8 831	4	São Paulo	21 650	4	Dhaka	28 076	59	Shantou	5 083
	(Mexico City)		5	Ciudad de México	21 581	5	Al-Qahirah (Cairo)	25 517	60	Phoenix-Mesa	5 081
5	Buenos Aires	8 416		(Mexico City)		6	Mumbai (Bombay)	24 572	61	Suzhou, Jiangsu	9 389
6	Los Angeles-Long	8 378	6	Al-Qahirah (Cairo)	20 076	7	Beijing	24 282	62	Baghdad	9 365
	Beach-Santa Ana		7	Mumbai (Bombay)	19 980	8	Ciudad de México	24 111	63	Hangzhou	9 260
7	Paris	8 208	8	Beijing	19 618		(Mexico City)		64	Shenyang	8 569
8	São Paulo	7 620	9	Dhaka	19 578	9	São Paulo	23 824	65	Ar-Riyadh (Riyadh)	8 547
9	London	7 509	10	Kinki M.M.A. (Osaka)	19 281	10	Kinshasa	21 914	66	Pune (Poona)	8 442
10	Kolkata (Calcutta)	7 329	11	New York-Newark	18 819	11	Lagos	20 600	67	Foshan	8 350
11	Moskva (Moscow)	7 106	12	Karachi	15 400	12	Karachi	20 432	68	Dongguan	8 279
12	Chicago	7 106	13	Buenos Aires	14 967	13	New York-Newark	19 958	69	Al-Khartum (Khartoum)	8 023
13	Rio de Janeiro	6 791	14	Chongqing	14 838	14	Chongqing	19 649	70	Hong Kong	7 987
14	Chukyo M.M.A.	6 603	15	Istanbul	14 751	15	Kinki M.M.A. (Osaka)	18 658	71	Haerbin	7 597
	(Nagoya)		16	Kolkata (Calcutta)	14 681	16	Kolkata (Calcutta)	17 584	72	Addis Ababa	7 352
15	Mumbai (Bombay)	6 413	17	Manila	13 482	17	Istanbul	17 124	73	Houston	7 254
16	Shanghai	6 052	18	Lagos	13 463	18	Lahore	16 883	74	Santiago	7 243
17	Al-Qahirah (Cairo)	5 585	19	Rio de Janeiro	13 293	19	Manila	16 841	75	Abidjan	7 136
18	Seoul	5 312	20	Tianjin	13 215	20	Buenos Aires	16 438	76	Dallas-Fort Worth	7 073
	TOTAL	**162 020**	21	Kinshasa	13 171	21	Bangalore	16 227	77	Nairobi	7 031
			22	Guangzhou,	12 638	22	Guangzhou, Guangdong	16 024	78	Johannesburg	6 978
				Guangdong		23	Tianjin	15 745	79	Madrid	6 907
			23	Los Angeles-Long	12 458	24	Shenzhen	14 537	80	Dalian	6 848
				Beach-Santa Ana		25	Rio de Janeiro	14 408	81	Toronto	6 793
			24	Moskva (Moscow)	12 410	26	Chennai (Madras)	13 814	82	Qingdao	6 684
			25	Shenzhen	11 908	27	Los Angeles-Long	13 209	83	Zhengzhou	6 669
			26	Lahore	11 738		Beach-Santa Ana		84	Miami	6 664
			27	Bangalore	11 440	28	Moskva (Moscow)	12 796	85	Atlanta	6 602
			28	Paris	10 901	29	Hyderabad	12 714	86	Belo Horizonte	6 583
			29	Bogotá	10 574	30	Jakarta	12 687	87	Ji'nan, Shandong	6 546
			30	Jakarta	10 517	31	Bogotá	12 343	88	Al-Iskandariyah (Alexandria)	6 417
			31	Chennai (Madras)	10 456	32	Lima	12 266	89	Chittagong	6 393
			32	Lima	10 391	33	Luanda	12 129	90	Yangon	6 389
			33	Krung Thep	10 156	34	Krung Thep (Bangkok)	12 101	91	Ha Noi	6 362
				(Bangkok)		35	Paris	11 710	92	Singapore	6 342
			34	Seoul	9 963	36	Thanh Pho Ho Chi Minh	11 054	95	Philadelphia	6 114
			35	Chukyo M.M.A.	9 507		(Ho Chi Minh City)		94	Guadalajara	5 943
				(Nagoya)		37	Nanjing, Jiangsu	11 011	95	Ankara	5 869
			36	Hyderabad	9 482	38	Dar es Salaam	10 789	96	Washington, D.C.	5 868
			38	Tehran	8 896	39	Chengdu	10 728	97	Barcelona	5 812
			39	Chicago	8 864	40	Tehran	10 240	98	Kabul	5 737
			40	Chengdu	8 813	41	London	10 228	99	Melbourne	5 736

