Fiscal Implications of Urbanization

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Outline

I. Stylized facts about the urbanization

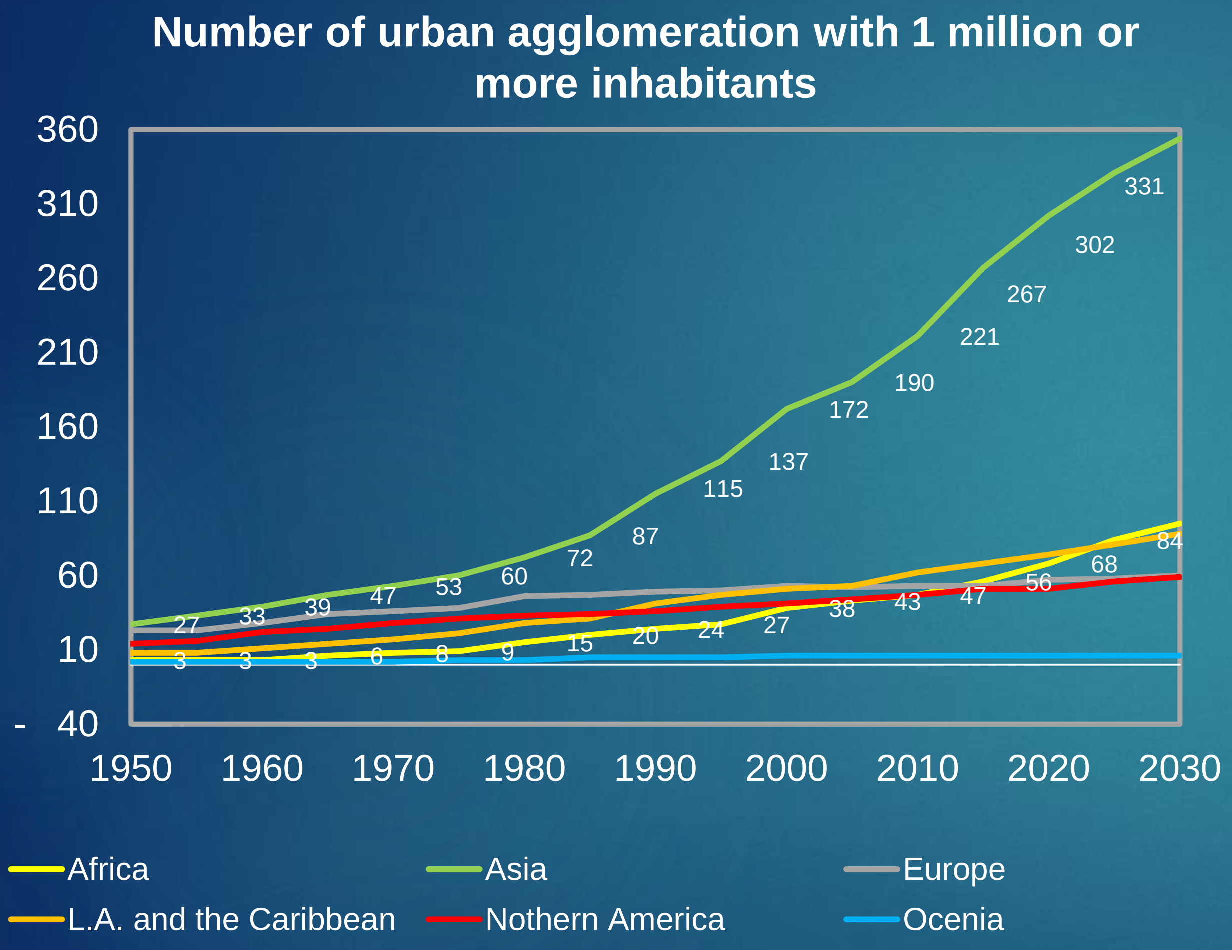
II. Fiscal policy and urbanization nexus

