WISCONSIN SCHOOL of BUSINESS

JAMES A. GRAASKAMP CENTER for REAL ESTATE

Housing's Contribution to Economic Development: Reframing the Narrative

Wrap up comments by Steve Malpezzi, delivered 9/8/22

Slides revised and extended 9/16/22

Comments and corrections welcome

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Introduction

- Stephen Malpezzi is an economist, formerly with the Urban Institute and the World Bank, now Professor Emeritus, Graaskamp Center for Real Estate, University of Wisconsin-Madison, and Dean of the Hoyt Academic Group.
- For links to more of my work, see my blog entries listed at:
  - http://reudviewpoint.blogspot.com/2018/05/a-guide-to-some-of-my-blog-posts-hither.html
- Comments and criticisms are welcome, email me at:
  - sjmmad@gmail.com
- These slides are based on my wrap-up comments for the conference. They were inspired and informed by my colleagues' presentations, but they are not a comprehensive summary of all the lessons of the conference. See:
  - https://lusk.usc.edu/way-forward/home
- I've benefited from the comments of many conference participants, but none of those colleagues are responsible for the views or shortcomings herein.
- Additional comments and corrections are very welcome.

September 7-8, 2022, Bethesda MD: The Way Forward Housing Coalition organizes a conference to review the economic and social benefits of well-functioning housing markets, and how to chart a better path forward in emerging markets and developing countries (EMDCs)

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The Way Forward Housing Coalition

HOUSING'S
Contribution to
Economic Development
REFRAMING THE NARRATIVE

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Housing's Contribution to Economic Development: Reframing the Narrative

- The Opportunity Cost of the Status Quo
- Urbanization, Housing Construction, and the Development of National Capital Stocks
- The Elephant in the Room: Housing is an Important Economic Sector
- The Real Estate Revolution
- First Day Wrapup
- How to Build a Fair and Efficient Housing Market
- Scaling Housing Production Requires Finance
- Measuring Housing's Impact Requires Data
- We Covered a Lot of Ground; What Else is There?
- What Next?

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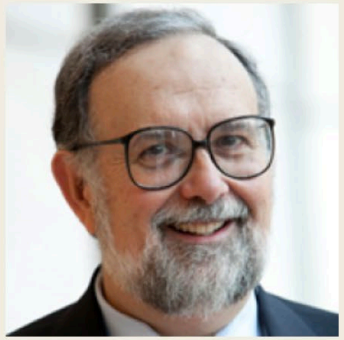

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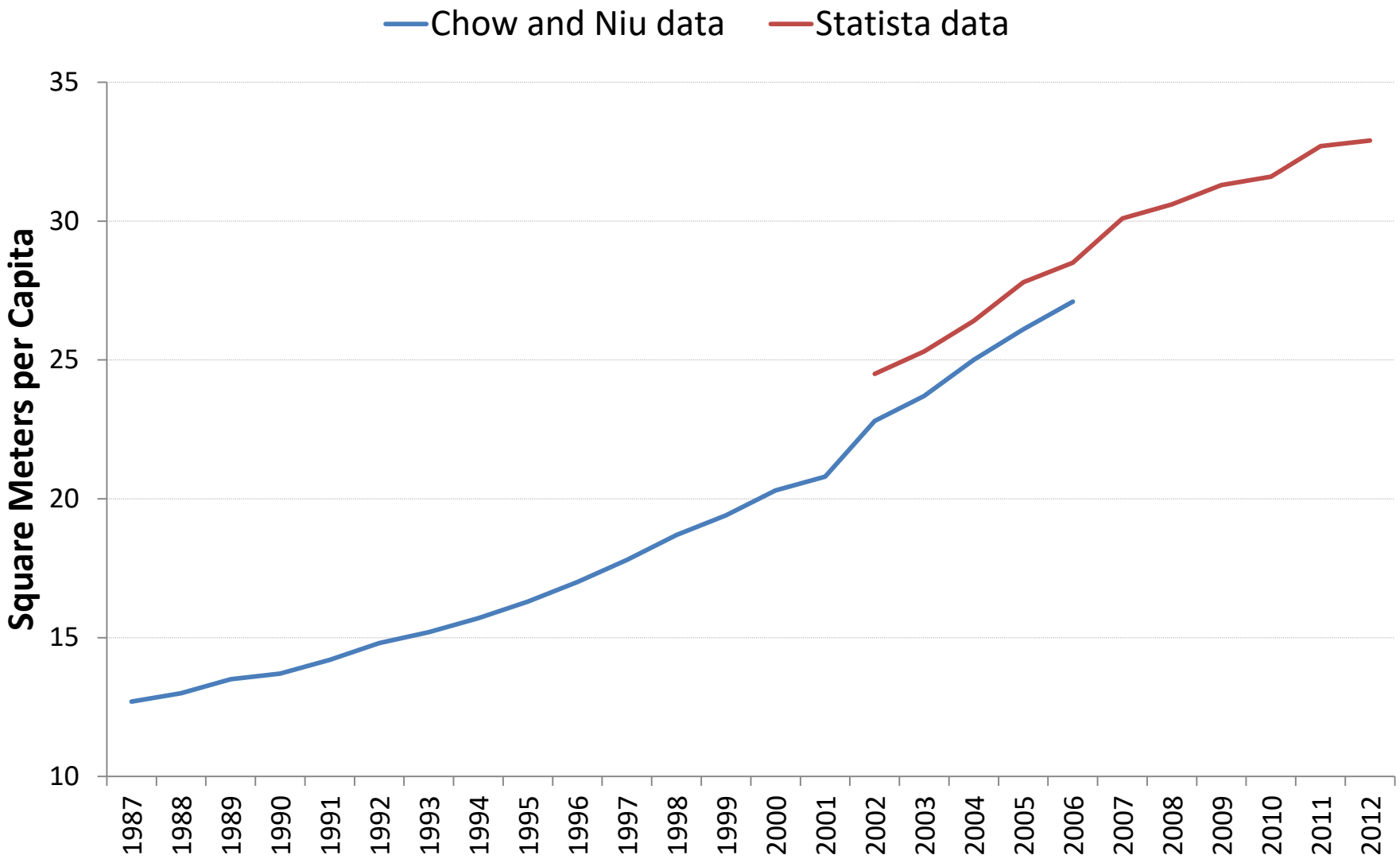
1990


2016

China Urban Residential Floorspace, Per Capita: Two Sources



Unfinished Evergrande apartments, Wuhan

Three histograms present estimates of the distribution of real consumption per capita of the global population (i.e., persons are the units of observation) in three benchmark years.

The areas under the curves are proportional to global populations (about 1 BN in 1800, 4 BN in 1975, and 7 BN in 2015).

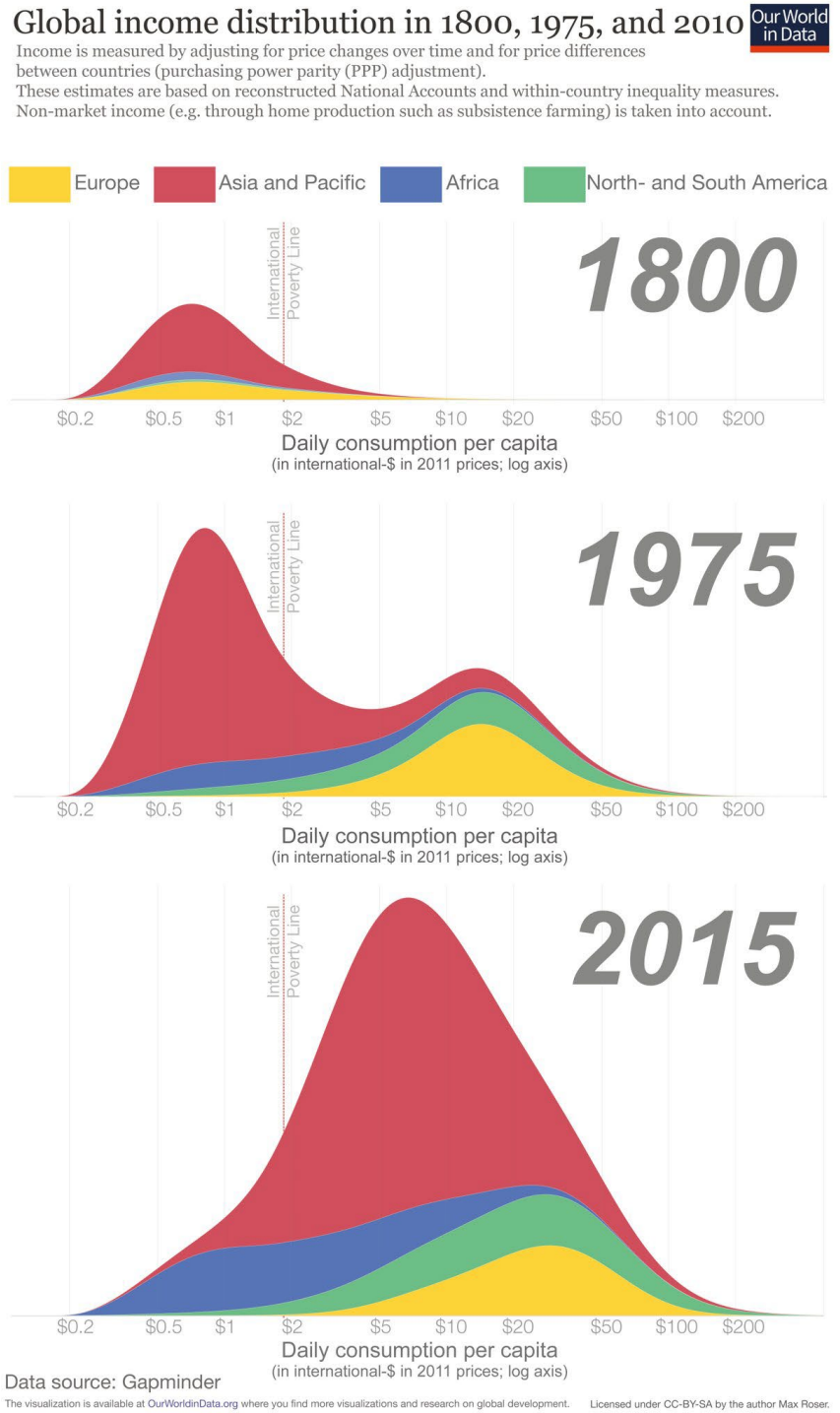
The horizontal axis, daily consumption per capita, is logarithmically scaled. The red line near $2/day is a widely used (and often hotly debated) threshold for extreme poverty. (For comparison, the U.S. poverty threshold for a single-person non-elderly household is about $35/day).

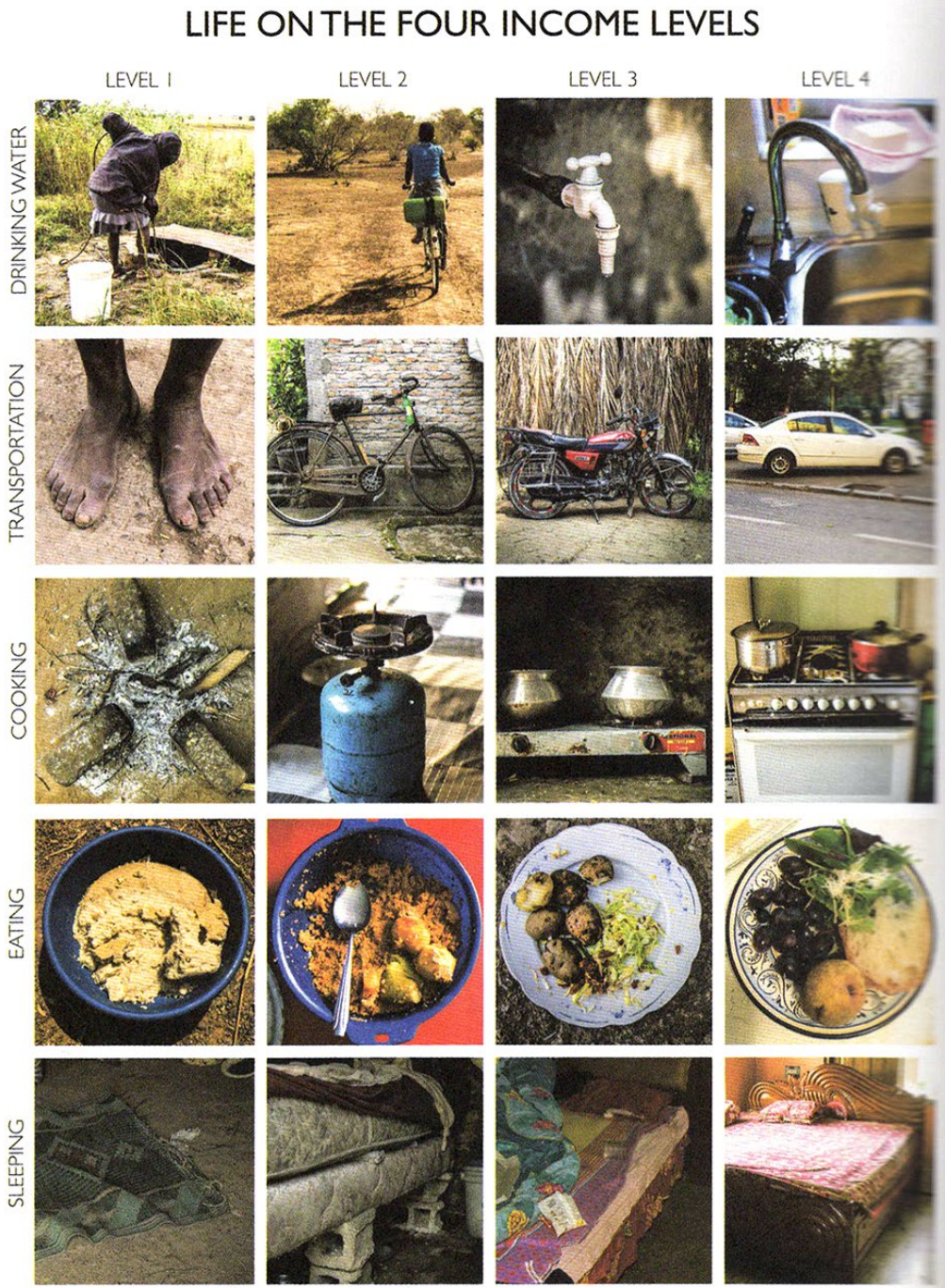
In all three benchmark years, Asia (the red area) is the most populous region.

Note that circa 1975, the global distribution was bimodal; most of the world's extremely poor lived in Asia. By 2015, as China and a number of other Asian countries progressed, the red hump moved right; we now have a unimodal distribution, although the highest incomes are most often found in Europe, North America, Japan.

Behind these broad trends are a wide variety of experiences within and across individual countries, including the relationships among growth, income distribution, and poverty. For entry into a large literature and some diversity of views, see Ravallion (2020), Deaton (2005, 2013), Bourguignon (2004) Bourguignon and Morrison (2002), Pinkovskiy and Sala-i-Martin (2009, 2014).

See notes below this slide for links to details of the data sources and methods for these charts.





Our old ways of categorizing the world – “first world, third world,” “developed, developing,” etc. never worked well and now works worse.

OK, how about 4 categories?

Level 1: $1/day
Level 2: $4/day
Level 3: $16/day
Level 4: $64/day

Housing investment and consumption, selected countries, from Acolin, Hoek-Smit and Green (2020)

	GFCF: Dwellings (US$ bn)	GFCF: Dwellings (% GDP)	Year	Housing Services (US$ bn)	Housing Services (% GDP)	Year	Residential Fixed Investment Housing Services (% GDP)
Brazil	62.2	3.0%	2017	278.4	15.5%	2016	18.5%
Egypt	*11.0*	*4.7%*	*2017*				
India	*149.4*	*6.5%*	*2018*	193.7	8.4%	2016	15.0%
Indonesia	27.2	2.4%	2019	64.8	7.5%	2015	10.0%
Kenya	3.3	4.2%	2018	6.5	7.4%	2018	11.6%
Mexico	73.6	6.0%	2018	134.6	11.6%	2017	17.7%
Peru	*14.9*	*6.6%*	*2018*				
Philippines	24.5	6.5%	2018	29.3	8.4%	2018	14.9%
South Africa	6.0	1.7%	2019	32.6	8.9%	2018	10.6%
Thailand	10.5	1.9%	2019	22.6	5.0%	2017	6.9%
Uganda	*2.4*	*6.9%*	*2018*				
Average	35.0	3.7%	N/A	95.3	9.1%	N/A	13.1%
United States	593.8	3.1%	2019	2,184.3	11.5%	2019	14.6%

Source: OECD, 2020 or National Accounts Official Country Data - Gross Fixed Capital Formation: Dwellings. Construction for Egypt, India, Peru and Uganda. GDP is based on the data for that year from World Bank - World Development Indicators, 2020a.

U.N. Statistics Division, 2020 or National Accounts Official Country Data - Housing, water, electricity, gas and other fuels. GDP is based on the data for that year from World Bank - World Development Indicators, 2020a.

Note: For *italicized* countries (Egypt, India, Peru and Uganda), GFCF figures for construction are used to estimate contribution of the housing sector to GDP because GFCF figures for dwellings were not available. Only figures for countries with both GFCF and Housing Services are included in the average.

Housing investment and consumption, adjusted for potential undermeasurement of the informal sector, Acolin et al. (2020)

	Unadjusted		Assuming Official Statistics Only Measure 50% of Informal Sector		Assuming Official Statistics Do Not Measure Informal Sector at all	
	% GDP	PPP (in US$ bn)	% GDP	PPP (in US$ bn)	% GDP	PPP (in US$ bn)
Brazil	18.5	596.4	19.7	645.0	21.2	707.7
Egypt						
India	*15.0*	*1,441.8*	*16.1*	*1,569.5*	*17.5*	*1,737.7*
Indonesia	10.0	331.3	10.7	357.7	11.5	391.4
Kenya	11.6	27.5	14.1	34.5	19.4	50.3
Mexico	17.7	459.7	18.2	477.3	18.8	497.0
Peru						
Philippines	14.9	149.8	16.9	172.9	19.8	210.3
South Africa	10.6	80.3	11.3	87.1	12.3	95.9
Thailand	6.9	92.4	7.5	100.9	8.3	112.4
Uganda						
Average	13.1	397.4	14.3	430.6	16.1	475.3

Note: For India (italicized), GFCF figures for construction are used to estimate the contribution of the housing sector to GDP, because GFCF figures for dwellings were not available.

Source: OECD, 2020; U.N. Statistics Division, 2020; National Accounts Official Country Data, 2020; U.N. Habitat, 2020; World Bank - World Development Indicators, 2020a and authors' calculations.

Access to urban services, selected countries, Acolin et al. (2020)

	Access to electricity (% of urban population)			People using at least basic drinking water services (% of urban population)			People using at least basic sanitation services (% of urban population)			People with basic handwashing facilities including soap and water (% of urban population)
Year	2000	2018	Percentage point change 2000-2018	2000	2017	Percentage point change 2000-2017	2000	2017	2017	Percentage point change 2000-2018
Brazil	99.6	100.0	0.4	98.2	99.5	1.3	81.4	92.8	11.4	NA
Egypt	99.5	100.0	0.5	99.4	99.5	0.0	95.1	98.3	3.2	92.7
India	95.4	99.9	4.5	89.5	95.5	5.9	62.7	80.3	17.5	71.6
Indonesia	88.9	99.7	10.8	91.4	96.0	4.6	49.3	72.0	22.8	79.8
Kenya	50.2	84.0	33.8	88.0	84.6	-3.4	35.7	34.7	-1.0	31.7
Mexico	99.4	100.0	0.6	94.4	100.0	5.6	82.8	93.4	10.6	89.9
Peru	95.2	99.0	3.8	91.5	95.6	4.1	77.2	79.6	2.4	NA
Philippines	89.7	97.5	7.8	92.9	97.7	4.8	72.2	78.5	6.2	85.1
South Africa	86.1	92.1	6.0	98.4	98.9	0.5	71.1	76.3	5.2	52.6
Thailand	99.9	100.0	0.1	97.9	99.9	1.9	89.2	99.2	10.0	84.6
Uganda	41.5	57.5	16.0	70.4	75.1	4.7	30.6	26.1	-4.5	34.3

Cities “contain multitudes.” Fourteen images of Lagos illustrate.

LENCARL FASHIONS
RETAIL & WHOLESALE ON ALL FEMALE CLOTHING
ALL FEMALE CLOTHING
TOP
green lotto
glo


EC3800CX
EC3800CXS
EC6500CX
EC6500CXS
ELEPAQ
Gasoline Generator Set
TIGMAX
TG950
JINLING
JL6500
100% COPPER
ELEMAX


UNION BANK
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FIRST CITY PLAZA
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Governing a city like Lagos, or running a business there, presents enormous challenges. And huge potential payoffs. What can we contribute?

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Annual Absolute Change in Urban Population, Selected Countries/Regions

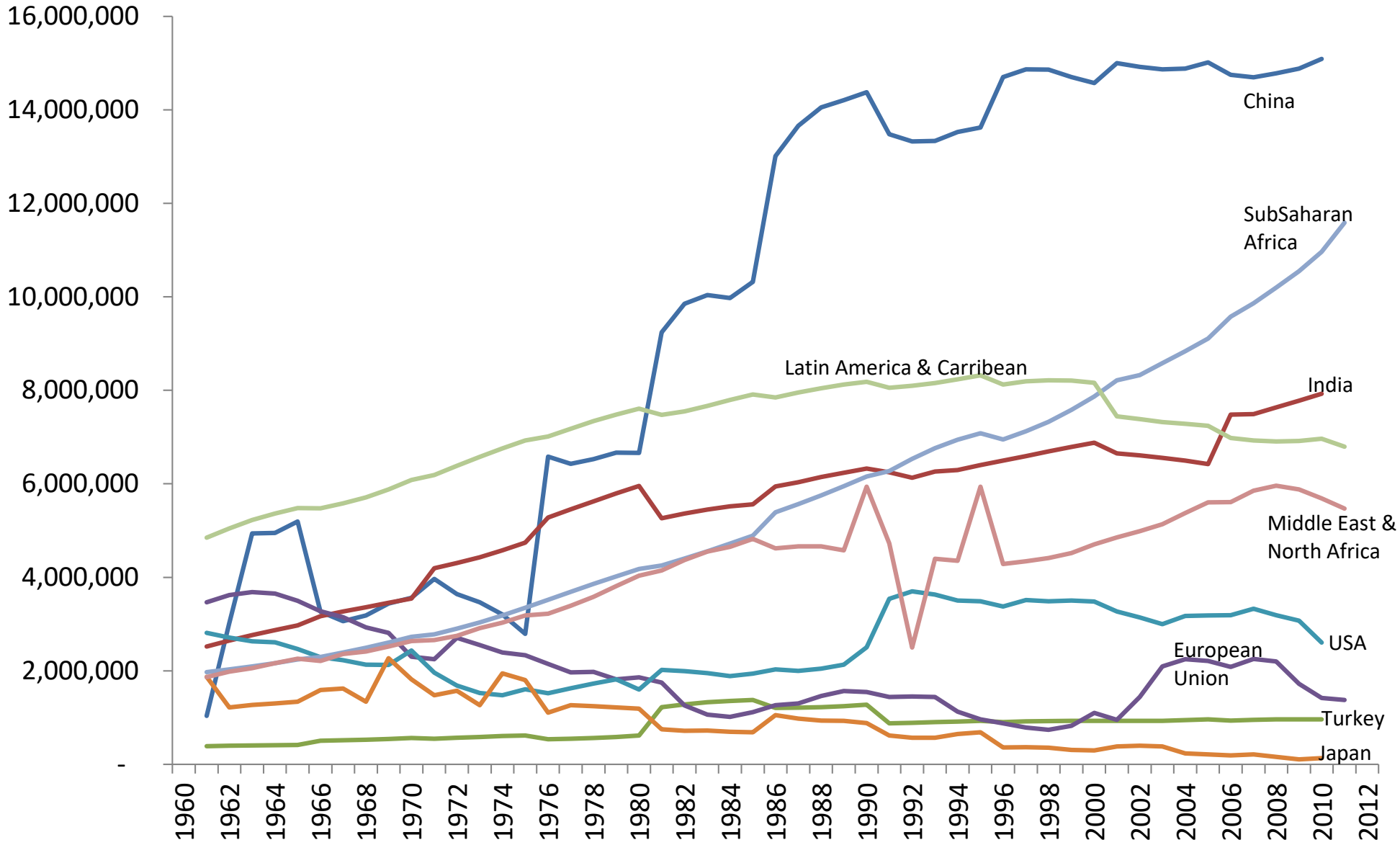
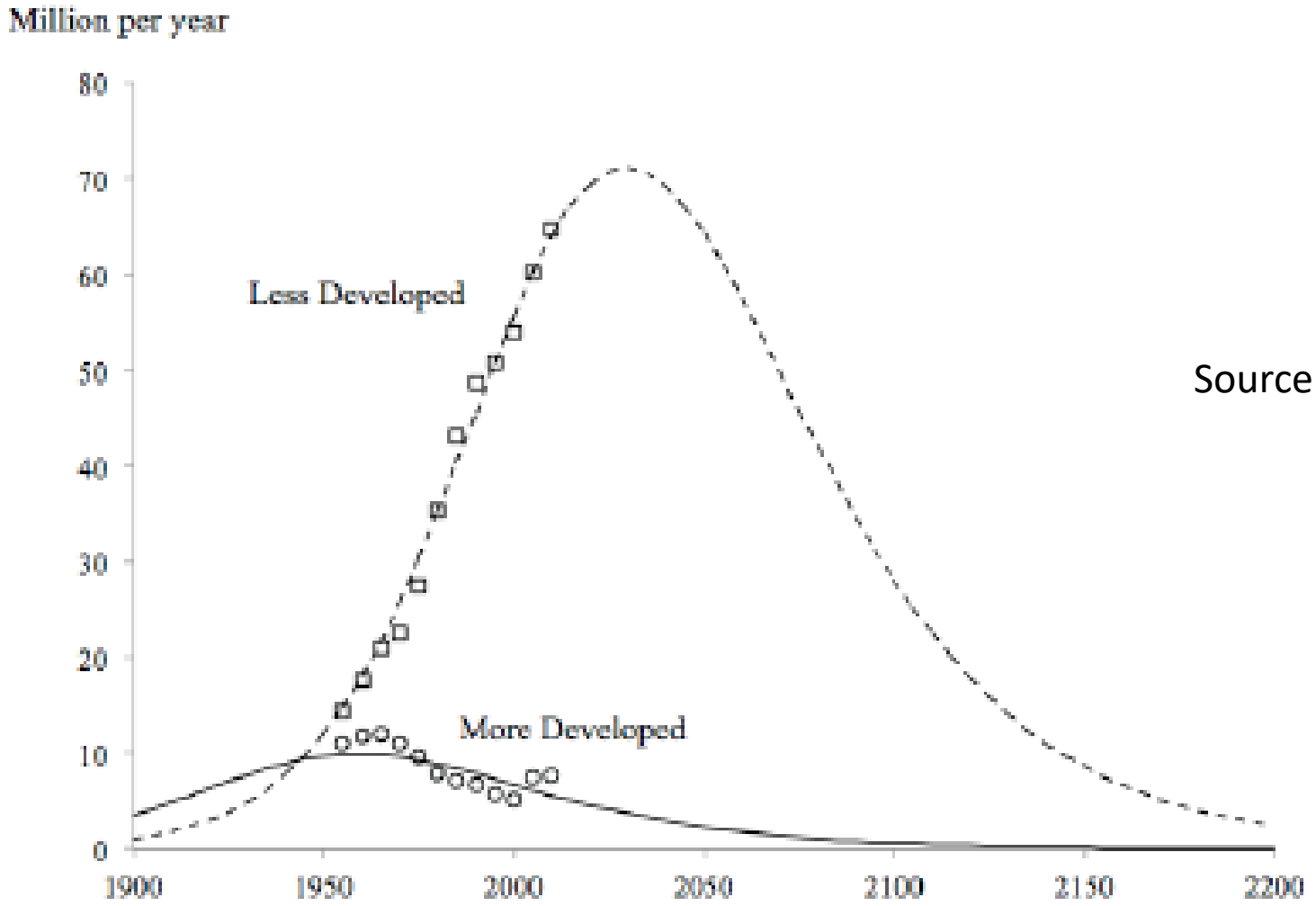
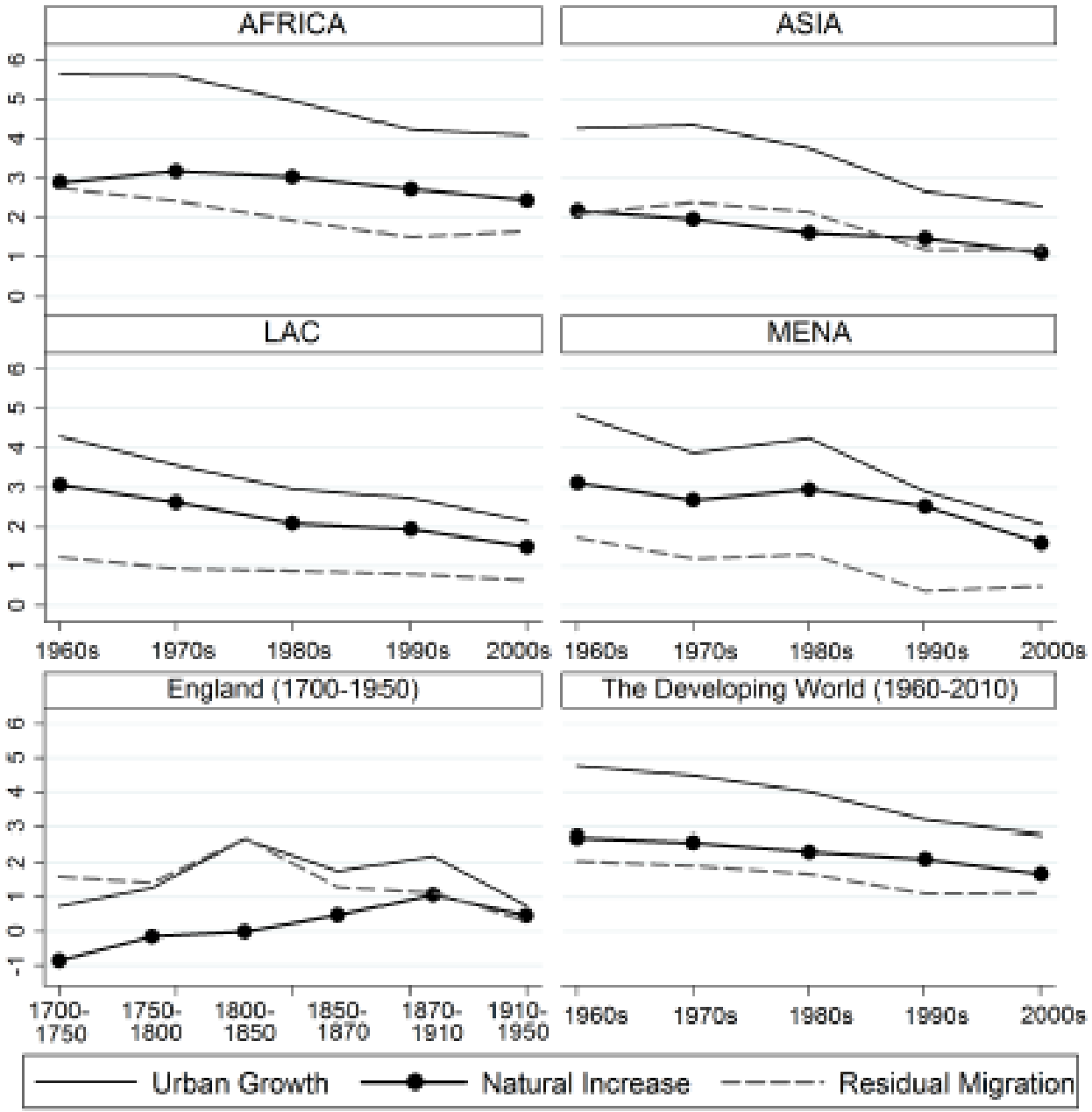