Figure I.10. Average annual rate of change of the urban population by geographic region, 1950-2050

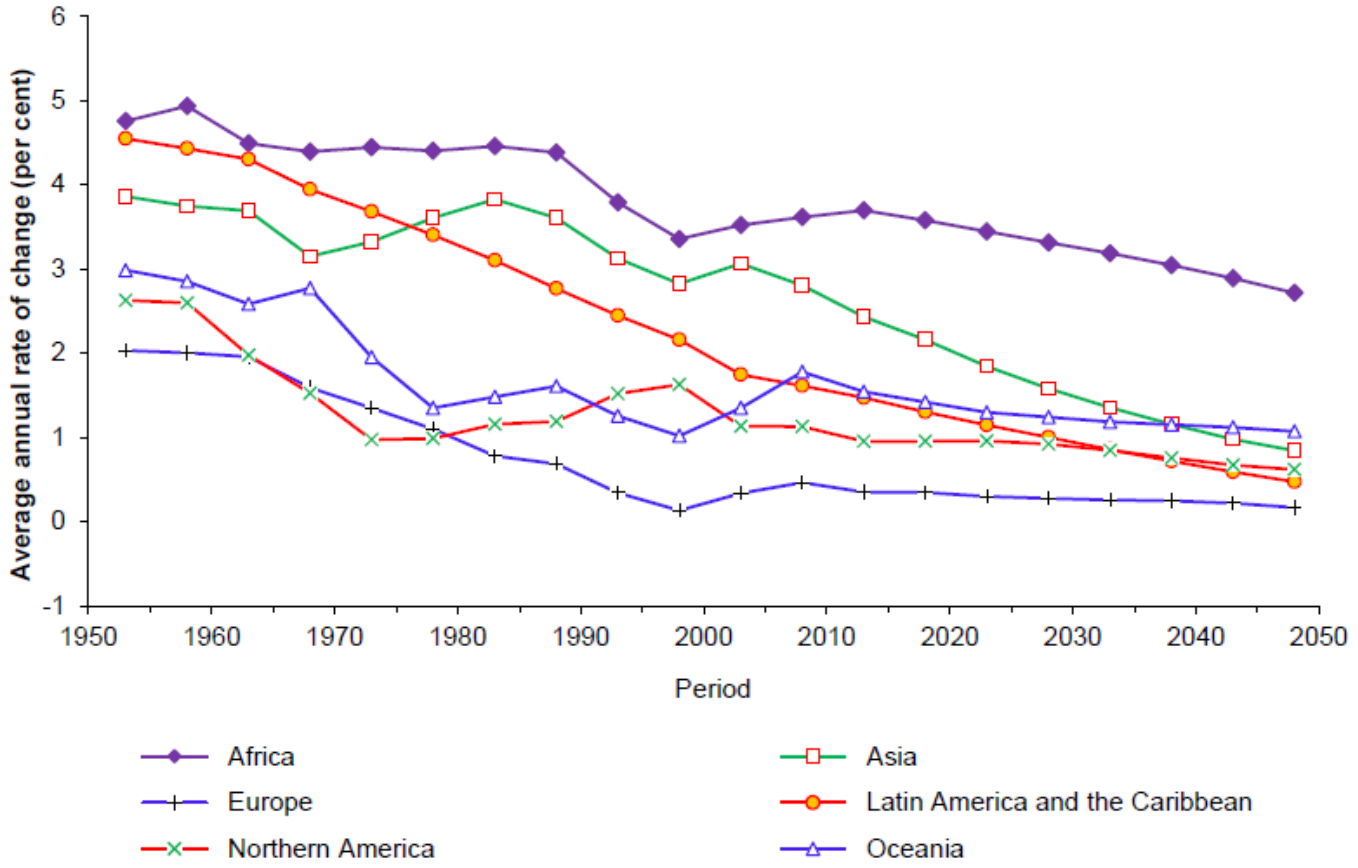
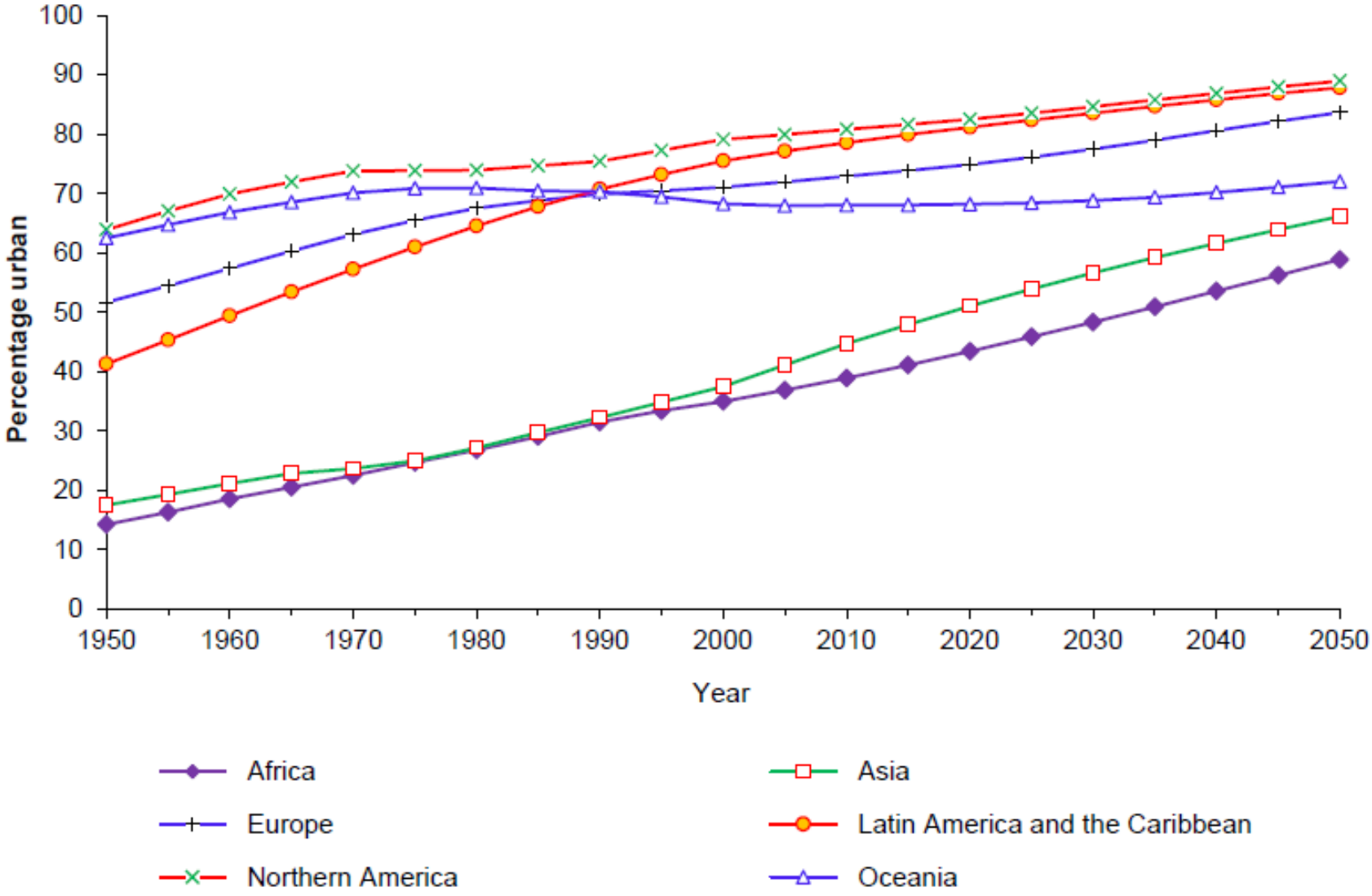


Figure I.11. Percentage of population residing in urban areas by geographic region, 1950-2050



Urbanization: Benefits

A city allows agglomeration economies.