III. How to mobilize resources for cities

IV. Conclusions

I. Stylized Facts about Urbanization

Rapid increase in urbanization



Source: UN Department of Economic and Social Affairs (UN DESA)

From 746 million in 1950 to 3.4 billion in 2014

Currently 54% of the world's population resides in urban areas

Going forward, much of the urbanization is expected to happen in developing countries

…and it will bring about many positive and some potentially negative consequences

Positive aspects of urbanization:

- Spur growth by increasing productivity
- Boost innovation
- Induce economies of scales and
- Offer better paying jobs

Potentially negative aspects of urbanization:

- Air pollution
- Traffic congestion
- Expansion of slums and
- Increased income inequality

II. Fiscal Policy and Urbanization Nexus

What are the fiscal implications?

Urbanization in developing countries will entail:

- Use of more land
- Construction of more housing
- Investment in infrastructure
- Tackling environmental damage

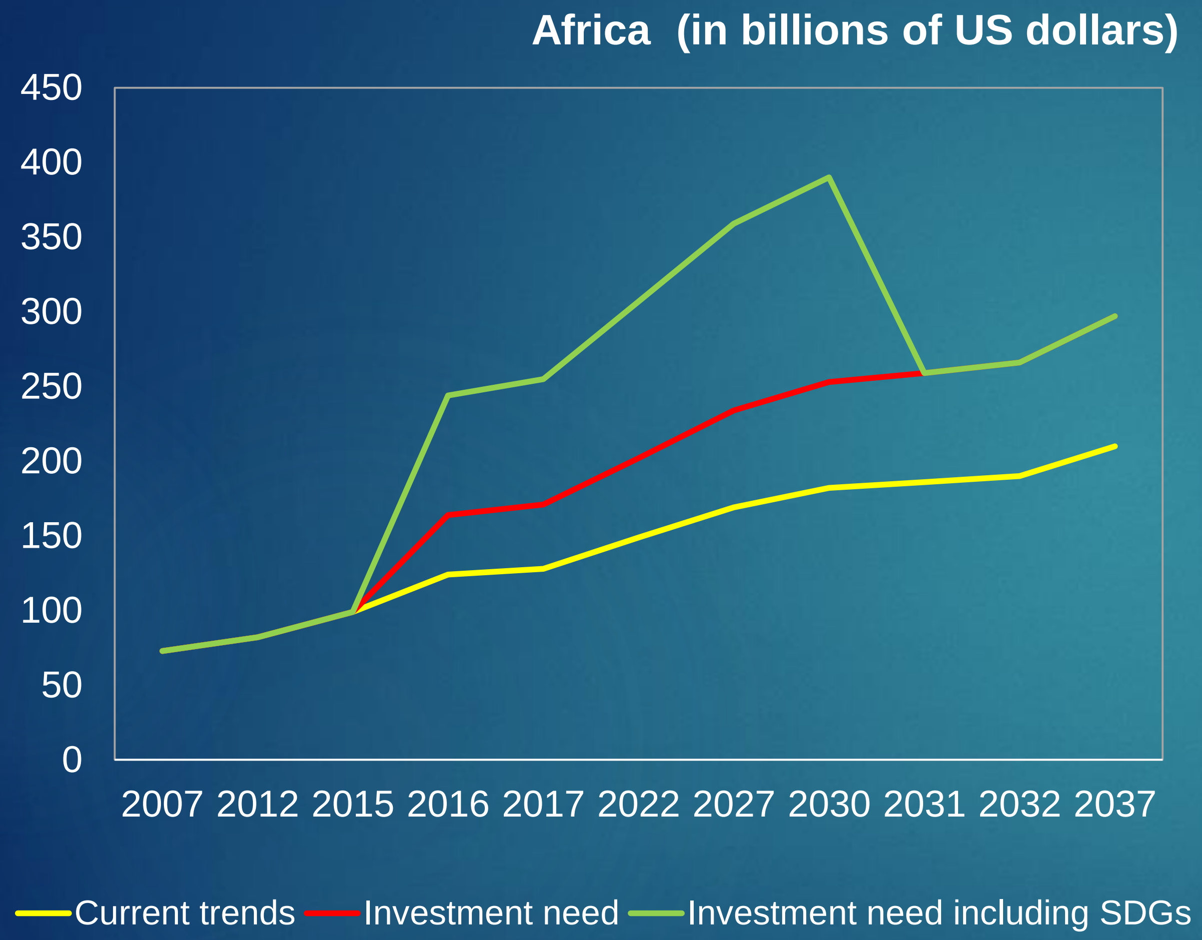
A key fiscal challenge:

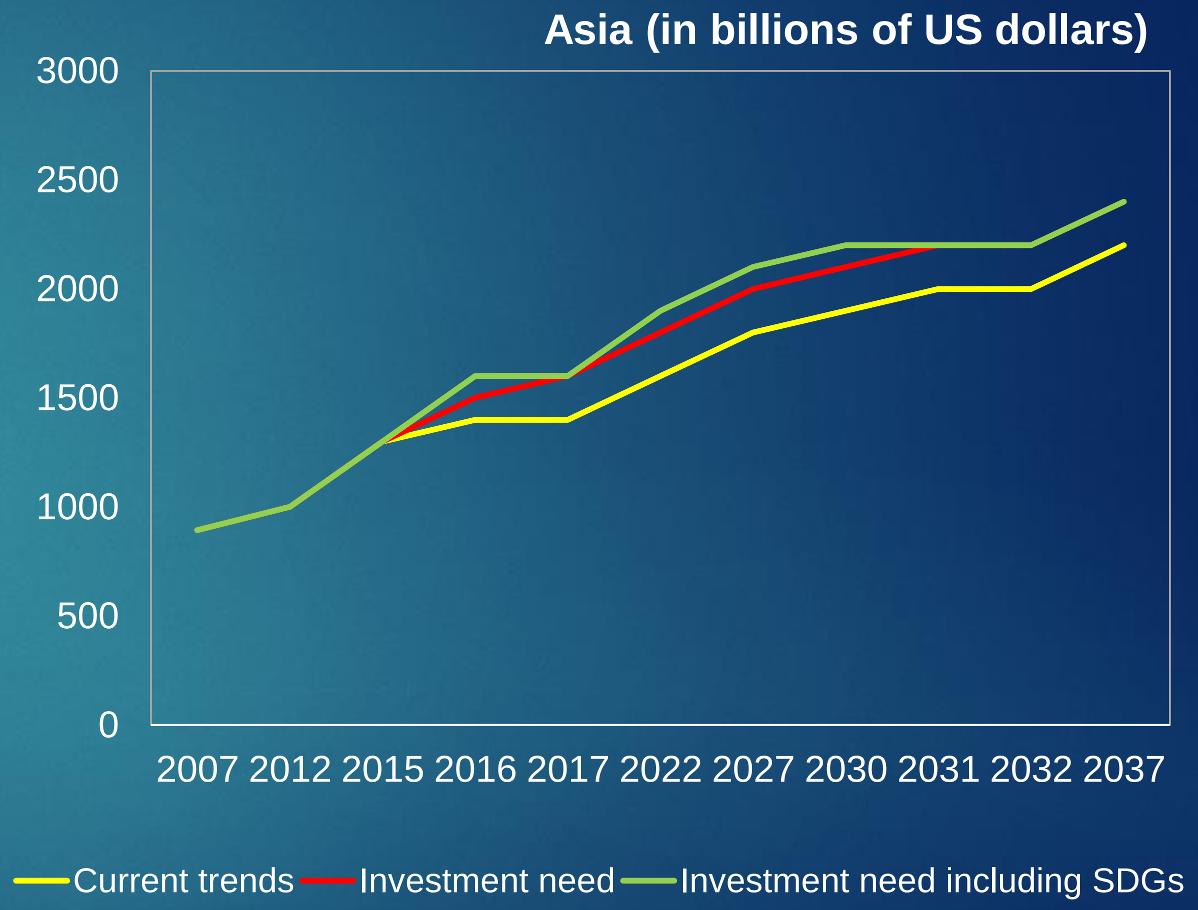
- How to mobilize resources for cities to ensure sustainable provision of infrastructure and basic services?

