



SPATIAL GOVERNANCE

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OUTLINE

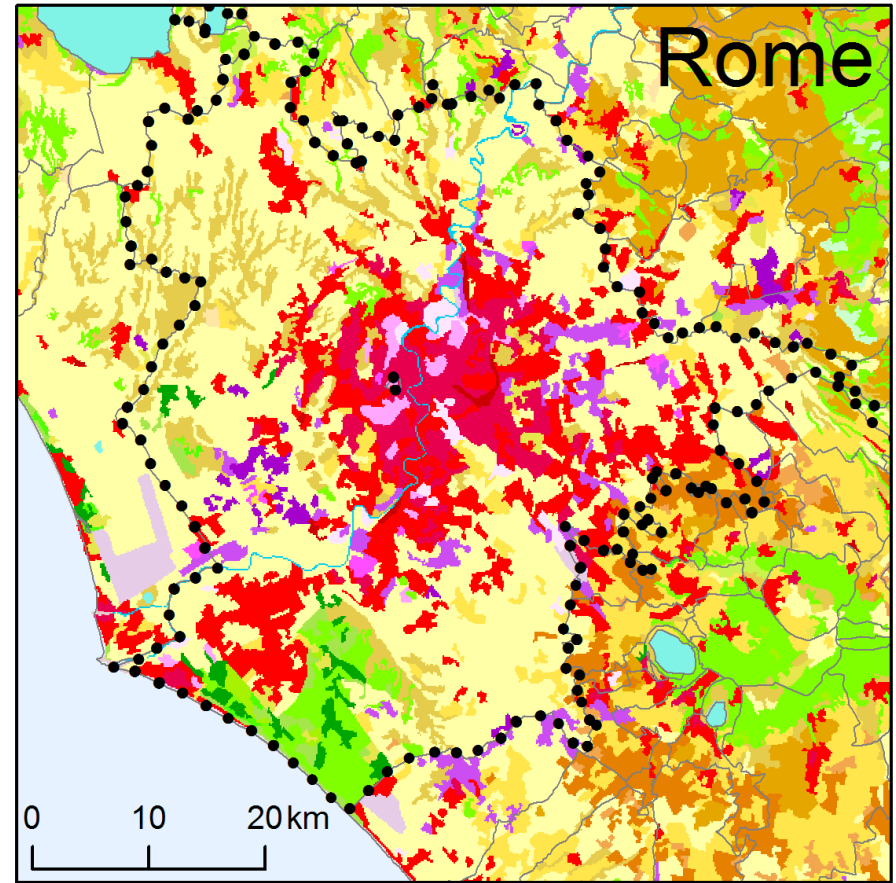
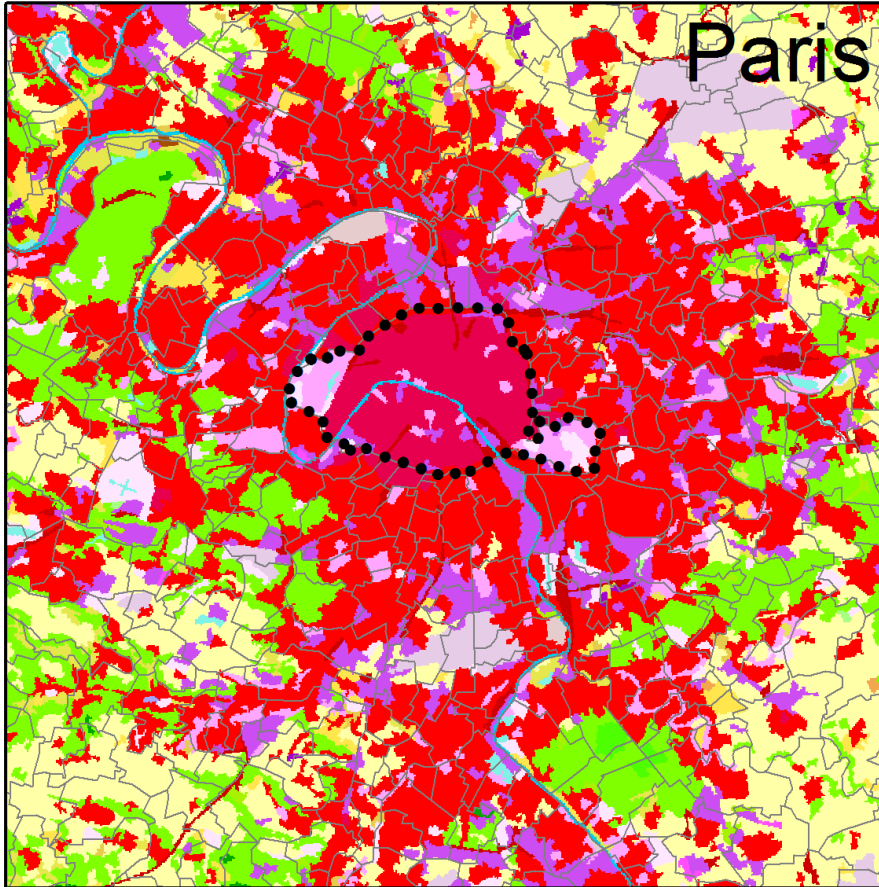
- Cities & Metropolitan Governance
- Governance of Land use
- MLG Indicators



PRODUCTIVE CITIES



Administrative boundaries are not the answer





A functional definition for cities (EU/OECD)

- Definition of Functional Urban Areas based on population density in 1km² cells that are matched to municipal boundaries and connected via commuting patterns.
- Urban centres are identified by aggregating densely populated 1km² cells. Urban centres with at least 50,000 inhabitants are kept.
- They are matched with the boundaries of the lowest administrative level for which statistical data is typically available (NUTS5/LAU2)
- Urban centres and the less densely populated municipalities in the commuting zone are combined into Functional Urban Areas based on commuting flows (>15%).
- More info: OECD (2012) Redefining Urban
- <http://measuringurban.oecd.org>

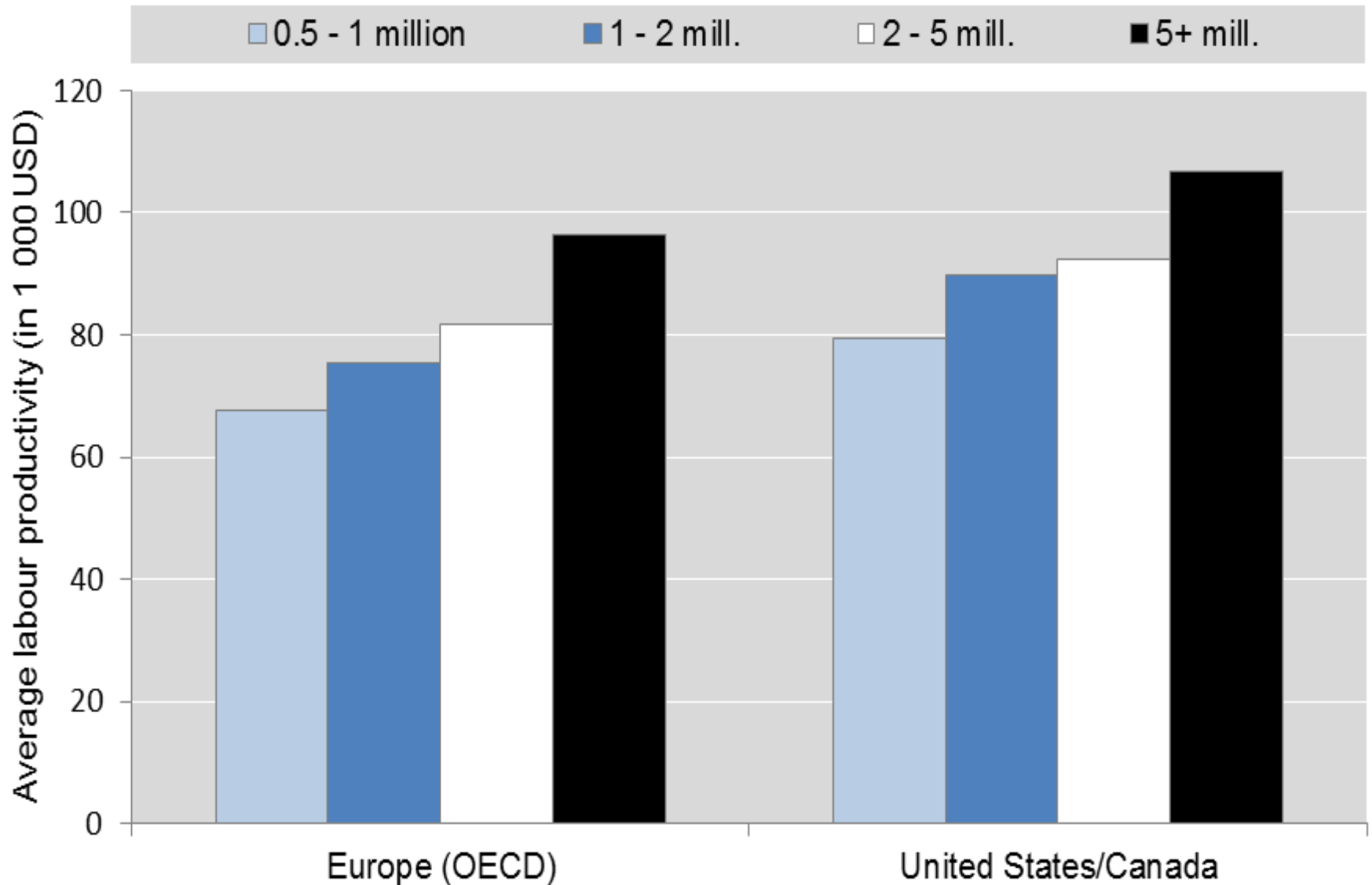


Why do we care about productivity in cities?