Figure 3: Observed and projected number of new urban residents in more developed and less developed regions, 1900–2200



Source: Romer and Fuller

Figure 8: Natural Increase and Urban Growth for The Two Developing Worlds (1700-1950 and 1960-2010)



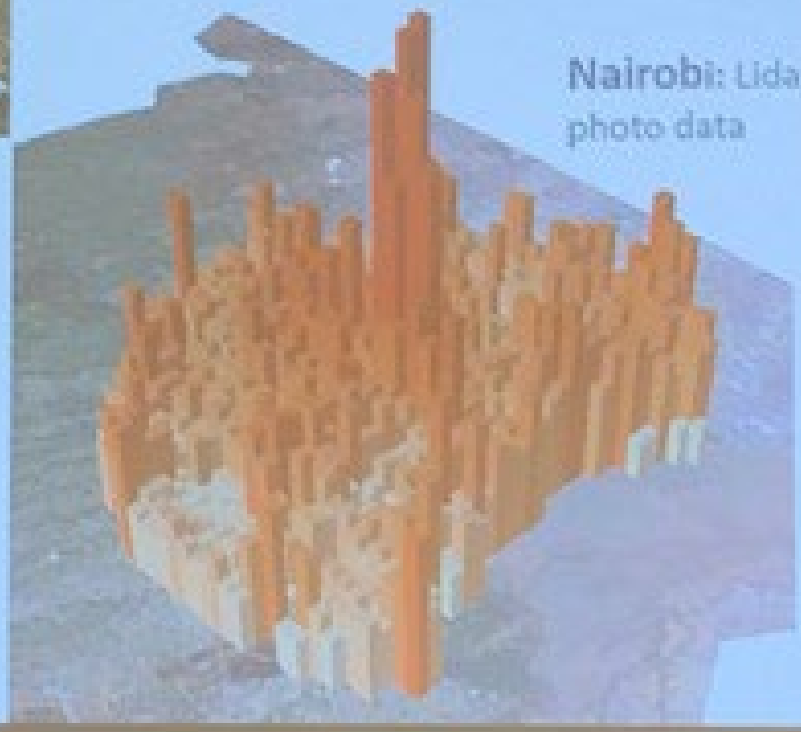
Rural areas – even in low-income countries – contain significant non-farm activities (industry, services).

Lanjouw and Lanjouw (2001), statistics on non-farm employment in low-income countries

Country	Percentage of rural employment which is non-farm			Sectoral breakdown				Percentage of income from non-farm
	Total	Male	Female	Mining and construction	Manufacturing	Commerce and transportation	Services	
Asia								
Bangladesh (1982)	25%			12%	39%	25%	24%	8%
Bangladesh (1981)	29							
Bangladesh (1991)	34				39%	35%	11%	
China (1980)	11				55		28	
China (1986)	20				42		27	
India, All (1981)		18		9%	37%	26%	29%	
			11	8	54	11	27	
India, All (1991)		20		9%	30%	28%	33	
			10	5	50	11		
India								
Bihar (1991)		13	6					
Kerala (1991)		44	44					
Punjab (1991)		14	43					
Uttar Pradesh (1991)		25	8					
West Bengal (1991)		26	27					
India, (1994)								34%
Indonesia, Central Java (1985)	37	–	–	–	30			
Malaysia (1970)	34	38	28		5			
Malaysia (1980)	49	53	42		10			
Pakistan (1982/1983)	32				9			
Philippines (1971)	32							55%
Philippines (1985)	33				7 (1982)			56%
Sri Lanka (1981)	46				8			
Taiwan (1966)	47			3	23	16	44	
Taiwan (1980)	67							
Thailand (1985)	31				5 (1983)			
Vietnam (1993)[b]	70							
Africa								
Burkina Faso (1982/1985), Sahelian zone								52%
Cameroon (1976)	8%	13%	3%	11%	30%	20%	39%	
Egypt (1997)								50
Ghana (1987)[b]		37	46					
Ghana (1991)[b]		30	42					
Kenya (1976)								28
Malawi (1977)	9	15	3	19	30	28	23	
Mali (1976)	6	4	15	2	61	14	23	
Mauritania (1977)	21	–	–	7	18	34	41	
Nigeria (1966), W. State	60	20	97					
Rwanda (1978)	5	9	1	22	23	14	40	
Senegal (1970/1971)	18	–	–	7	34	38	21	
Sierra Leone (1974)	14	15	12	13	20	45	21	36
Tanzania (1975)								23
Uganda (1992)[b]		40	15					
Uganda (1996)[b]		46	35					
Zimbabwe (1982)	19							
Zambia (1985)	24		~66					

3-D images by grid squares, circa 2015

Dar es Salaam: drones plus surveying



Nairobi: Lidar and aerial photo data

Average Height

- 3 - 6m
- 7 - 8m
- 9 - 11m
- 12 - 18m
- 19 - 31m

Henderson (again) opens up new avenues for urban research

- We've got new methods for collecting data on building height – more generally, the envelope of buildings.
- How does building height relate to density, other variables of interest?
  - Simple correlation won't cut it. Context will matter!
  - Building height and density relationship will be very different in (say) New York, compared to Jakarta.
- Can we connect building height to infrastructure, transport times and costs, housing costs (per unit, per sq m) in various contexts?
- And, as Henderson reminds us, policies (tax, regulation, infrastructure) will matter.

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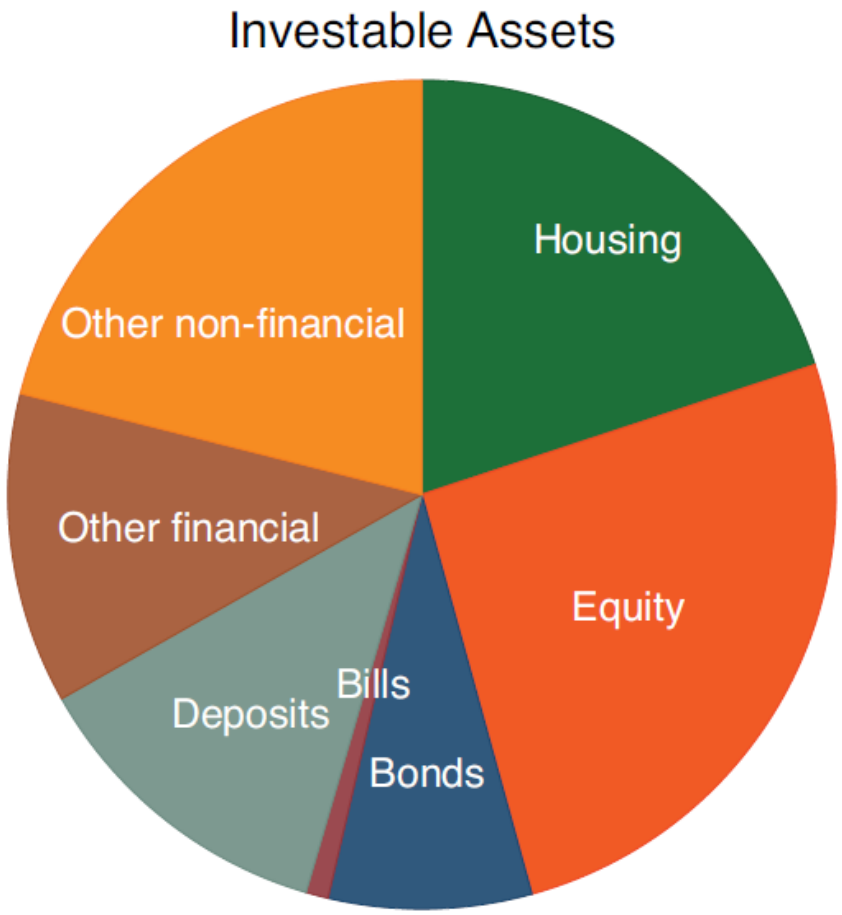
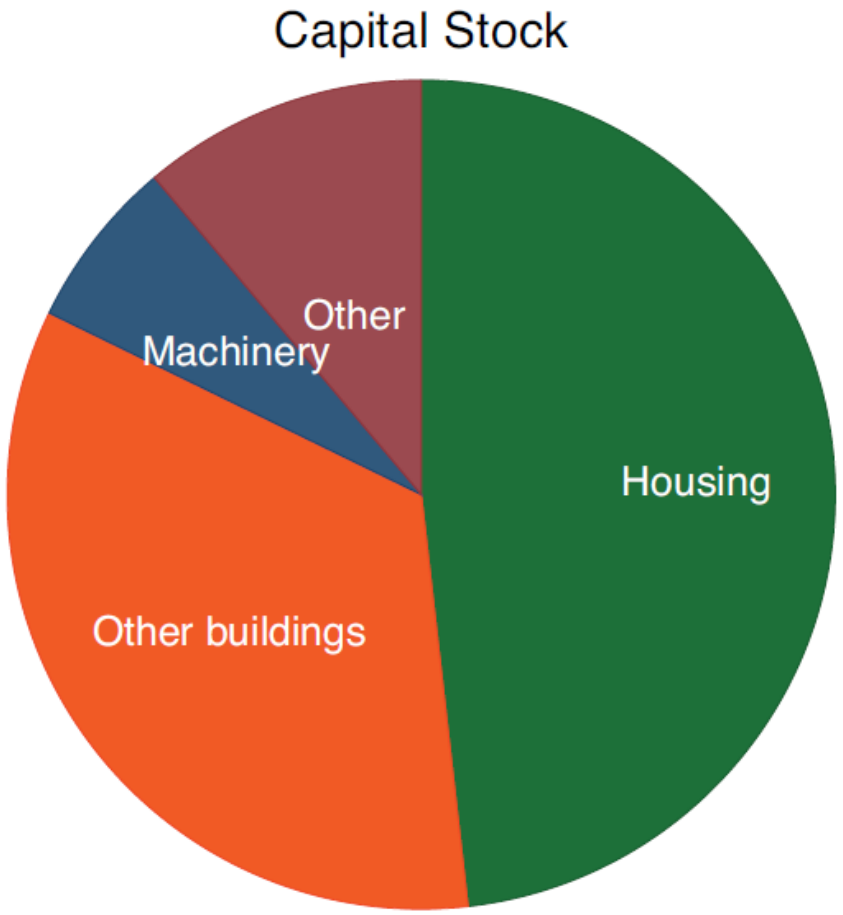
HOUSING: TAMING THE ELEPHANT IN THE ECONOMY

A report to the Housing and Productivity Research Consortium

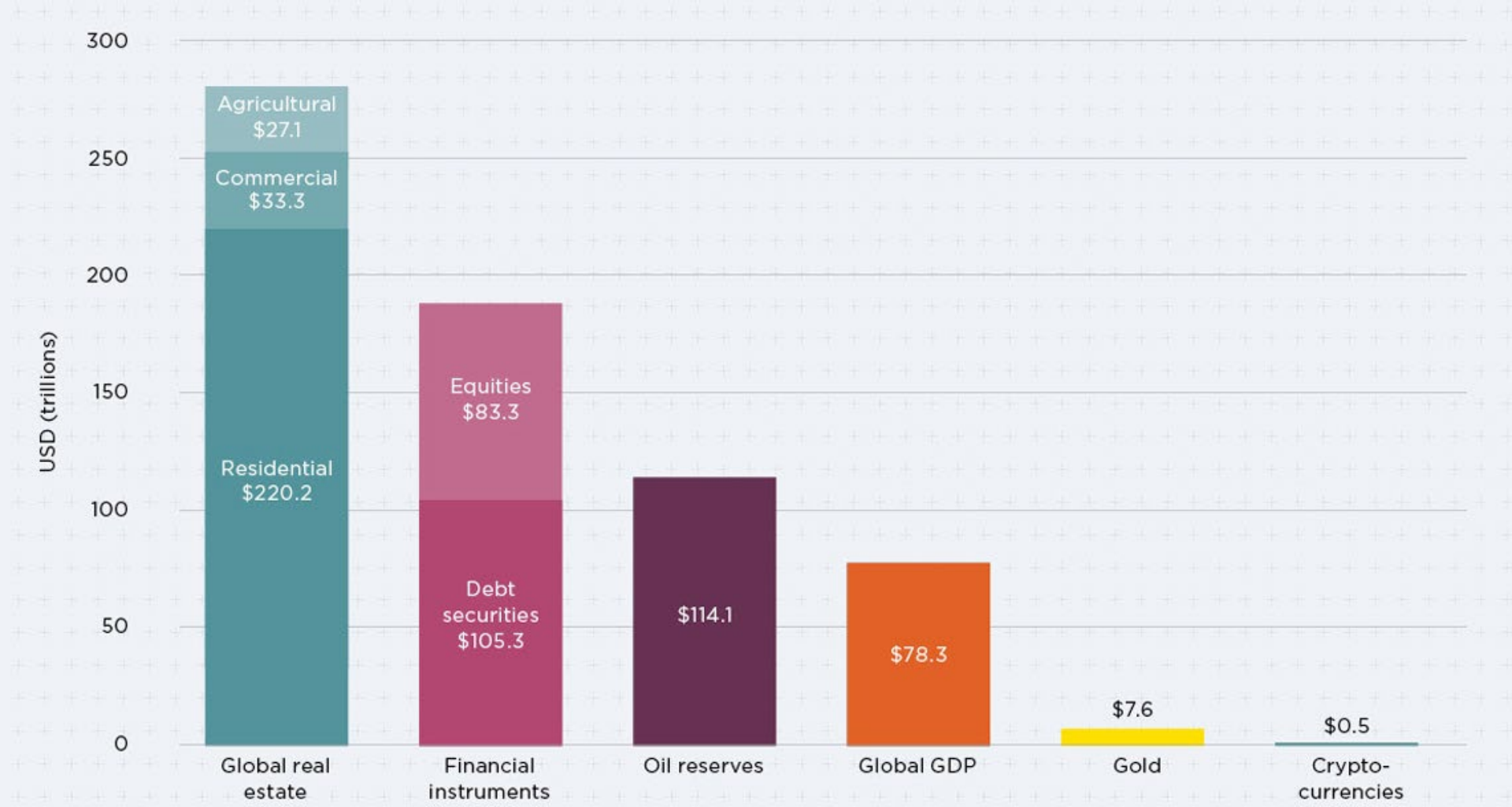
Duncan Maclennan, Jinqiao Long (University of Glasgow)
Hal Pawson, Bill Randolph, Fatemeh Aminpour (City Futures Research Centre, UNSW)
Chris Leishman (University of South Australia)

Composition of Investable Assets and Capital Stock in the Major Economies

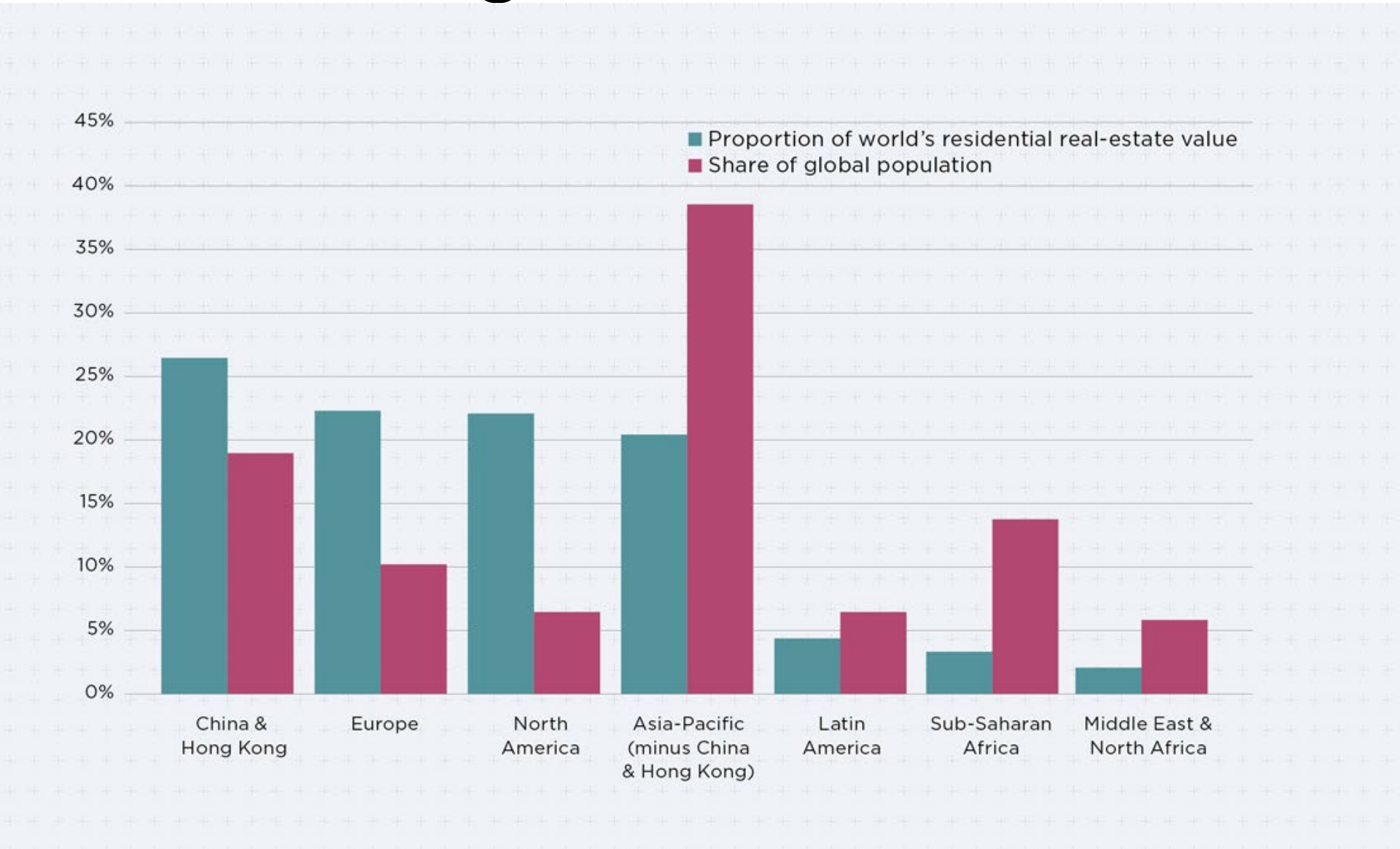




Savills' estimates of the global real estate universe, mid-2018

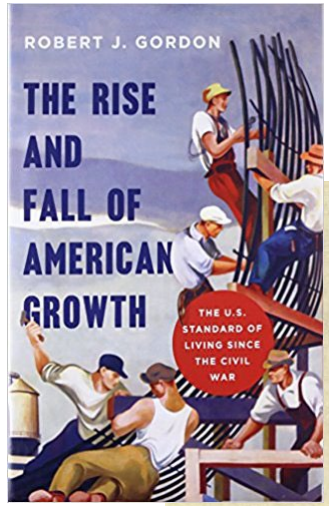


Savills' estimates of the global real estate by region, mid-2018

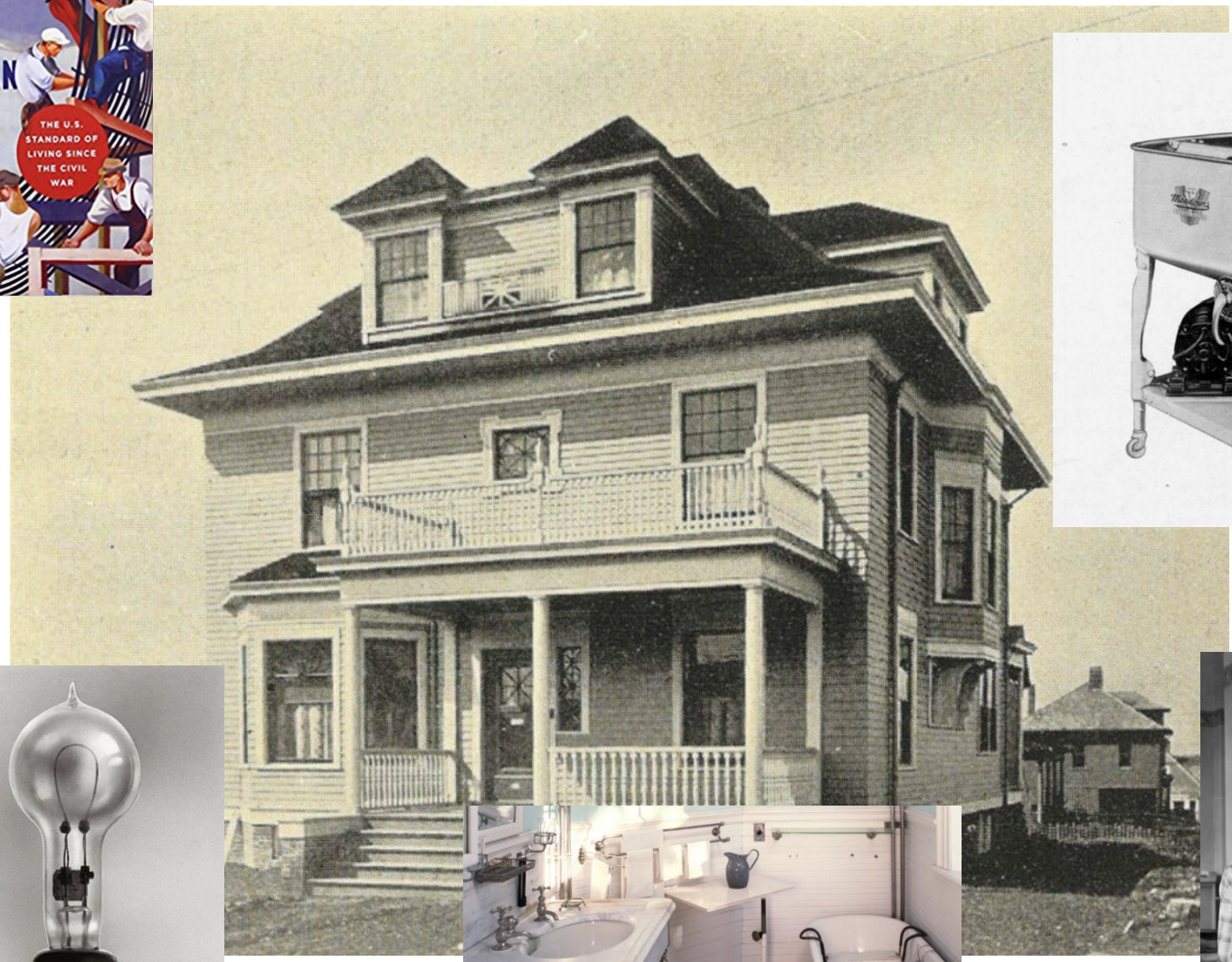


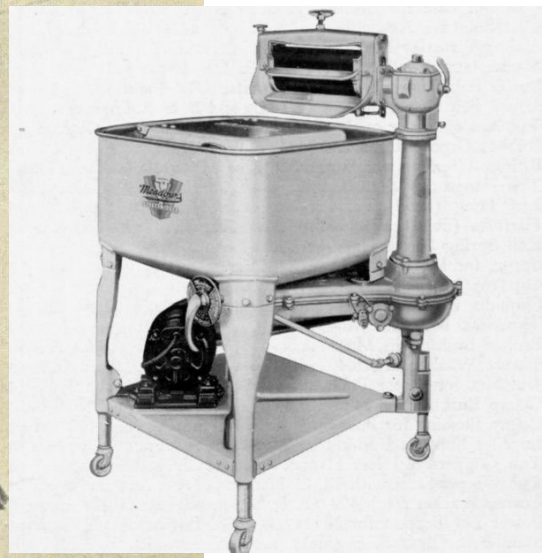
The Elephant in the Room

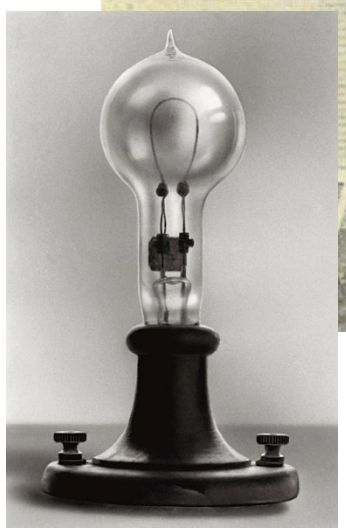
- Changes in GDP (or incomes, or employment…) can be decomposed into:
  - Growth rate
  - Cycles
  - Shocks
- Housing is the largest tangible asset, the #1 vehicle for savings, for low- and middle-income households around the world.
- Housing is a key distributional variable – most of the initial Piketty results are connected to poorly performing housing markets.
- Formation of the largest asset overall – human capital – is greatly facilitated by decent housing and its associated infrastructure.
- Housing and public health are interlinked, thus housing contributes to improvements in life expectancy, childhood mortality, literacy…
- Housing affects labor mobility, within and across metro areas. The "Bartik result" shows that poorly performing housing markets soak up productivity gains, limit real returns to labor. (And non-housing capital).