Rapid urbanization creates large infrastructure needs in DCs

- 70% of global infrastructure demand will emanate from urban areas
- 90% of the increase in urban population by 2050 will be concentrated in Asia and Africa
- Already 650 million people in Africa and 427 million people in Asia lack access to electricity
- 240 million of urban residents in Africa and 523 million urban residents in Asia live in slums
- Going forward, infrastructure annual investment needs are estimated at $240 billion in Africa and $2.08 trillion in Asia

Investment needs: Africa and Asia





Source: Global Infrastructure Hub

Rapid urbanization induces increase in environmental damage

- Urban areas generate 80 percent of the world's GDP and consume more than two-thirds of the world's energy, thereby generating 70 percent of world's greenhouse (GHG) emissions
- Buildings - both commercial and residential - account for a fifth of the total energy emissions
- Transportation accounts for one fifth of global carbon emissions

- The IMF has estimated the total cost of fossil fuel subsidies broadly defined at $5.3 trillion (or 6 percent of global GDP)
- Removal of fossil fuel subsidies will:
  1. Reduce global CO2 emissions by more than 20%
  2. Reduce primary deaths from air pollution by more than 50%
  3. Generate fiscal gains of $2.9 trillion (3.6% of world GDP) for lowering distortionary taxes and high priority spending

III. How to mobilize resources for cities?

Many options

Reassess the design fiscal federal framework

Seek improvement in public investment processes

Leverage new sources of finance

Generate revenue from land assets (land value capture, land leases and land sales, and land asset management)

Reassess the Design of Intergovernmental Relations

- **In DCs, local governments collect on average less than 25% of their spending needs against 56% in much more developed regions. This affects their ability to finance urbanization**
- **Ideally, one should seek to improve fiscal arrangements (tax and expenditure assignments) between federal and local governments, but politically difficult in the short term**

Local Government Shares of Total Public Sector

Regions	Revenues	Expenditures
East Asia	20.0	40.0
North America	17.8	26.8
Europe	13.0	23.9
Latin America	4.0	11.1
Africa	3.2	7.9
South Asia	1.5	16.0

Source: United Cities and Local Governments (UCLG)

Seek improvements in public investment processes

- On average, DCs lose about 40% of the value of their public investment because of inefficiencies in the investment process
- In emerging and LICs, Public Investment Management Assessments suggest weaknesses in institutions that govern public investment, particularly in the implementation stage of investment. Additional fiscal space can be created both at the federal and local levels by improving investment processes

Leveraging Innovative Financing Mechanism

- *Private sector*: The assets under management (AUM) controlled by the private finance is estimated at $120 trillion globally. However, infrastructure projects attract only 10% of private equity AUM

- *Public finance*: The total official development assistant (ODA) is estimated at $186.1 billion. However, infrastructure projects financing account only for 23% of total ODA