- A country's productivity is, in large part, determined by the productivity of its cities.
- Large urban agglomerations account for over 50% of total GDP while taking up less than 5% of total surface area.
- GDP per capita increases with city size: for a doubling of city size by roughly 10%.
- This may in part be a result of higher participation rates in cities. A large part comes from sorting, as better educated individuals have a tendency to live and work in larger cities.
- However, productivity also increases even when controlling for sorting.



Bigger cities are more productive



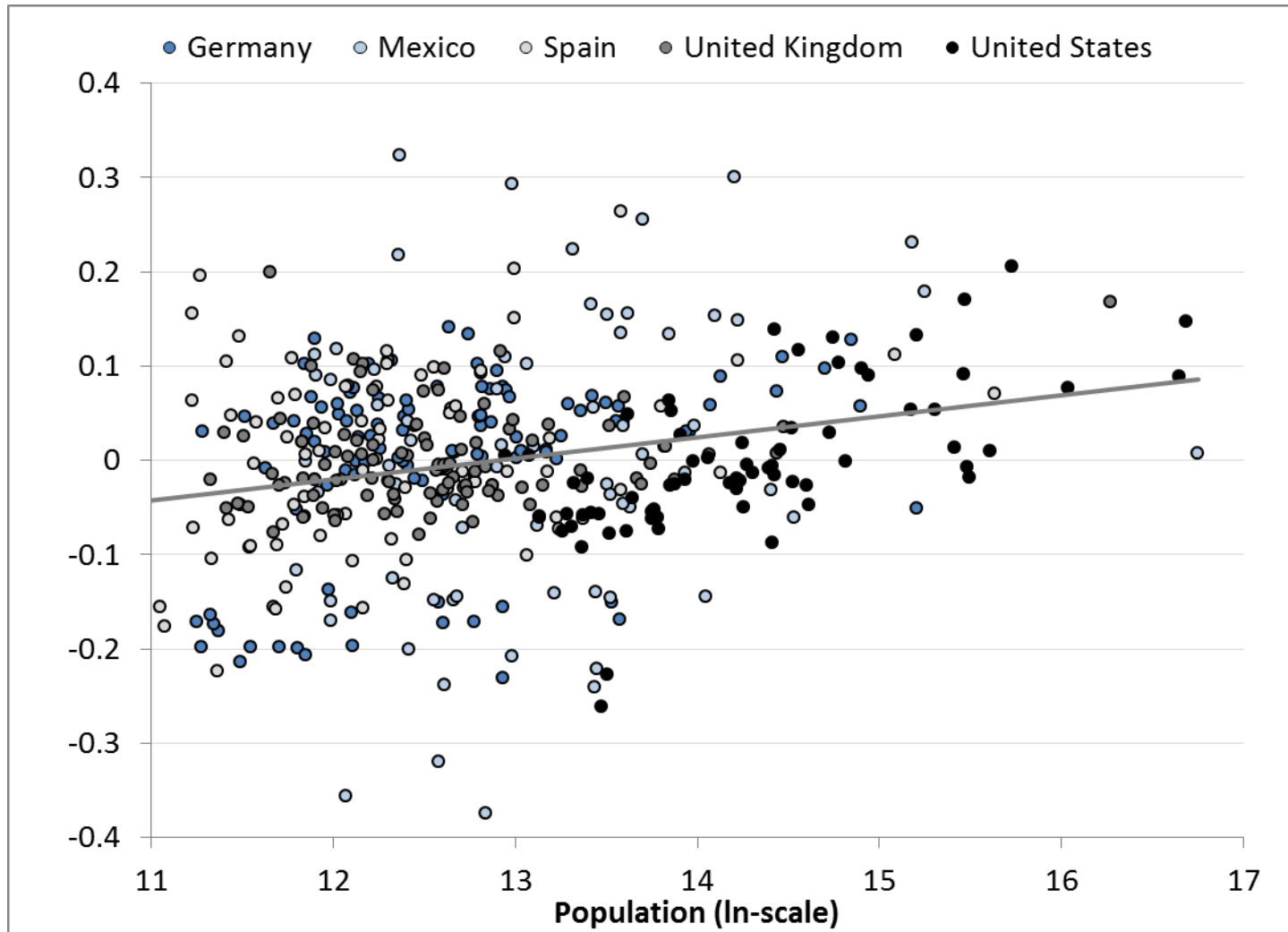


Sources of agglomeration benefits

- Sources of agglomeration from Marshall (1890); reviews by Rosenthal and Strange (2004), Puga (2010); concepts already present in Marshall (1890).
- *Thicker labour markets: labour market pooling; better matching*
- gain from reduced labour acquisition and training costs in thick local labour markets with abundant specialised labour force
- *Sharing facilities, inputs, gains from specialisation*
- firms may face lower costs for specialised non-traded inputs that are shared locally in a geographical cluster.
- *Knowledge spillovers*
- face-to-face contact can enable tacit knowledge spillovers through increases in the intensity of the interactions with other firms or individuals
- *Probably also : Connectivity, Knowledge based capital*

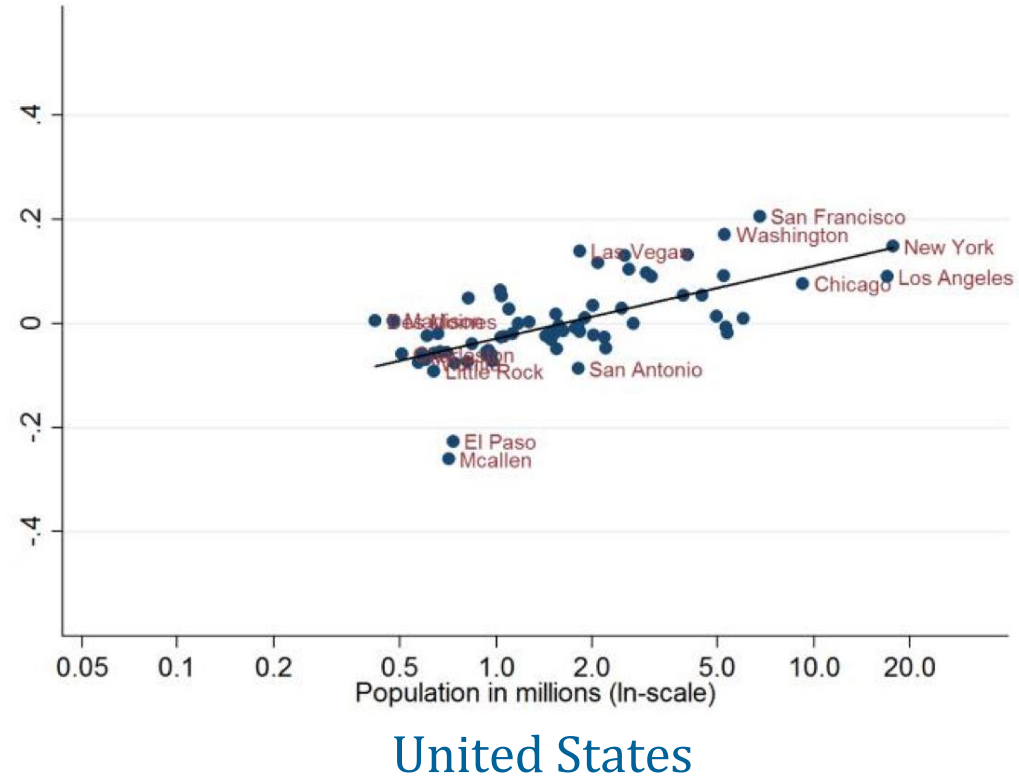
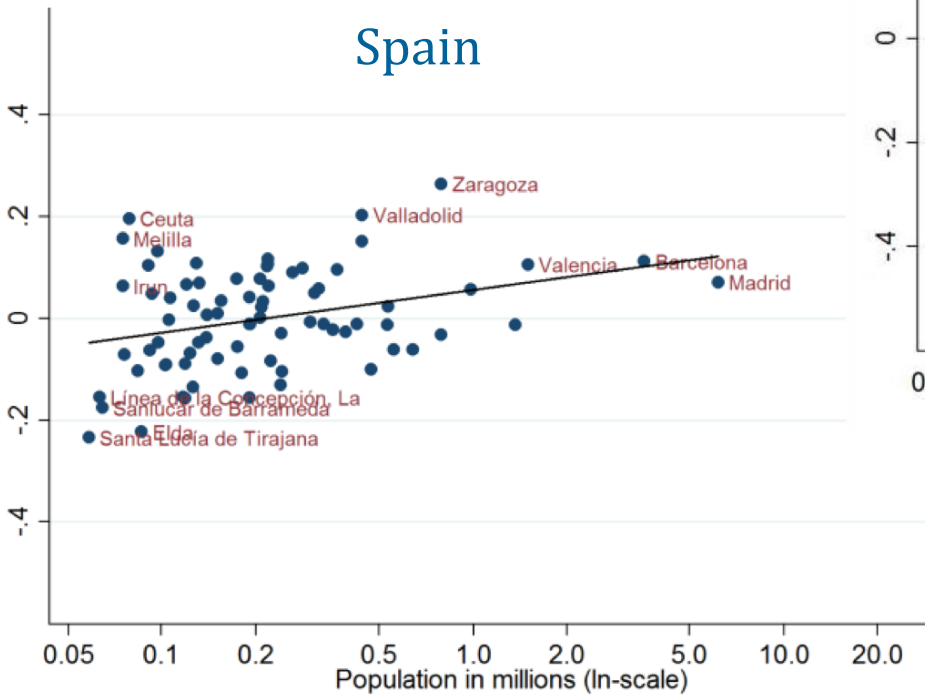