In general firms wish to be where most consumers already live, which attracts more people in search of jobs and perhaps lower prices. this concentration in turn attracts still more firms and consumers in a circle of causation.

We can distinguish both urbanization economies proper accruing to all and localization economies (accruing to firms in an industry or sector).

Cities offer easier access to both private services (shops,entertainment,cultural activities etc) and public services (from water and electricity to communication.education and health services) as well as a richer social life.

Localization economies allow saving on firm-to-firm, firm-to-consumer transportation. Firms locate near workers with skills they need

Workers locate near firms that need their skills Firms benefit from (perhaps specialized) infrastructure

Firms benefit from knowledge spillovers in their and related industries

Possibility of clusters, or Industrial Districts, is a key to sectoral efficiency.

China has made huge strides in generating industrial districts over the last decade.

Urbanization: Costs

But, cities also entail “congestion costs”, i.e pollution, noise, traffic, crime, street children, high cost of real estate: it is much more expensive to build vertically than horizontally.

Economically efficient urban scale (from point of view of productive efficiency) found where average costs for industries are lowest.

Generally, differing efficient scales for different industrial specializations imply different city sizes.

More extensive (expensive) capital infrastructure concentrated in larger urban areas

Smaller cities may be expected in labor-intensive developing countries: however this is not what we generally observed.

Urbanization: Theories of City Size

Two well-known theories of city size are the urban hierarchy model (central place theory) and the differentiated plane model.

In the urban hierarchy model(August Losch and Walter Christaller), plants in various industries have a characteristic market radius that results from the interplay of three factors: economies of scale in production, transportation costs, and the distribution of housing costs over space. The larger the economies of scale and the lower the transportation costs, the larger the radius of a industry. A high price of real estate (and hence wages) tends to create smaller radii.

The differentiated plane model (Alfred Weber, Walter Isard,and Leon Moses) predicts urban concentrations at the points where existing transportation routes cross, called “internal nodes.” The hierarchy of urban sizes depends on the pattern of nodes and the industrial mix.
Hub and spoke transportation system (rather than web) makes transport costs high for small cities.
Primary processing industries have few inputs and are usually located near the source of the primary resource. There will also be incentives for industries with strong backward or forward linkages to locate in the same city.

Causes of Urban Giantism:

Much urban growth is in mid-size cities, but Urban Giantism is a serious issue in many developing countries, where urbanization has led to huge informal sectors in shantytowns, favelas.