Gordon (ch. 4) points out that a century ago, many important innovations were linked to better housing







A classic study by Burns and Grebler (1976): "SHTO" (Share of Housing in Total Output) is quadratic in GDP, population growth, and urbanization

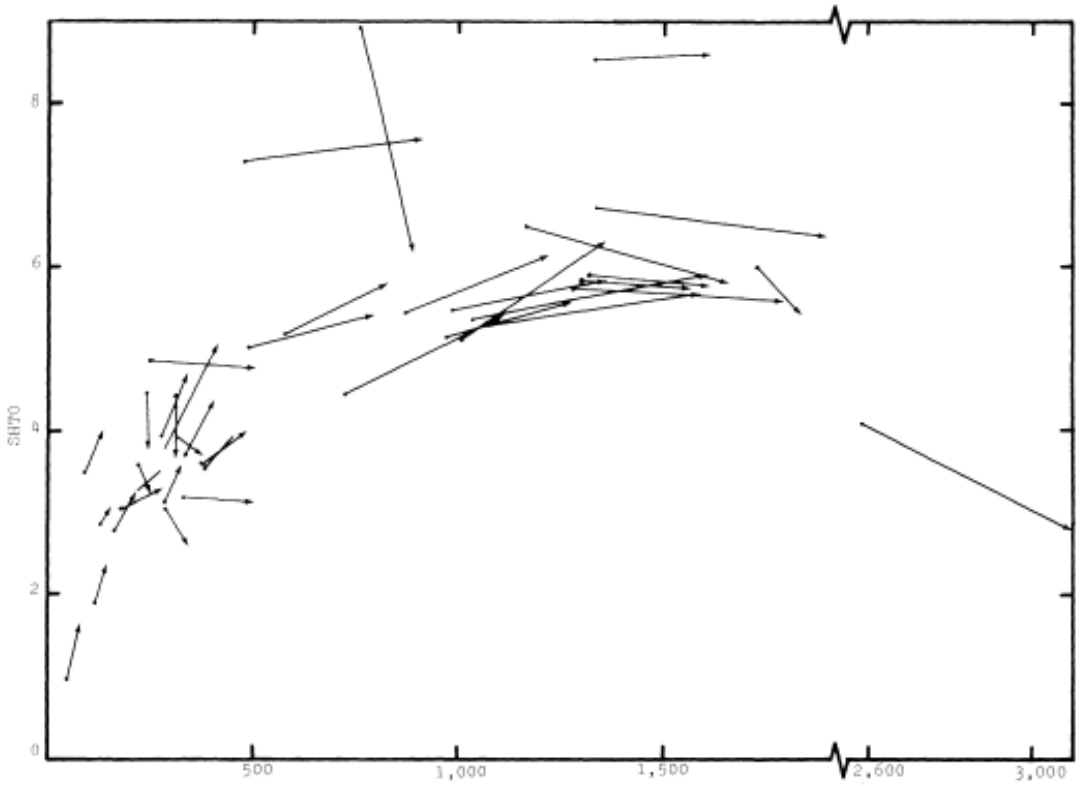


FIG. 2

$$SHTO_1 = 1.87 + 52.38\ GDP_1 - 0.0164\ (GDP)_1^2 - 0.730\ DPOP_1$$
$$(4.64)^{***} \quad (-3.38)^{***} \quad (-1.39)^{*}$$
$$+\ 0.239\ (DPOP)_1^2 + 0.077\ (URB)_1^2 \qquad (1)$$
$$(2.19)^{***} \quad (3.46)^{***}$$
$$R^2 = .614;\ F = 10.95^{***};\ SEE = 1.19,$$

$$SHTO_2 = 2.80 + 38.14\ GDP_2 - 0.01215\ (GDP)_2^2 - 0.315\ DPOP_2$$
$$(3.95)^{***} \quad (-3.53)^{***} \quad (-1.57)^{*}$$
$$+\ 0.047\ (DPOP)_2^2 + 0.005\ (URB)_2^2 \qquad (2)$$
$$(0.60) \quad (1.14)$$
$$R^2 = .505;\ F = 7.09^{***};\ SEE = 1.25;$$

Broadly confirmed by later studies such as Renaud (1980), Buckley and Madhusudhan (1984), Buckley and Mayo (1989). A more recent study by Dasgupta Lall and Lozano-Gracia (2014) finds that housing investment follows an S-shaped trajectory taking off around per capita GDP of about $3,000 (US$2005) and tapering down at per capita GDP around $36,000. They finds in the 2000s housing investment in low-income economies averages about 5 percent of gross domestic product, compared to 9 percent in upper-middle-income economies.

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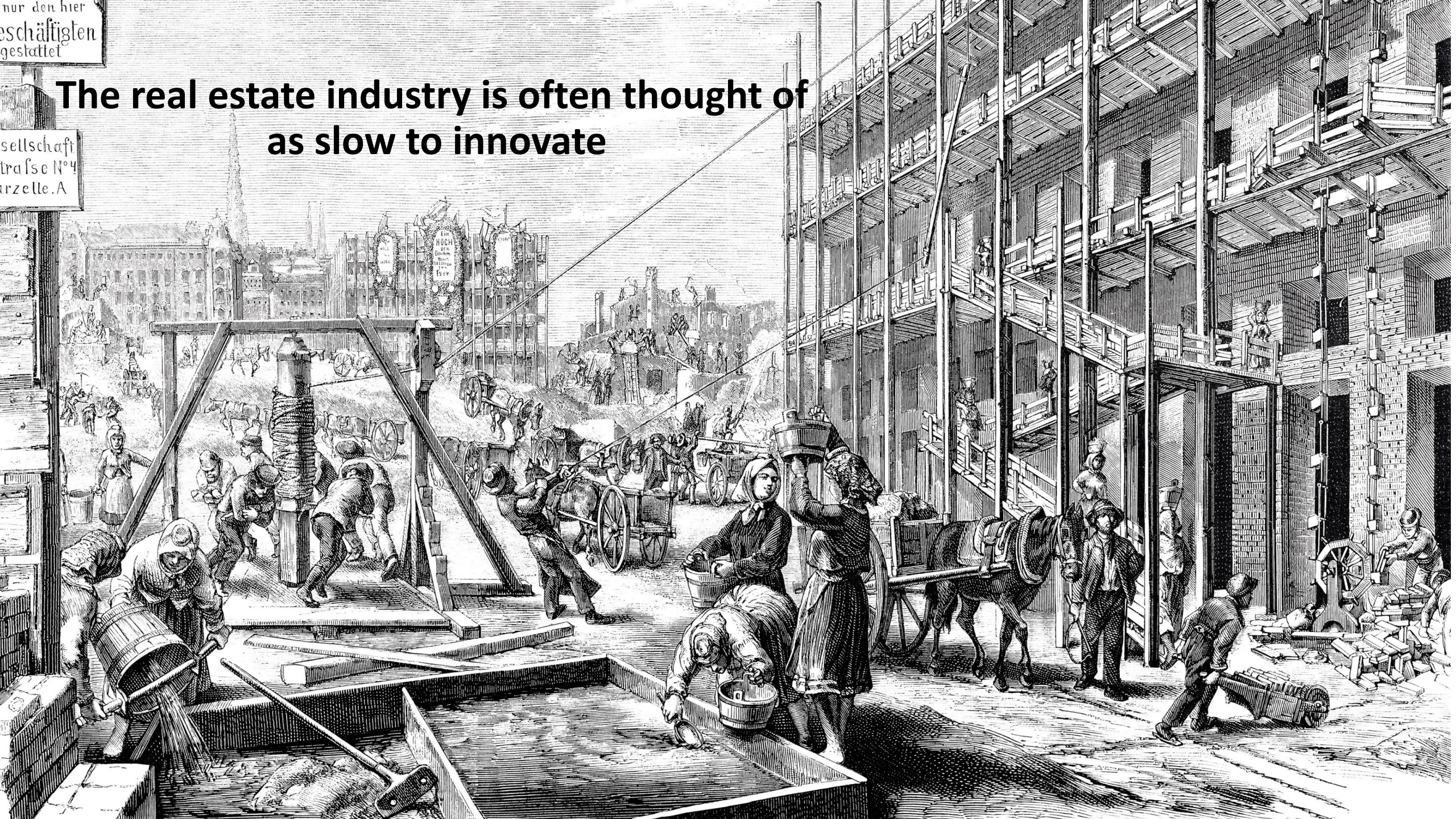


The real estate industry is often thought of as slow to innovate

One (extreme) view of revolutionary real estate

New city proposals like NEOM may have limited relevance to EMDCs, but they do get us thinking…

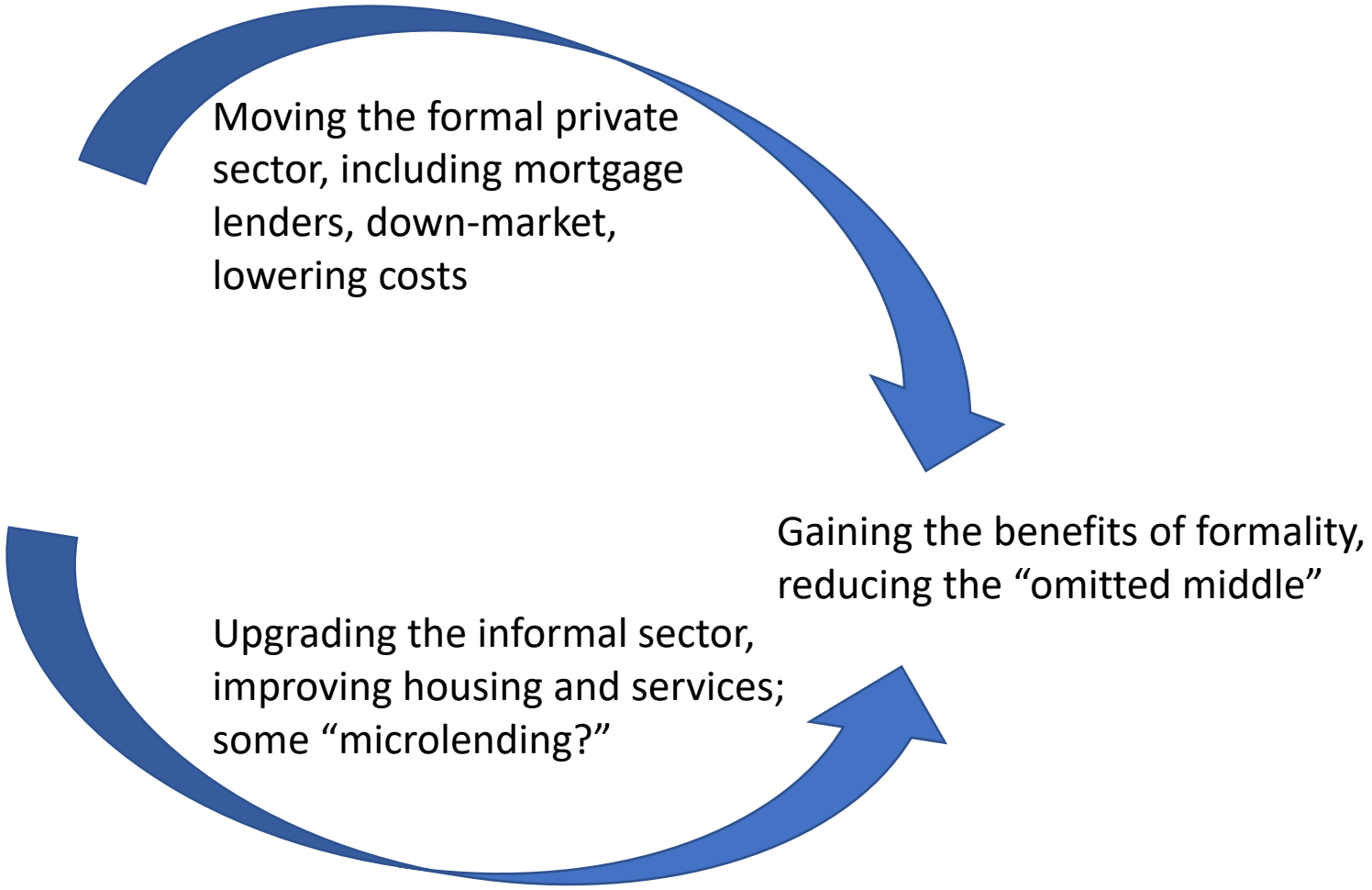
- There are numerous “new town” proposals, and some underway, around the world (including Africa; see Watson 2013, Cain 2014, Cote-Roy and Moser 2019; Renaud 2012)
- What have we learned from (e.g.) Chandigarh, Brasilia, Tema, Abuja… (see Bertaud 2000, 2018)
- Real estate development is never Pareto Optimal (see above). What are the lessons at large scale, e.g. Haussmann’s Paris Freemark et al. 2022, Jordan 2004), New York City (“Moses versus Jacobs,” see Flint 2011, Caro 1975, Jacobs 1961)
- What are the specific roles of private and public sectors in development, at different scales (Helsley and Strange 1997; Henderson and Becker 2000)


BACK TO
BASICS

Real estate revolutions at the other extreme?


Is there a missing middle in this housing market?

Attacking the “missing middle” requires a pincer movement

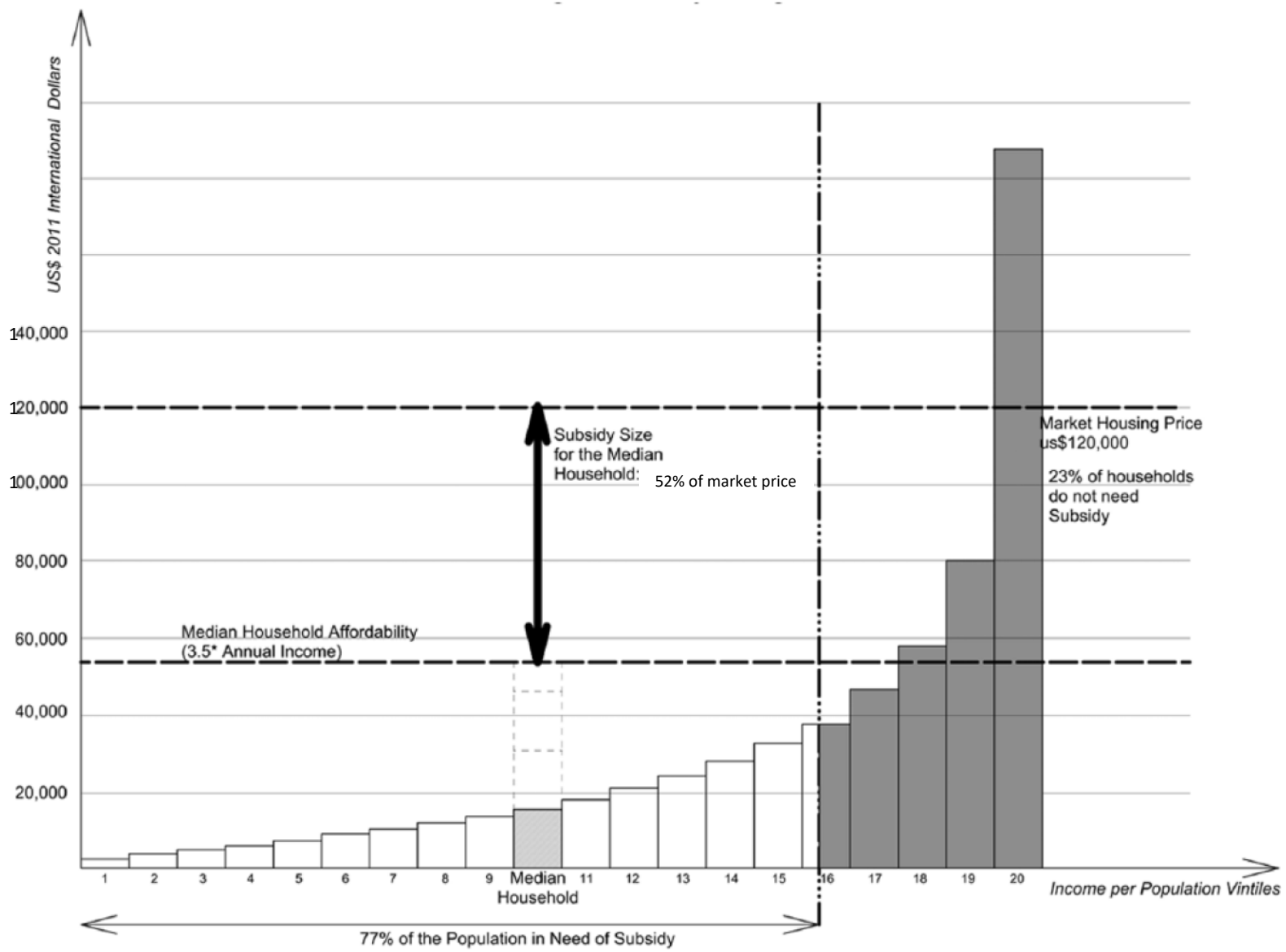



one size fits
NONE

What works in Guangzhou…

… does not work well in Angola

Buckley, Kallergis and Wainer:
Housing Affordability, Kilamba, Angola



Exercise: suppose we "convert" a Kilamba unit to a subsidized rental for a below-median income household

- NB this is an exercise, not a recommendation.
- Let's take the $17,000 per year median income as given (ignore concerns about PPP for now). That's $1,417 per month.
- Suppose we want to target households below median, say $1,000 per month income.
- Suppose the monthly market rent of the unit (PmQc) was $700 per month.
  - Would get from market surveys; for now, cheapest units repriced to $70,000, assume monthly rent is 1%. (Again, market surveys would be a good idea).
- Suppose the subsidy cut the rent in half, i.e. PcQc=$350.
- Let's assume the median household would spend 20% of their income on rent, and the income elasticity is 0.8
- Put all these numbers into the green area of the spreadsheet, and review results.

	B	C	D	E	F	G
2						
3		**Sample Spreadsheet -- Simple Consumer's Surplus Calculation**				
4						
5		**Range**	**Actual**		**Cell**	
6		**Names**	**Cells**		**Contents**	
7						
8	**INPUTS**					
9	Median Income:	MEDY	1,417	<===	=17000/12	
10	Target Income:	TARGETY	1,000	<===	1000	
11	Rent Paid:	PCQC	350	<===	350	
12	Market Rent of Unit:	PMQC	700	<===	700	
13	Rent/Income @ Median Income:	RY	0.2	<===	0.2	
14	Income Elasticity:	BETA	0.8	<===	0.8	
15						
16	**OUTPUTS**					
17	Demand Constant:	CONSTANT	-0.158226	<===	=LN((+D13*D9)/D9^D14)	
18	Est Mkt Rent for Household:	PMQM	214	<===	=EXP(D17+D14*@LN(D10))	
19	Cost of Program:	COST	350	<===	=D12-D11	
20	Net Benefit to Participant:	BENEFIT	118	<===	=D18*(@LN(D12)-@LN(D18))+D18-D11	
21	Transfer Efficiency:	EFFCNCY	34%	<===	=D20/D19	
22						
23	This Marshallian model assumes a constant income elasticity of demand, and a unitary price elasticity of demand.					
24	Potential extensions include parameterizing price elasticities as well; and calculating Hicksian measures instead of Marshallian.					

Exercise: suppose we "convert" a Kilamba unit to a subsidized rental for a below-median income household

- See spreadsheet on previous slide. Let's ignore the demand constant for now; it's an intermediate result, we don't attach much interpretation.
- Our "model" estimates that a household with an income of $1417 would spend about $214 in the unsubsidized market.
  - PmQm=$214
  - Notice since this is a little more than 20% of $1,000. If we had a lower income elasticity (say 0.5) PmQm would be even higher.
- The cost of the program is what somebody (government or landlord) has to pay as subsidy, i.e. PmQc – PcQc.
- But the benefit to the tenant is less, because of deadweight loss (they are not at their optimum consumption, see graphic explanation and discussion below). Their net benefit is only $118.
- The transfer efficiency, 118/350, is only 34%. This is not a very efficient subsidy, it costs somebody (taxpayers, or landlords) a dollar for every 34 cents of benefit to the consumer.

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Maisy Wong's 3 phases of a city's development

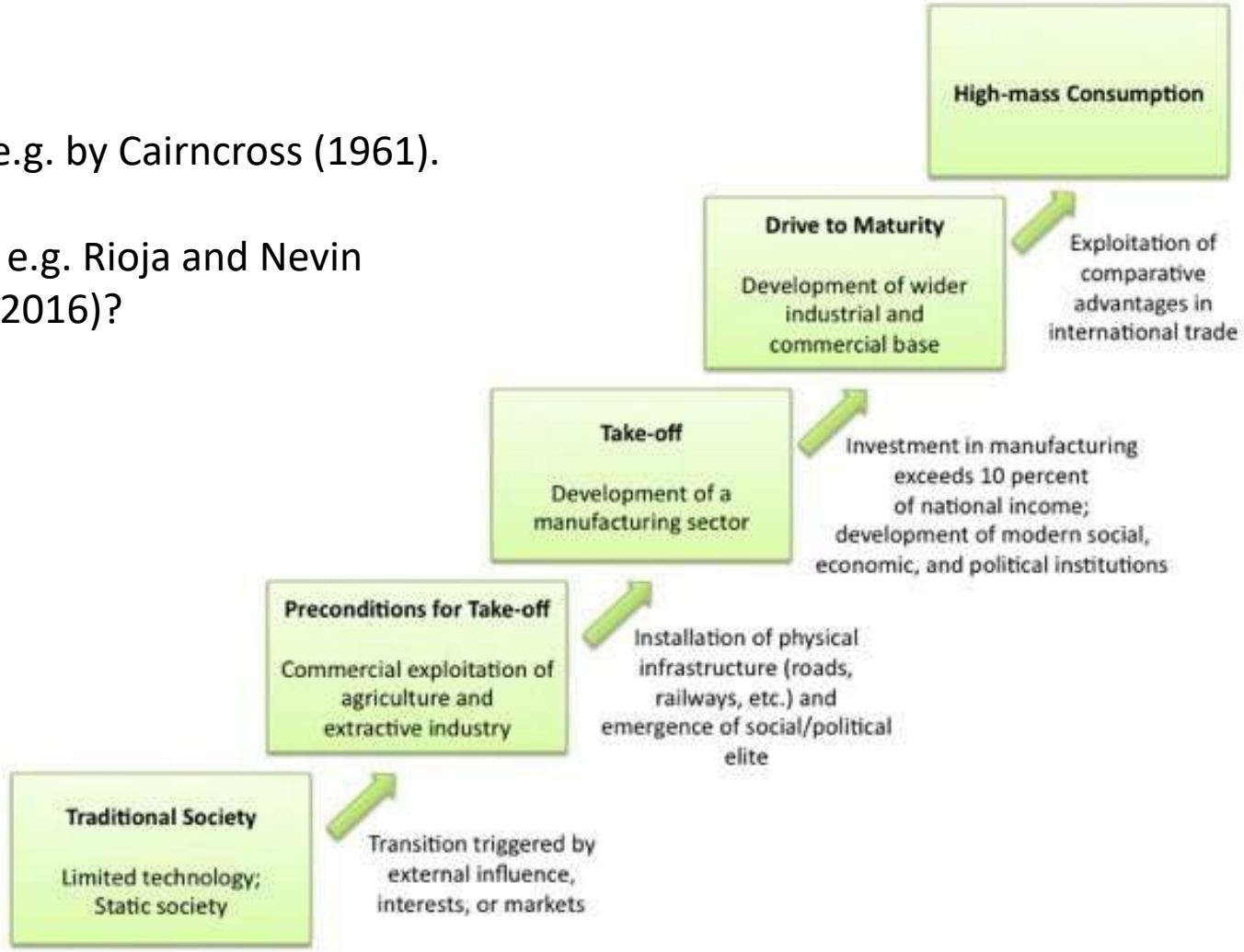
- Phase 1: structural transformation, as society urbanizes; focus on solving housing shortages, basic infrastructure; rudimentary finance (individual equity), except for a few
- Phase 2: urbanization tails off; real estate professionalizes, real estate financial development takes off
- Phase 3: basics more-or-less in place; product differentiation, in both housing/real estate products, and their finance

- Prof. Wong's categorization of phases reminds me of work by Rostow in the 60s (third ed. 1990); see next slide.

Rostow's (1960, 1990) Stages of Development (A little mechanical, long out of favor with economists; making a bit of a comeback? Worth a look?)

See early critiques, e.g. by Cairncross (1961).

Recently revived by, e.g. Rioja and Nevin (2004), Costa et al. (2016)?



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Who gets *excited* over efficiency?
1. Engineers 2. Economists 3. Nobody else, really

Young economists who've just proved their 2nd order conditions are satisfied.