City productivity increases with city size even after controlling for sorting





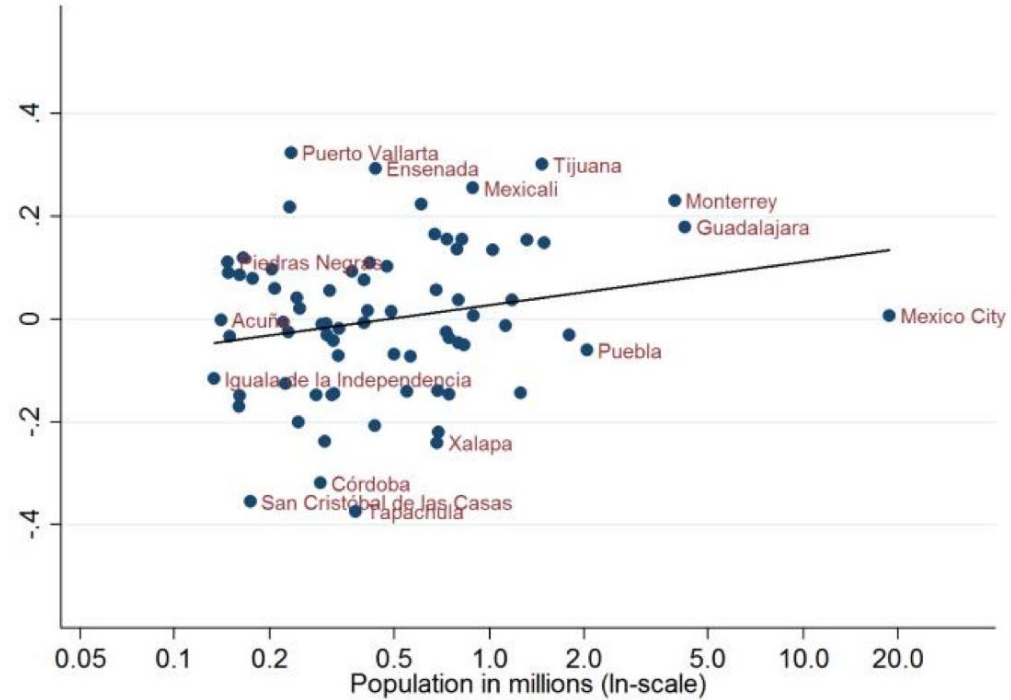
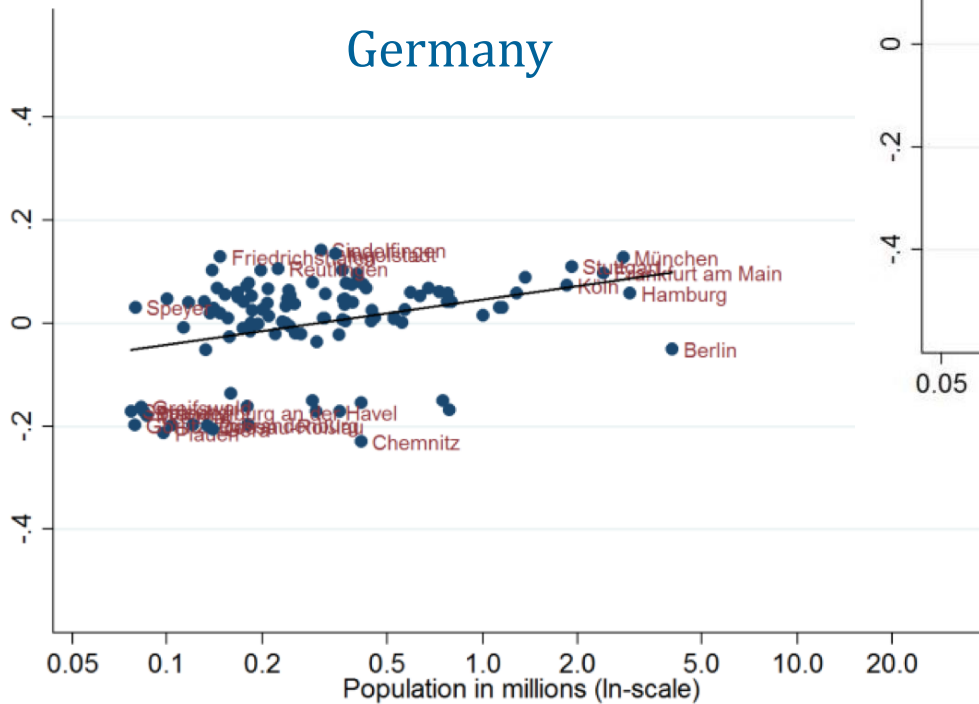
Heterogeneity: bigger is better





Heterogeneity: borders matter(ed)

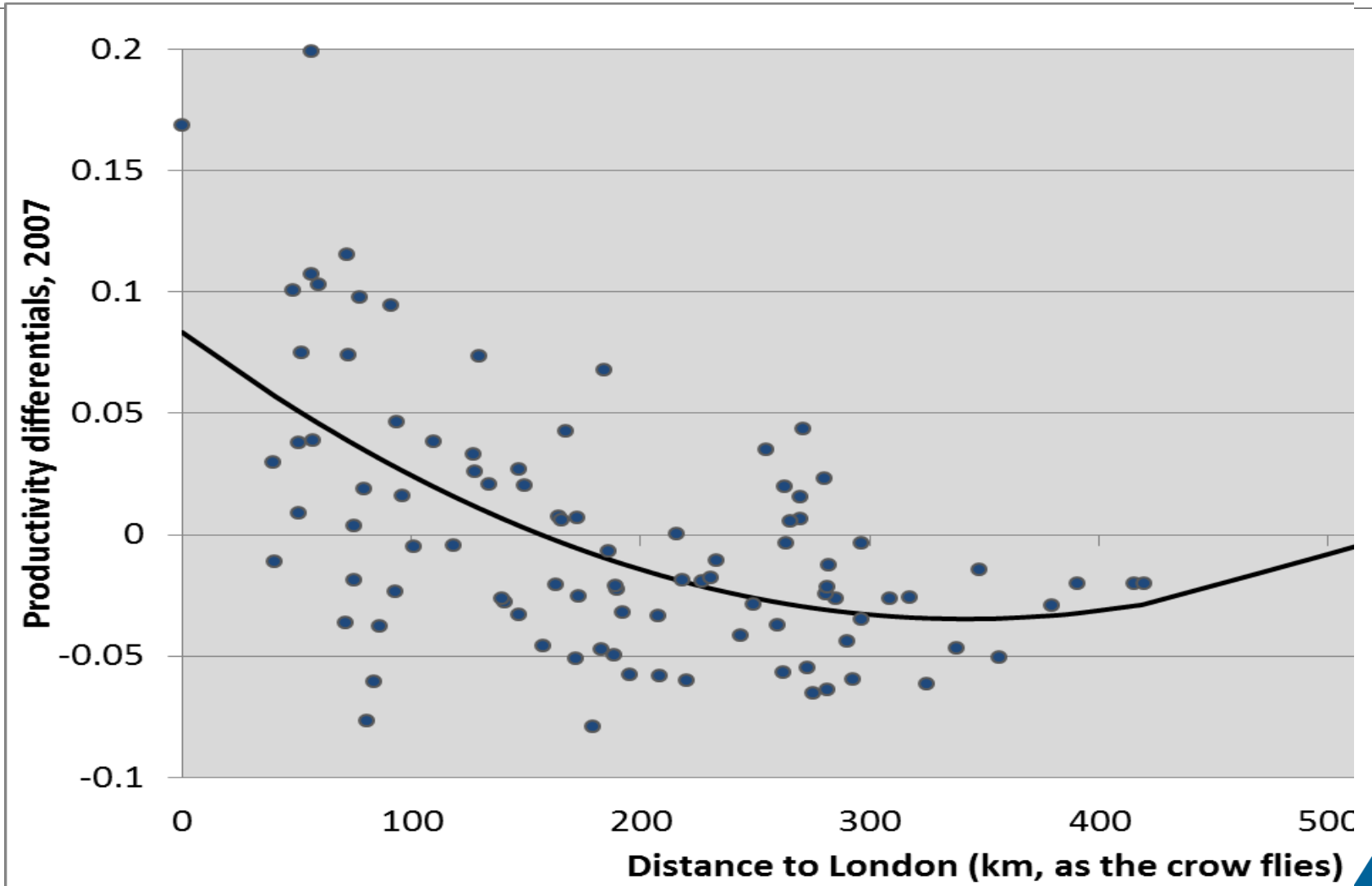
Germany



Mexico



Distance matters - Productivity differentials and distance to London





What makes cities rich?