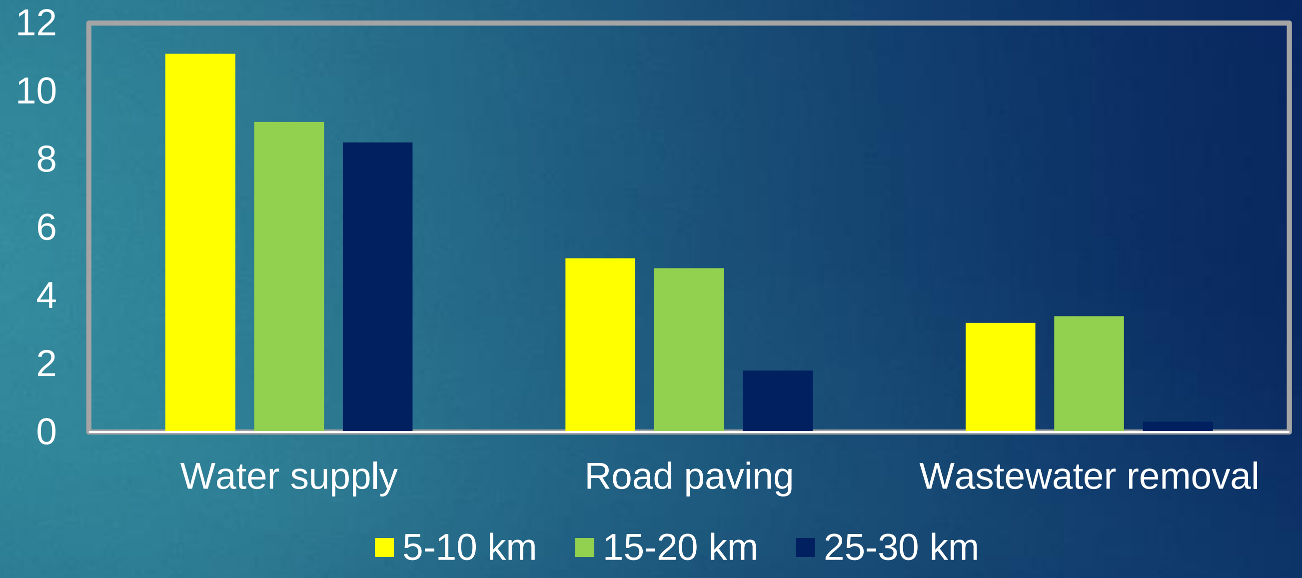
- *Urban Development Fund:* Creation of sustainable Urban Development Fund to make urban infrastructure investments more attractive to the private sector

Revenue from land assets

Land Value Capture (LVC)

- Land values increase with urbanization because of government investment in infrastructure
- Fair to tax the surplus - price appreciation - created by the provision of public infrastructure through betterment levies, a one time tax
- Betterment levies collected at the time investment or when permission to change land is granted
- Land Value Capture has been used in Brazil and Hong Kong ($18 billion over 25 years)

Land value gains from infrastructure investment in Recife, Brazil



Source: Paterson (2009)

Revenue from land assets

Land lease and land sale

- It also benefits corporate taxes
- Important in China: 40% to 60% of revenue for local governments (between 2008 and 2014 it generated $2.4 trillion) through long-term leasing, e.g., 50 years for industrial uses, 70 years for residential use

- Land lease/sale has some notable downsides. It can:

1. Reduce land for agriculture
2. Make fiscal position unsustainable over the medium to long term when local governments exhaust land resources
3. Not conducive to transparency if transactions are conducted off budget

Revenue from land assets

Land asset management

- Huge land and property assets in public balance sheets, which are noncore
- Worth exploring swapping these (*noncore*) assets for productive assets. Example Egypt sold desert land for construction of Cairo Ring Road