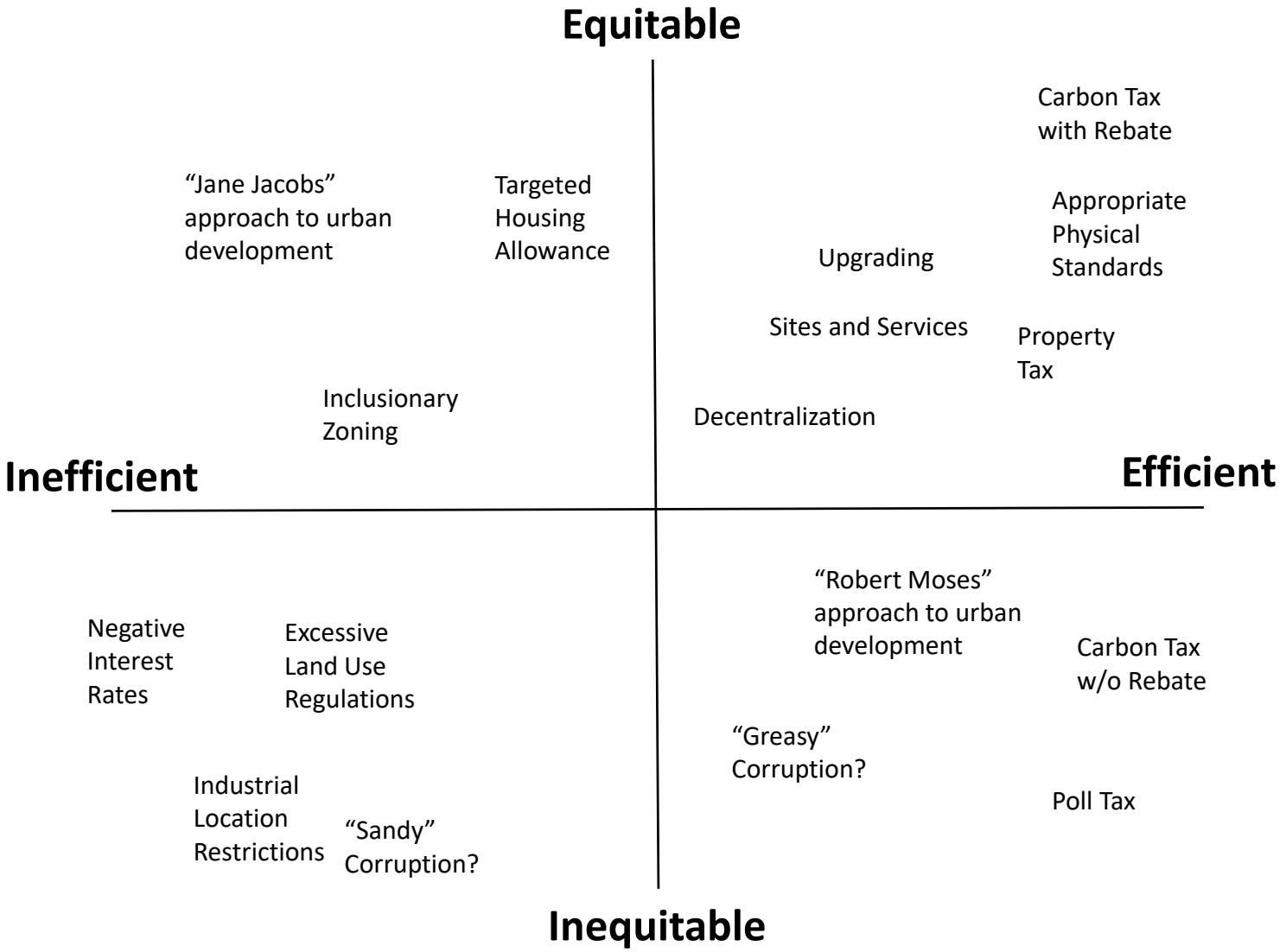
Real estate development is never purely Pareto Optimal. Can it be “fair?”

There are always losers, as well as winners, even from the best projects.

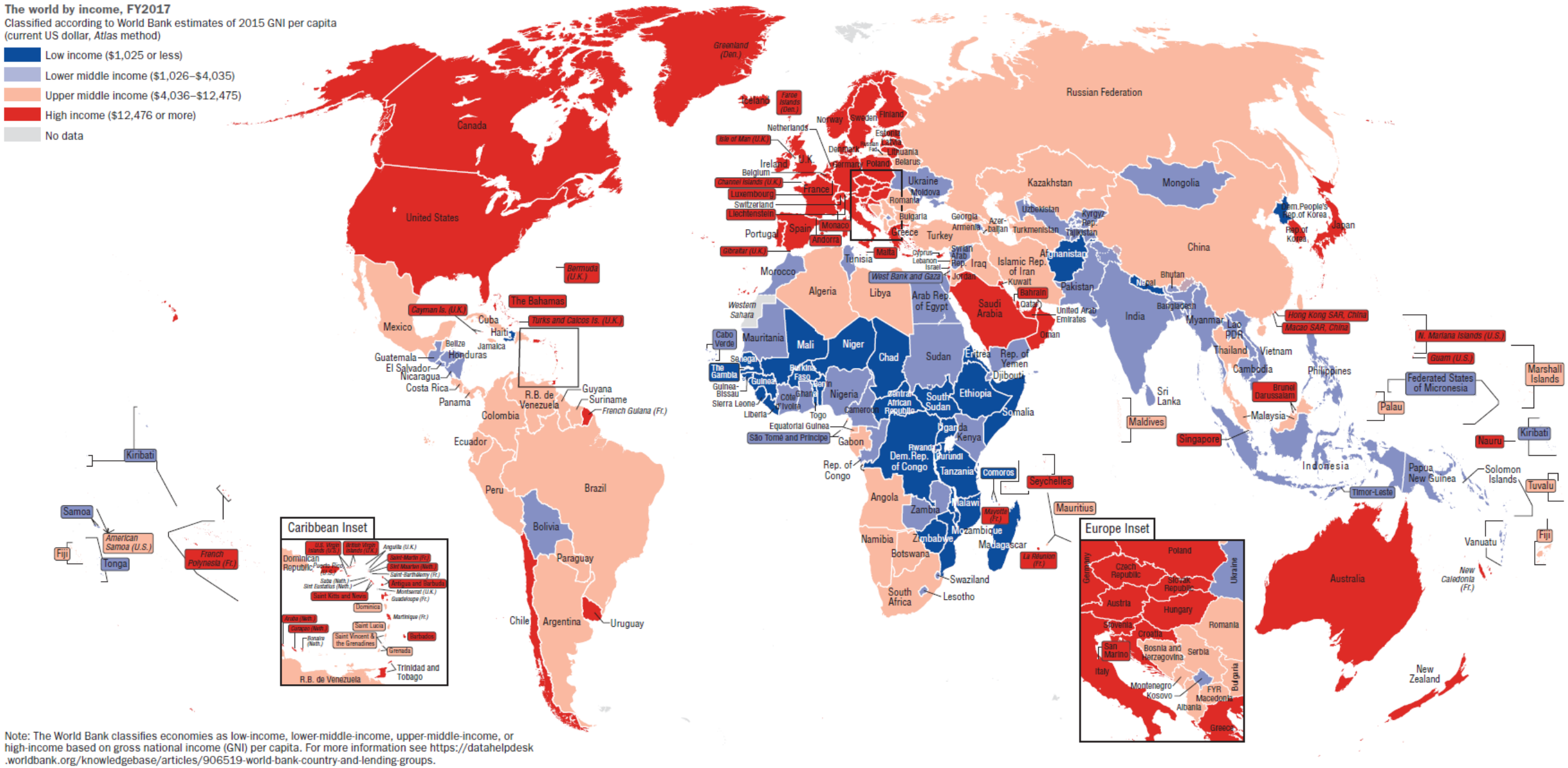
We are all deeply concerned with fairness. But whatever Rawls and others say, we don't seem to agree on what is actually fair...

- Rick Santelli's rant (often cited as beginning of the Tea Party)
  - http://www.youtube.com/watch?v=jiCOb49vVVM
- PBS early report on Occupy Wall Street
  - http://www.youtube.com/watch?v=VVGRWIwdPb8
- Thomas Friedman on fairness of AIG bailout
  - http://www.youtube.com/watch?v=QSV92O0OkZc
- Michael Shermer on the evolution of fairness
  - http://www.youtube.com/watch?v=uM3d-IQ4I1U&feature=relmfu
- 5th graders on the fairness of a Wall Street rescue
  - http://www.youtube.com/watch?v=680LiGHo_0g
- Jennifer Granholm on the fairness of Obama tax proposals
  - http://www.youtube.com/watch?v=sI1-P-emWkc
- David Brooks on "the social animal"
  - http://www.youtube.com/watch?v=rGfhahVBIQw&feature=related

Urban policies: is there always a tradeoff? One highly stylized view.

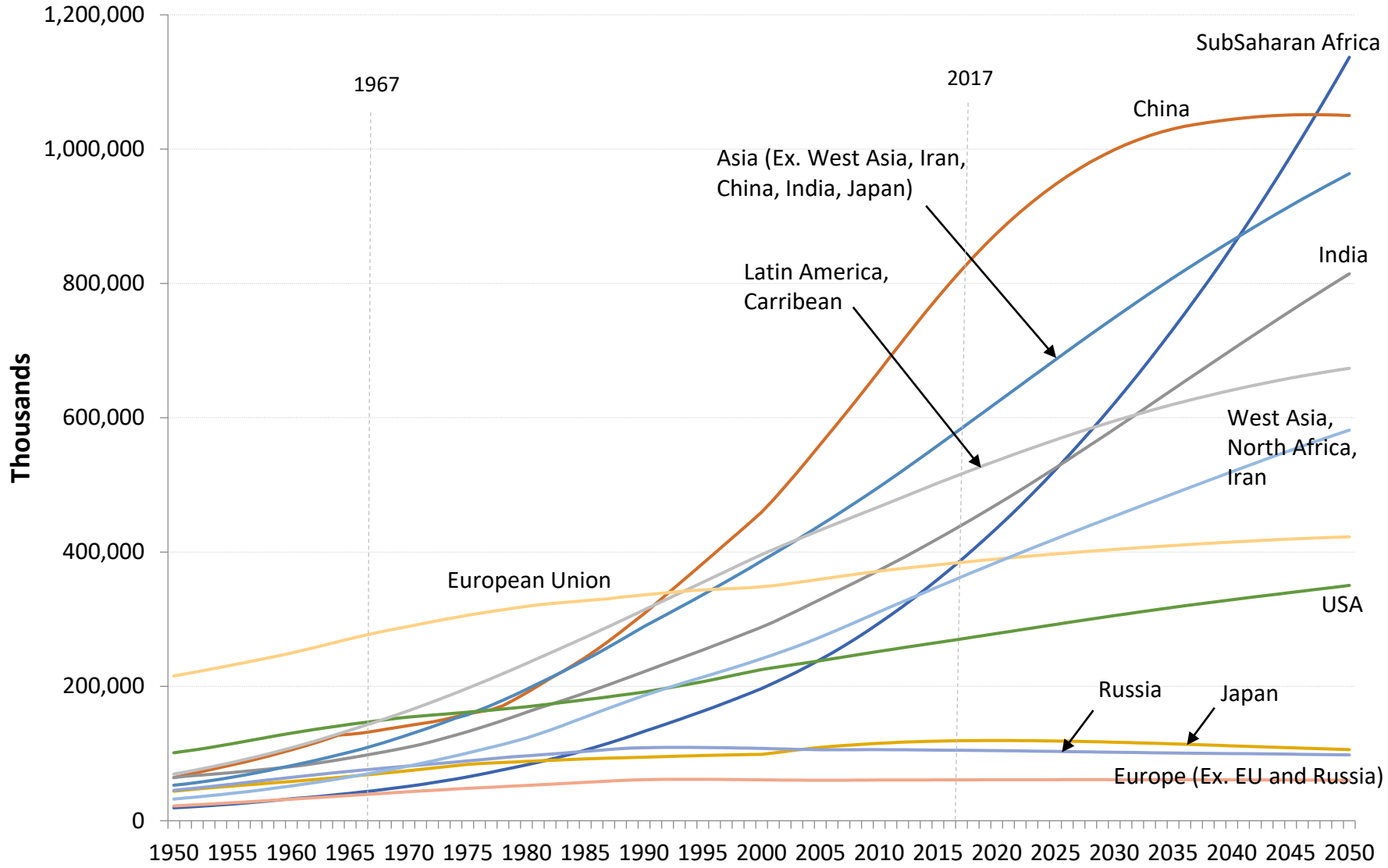


Placement is subjective and heuristic, to stimulate discussion; will vary with important details of each policy/action.
*How would **<u>you</u>** place these policies, other policies of interest? Be able to justify your placement!*

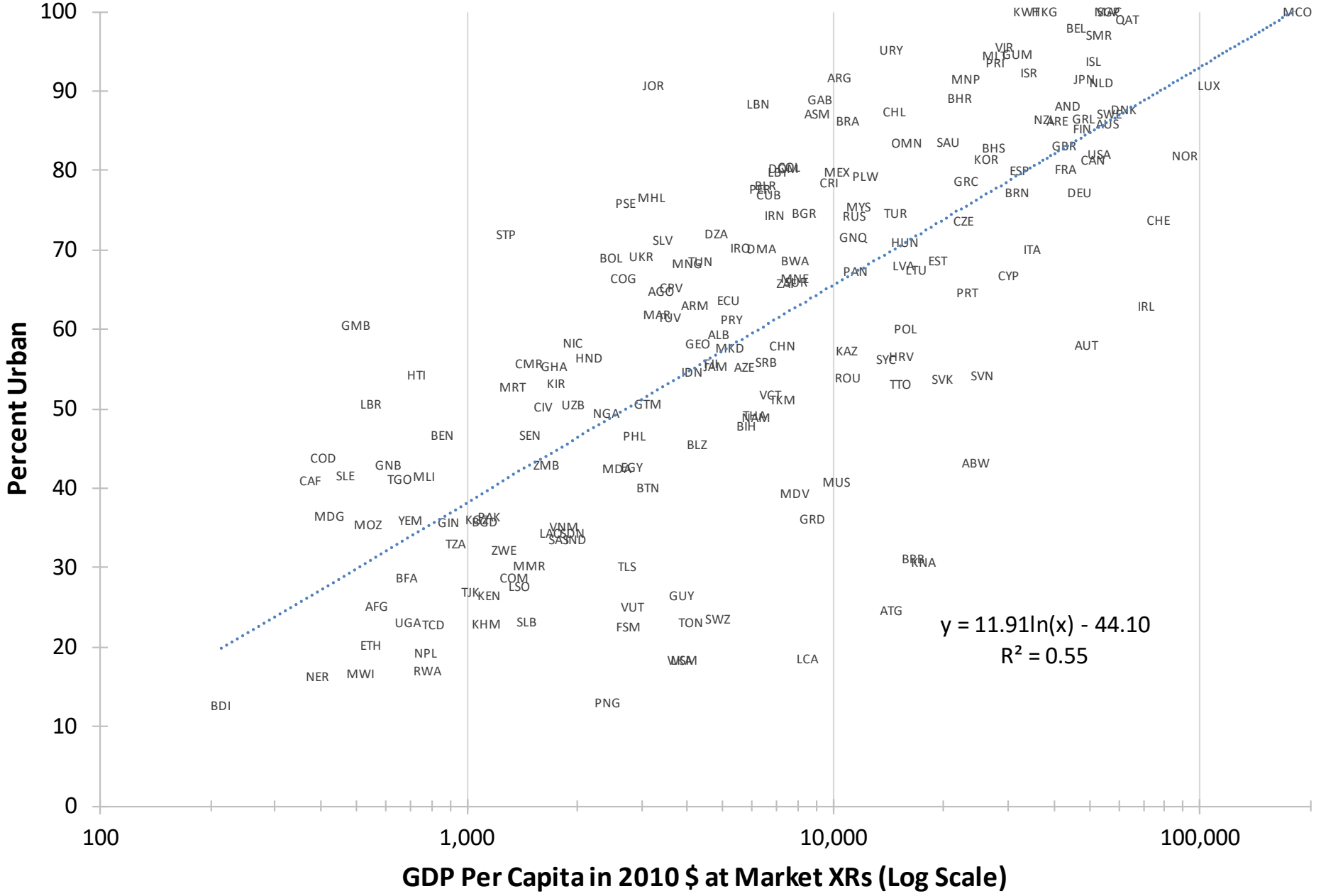


Note: The World Bank classifies economies as low-income, lower-middle-income, upper-middle-income, or high-income based on gross national income (GNI) per capita. For more information see https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.

Urban Population of Selected Countries/Regions, with UN Projections to 2050

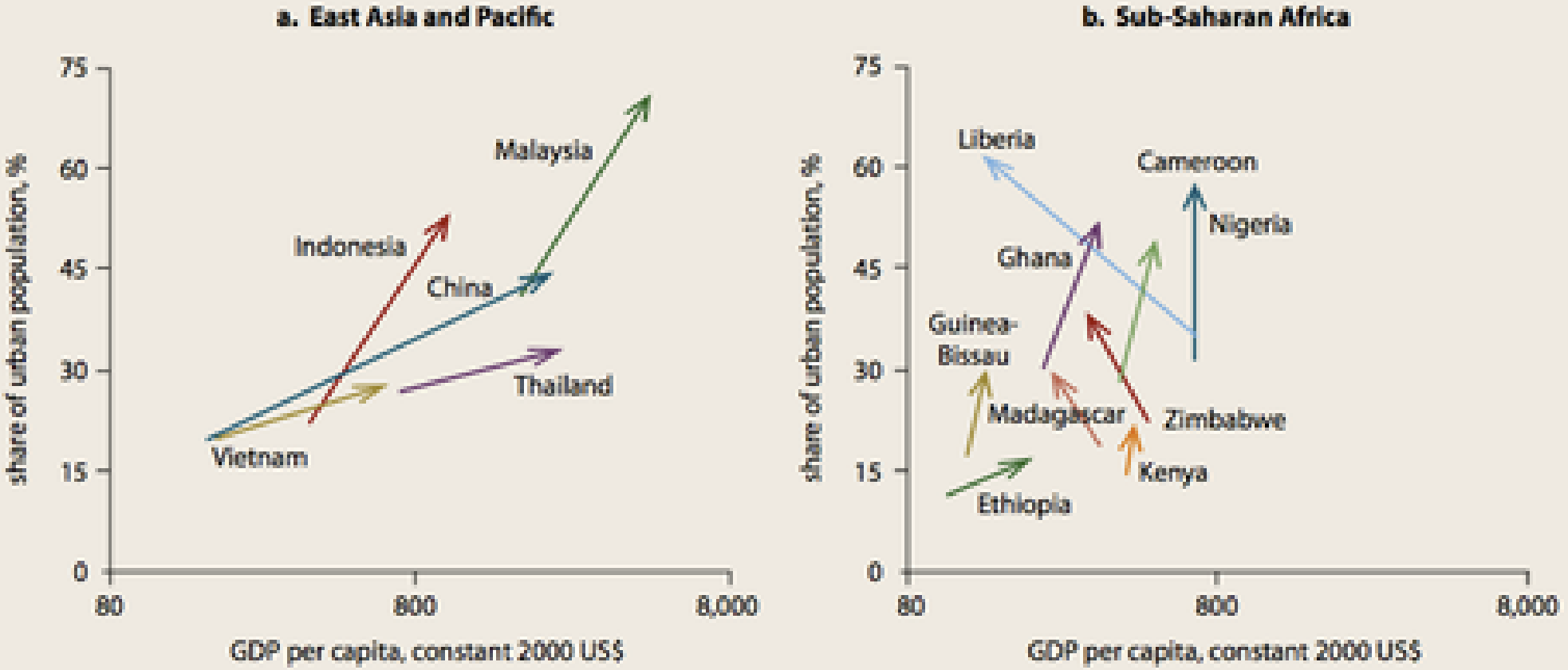


Urbanization and GDP Per Capita, 2017

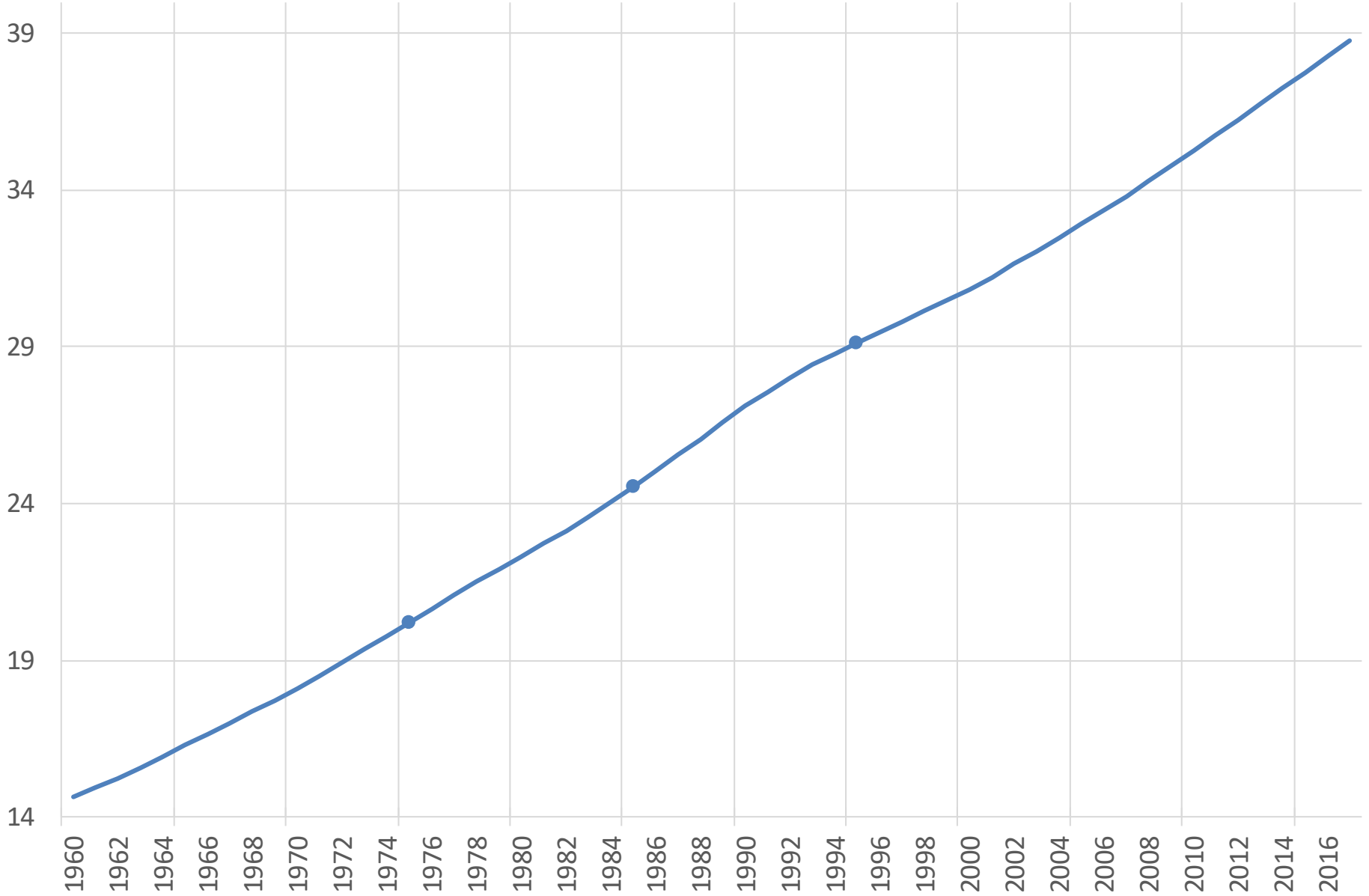


An influential chart by Fay and Opal…
that we hope to amend & improve

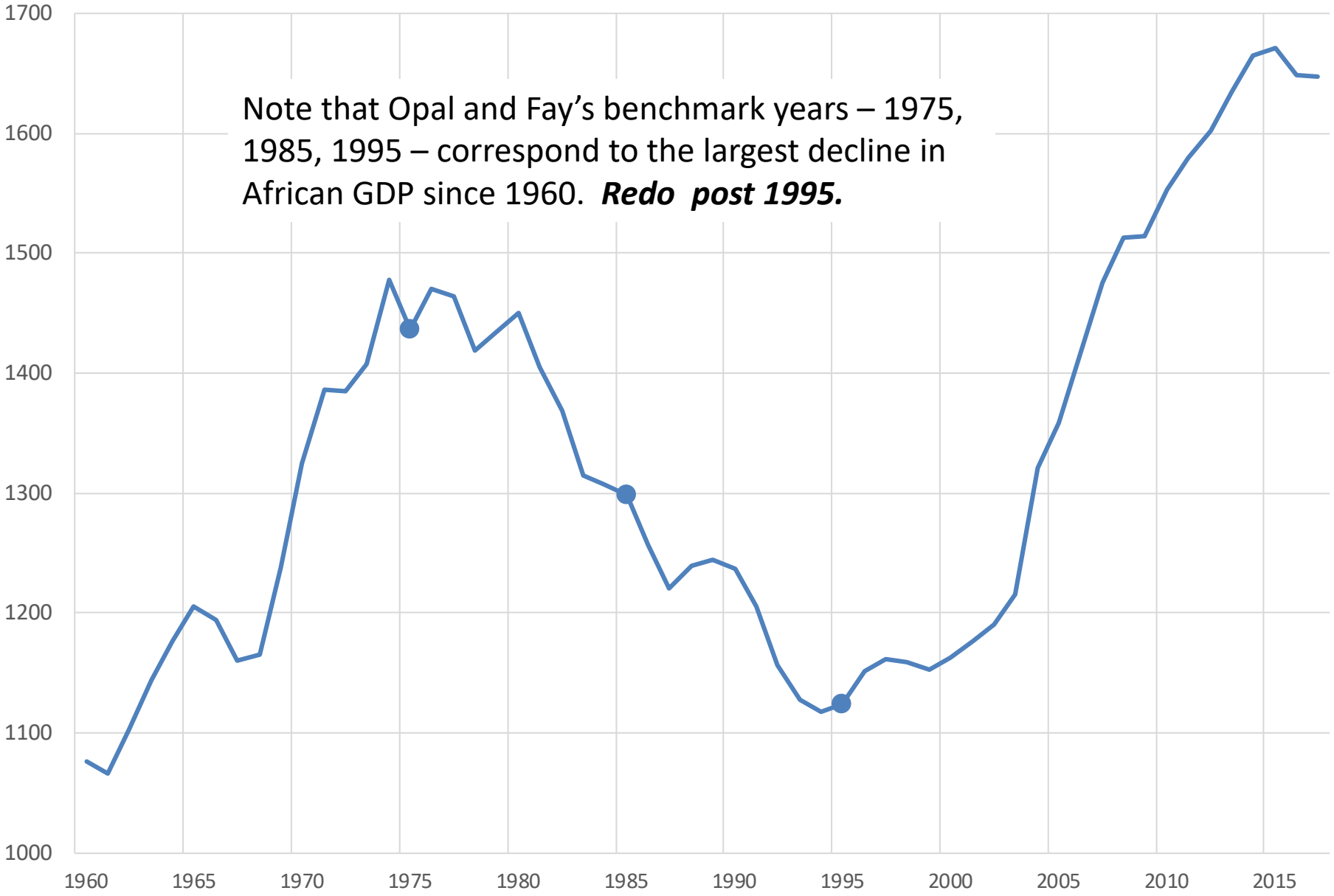
FIGURE 1.4 *Moving from farms to cities does not always bring economic growth*



Percent Urban in Africa



Africa Real GDP Per Capita



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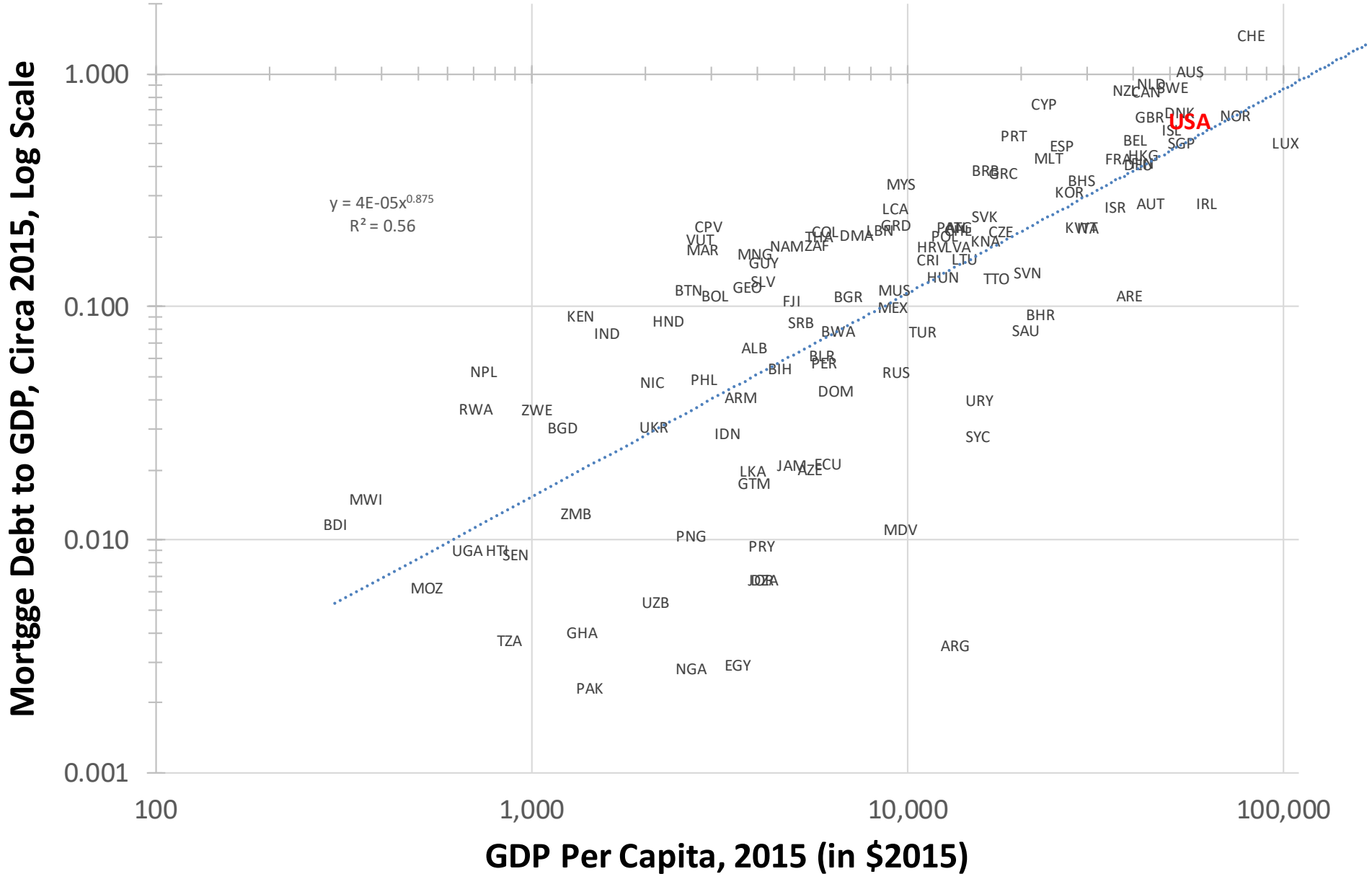
Unfinished buildings – partly a symptom of real estate finance gone wrong?