- The productivity increase associated with increasing a city's population are in the order of 2-5.0% for a doubling in population size.
 - This implies, e.g., that moving from a city of roughly 50000 inhabitants to the Paris agglomeration – on average - increases productivity by an order of magnitude of 20%.
- Smaller cities can “borrow” agglomeration benefits
- Human capital (spill-overs)
 - 10 percentage point increase in university graduates increases productivity by 3% through human capital externality
 - Direct effects are even a lot larger



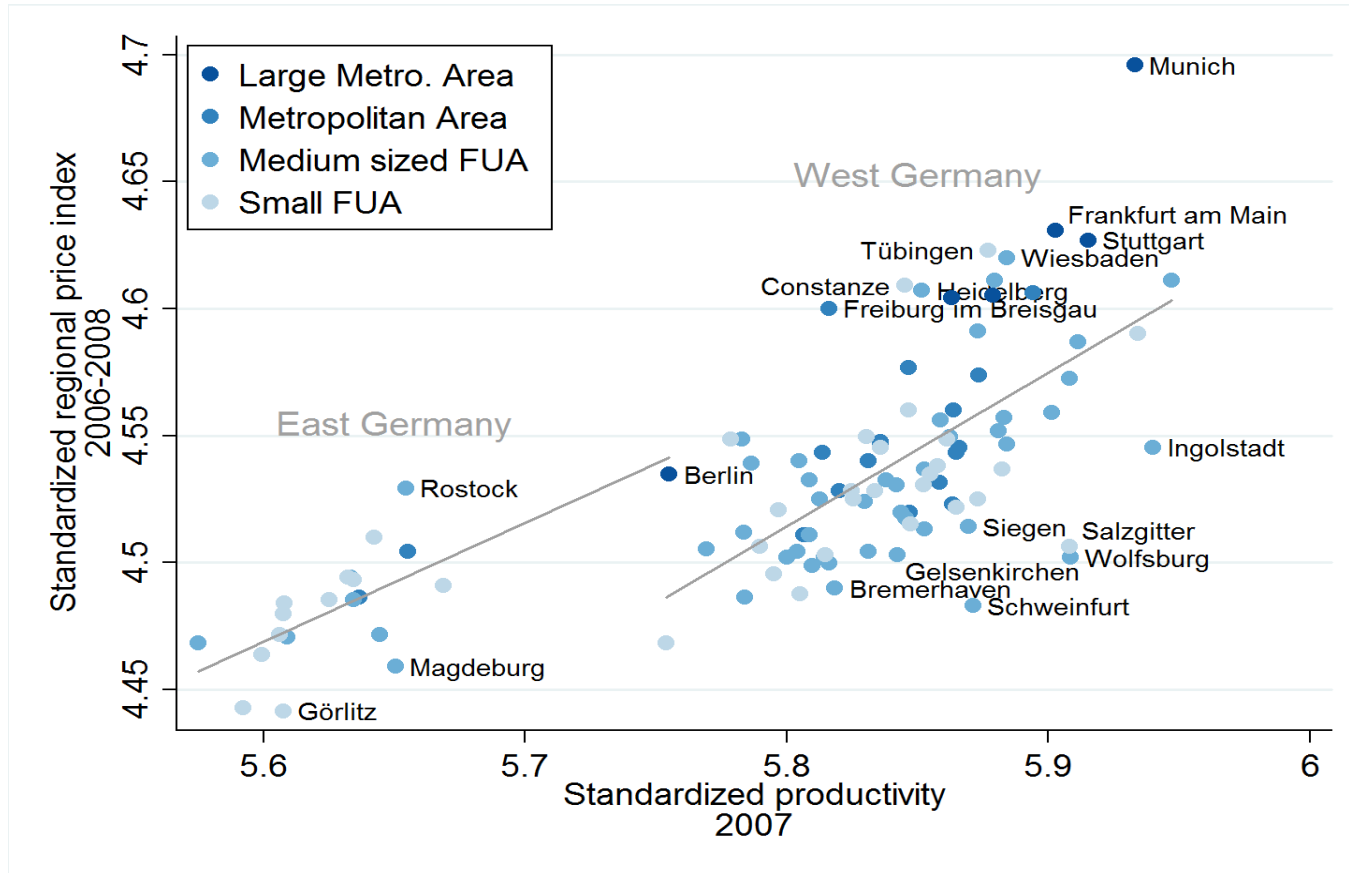
What makes cities rich?

- Adequate governance structures with administrative functions carried out at the “right” level
 - Low fragmentation at metropolitan level; governance bodies
- Position of hub for trade or financial flows or status as national capital can facilitate rent extraction
 - Port cities 3% more productive
- Specialization in certain types of activities
 - Cities with higher share of manufacturing, finance and business services have higher levels of productivity.
 - Cities with a higher share of high-tech activities have larger city productivity premiums
 - Potential trade-off specialisation vs. resilience (especially for smaller cities)



Higher productivity comes with higher prices

Agglomeration benefits and local price levels in Germany



- Overall, gains from agglomeration, but **local purchasing power does (on average) not increase with city size**



Differences in local purchasing power are partly driven by amenities

- Local purchasing power varies widely around the average, and amenities can explain a significant share of the variation
- Residents are willing to pay for local amenities
 - Proximity to large bodies of water (coast or lake), cultural attractions (theatres/operas/etc.) and UNESCO World heritage sites make cities relatively more expensive
- Disamenities require compensation
 - PM10 air pollution reduces local price level relative to productivity benefits
- More educated individuals appear to be willing to pay more for amenities; also, the share of university educated workers seems to be a local amenity in itself.