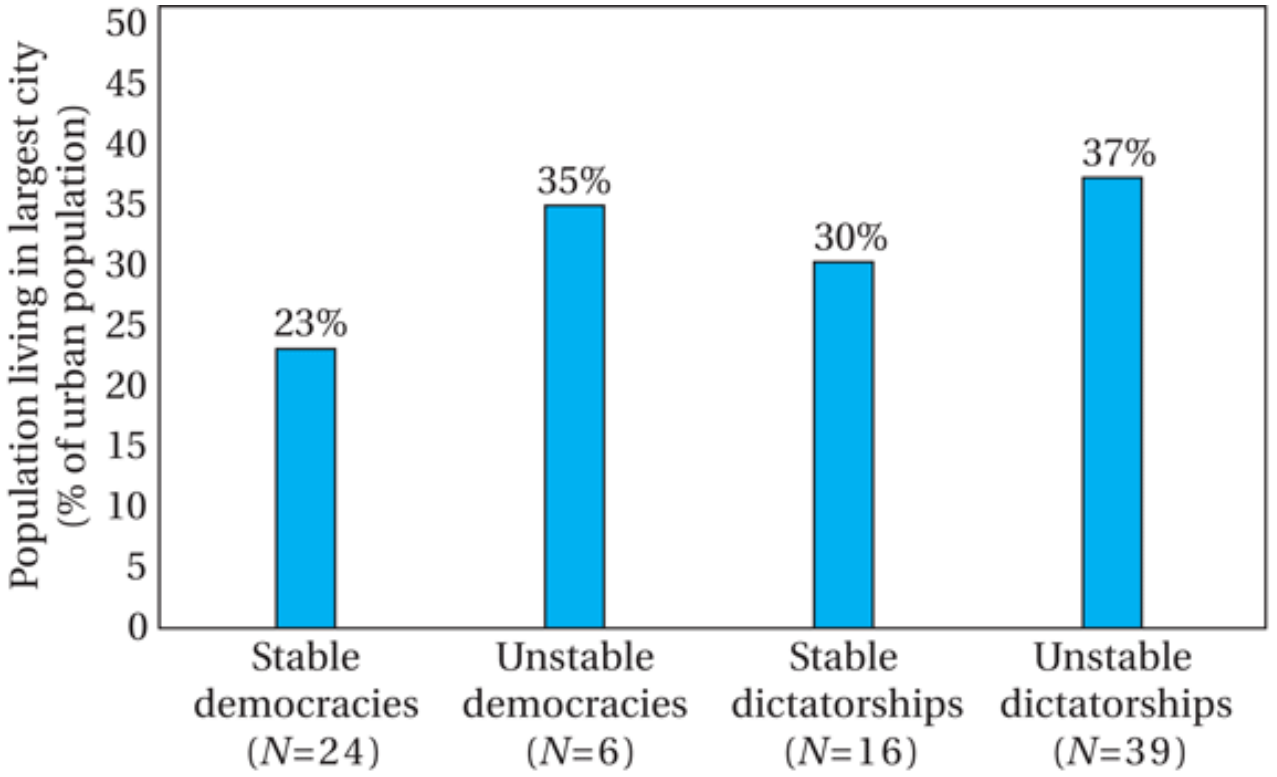
One explanation looks at capital market failures that make the creation of new urban centres impossible to finance.

Another is First-City Bias favoring largest city: Compounding effect of locating the national capital in the largest city.

Economic development is hampered by groups who, by their central location in urban areas, are able to pressure governments to protect their interests.

Indeed an explanation for urban giants focuses on dictators' efforts to remain in power through "Bread and circuses" policies. Unstable regimes (see next figure), had an incentive to "buy off" the population of the largest city.

Urbanization



Source: Data from Alberto F. Ades and Edward L. Glaeser, "Trade and circuses: Explaining urban giants," *Quarterly Journal of Economics* 110 (1995): 196. Copyright © 1995 by the President and Fellows of Harvard College and the Massachusetts Institute of Technology.
Note: *N* = number of countries in group.

The Informal Sector

The informal sector is characterised by a large number of small-scale production and service activities(individually or family-owned) and use simple, labour-intensive technology.

The usually self-employed workers are generally unskilled, and lack access to financial capital.

As a result, worker's productivity and income tend to be lower, with no job security or old-age pensions.

Many workers in the sector are recent migrants. inhabit shacks that they themselves have built in slums lacking electricity, water, drainage, transportation, and educational and health services. Many are vulnerable to extreme weather phenomena.

Others are homeless with incomes insufficient to provide even the most rudimentary shelter.

The Harris-Todaro model

Why do people move from rural to urban areas only to land in shantytowns and work in the informal sector or be unemployed?

The *Harris-Todaro model* features:

A worker's decision to migrate depends on a comparison of *lifetime expected income* between rural and urban alternatives. An individual does not go back to the countryside after migration.

There is considerable *risk in migrating*. Migrant could end up unemployed, with probability rising with general unemployment.