મોતીપાર્ક
સોસાયટી

Mortgages Outstanding as Share of GDP



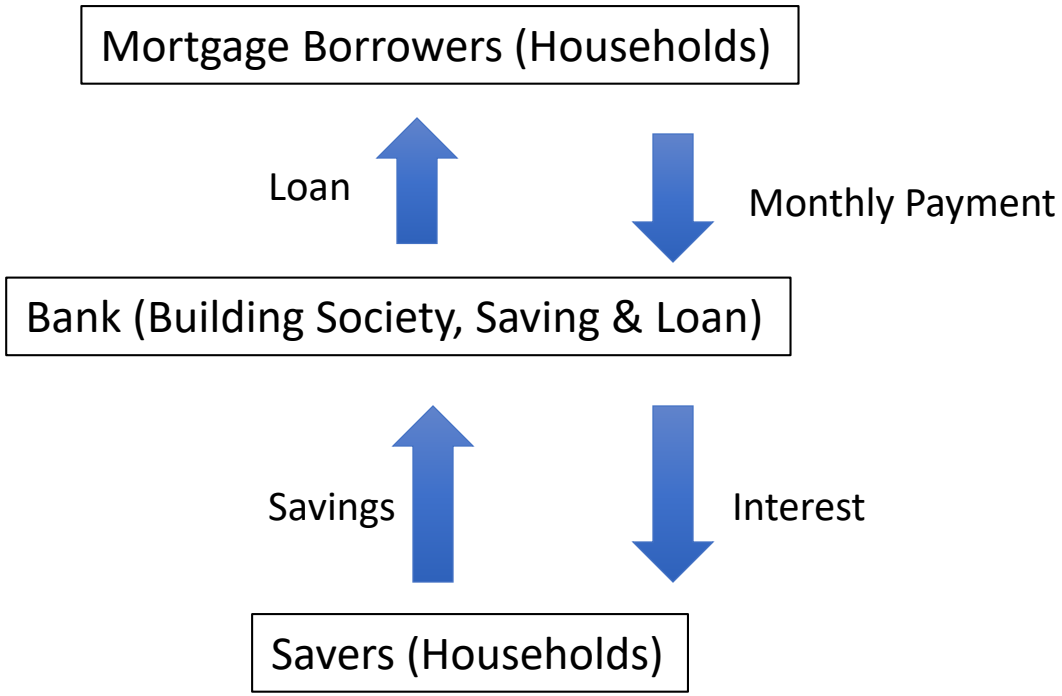
Finance

- “Cities are built the way they are financed.” (Bertrand Renaud)
- Housing finance is important for finance as well as for housing.
- Many cases of bad housing finance => macro disruption.
- Primary market: mortgage designs share risks appropriately. Manage the moral hazard of origination in unbundled systems.
- Sources of funds: depository systems vs. capital markets; both need appropriate design and regulation.
- Separate subsidies from the financial system and put them on budget.

Two basic models for a real estate finance system

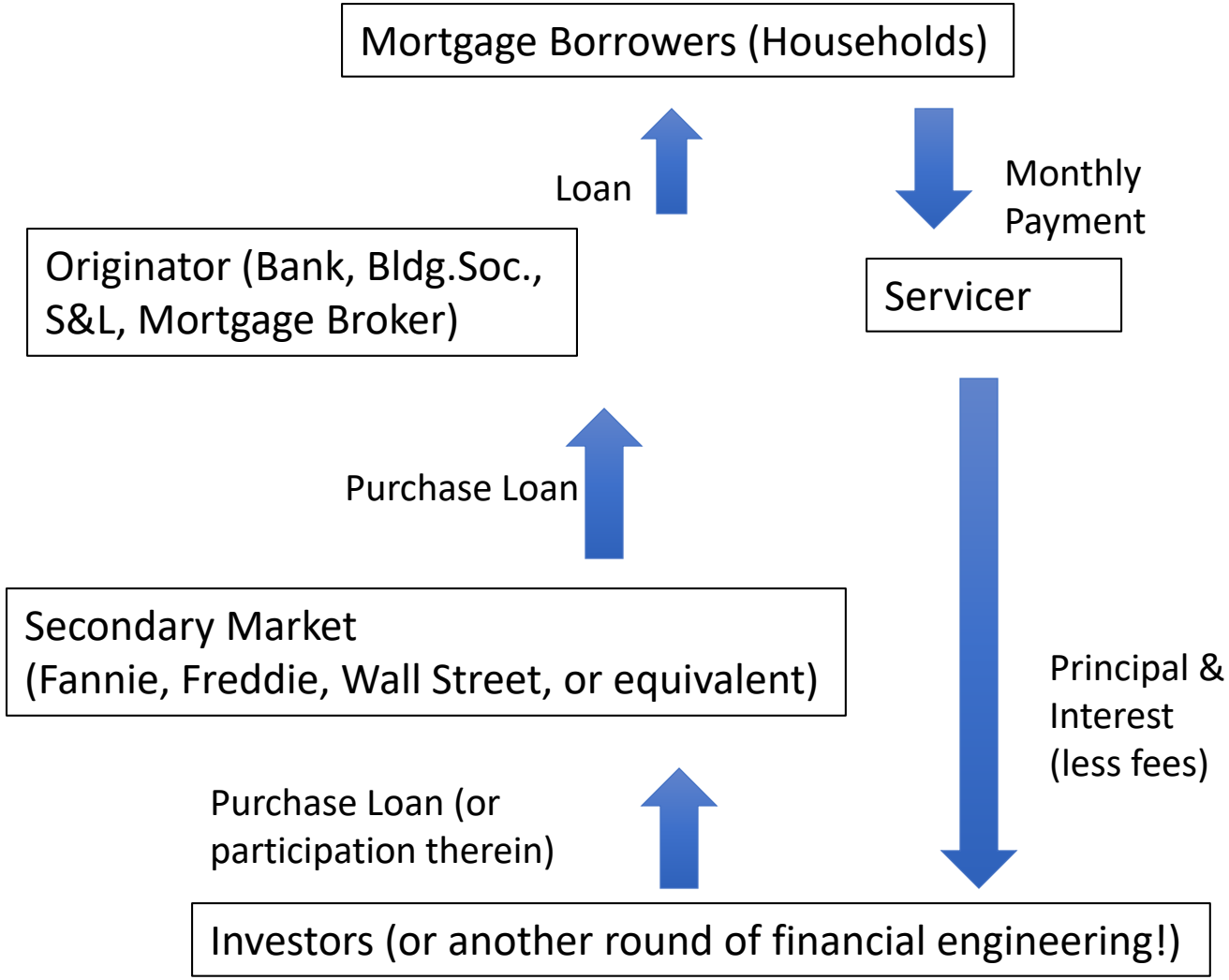
- Depository system
  - Banks or bank-like institutions that take in retail deposits, and lend the proceeds as mortgages
  - Building societies, banks, savings and loans
  - Institutions can be large, national in scope (Canadian banks); or highly localized (U.S., especially prior to 1990)
- Capital markets based
  - Sources of funds are capital markets (or sometimes taxpayers, e.g. FHA, post-TARP)

Depository Model



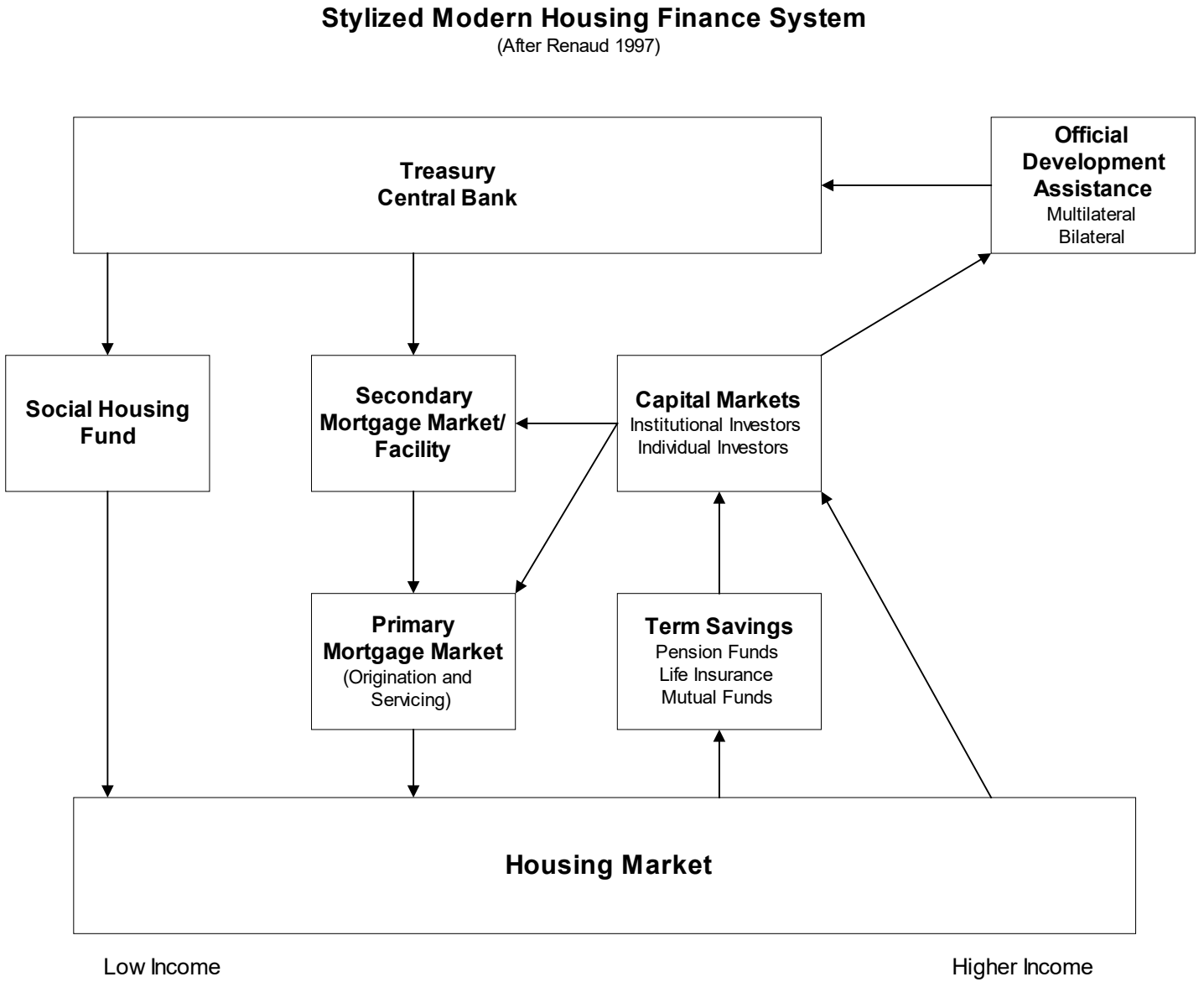
"Bank" originate, services, and holds loans.
Borrower repays bank.
Bank pays interest to savers, profit is spread.

Capital Markets (Unbundled) Model



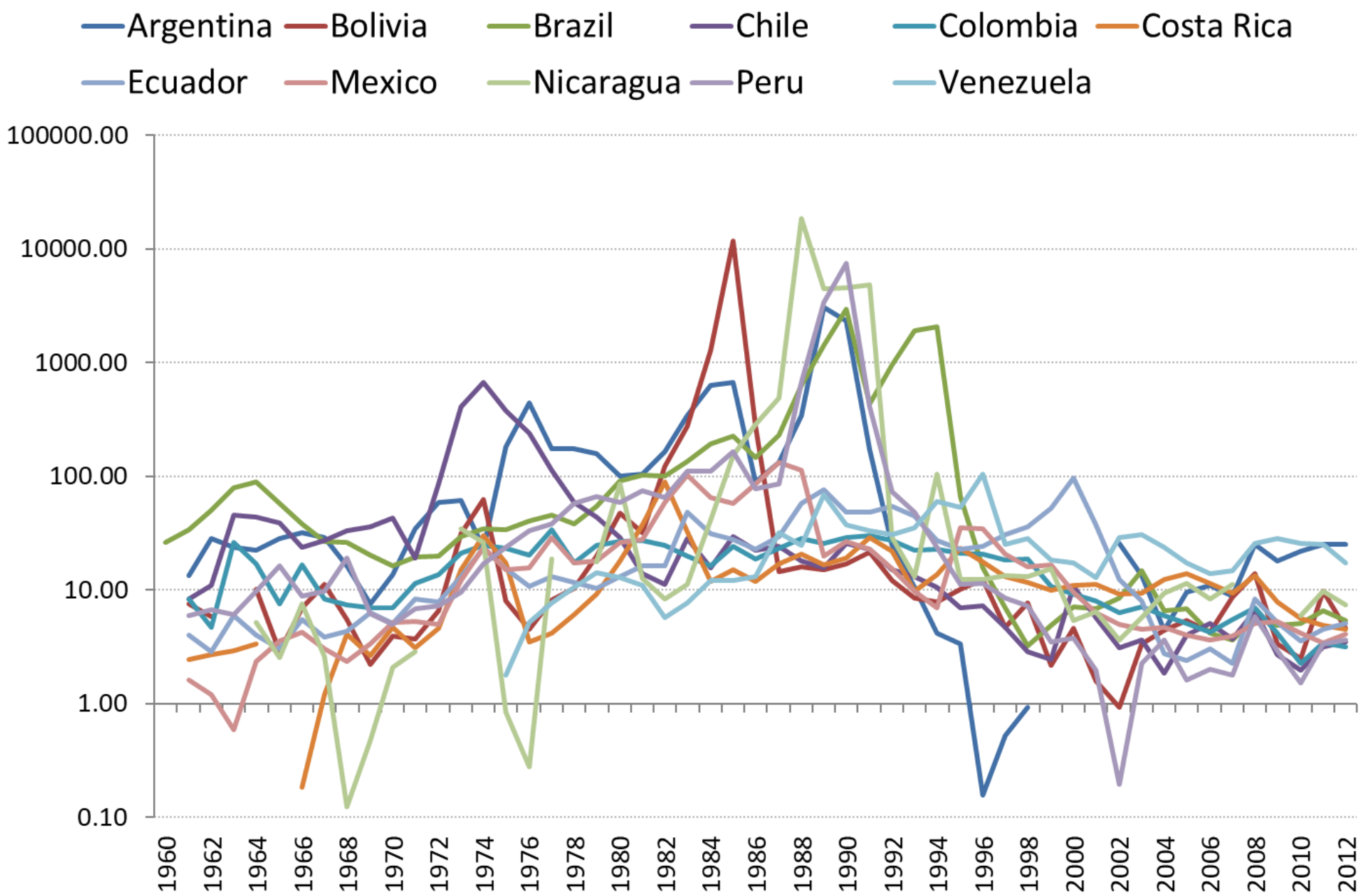
Origination, servicing, and holding loan has been "unbundled."
Those closest to the mortgage holder are mostly making fees.

Whichever basic model you choose – often a blend – you need some specialization

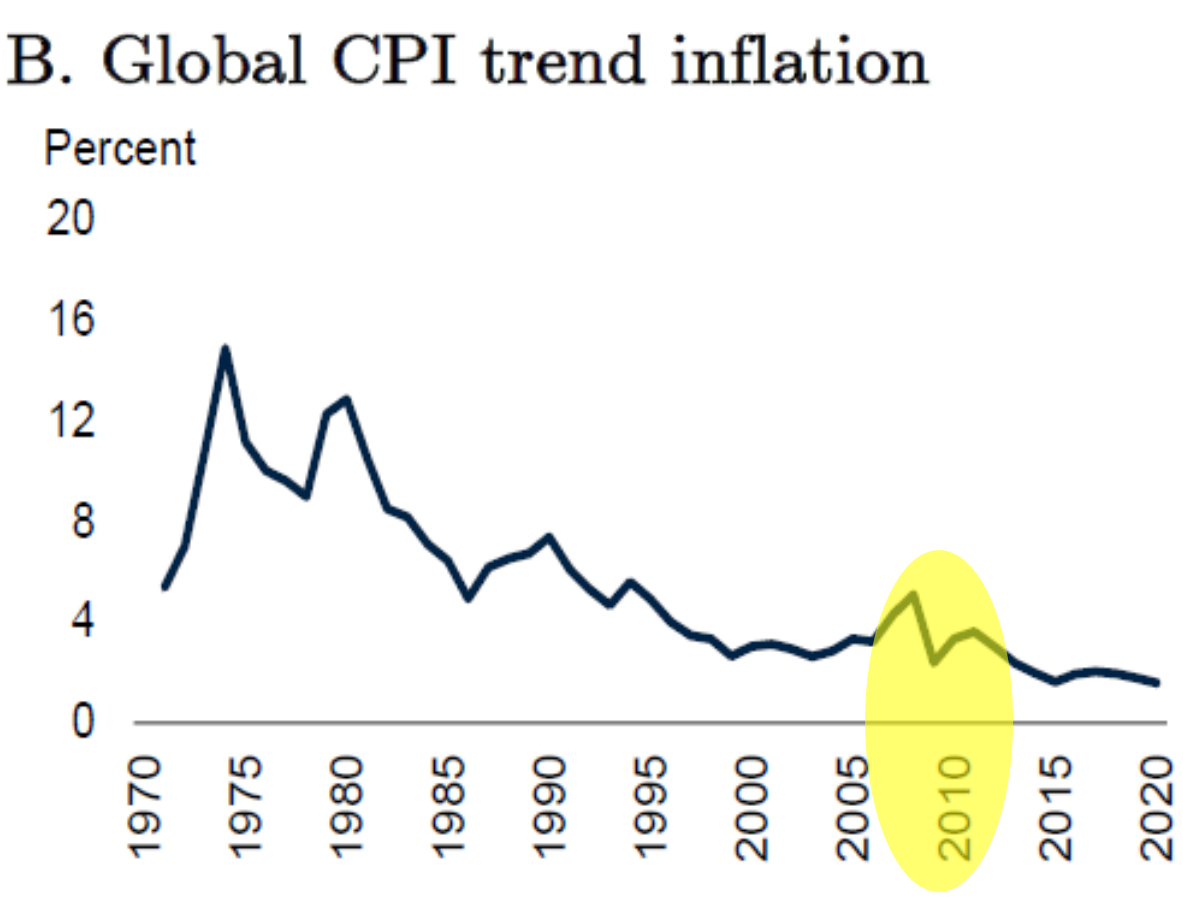


Annual Inflation, Selected LAC Countries

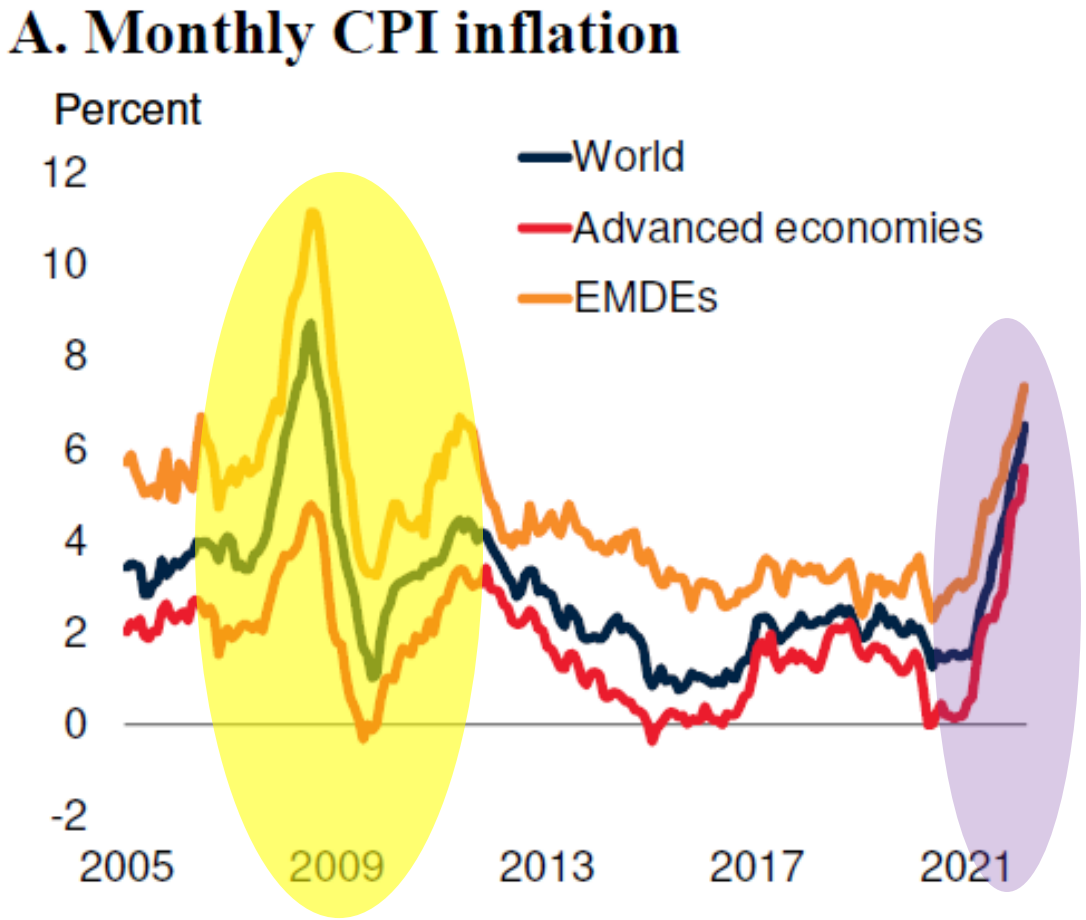
A decade ago, inflation – especially in Latin America – seemed under control. (Note log scale)



Is inflation coming back? Implications for mortgage lending?