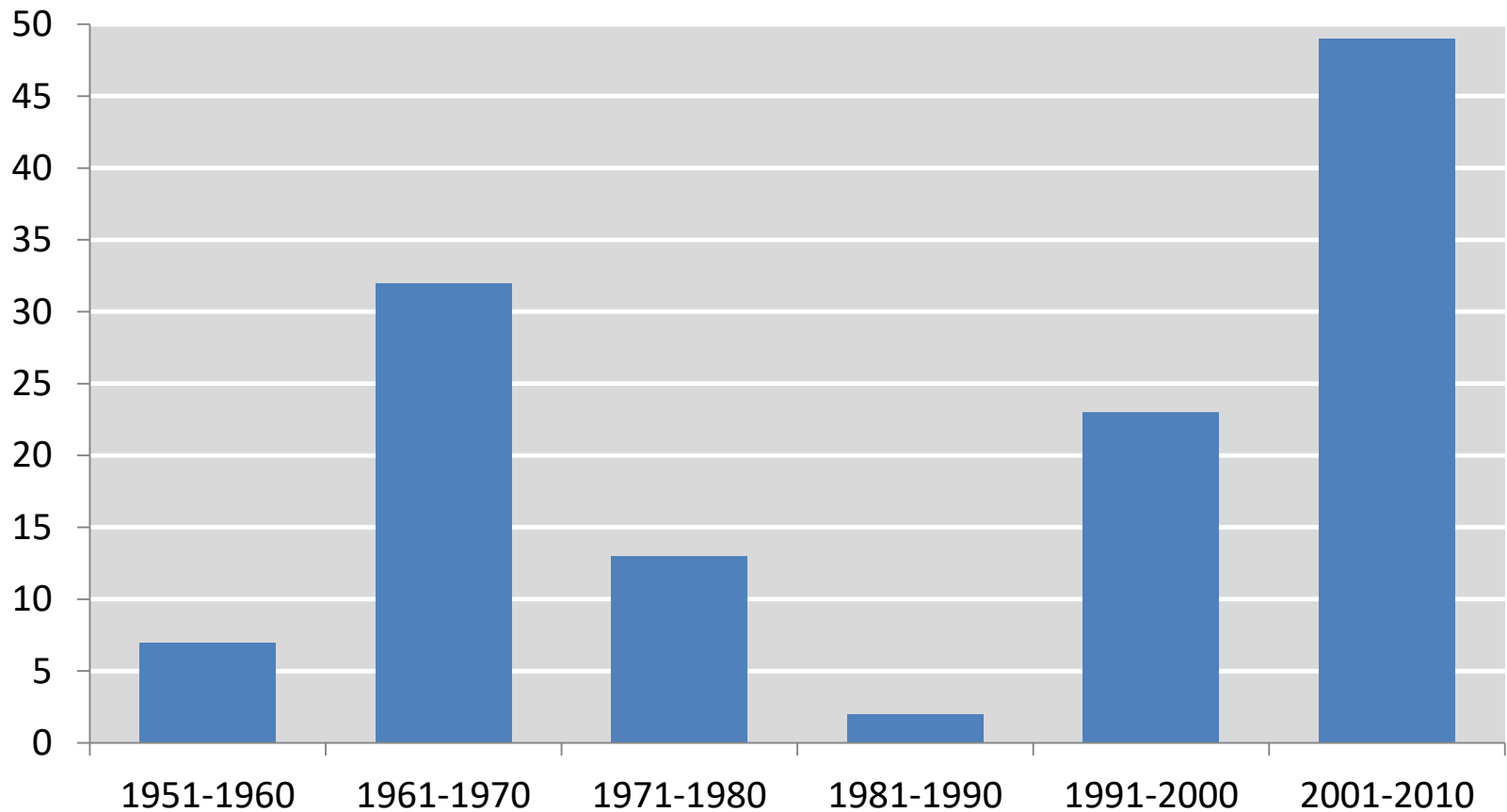


METROPOLITAN GOVERNANCE



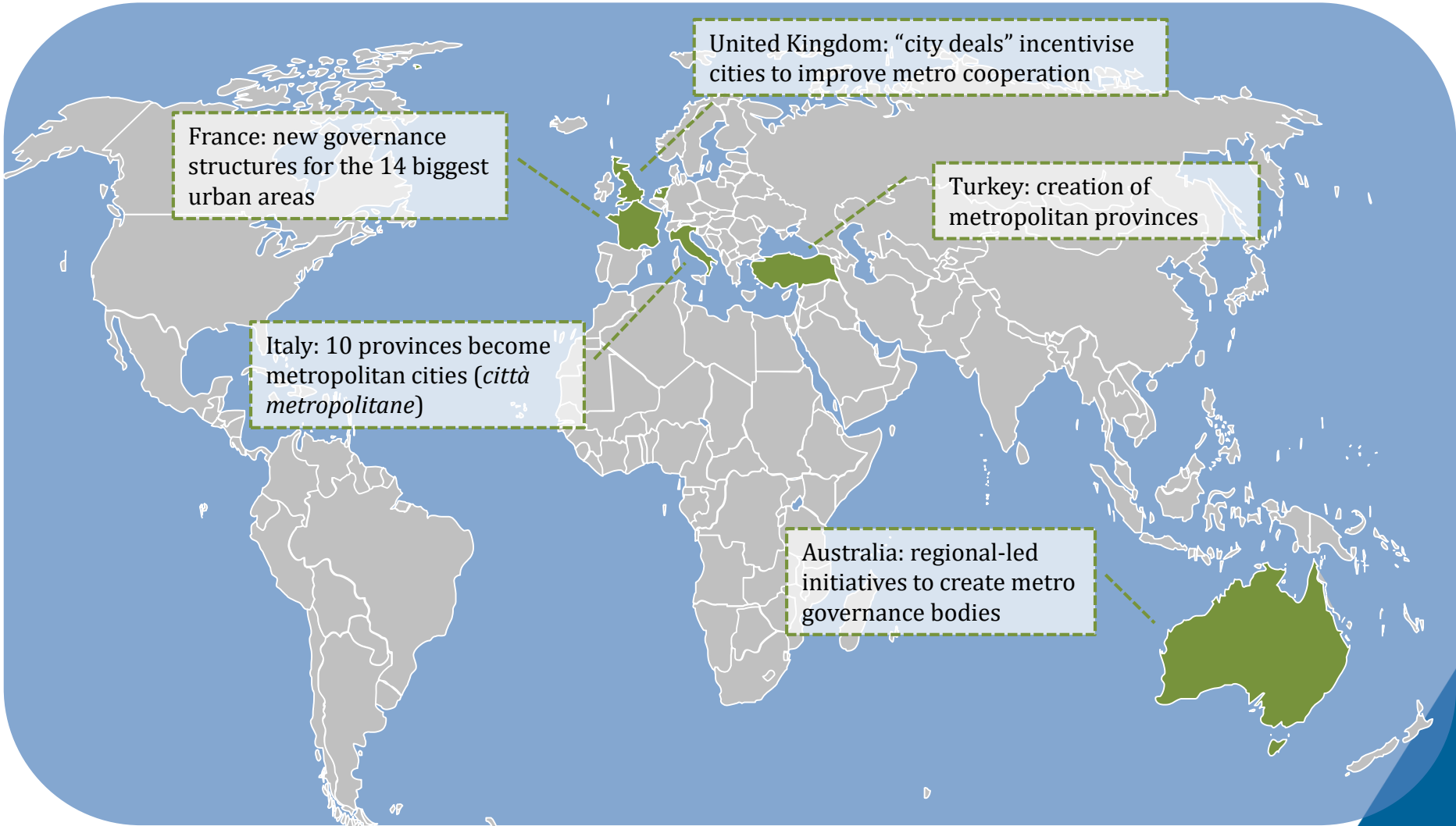
Metro governance reforms in the OECD have accelerated in recent decades

Number of metropolitan governance structures created or reformed in the OECD, by decade





Recent country-wide metro governance reforms across the OECD





What are the drivers of metropolitan governance reforms?

- Growing recognition that administrative boundaries are often outdated and don't match the functional realities in Metropolitan areas
- Evidence that excessive municipal fragmentation hampers metropolitan economic performance and wellbeing



Why do we care about Metropolitan governance?



Urban areas are highly fragmented

Horizontal administrative fragmentation is common as cities outgrow their historic boundaries (more than 10 local governments in 75% of OECD Metropolitan Areas; more than 100 in 22%).

This may lead to undesirable outcomes due to lack of cooperation and negative externalities.

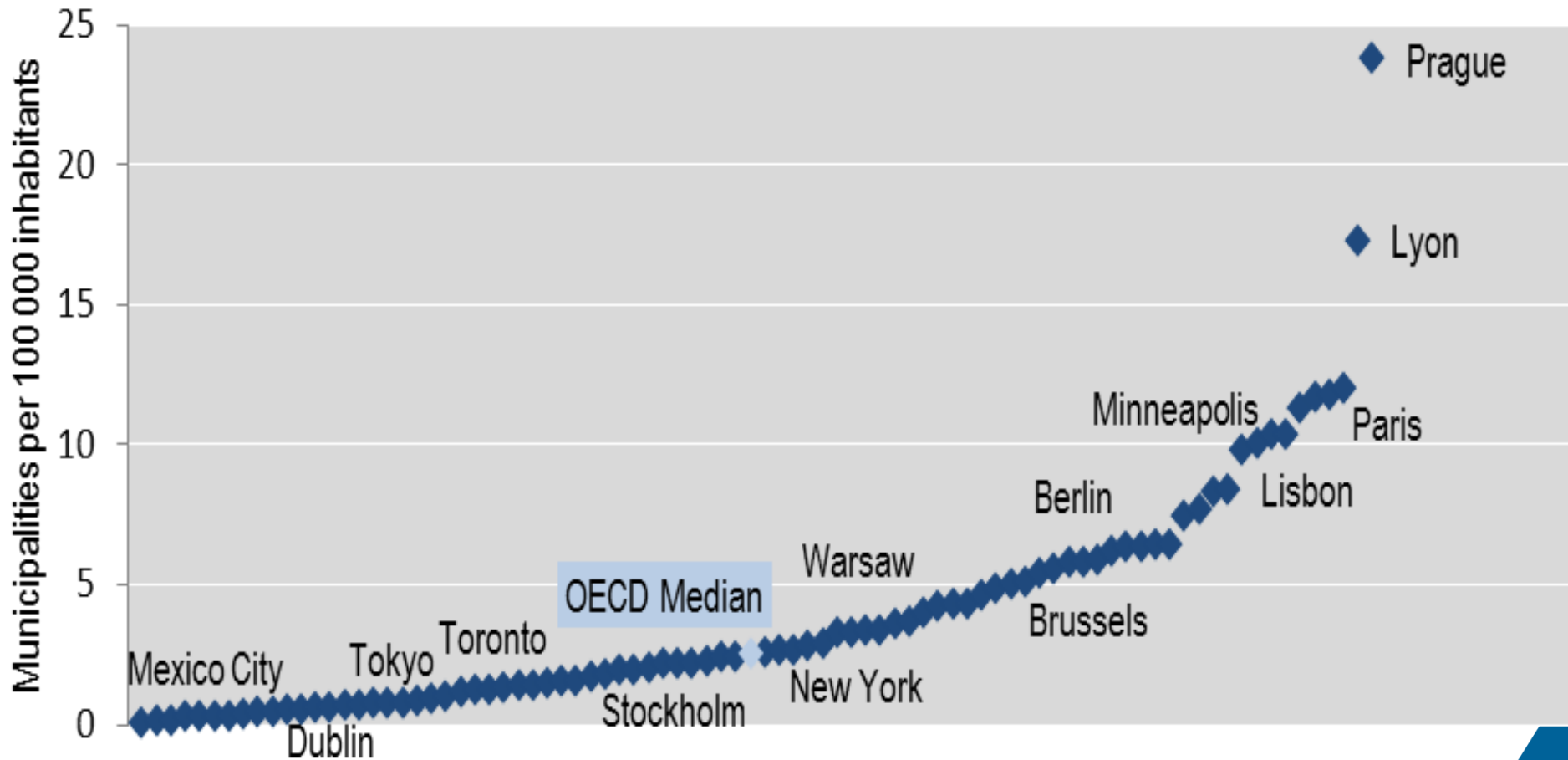
Evidence from case studies points to administrative fragmentation indeed having negative effects.

This is confirmed by more systematic econometric evidence:

[Ahrend, Farchy, Kaplanis and Lembcke \(2014\), “What Makes Cities More Productive? Agglomeration Economies & the Role of Urban Governance: Evidence from 5 OECD Countries”](#), forthcoming in Journal of Regional Science