Revenue from property taxation

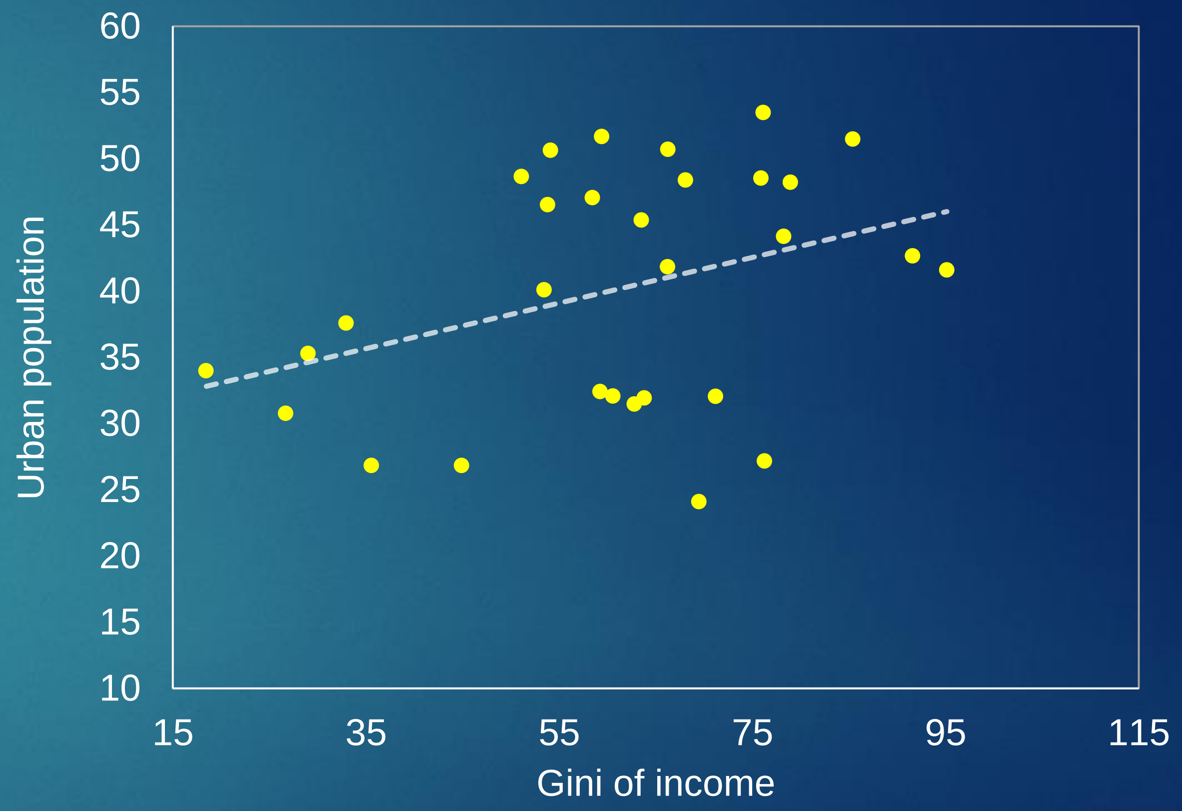
- Fair for governments to capture part of the price increase, and is efficient as it does not affect urban investment

- A sustainable source of revenue (less cyclical)

Revenue from property taxation

…could also contribute to reducing inequality within countries

- More urbanized countries seem to be more unequal
- In the U.S., 23% of the increase in earning inequality is explained by large urban areas
- Higher urbanization tends to attract more productive workers
- Skilled labor captures a share of the urban rents at the expense of the landowners (e.g., financial sector workers in London)
- Rationale for a more progressive income taxation and not only land taxation