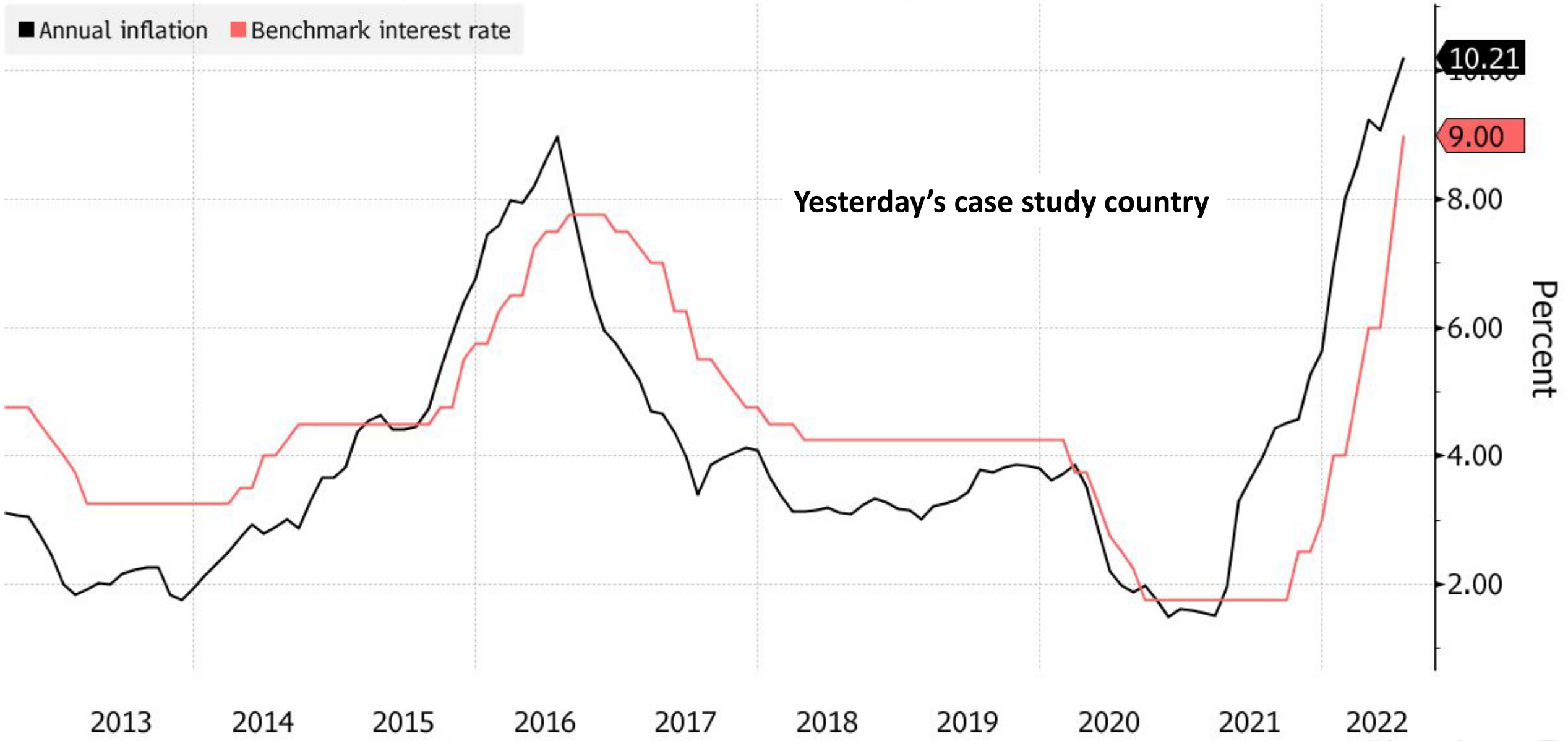
Ha, Jongrim; Kose, M. Ayhan; Ohnsorge, Franziska (2021): One-stop source: A global database of inflation, Working Paper, No. 2107, Koç University-TÜSIAD Economic Research Forum (ERF), Istanbul



Ha, Jongrim; Kose, M. Ayhan; Ohnsorge, Franziska (2022): From Low to High Inflation: Implications for Emerging Market and Developing Economies, MPRA Paper No. 112596, posted 03 Apr 2022

Two-Digit Inflation

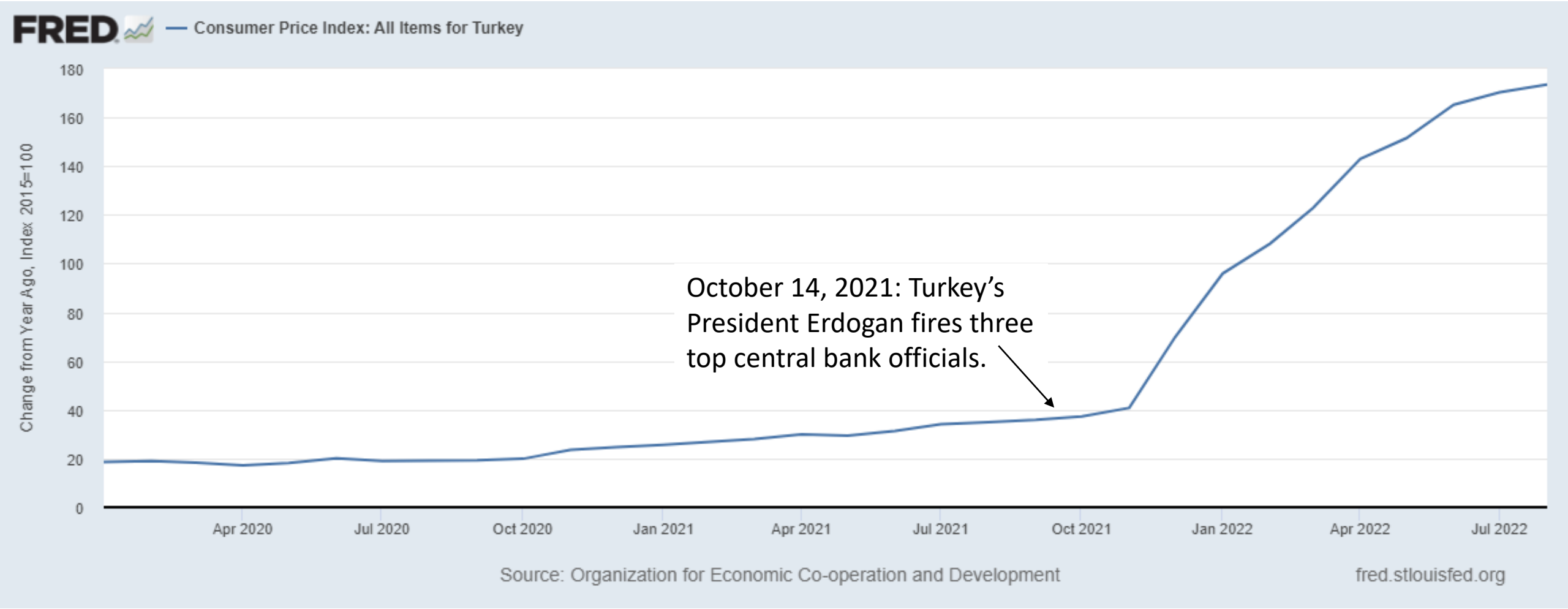
Colombia's consumer prices rose to a 23-year high



Source: Statistics agency, central bank

Bloomberg

Many countries face inflationary challenges: fallout from Russia's invasion of Ukraine, supply chain fractures in China and elsewhere, COVID…. But independent central bank policy (or lack thereof) still matters.



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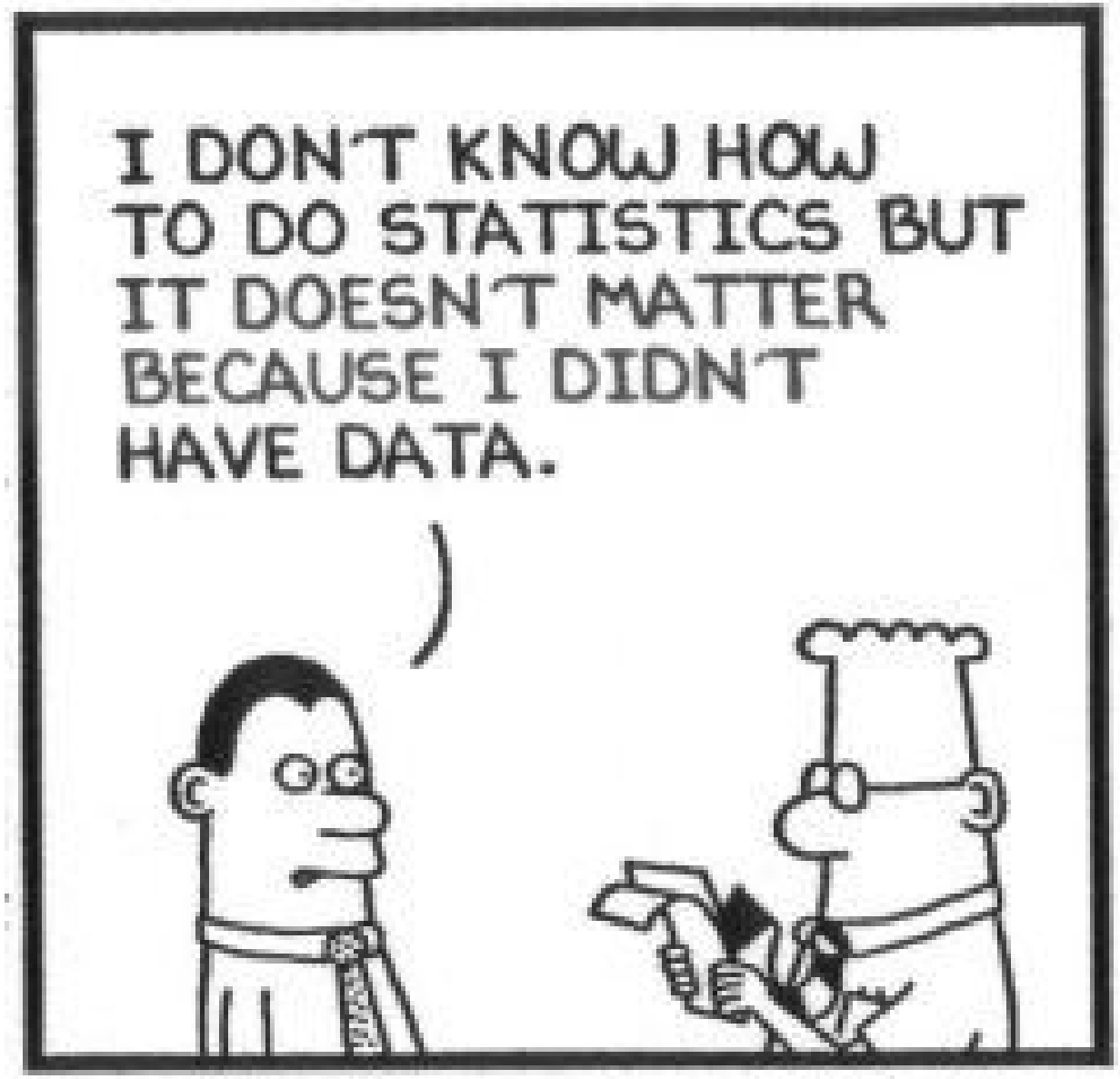

I DON'T KNOW HOW TO DO STATISTICS BUT IT DOESN'T MATTER BECAUSE I DIDN'T HAVE DATA.

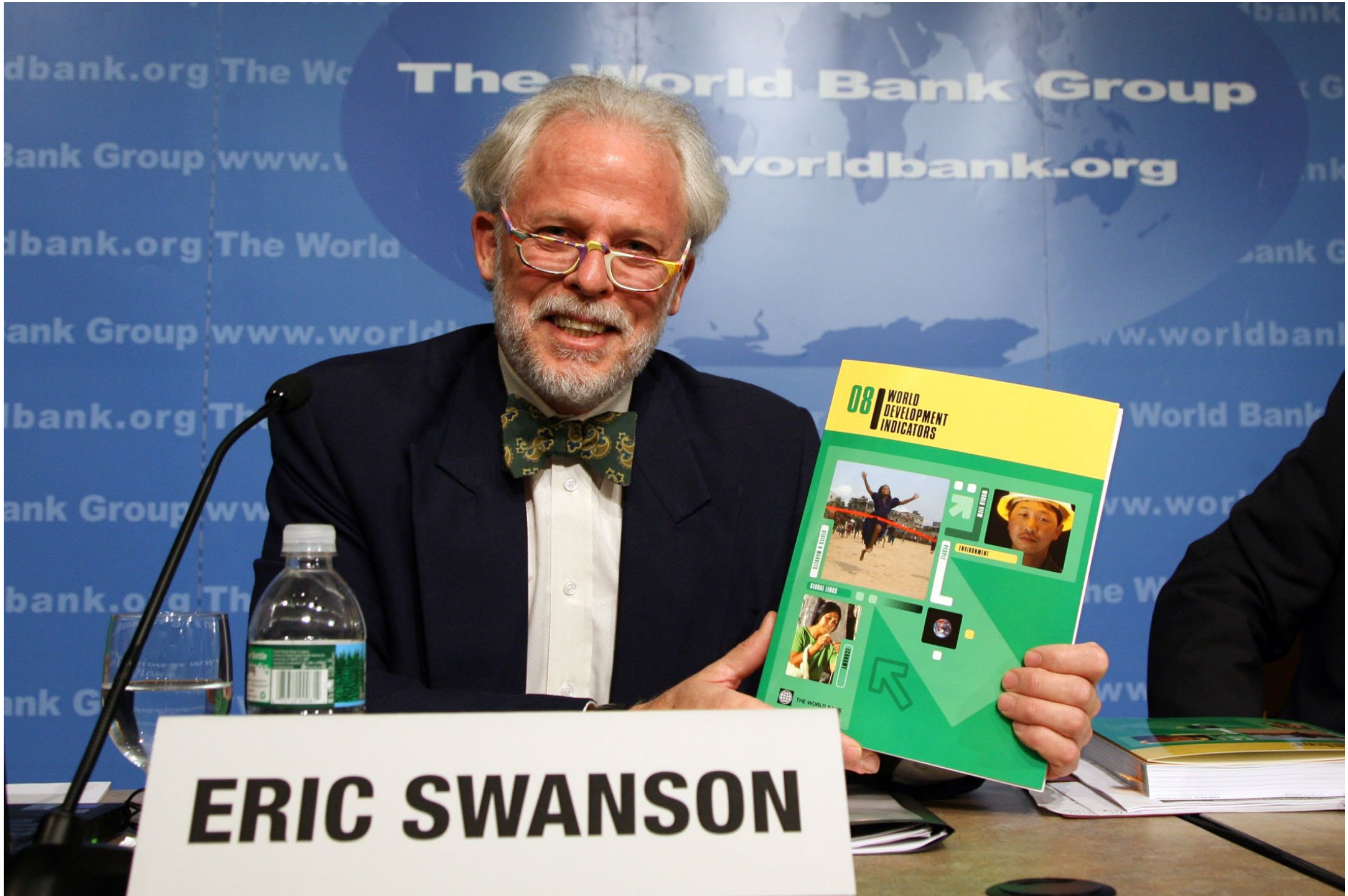
Data “Matryoshka”

Users: researchers, policymakers;
“super-aggregators” like Our World in Data, Gapminder, HOFINET

Data aggregators
(e.g. IMF, World Bank, BIS, OECD)

Index construction
(e.g. national statistical agency, or private sector firms like JLL or CoStar)

Micro data, from household surveys, individual sales or property returns


The World Bank Group
www.worldbank.org
08 WORLD DEVELOPMENT INDICATORS
ERIC SWANSON


Max Roser
Our World in Data

If you don't recognize this guy, stop what you're doing and start looking at his videos.
See the Gapminder website and data.
And read "Factfulness."

“We can never understand a country or the world without numbers.

“Nor can we understand it with only numbers, good luck with that.

“Numbers, you can get from Gapminder. Other places, you have to look for the understanding.

Hans Rosling

International Housing Indicators

- Housing Indicators Project: Started at World Bank/UNCHS, now locus is at UNCHS (Nairobi).
- Stephen Malpezzi and Stephen K. Mayo, “Housing and Urban Development Indicators: A Good Idea whose Time Has Returned,” *Real Estate Economics*, 25(1), Spring 1997, pp. 1-11.
- Shlomo Angel, *Housing Policy Matters: A Global Analysis*. Oxford University Press, 2000.
- Michael Murray, “Book Review: Housing Policy Matters by Shlomo Angel.” *Journal of Housing Economics* 10, no. 2 (2001): 210-15.

Housing Finance Information Network (HOFINET)

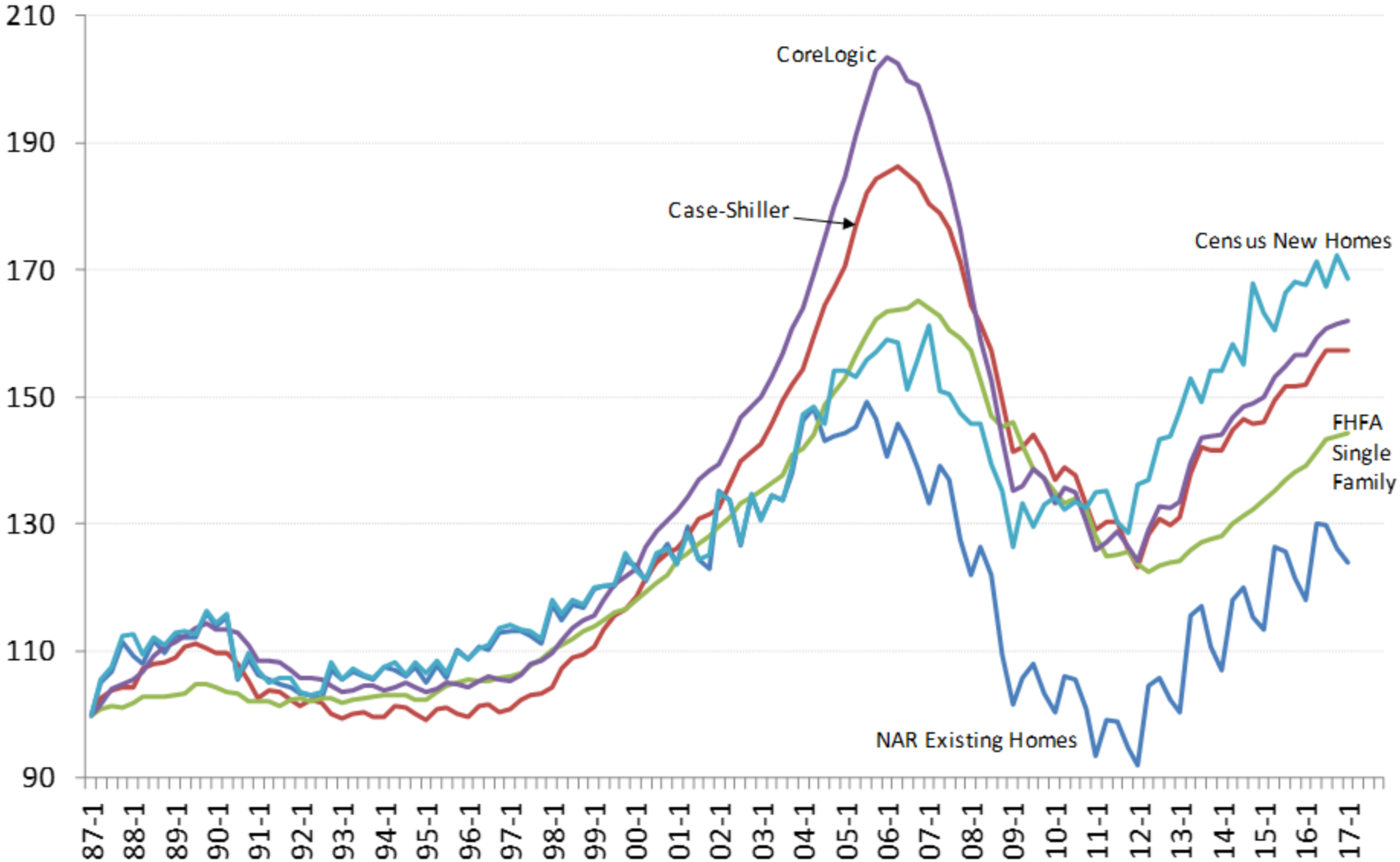
- HOFINET is a web portal with access to a wide range of research on data on international housing finance, and related topics.
- Data are organized by both topic and country.
- HOFINET is directed by Marja Hoek Smit
  - https://real-estate.wharton.upenn.edu/profile/mhoek/
- See Marja's interview at:
  - http://hofinet.org/blogs/blog_item.aspx?id=33
- The website is located at:
  - http://hofinet.org/

Are LSMS surveys useful sources of housing data?

- Early LSMS surveys rarely had much housing information.
  - Even minimal information (rent, income, total consumption) can be useful.
- Malpezzi (2000) presented model questionnaires that could be modified for country conditions to expand housing coverage in LSMS.
  - Not clear if any of these additional variables have been collected on any systematic basis?
- Early LSMS surveys had a national, often rural focus; identifying urban samples, specific city samples may be possible in some surveys.
- Data reconnaissance: review the individual surveys, collect information on housing variables, sample design (focus on design w.r.t. urban, cities), timeliness of surveys.
  - Review info at the LSMS website, interview Bank and other experts (Margaret Grosh at WB, Paul Glewwe at Minnesota?)

Compare Five National House Price Indexes

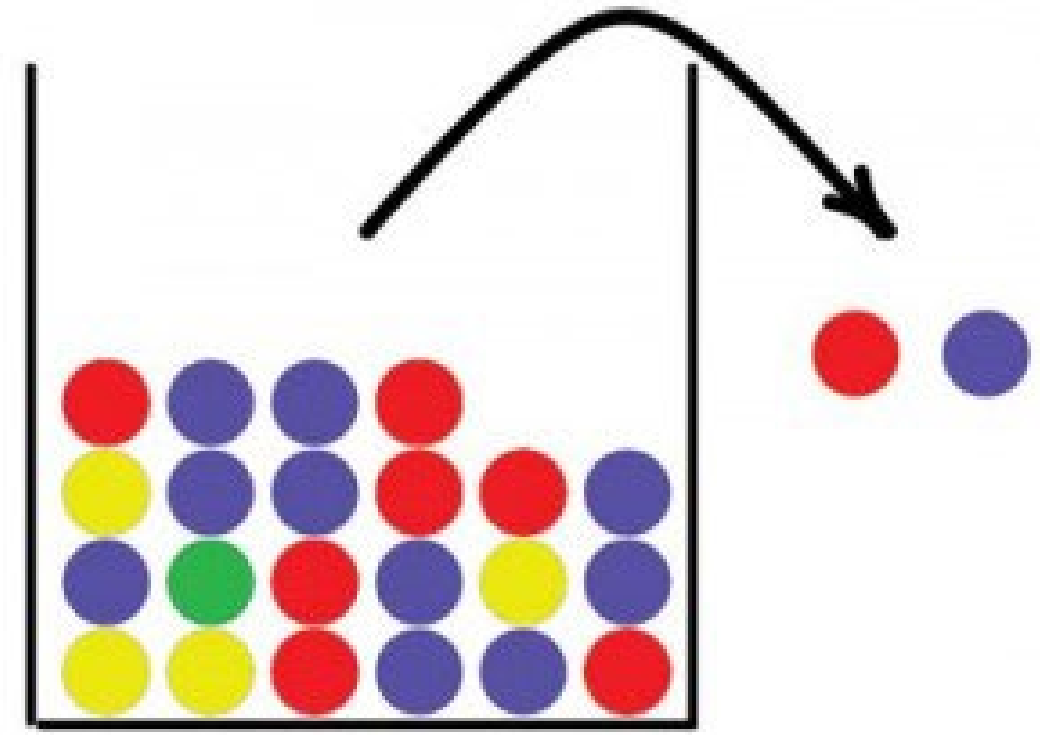
Real, Q1 1987 = 100



Before we measure housing prices, we need some data

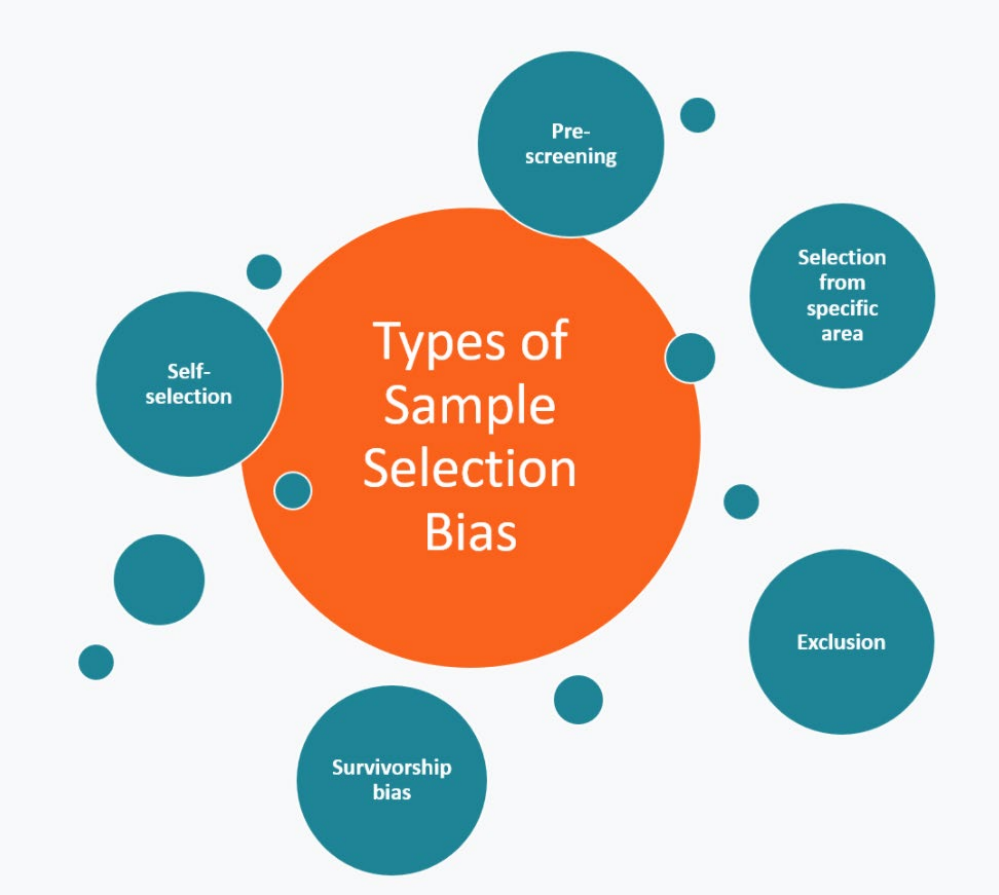
- Data sources?
  - Census, American Housing Survey, other surveys designed and carried out by professionals, with lots of documentation?
  - Market sources, such as Multiple Listing Service (MLS) data?
  - Internet, newspaper surveys?
    - What's a newspaper? Ask your grandparents. They used to carry lots of adds for houses for sale or for rent.
  - Other one-off surveys, from industry sources, or even carried out by students?
- Before we get into defining and measuring "prices," just a few slides about a big topic, namely survey design and data quality.

A simple ideal: pick randomly from the population ("balls from an urn" metaphor)



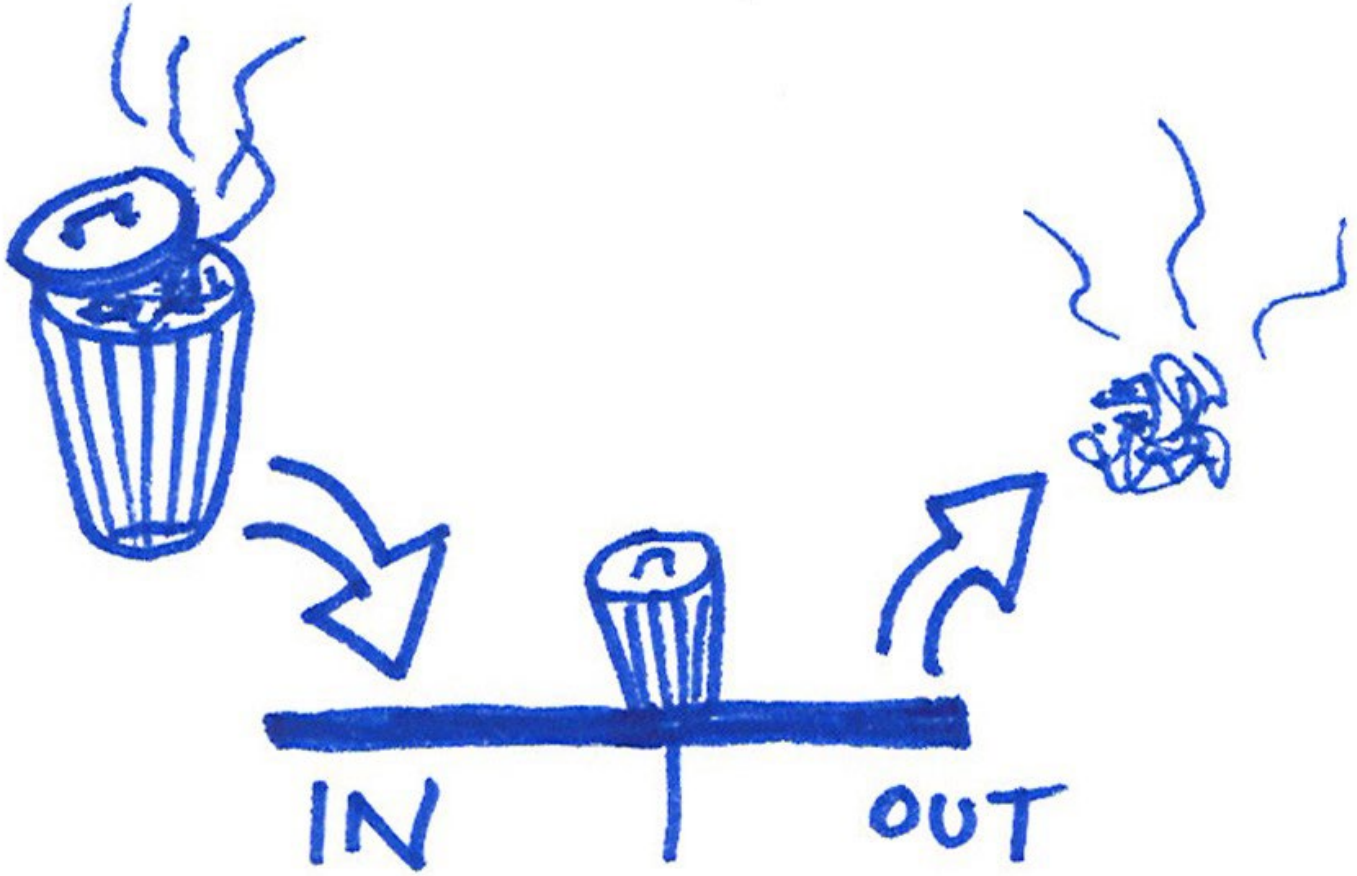
We never get to do this in practice. Among other reasons, Do we have a full list of the population to start with? And in a big country or city, it's too costly to find and survey widely dispersed housing units. We need to sample in some kind of multi-stage process.