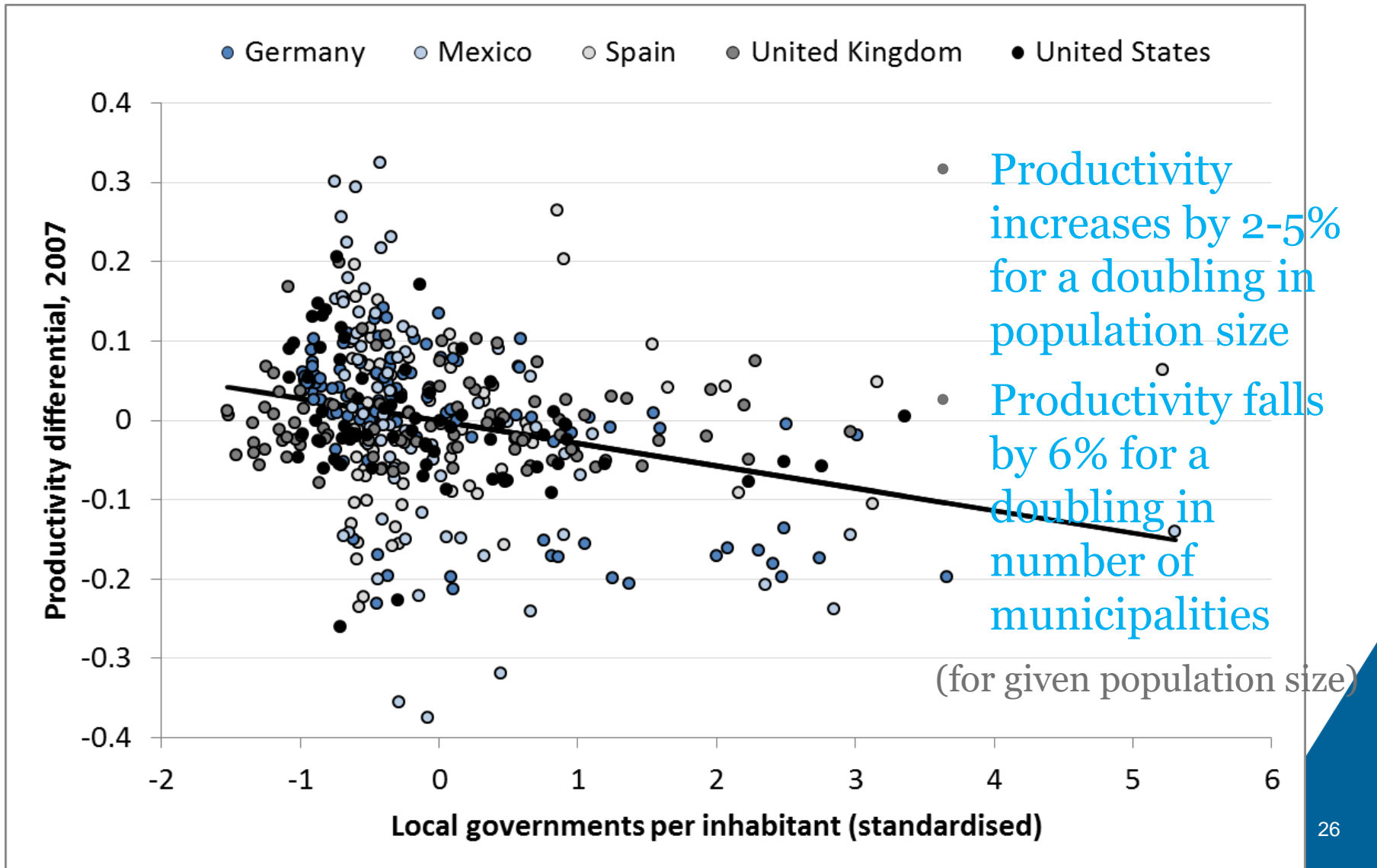
Degree of administrative fragmentation in large OECD Metropolitan areas



Metropolitan areas ordered by the number of municipalities per 100 000 inhabitants

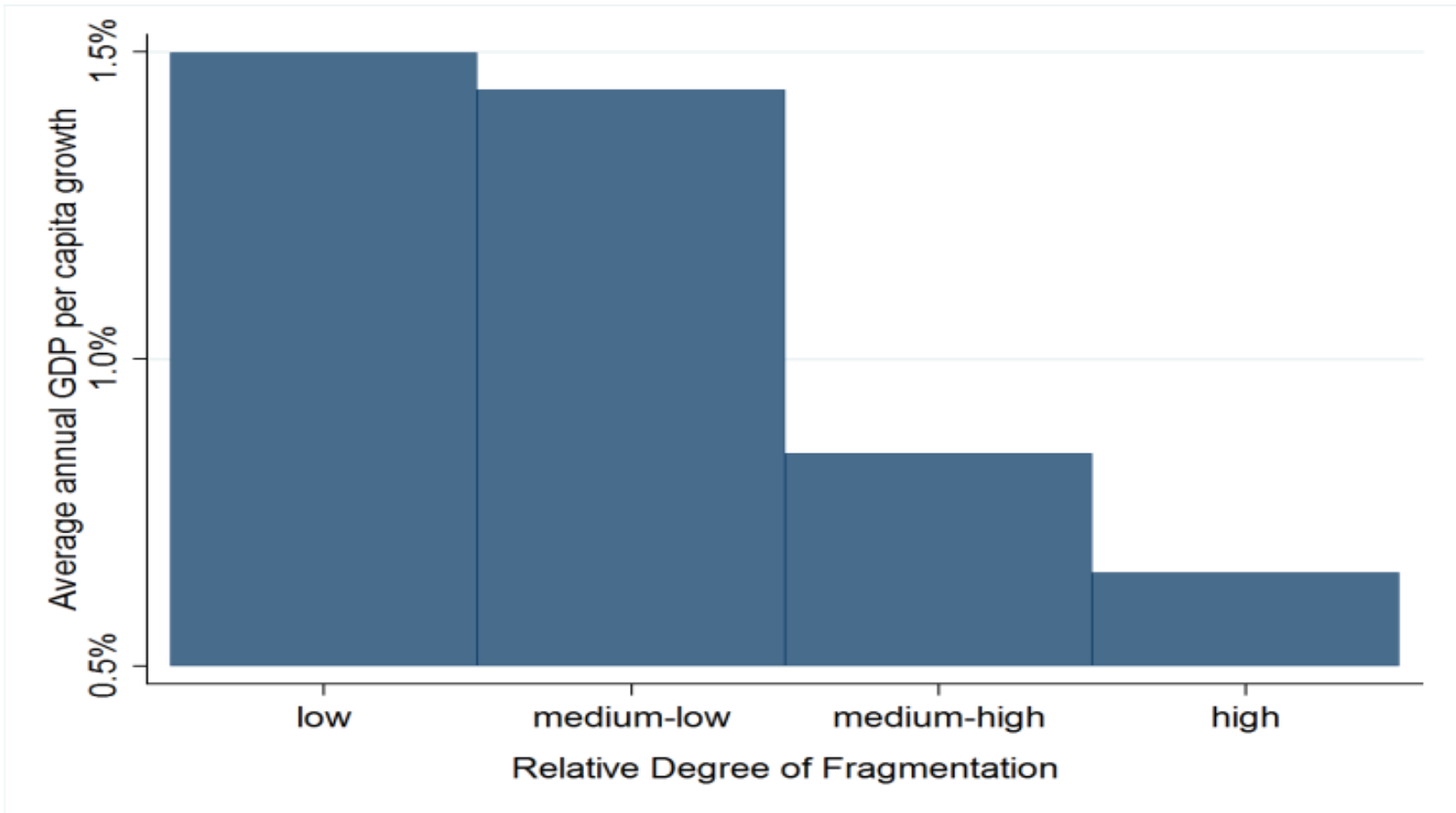


City productivity & administrative fragmentation





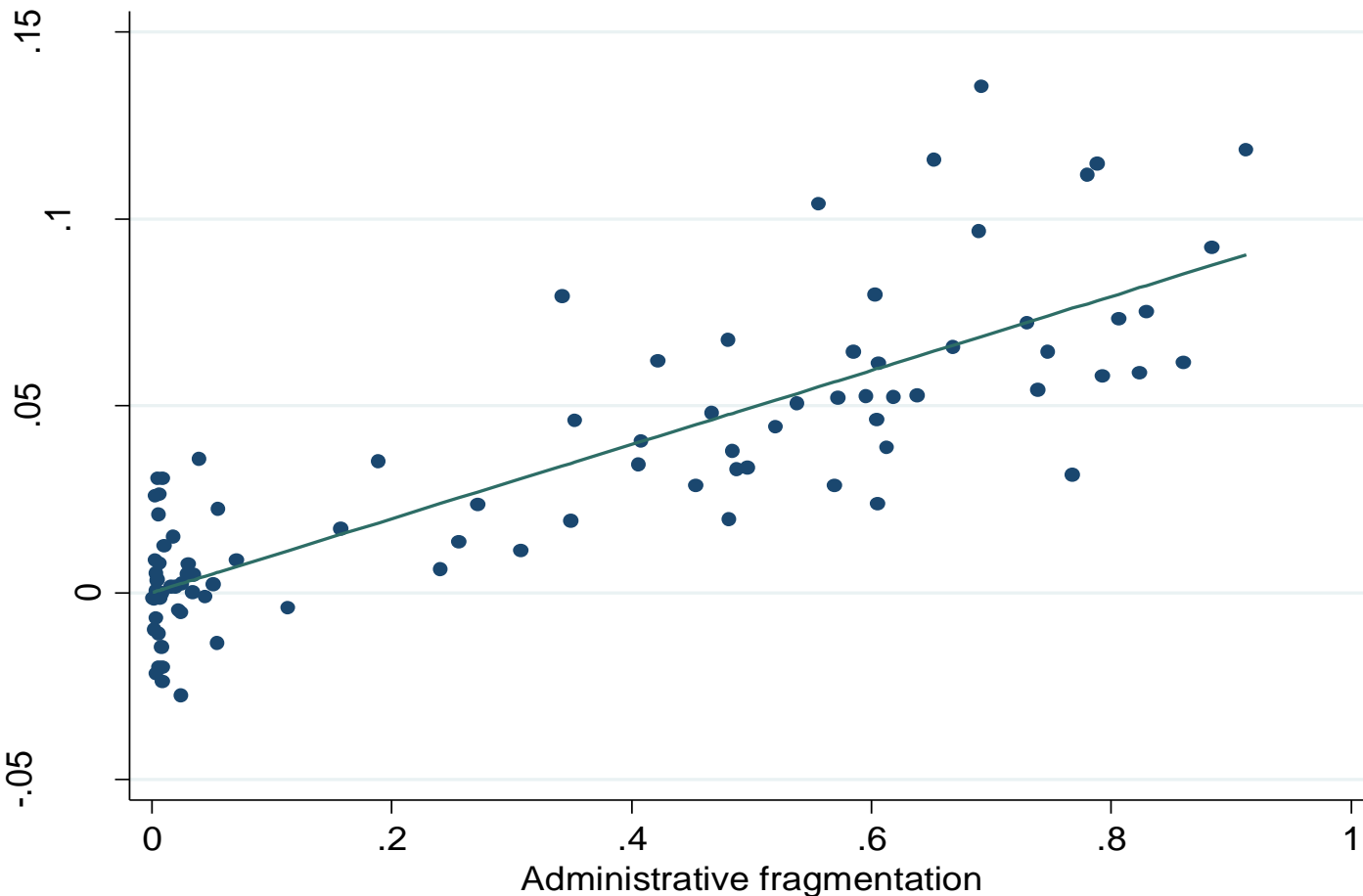
Less fragmented urban agglomerations have experienced higher economic growth





Higher administrative fragmentation is associated with higher segregation of people in different municipalities

Hypothesis: Fragmented metropolitan governance can facilitate segregation at the level of local units.