Source: WB, UN DESA and IMF staff estimates

Revenue from property taxation

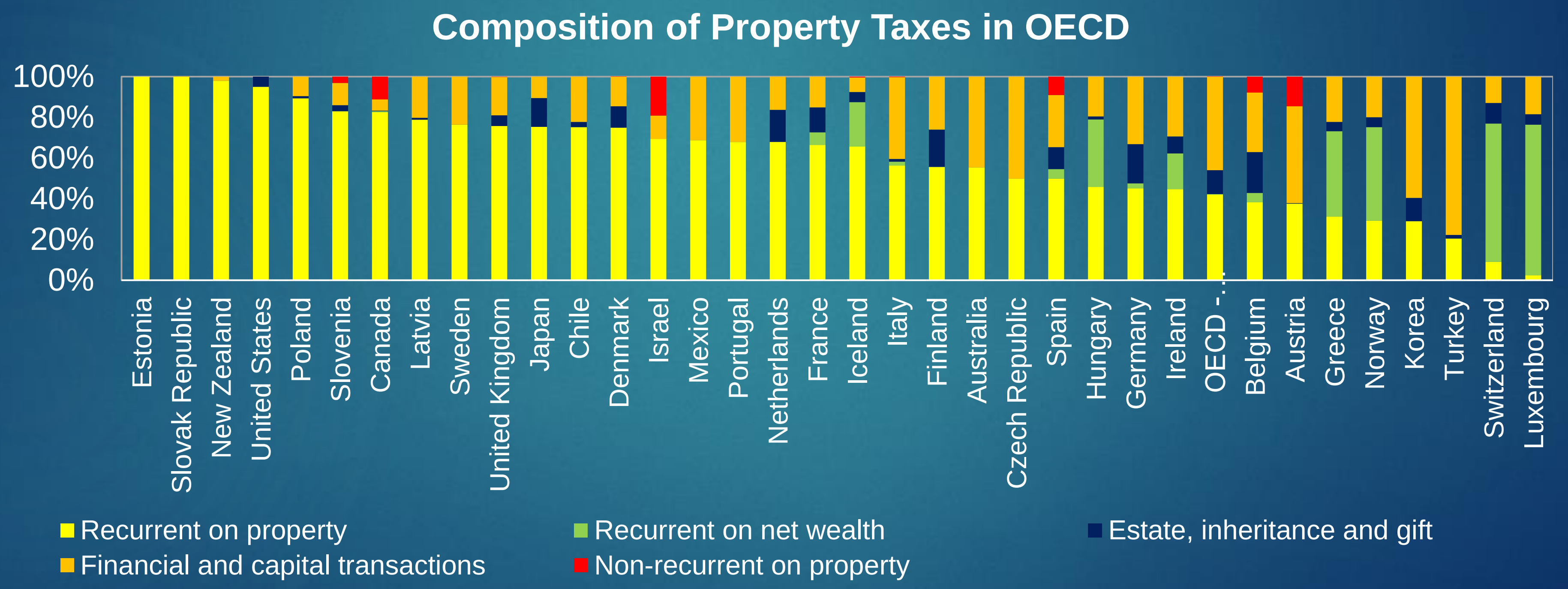
- However, revenue from property taxes is relatively low in emerging and low-income countries

	OECD countries	Emerging Markets	Low income countries
Property taxes as % of GDP	1.9	0.6	0.3
Property taxes as % total taxation	5.5	3.4	1.8

Source: OECD and IMF

Revenue from property taxation

- Local governments in OECD rely more on property taxes
- Taxes on property as % of total local revenue: 46% for local governments in OECD countries



Source: OECD

Revenue from property taxation

- There are many obstacles to collecting higher property taxes:

1. Base not updated on a regular basis because of weak administration, leading the authorities to raise tax rates instead. This increases the unpopularity of property taxes. Tax rates range between 10 and 30 percent in Egypt and Kenya as against 0.5 to 1 percent in USA and Europe.
2. Tax base erosion through incentives
3. Weak or undefined property rights

IV. Conclusions

Key messages on fiscal implications of rapid urbanization

- Rapid urbanization is a challenge for policymakers, which policymakers has to manage with an appropriate policy mix

- Fiscal policy is key to managing this challenge

- An effective fiscal policy can help to support sustainable infrastructure that the rapid urbanization requires and ensure adequate provision of public services

- It can also help to internalize negative externalities generated by urban areas