Real world samples are often subject to serious selection bias

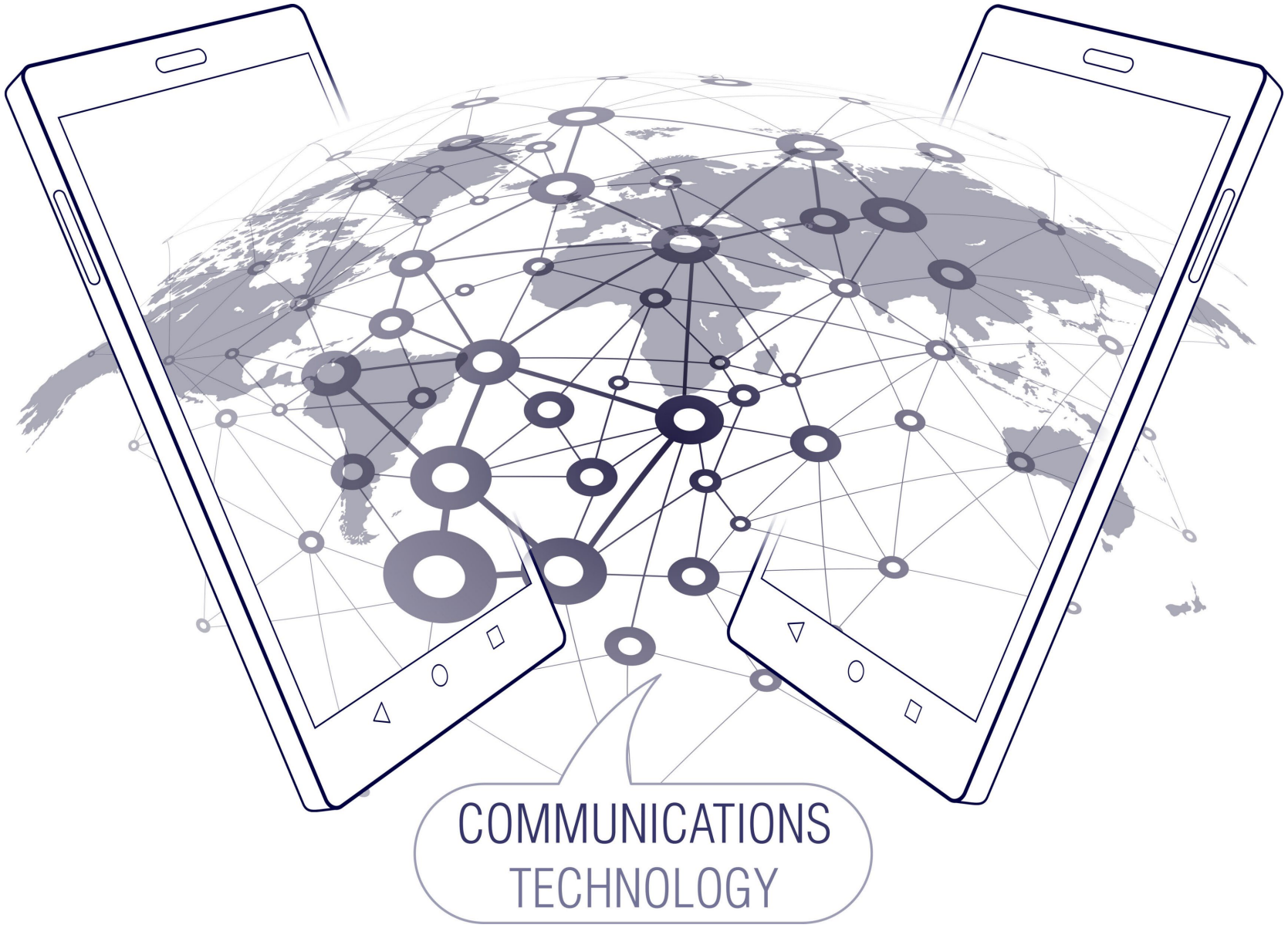


Selection bias: systematic differences in relevant characteristics between included observations, and excluded observations.

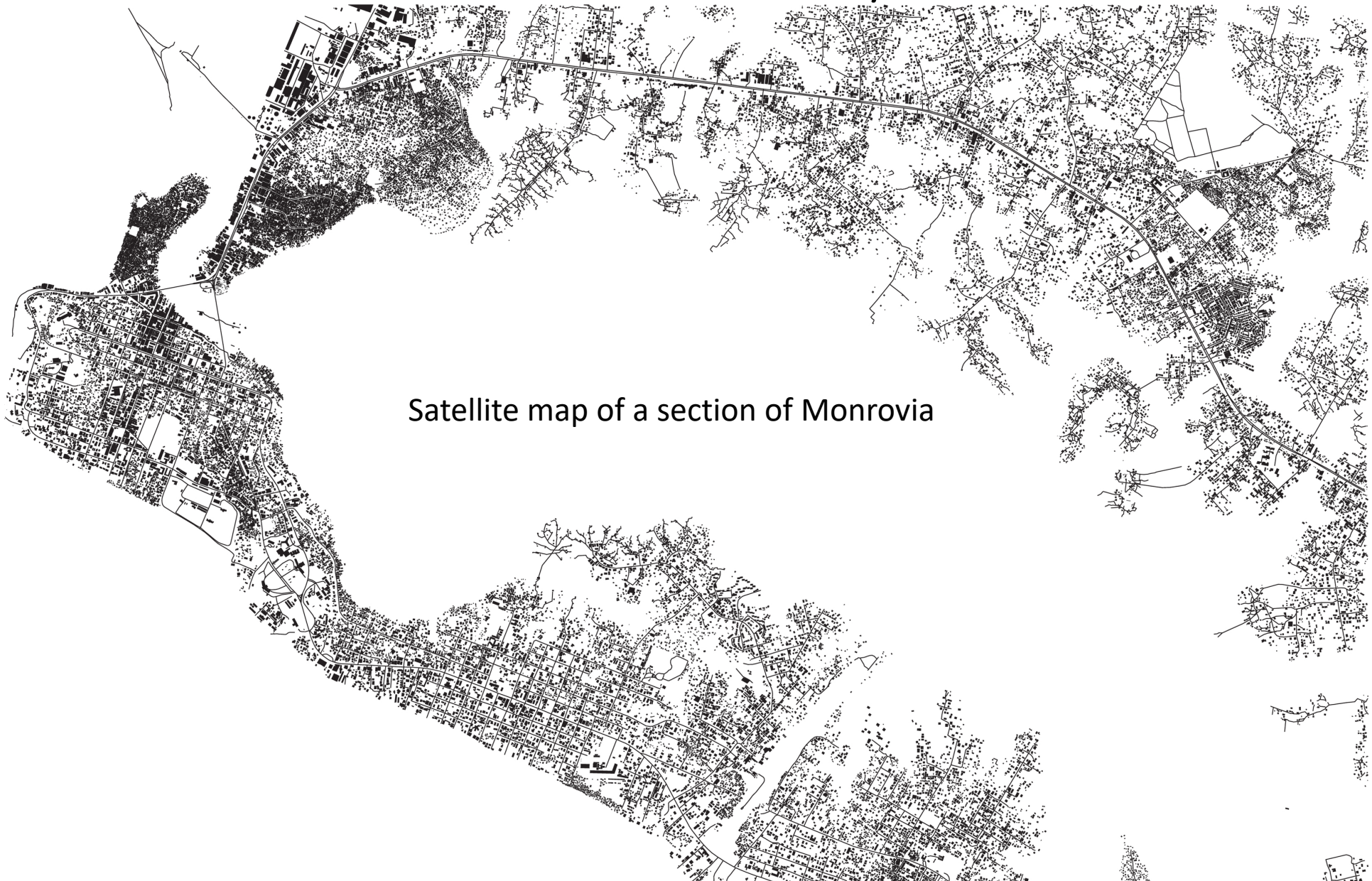
“Inferior” statistical techniques with good data usually beats fancy techniques with bad data



Since the early Urban Indicators projects, there have been revolutionary advances in data collection and analysis

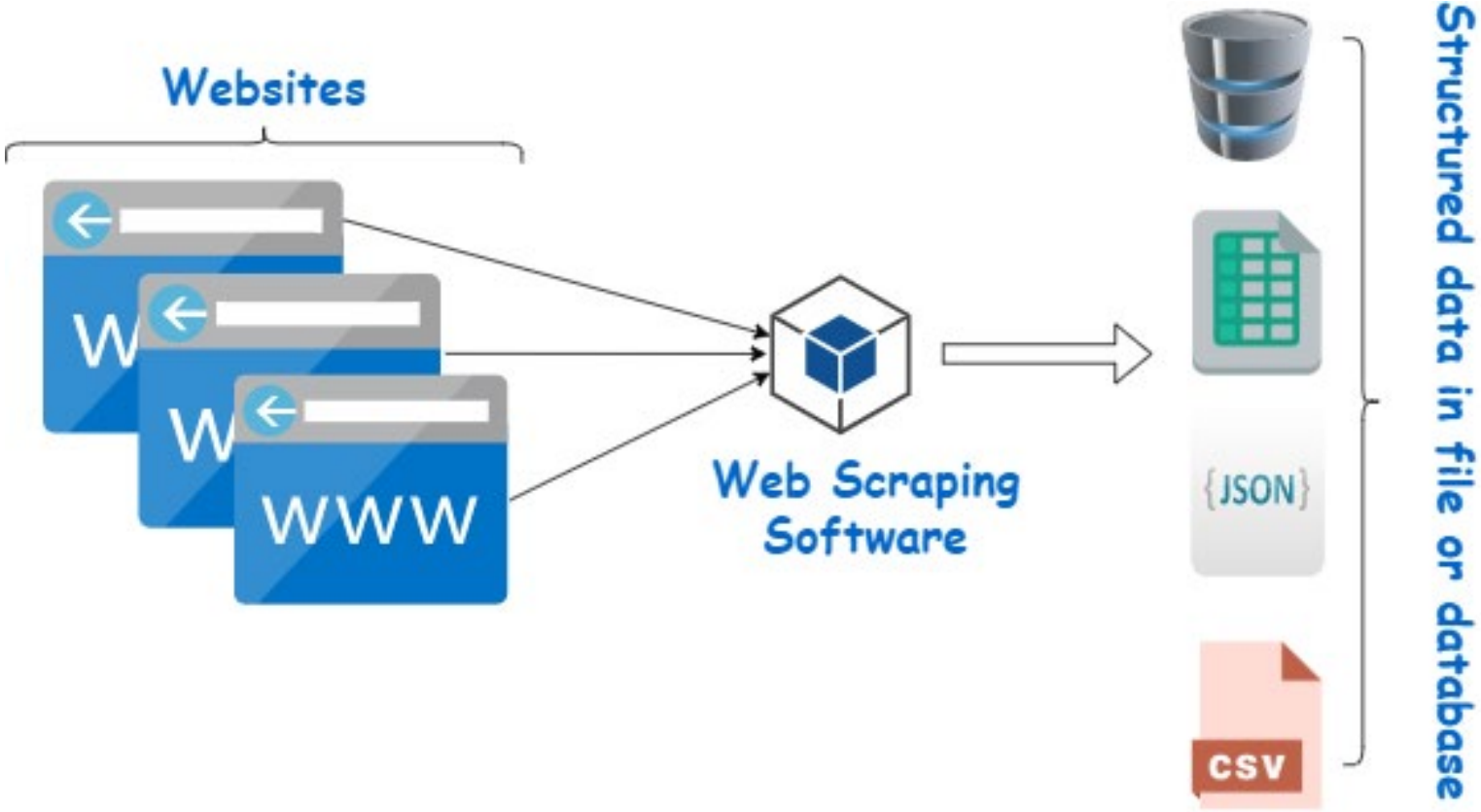


Since the early Urban Indicators projects, there have been revolutionary advances in data collection and analysis



Satellite map of a section of Monrovia

Since the early Urban Indicators projects, there have been revolutionary advances in data collection and analysis



Housing's Contribution to Economic Development: Reframing the Narrative

- The Opportunity Cost of the Status Quo
- Urbanization, Housing Construction, and the Development of National Capital Stocks
- The Elephant in the Room: Housing is an Important Economic Sector
- The Real Estate Revolution
- First Day Wrapup
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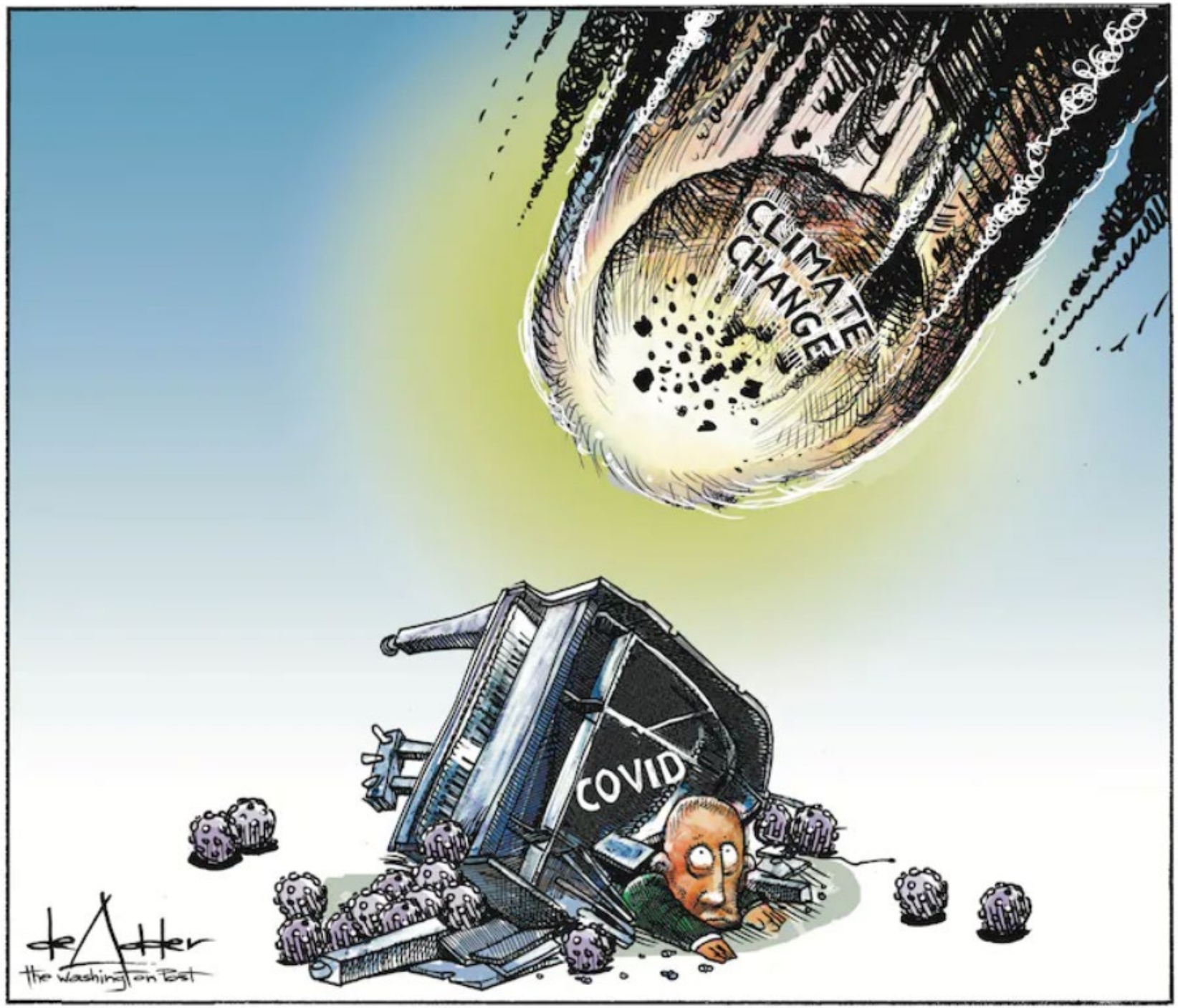
- **We Covered a Lot of Ground; What Else is There?**
- What Next?

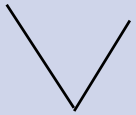
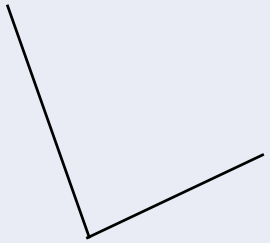
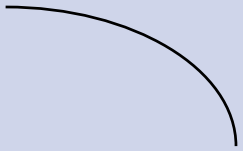

Leah Saulnier '12


CLIMATE CHANGE
COVID
deHaven
the washington post

An incomplete list of some major risks, in no particular order…

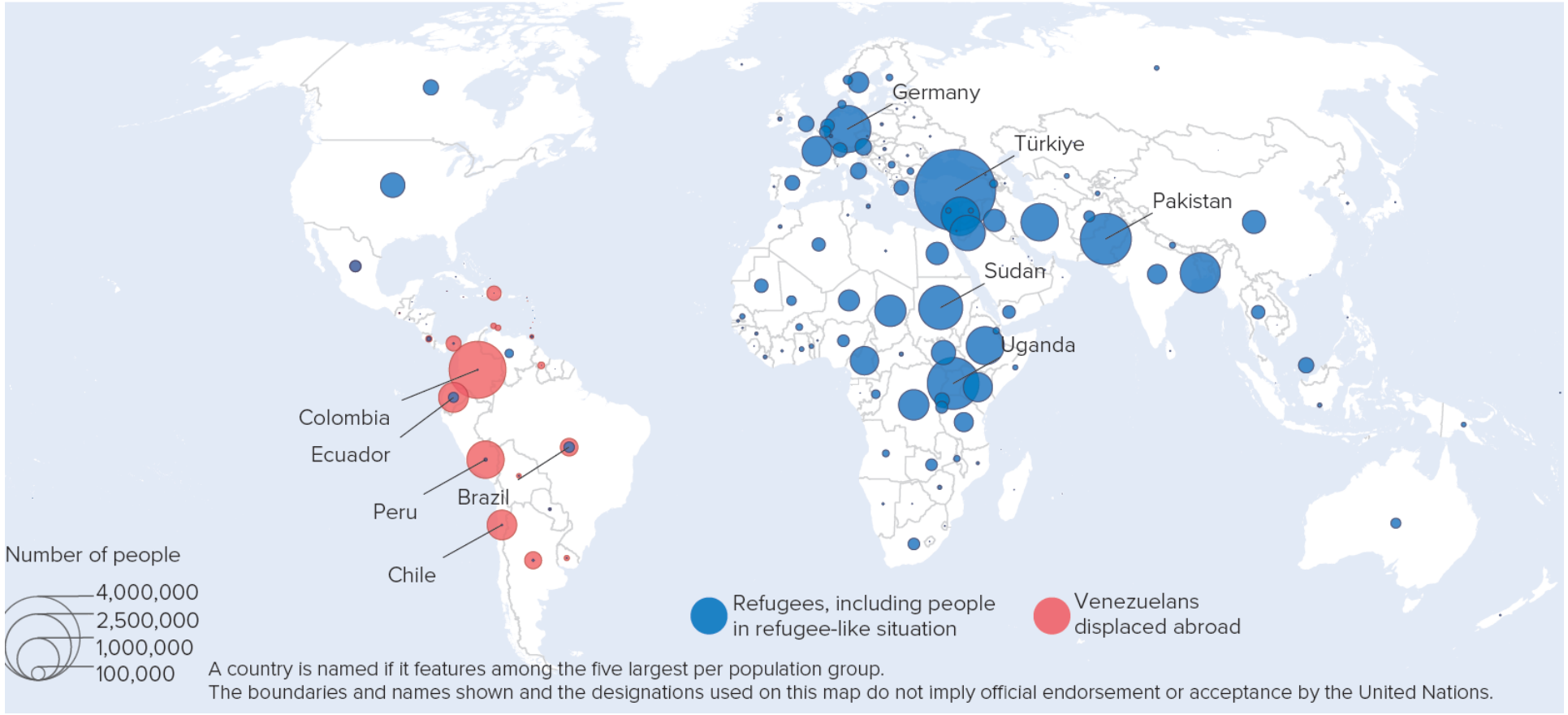
- Financial risks
  - See experience of 2007-2009; and discussion in Reinhardt and Rogoff
- Geopolitical risks, e.g. those related to:
  - Rise of autocracies, selective retreat of stable polities
  - Failure to address problems that require international cooperation
- Negative spillovers from new technologies
  - Reduced employment and wage prospects for low and mid-skilled workers
  - Erosion of privacy and political rights
- Water shortages, increased salinity in agricultural soil, subsidence (e.g. Jakarta)
- Risks from natural disasters, climate change
  - Floods, wildfires, earthquakes…
- Terrorism, especially if WMDs proliferate
- Flashpoints (Western Asia/Middle East, Korea, Kashmir…) leading to serious conflict between states
- Tensions from forced migrations, refugees, aging populations
- Cyberattacks, from state actors, terrorists, rogue individuals
- Major failures of infrastructure
  - Inadequate maintenance; attacks (including cyber); failure to keep up with new technologies and demand
- Pandemics

Disasters: A Simple Taxonomy?

	Symbol	Duration	Extent	Loss Severity	Response
Hurricane, earthquake, etc.		Days	Localized (city, state or province; region)	Large to those affected	Local and national government response; charities, NGOs, private sector
War		Months or (more often) years	One or more nations	Large on a national scale	Whole of society, across one or more nations; external assistance
Climate change		A century or more?	Global	Large, over time	Effective response requires global coordination

Zaatari refugee camp, Jordan

UNHCR 2021 data (pre-Ukraine war): Where are refugees?

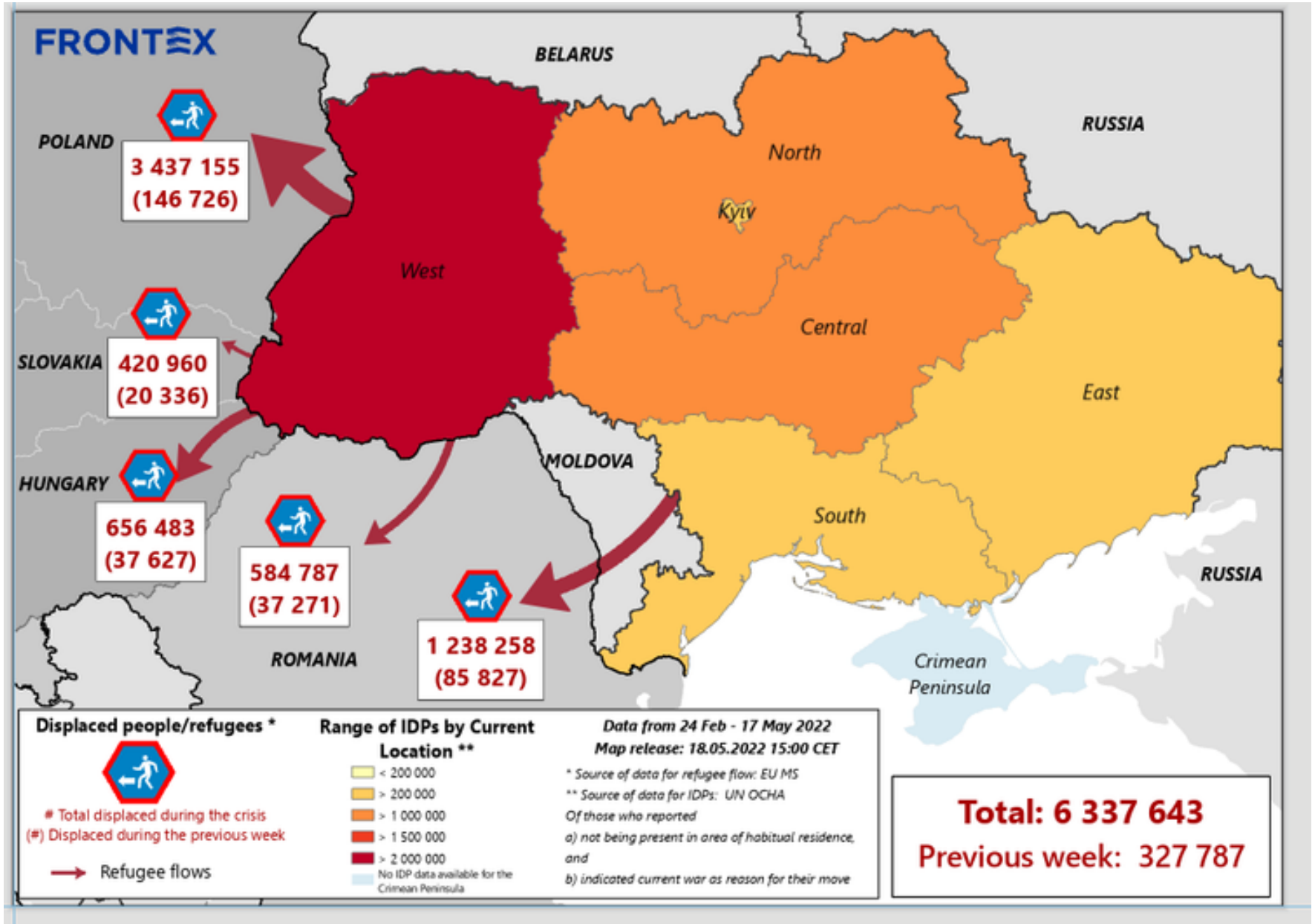


Where did end-2021 refugees come from? Syria (6.8MM), Venezuela (4.6 MM), Afghanistan (2.7 MM), South Sudan (2.3 MM), Myanmar (1.2 MM), DR Congo (0.9 MM), Sudan (0.8 MM), Somalia (0.8 MM), Central African Republic (0.7 MM), Eritrea (0.5 MM)
Palestine refugees are counted and administered separately, by UNRWA.

End-2021, most refugees were hosted by low- and middle-income countries

72 per cent hosted by neighbouring countries	Most people fleeing conflict and persecution prefer to remain near their country of origin. In 2021 nearly three-quarters of people displaced across borders were hosted in neighbouring countries.
83 per cent are hosted by low- and middle-income countries	Low-income countries continue to host a disproportionately large share of the global displaced population. According to the World Bank income classification for 2021,[46] low-income countries host 22 per cent of people displaced across borders. This includes very large refugee populations in Uganda, Sudan, Ethiopia, Chad and the Democratic Republic of the Congo. A further 21 per cent were hosted by lower-middle-income countries such as Pakistan, Bangladesh and the Islamic Republic of Iran. Upper-middle-income countries – including Türkiye, Colombia, Lebanon and Jordan – hosted 40 per cent of people displaced across borders. High-income countries, which account for most of the global wealth,[47] hosted only 16 per cent of people displaced across borders.
27 per cent are hosted by the Least Developed Countries[48]	The Least Developed Countries consist of 46 countries, including Bangladesh, Chad, the Democratic Republic of the Congo, Ethiopia, Rwanda, South Sudan, Sudan, Uganda, the United Republic of Tanzania, and Yemen. Together, they account for less than 1.3 per cent of the global Gross Domestic Product,[49] yet they were responsible for hosting more than 27 per cent of all people displaced across borders worldwide. At the end of 2021, the number of refugees in the Least Developed Countries stood at 7 million.