Controlling for country fixed effects and other city characteristics (i.e. income, population, spatial structure), higher administrative fragmentation is associated to higher spatial segregation by income in different municipalities

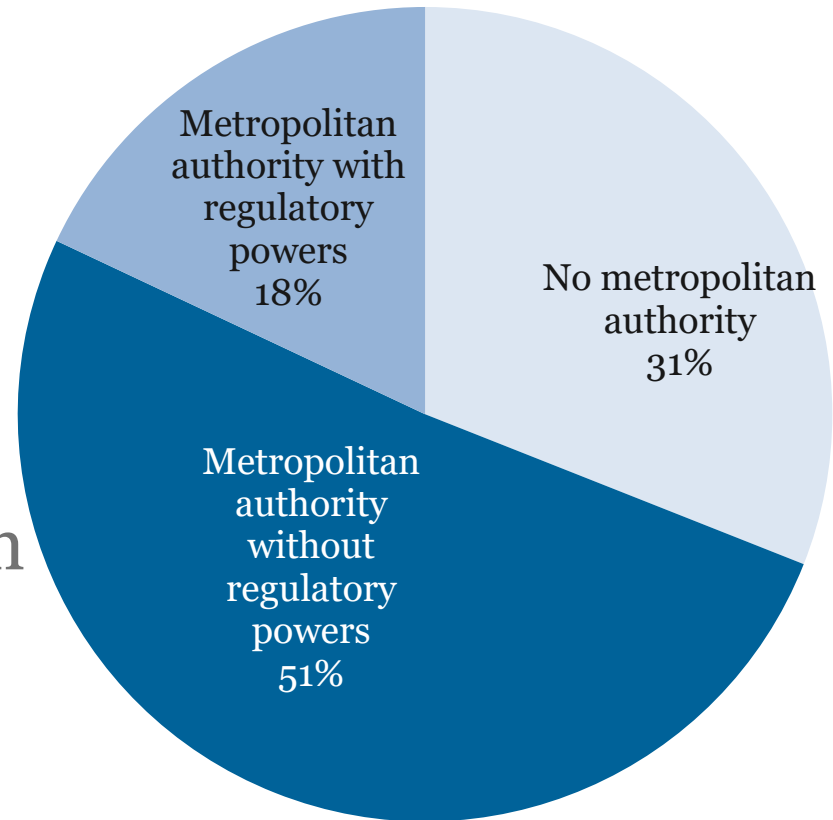


What do we know about
Metropolitan governance?



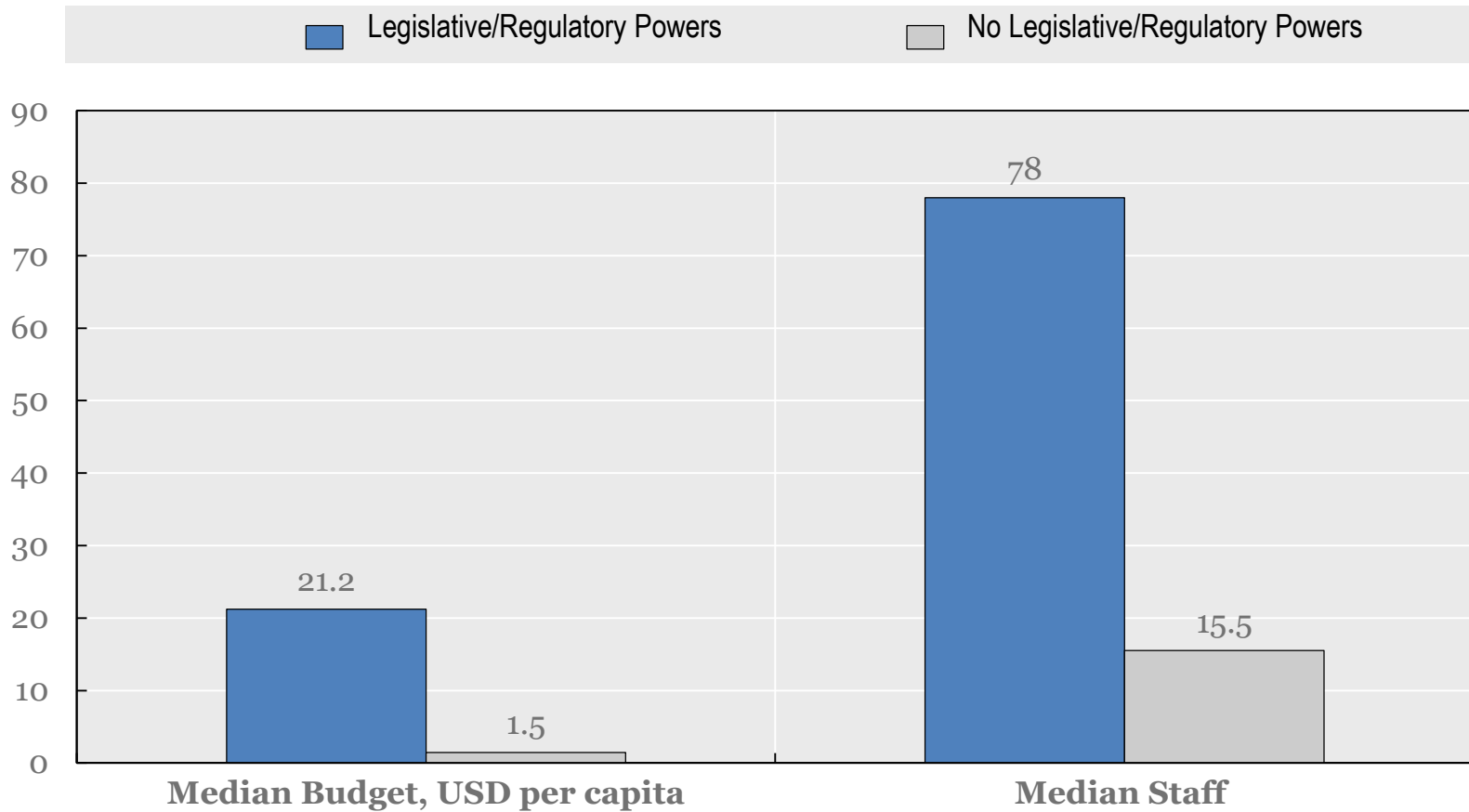
Metropolitan authorities

- Approximately 280 metropolitan areas with more than 500,000 inhabitants exist in OECD countries
- Two-thirds of them have some form of metropolitan authority
- Great variety in tasks and competencies