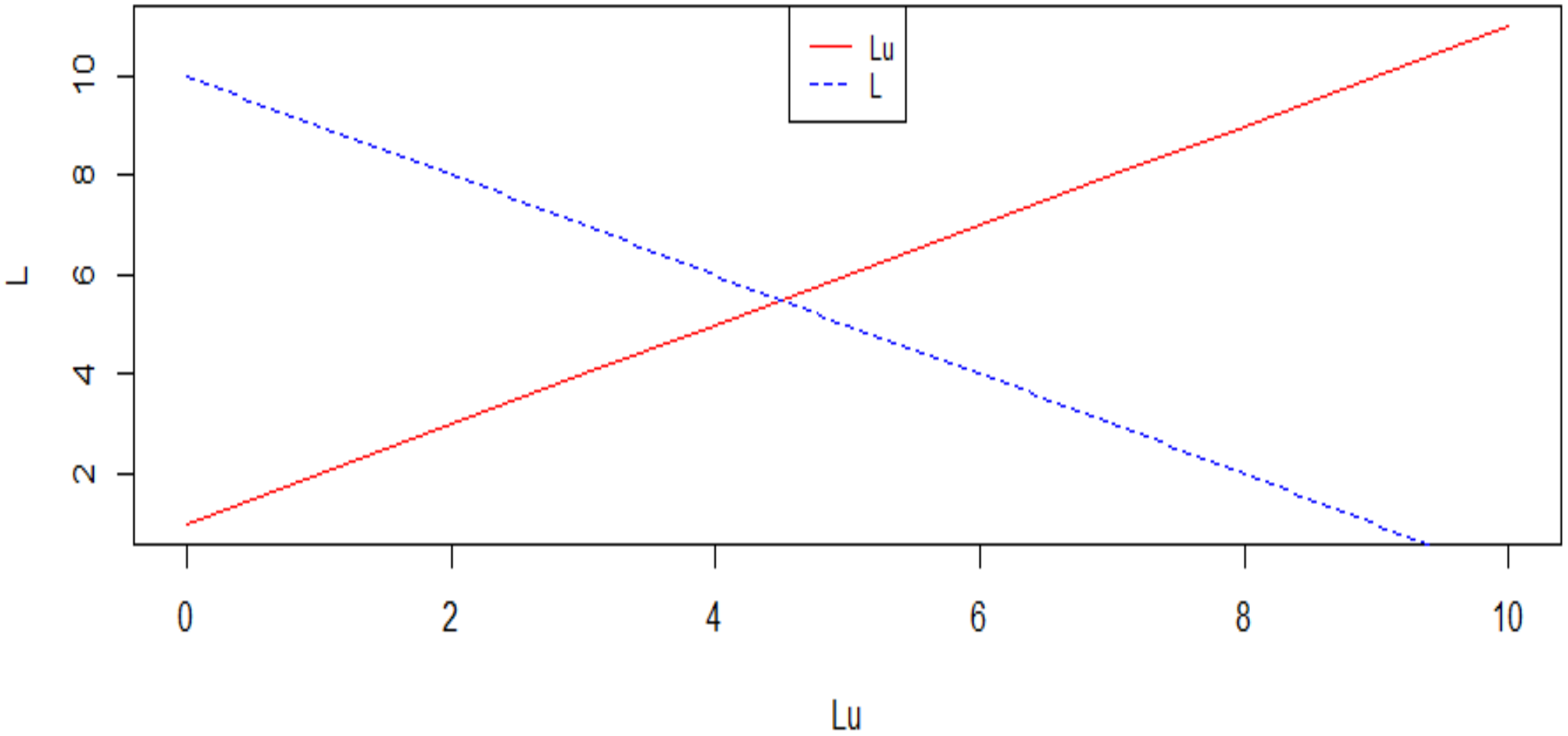
There will be *excess migration* if wages in urban areas are higher than wages in rural areas. Excess migration leads to *urban unemployment*.

Simple model assumes one period with income equal to wage rate. Migration is assumed to be costless.