References

- Baffour Awuah, K. G., Hammond, F. N., Lamond, J. and Booth, C. (2014) Benefits of urban land use planning in Ghana. Geoforum, 51. pp. 37-46. ISSN 0016-7185.
- Baum-Snow N. and Ronni Pavan R., (2013), ‘’ Inequality and City Size’’, Review of Economics and Statistics, Volume 95 | Issue 5 | December 2013, p.1535-1548.
- Behrens K. and F. Robert-Nicoud ‘’Survival of the Fittest in Cities: Urbanisation and Inequality’’, The Economic Journal.
- Bhattacharya A., Meltzer J., Oppenhem J,, Qureshi Z. and Stern N. (2016), ‘’Delivring on Sustainable Infrastructure for Better Development and Better Climate’’, Global Economy and Development at Brookings.
- CCFLA (2015), ‘’The State of City Climate Finance 2015’’. Cities Climate Finance Leadership Alliance.
- Clements B., Coady D., Fabrizio S., Gupta S., Alleyne T., and Sdralevich C. (2013), ‘’Energy Subsidy Reform: Lessons and Implication’’, International Monetary Fund.
- CKGSB Knowledge (2014), ‘’The Role of Land Sales in Local Government Financing in China’, Major Tian.’
- Collier and al. (2017), ‘’Land and property taxes: Exploiting untapped municipal revenues’’, International Growth Center, Policy Brief.
- Collier P. and Venables A. (2017), ‘’Who Gets the Urban Surplus’’, CERP Discussion Paper, No 12001.
- Faye I. and Bah E. (2017), ‘’Housing Market Dynamic in Africa’’, forthcoming.
- GCEC (2016), “”The Sustainable Infrastructure Imperative: Financing for Better Growth and Development’, The 2016 New Climate Economy Report, The Global Commission on the Economy.
- Gupta S., Kangur C. and Wane A., (2014), “Efficiency-Adjusted Public Capital and Growth”, World Development, Vol. 57.
- IEA (2012), “Energy Technology Perspectives 2012: Pathways to a Clean Energy System”. Paris: International Energy Agency.
- IMF (2015), ‘’Making the Public Investment More Efficient’’, International Monetary Fund, Staff Report.

References (continued)

- Lin, G. C. and Yi F. (2011), ‘’Urban of capital or capitalization of urban land? Land development and local public finance in urbanizing China’’, Urban Geography, 32(1), pp. 50-79.
- Lu Y. and Sun T. (2013), ‘’Local Government Financing Platforms in China: A Fortune or Misfortune?’’, IMF Working Paper 13/243.
- Murray S., Kopanyi M. and McSharry P. (2016), ‘’A Land Value Tax for Kigali: Analysis and Policy Considerations’’, International Growth Center.
- Norregaard J. (2015), “Taxing Immovable Property: Revenue Potential and Implementation Challenges” in Inequality and Fiscal Policy” by B. Clements, R. de Mooij, S. Gupta, and M. Keen, International Monetary Fund.
- Paice E. (2015), ‘’Lagos Proves Africa’s Property Tax Potential’’, The Africa Report.
- Peterson G. (2009), “”Unlocking Land Values to Finance Urban Infrastructure””, The World Bank.
- Slack E. (2011), ‘’The Property Tax in Theory and Practice’’, IMFG Working Paper No. 2.
- Ter-Minassian T. (2016), “Fiscal and Financial Issues for 21st Century Cities: Background and Overview”, Global Economy and Development at Brookings.
- Ter-Minassian T. (1997), “Fiscal Federalism in Theory and Practice”, International Monetary Fund.
- Ter-Minassian T. (2017), “Promoting Effective and Fiscally Sound Local Investments in Infrastructure”, Unpublished draft.
- UCLG (2016), ‘’Financing Urban and Local Development: the Missing Link in Sustainable Development Finance’’, The Global Taskforce of Local and Regional Governments.
- United Nations (2014), ‘’World Urbanization Prospects: The 2014 Revision, Highliths’’, ST/ESA/SER.A/352.
- UNHABITAT (2011), ‘’Land and Property Tax: A Policy Guide’’, Global Land Tool Network.
- Wu Xun (2016), ‘’China’s Growing Local Government Debt Levels’’, MIT Center for Finance and Policy.
- Yin Qiu (2016), “The Role of Local Government in China's Urbanization: The Relationship Between. Local Land Finance and Government-led Urbanization”. MPA Research.