While there are perhaps 100 million displaced persons around the world, Ukraine has put the problem on more *mental* maps in Europe and the US



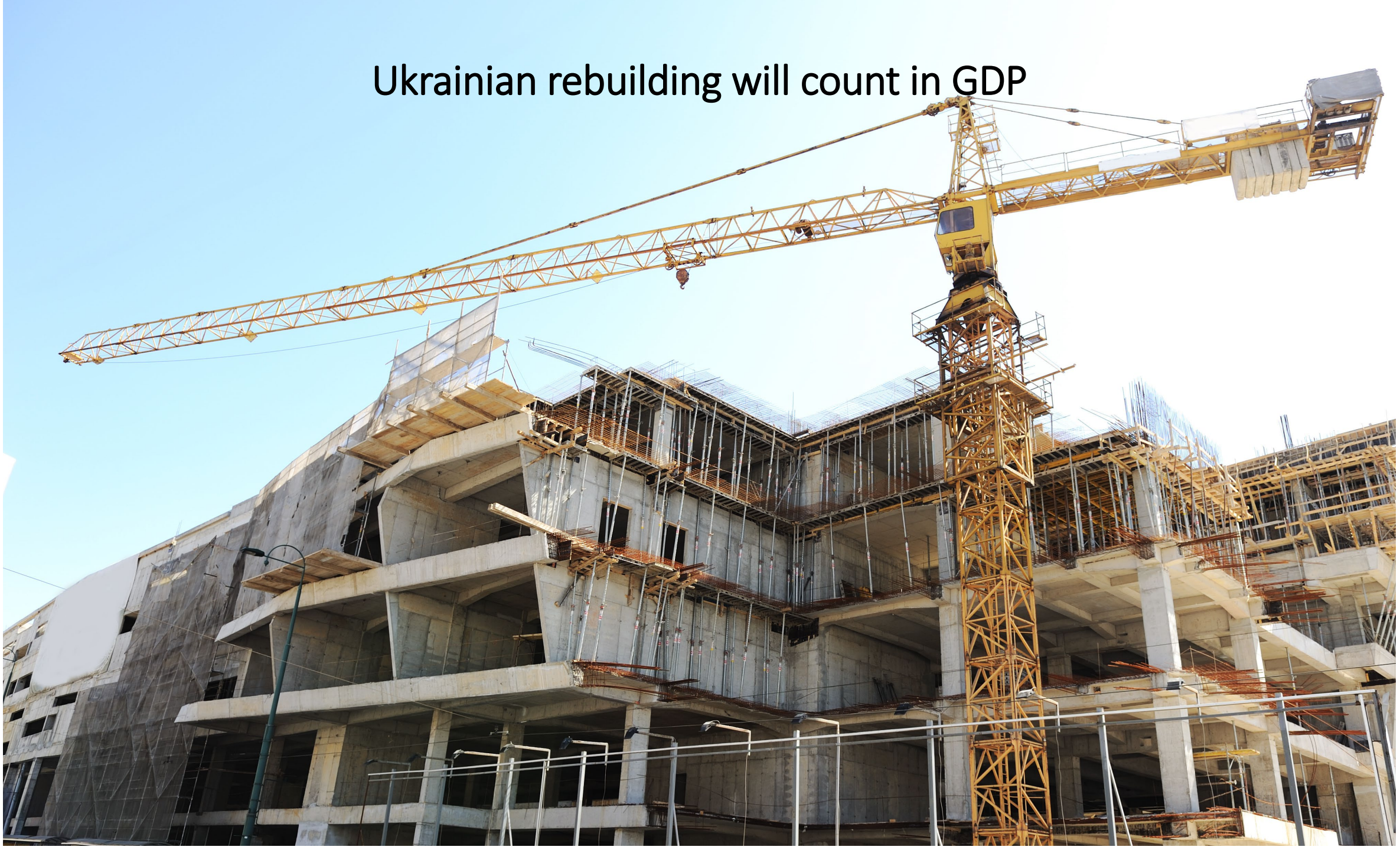
A major problem with GDP, National Income Accounting

- Properly measured, net *income* would comprise the flow of output, plus net changes in the stock.
  - Economists call this "Higgs-Simon income." Conceptually similar to total returns in financial markets.
- But GDP is a flow measure of *production*.
- Universally, when a disaster or a war destroys real estate and other capital, most of the losses are NOT deducted from GDP.
- However, when we build back, that investment is mostly counted in GDP.
- Thus, changes in GDP and many other National Income and Product Accounts measures systematically and grossly underestimate the losses from such events.
- Another problem – discussed later – is properly accounting for human losses – mortality and morbidity.

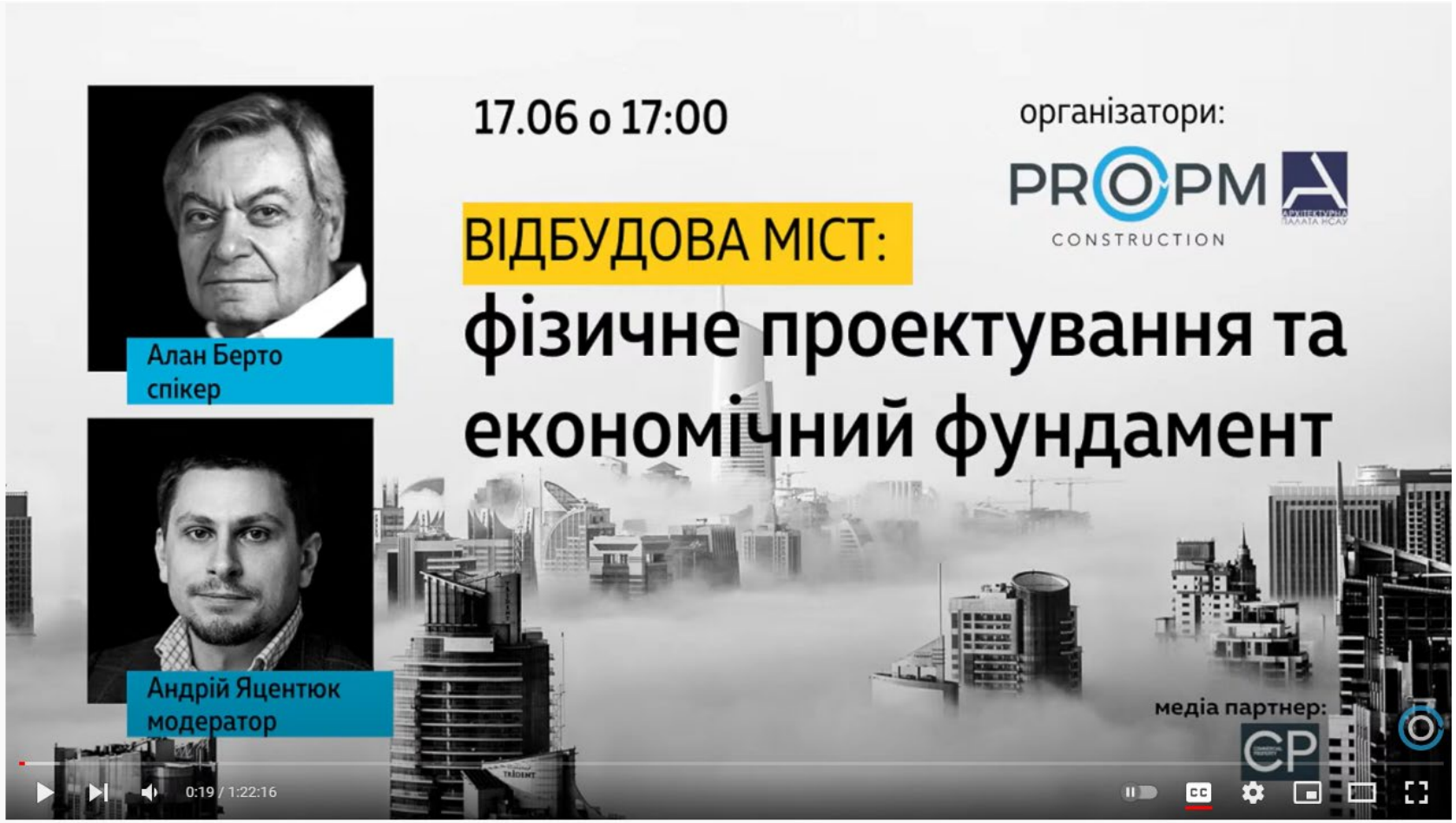

These losses don’t count in GDP’s decline


Eventually, Ukrainians will clear the damage

Ukrainian rebuilding will count in GDP



Alain Bertaud – “Reconstructing Cities : Physical Design and Economic Foundation”



Presentation in English (Ukrainian subtitles available)

https://www.youtube.com/watch?v=FOnykRBURqE&t=4249s

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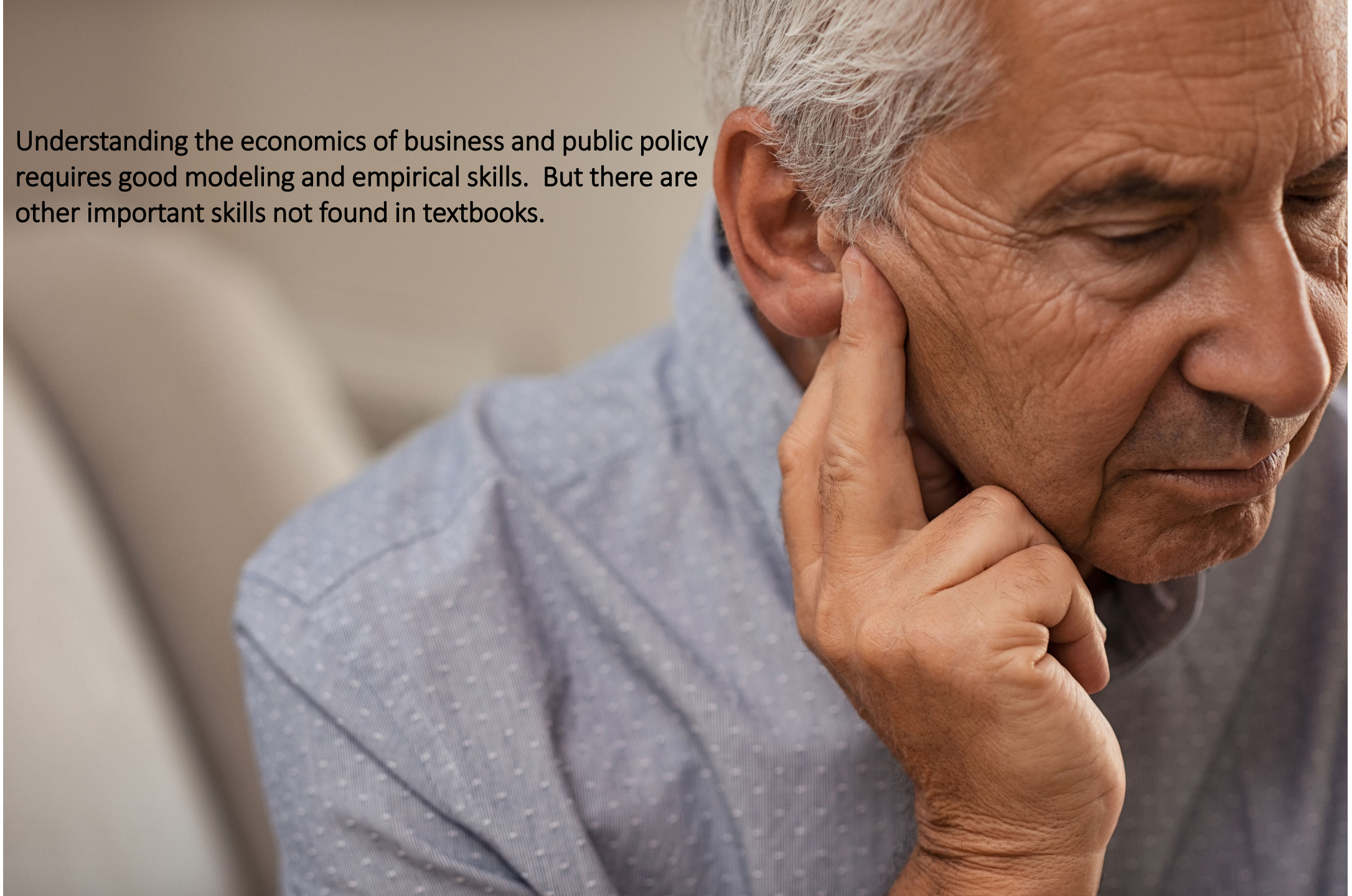
I will happily receive comments and corrections.


Understanding the economics of business and public policy requires good modeling and empirical skills. But there are other important skills not found in textbooks.

Focus on institutional functions, not specific foreign institutions

- Example: proselytizers for the Fannie-Freddie models.
  - Or the Bausparkassen model. Or provident funds for housing. Or credit unions. Or building societies.
- "Hi! We're from (.) And we noticed you you don't have anything like (Fannie Mae, Bausparkassen, building societies….) Here's some $$$ from (World Bank, USAID, GTZ…), let's set one up!"
- Alternative: what functions does Fannie Mae perform (on a good day)?
  - Capital mobilization? Solve geographic mismatch? Standardize mortgage contracts? Upgrade underwriting? Mitigate some asymmetric information problem?
  - Which, if any, of these functions are important here?
- What are some of the pros and cons of existing institutional approaches, in this country and abroad? (EG we'd like to avoid setting up GSEs with perverse incentives, political heavyweights that capture politicians and can't be effectively regulated.)
- How can we best perform the required functions *in this country* while minimizing weaknesses and unintended consequences?

"We need more research."
Said every economist who ever lived.

- Start with literature reviews. There's a TON of "classic" (i.e. old) literature and lots of new stuff. Let's organize it.
- "Every important paper in the Bank needs to be rewritten every three years."
  - Guess who said that?
- On the flip side: much of this basic research we still cite dates back to the 80s, plus or minus, including the work on housing demand, incentives, finance carried out by some of the grey hairs in this room.
  - Notice I'm pretty gray myself.
  - We seriously need updating of this research!
- Government interventions, including regulations, have costs and benefits. Better C-B of these interventions, "regulatory triage" needed.
- More behavioral research, esp. focus on the political economy of supply.
- There's much to do on "traditional" financial issues, especially institutional development, regulatory frameworks. But we also need to catch up to advances (?) in areas such as the growth of shadow banking, FinTech, and other non-traditional real estate lending.
- Distributional issues remain understudied. Existing work focuses mainly on income and poverty; some work on gender. Racial and ethnic differences in housing outcomes and access also require rigorous study.

Shamelessly plugging my blog

Real Estate and Urban Development Viewpoint

Thursday, May 31, 2018

A Guide to Some of My Blog Posts, Hither and Yon

I've been blogging for several years now. I first started blogging at the Graaskamp Center for Real Estate, when we had control of our own website. But "central planning" won out at the Wisconsin School of Business, as the School determined that in today's world, the benefits of a school-wide format and control over content exceeded the benefits of bottom-up content. Probably the right call, though I was sorry I no longer had the opportunity to bloviate at that location.

Once I "retired" in 2016 -- notice the quotes! -- I started my own blog, at this location. Some months later, my friend Morris Davis, Academic Director of Rutgers Center for Real Estate, started a very ambitious blog, and recruited yours truly and noted macroeconomist Julia Coronado to provide the majority of blog entries.

So my blog entries are scattered around at three different locations. This post is a directory of a number of my favorite posts, organized thematically , rather than chronologically or by the location of the post.

A Guide to Some of My Blog Posts, Hither and Yon

Steve Malpezzi

Professor Emeritus, University of Wisconsin-Madison, Graaskamp Center for Real Estate. Dean of the Weimer School of the Homer Hoyt Institute, and Research Fellow of Rutgers Center for Real Estate. Former President of the American Real Estate and Urban Economics Association, researcher at the Urban Institute and the World Bank.

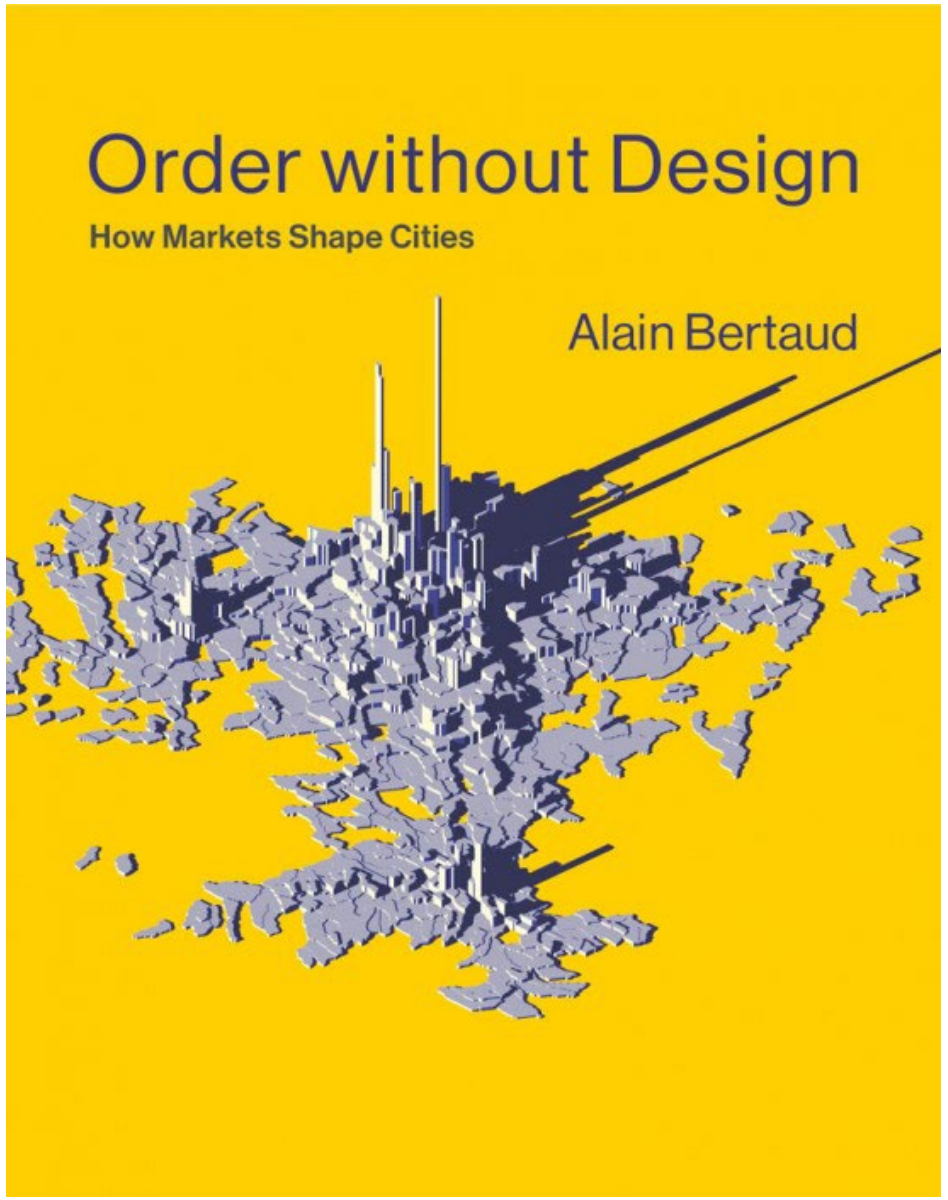
View my complete profile

Blog Archive

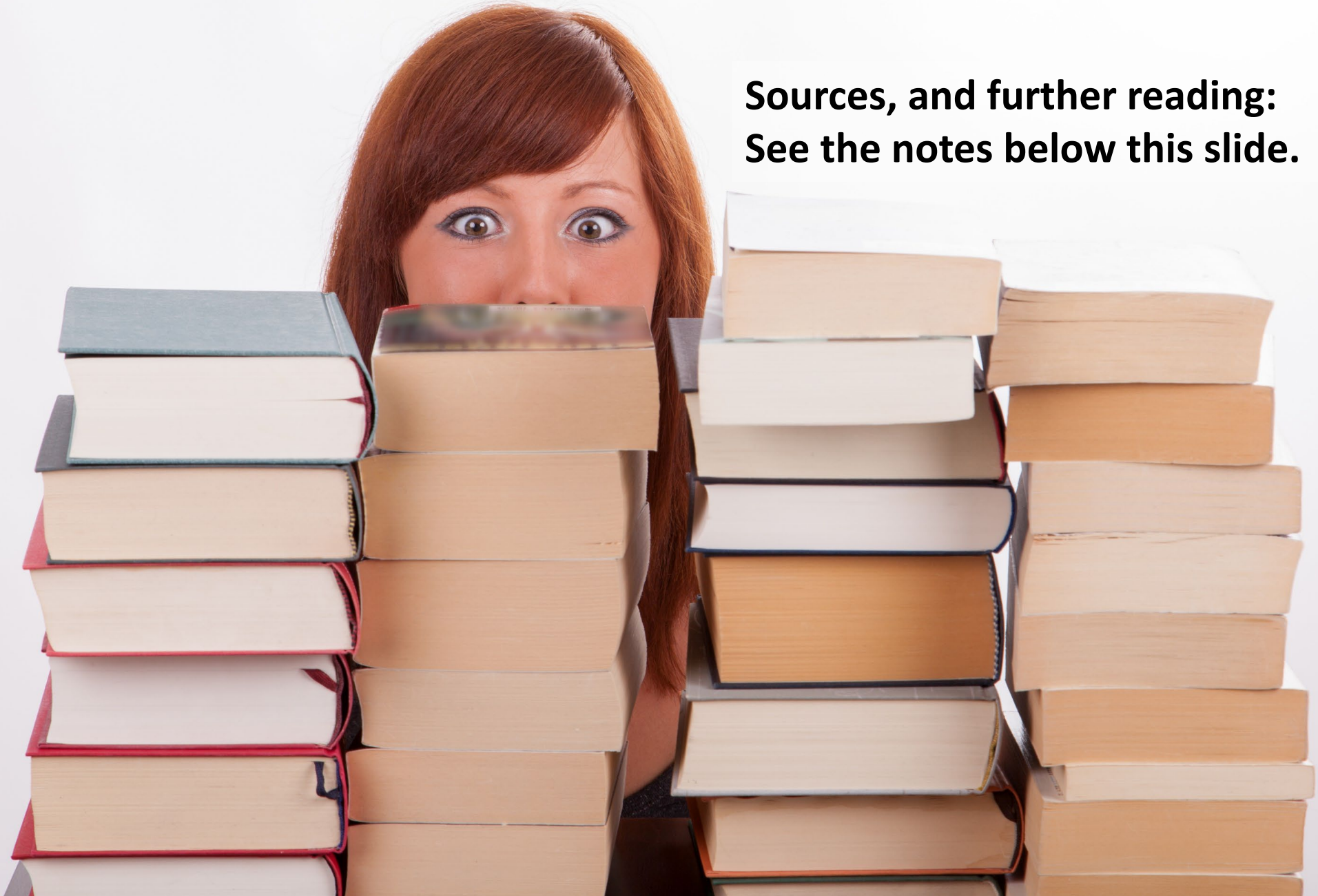
- ▶ 2016 (13)
- ▶ 2017 (4)
- ▼ 2018 (3)
  - ▶ January (2)
  - ▼ May (1)
    - A Guide to Some of My Blog Posts, Hither and Yon

http://reudviewpoint.blogspot.com/2018/05/a-guide-to-some-of-my-blog-posts-hither.html

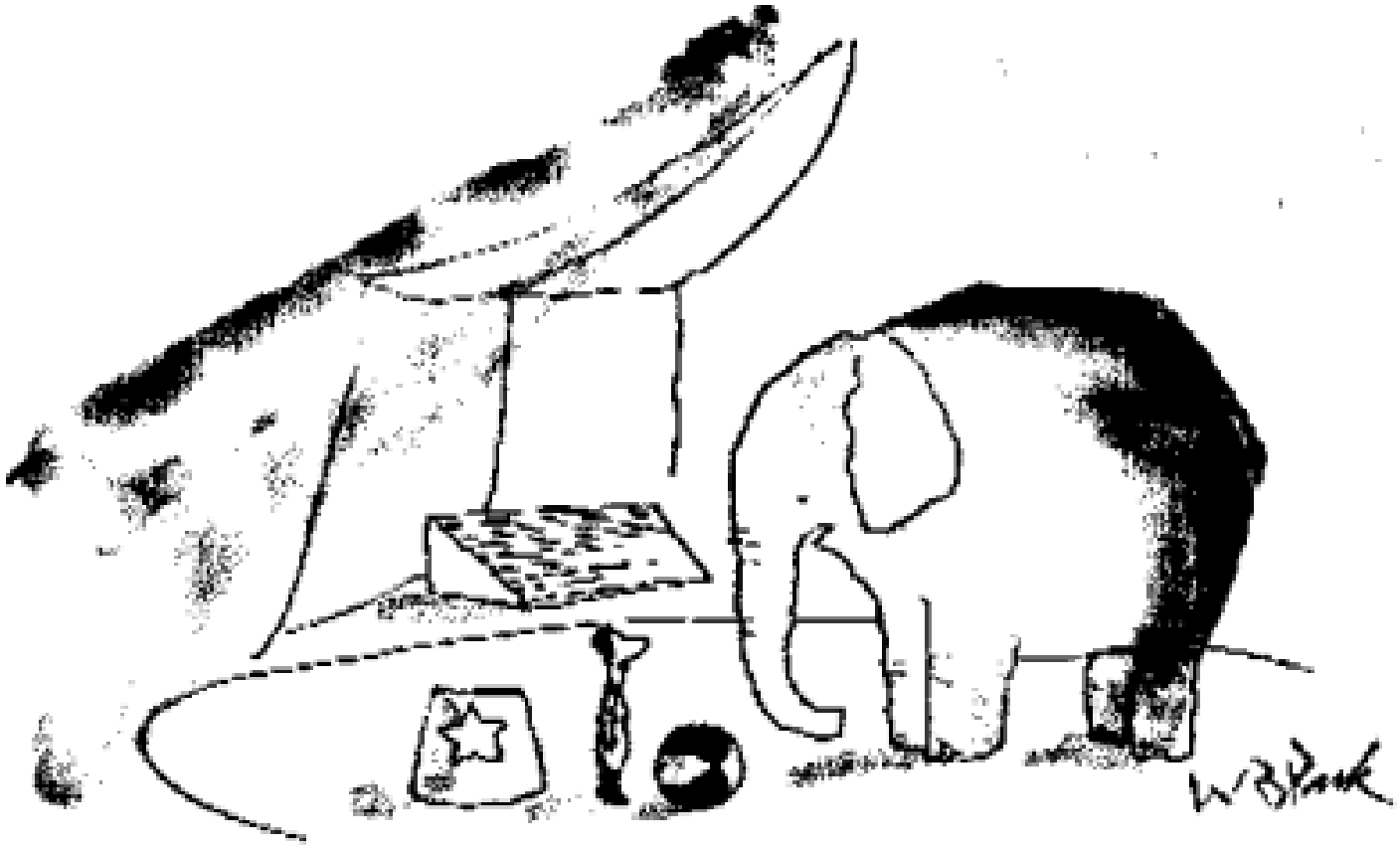
Read it. Know it. Live it.



http://reudviewpoint.blogspot.com/2019/07/reading-for-life-one-of-best-books-ever.html



Sources, and further reading:
See the notes below this slide.



"To be perfectly frank, I'm not nearly as smart as you seem to think I am."