The Harris-Todaro model

The size of the labor force is L=$L_A + L_U$. L_A is labour in agriculture (sector A), L_U is urban labor.
Workers are paid their marginal productivity in both sectors.
In industry (sector M) the wage is fixed at the level w so there can be urban unemployment.
$w_A = F'_A(L_A), w = F'_M(L_M), L_M \leq L_U.$
The choice to migrate which determines urban labour supply L_U depends :
1)on the relative wage w/ w_A and
2) on the probability of getting an urban job L_M/L_U.
Notice $L_M = g(w)$ with g'<0 , so L_M is given if w is given.
We can write:
$L_U = L(w/ F'_A(L - L_U), g(w)/L_U), L'_1 > 0, L'_2 > 0.$
This shows that when w is given L_U is given as well
This equation has just one solution.
On the left hand side we have the 45 degrees line.
On the right hand side we have a downward sloping curve: both arguments of the function L increase in L_U.
So the two curves cross only once.
We can be sure there will be urban unemployment as long as $w/ w_A > 1$.
Suppose $L_M/L_U = 1$, then people will certainly migrate as they can get higher wage wih certainty.
If w goes up, we have an ambiguous result on L_U.
First argument of L goes up, second argument goes down.

The Harris-Todaro model



The Harris-Todaro model

Policy Implications

Reduction of urban bias: decentralize authority to cities and neighborhoods

Reduction in imbalances in expected income opportunities and services provision: programs of rural development should be encouraged

Public programs to reduce unemployment in cities can be counterproductive by inducing more migration.

Rural to urban migration policy: Most countries do not restrict migration.
In China, authorities have used both carrots (TVEs township and village enterprises) and sticks (hukou system) to reduce migration. But the income differential still attracted millions of migrants.

THE INFORMAL SECTOR

Why is there such a large informal sector in developing countries?

How does the size of the informal sector in the economy affect transaction costs and development in these nations?

Hernando de Soto, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else

A large portion of economic transactions in developing countries are hidden in the informal sector. Not registered, taxed, and operate in buildings with no “title”

Millions live on land and in homes for which they have no title.

As a result, substantial wealth in these countries is severely undervalued. This increases transactions costs.

THE INFORMAL SECTOR

The High Transaction Costs in the Informal Sector

Without legal title and associated property rights, a person or business in the informal sector:

cannot use property as loan collateral to start or expand a business: cannot realize economies of scale and scope

cannot obtain many basic state services: does not have access to the court to enforce contracts

has difficulty trading assets (absence of legal status)

cannot obtain insurance contracts

is vulnerable to predatory behavior from politicians and bureaucrats

THE INFORMAL SECTOR

Institutional Obstacles to Entry in the Formal Sector

Why do businesses and households, especially in developing countries, do not enter the formal sector?

Given the high transaction costs of the informal sector, tax avoidance is an insufficient explanation.

More likely is that the low quality of legal institutions increases costs and reduces benefits of entering the formal sector.

Registering a business in a developing country usually takes a lot more time and effort than in a developed country.

Other business start-up costs are higher in developing countries (especially in Latin America and Sub-Saharan Africa).

This process is regularly monitored by World Bank: the Doing Business project.

THE INFORMAL SECTOR

A view espousing the constructive role of cities (which includes their informal sectors) in economic development has been gaining ground.

This approach has been championed by the Dar es Salaam–based UN-Habitat, in its “State of the World’s Cities” reports. The 2001 report systematically criticised what it termed the “anti-urban bias of the development agencies.” which emphasised the negative consequences of urban bias for both efficiency and equity. Besides UN-Habitat, the World Bank and other agencies have placed increasing emphasis on improved urban development.

It is argued that since wages are persistently higher in urban informal work than in rural work productivities are likely to be higher as well. Indeed, the fact that the informal sector provides a livelihood for many even without access to credit and other facilities,suggests that in better institutional conditions the sector could work as an engine for growth

Other arguments can be made in favour of promoting the informal sector.
One is that only a fraction of the capital needed in the formal sector is required to employ a worker in the informal sector. Another is that generates demand for semiskilled and unskilled labour unlikely to be absorbed by the formal sector to whom it provides training at low costs. Moreover the sector is more likely to adopt appropriate technologies and make use of local resources. Finally, the informal sector plays an important role in recycling waste.