MGBs with regulatory powers have larger staff and higher per capita budgets



Source: 2nd Metropolitan Governance Survey, n = 56

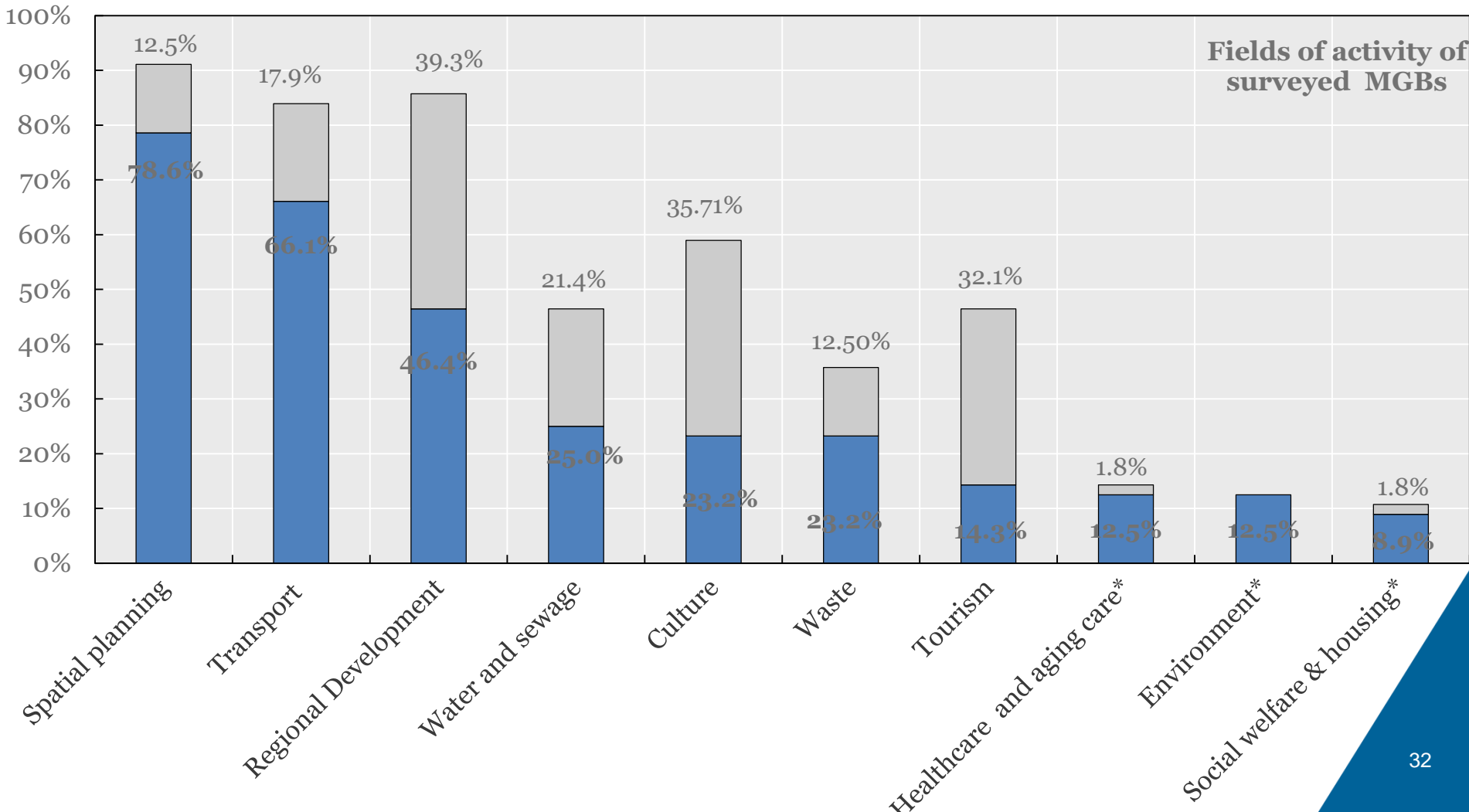


Fields of activity of surveyed MGBs

Primary Field

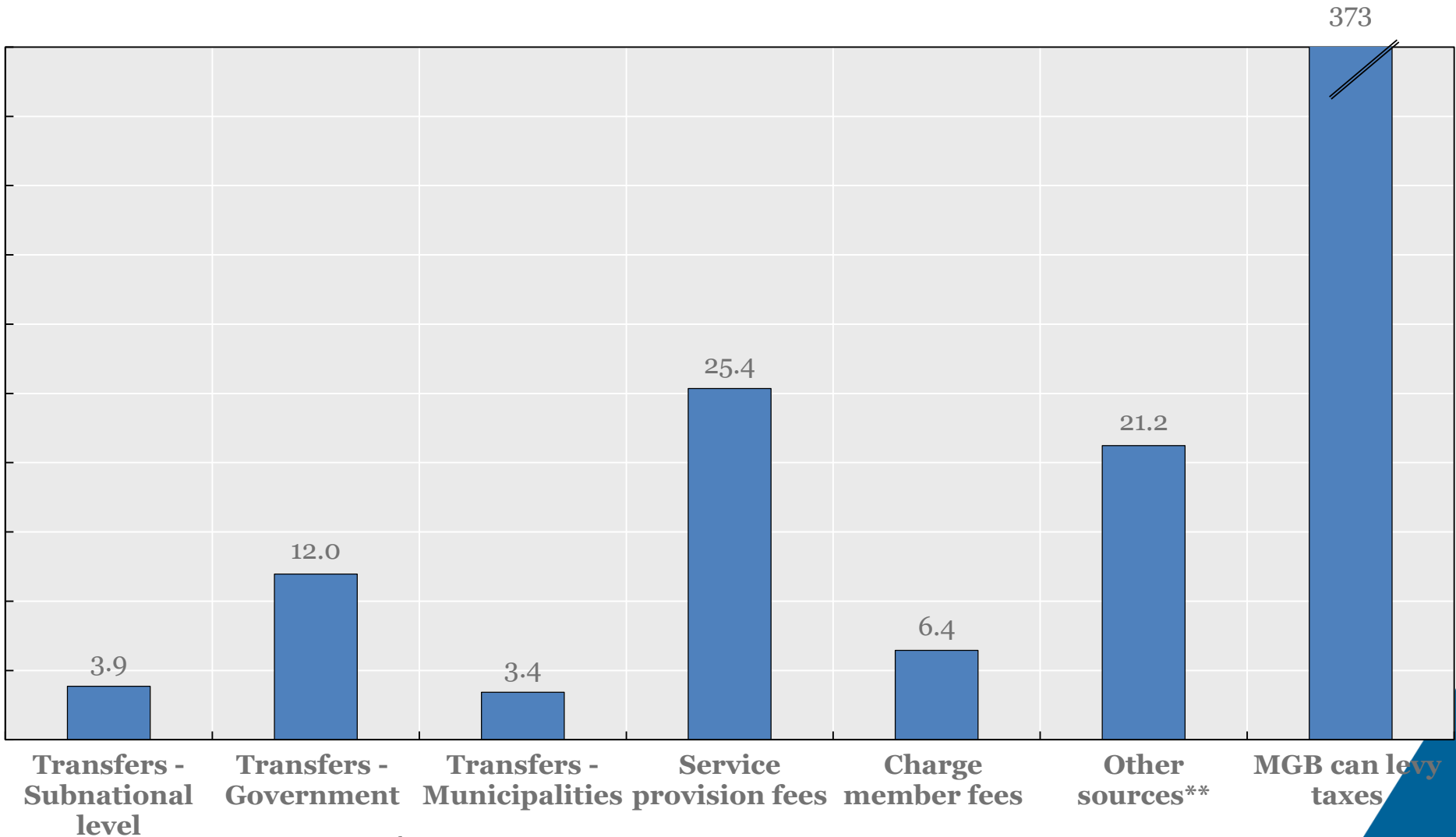
Secondary Field

Fields of activity of surveyed MGBs





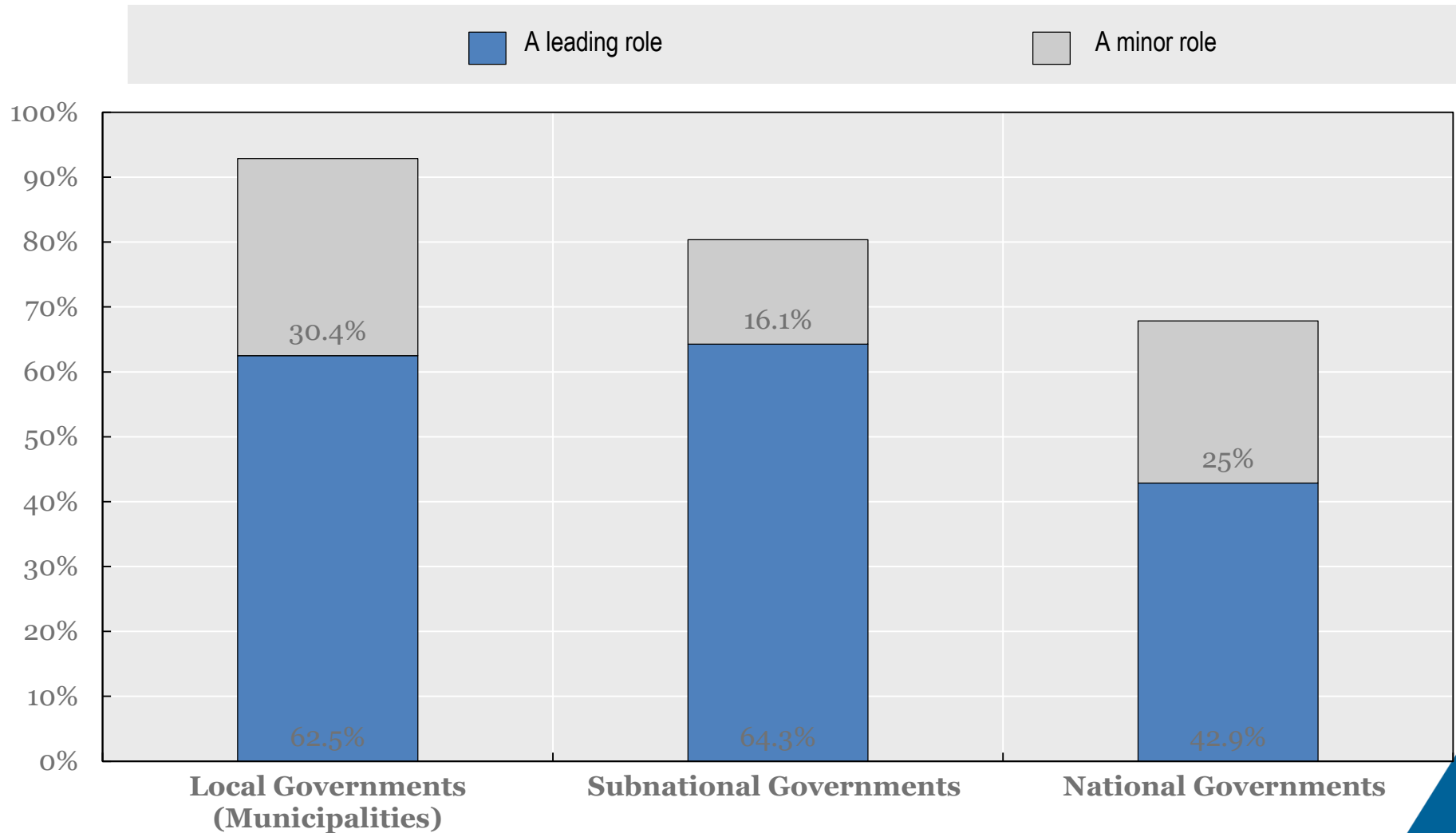
Median per capita budget (USD) by source of funding



Source: 2nd Metropolitan Governance Survey, n = 56



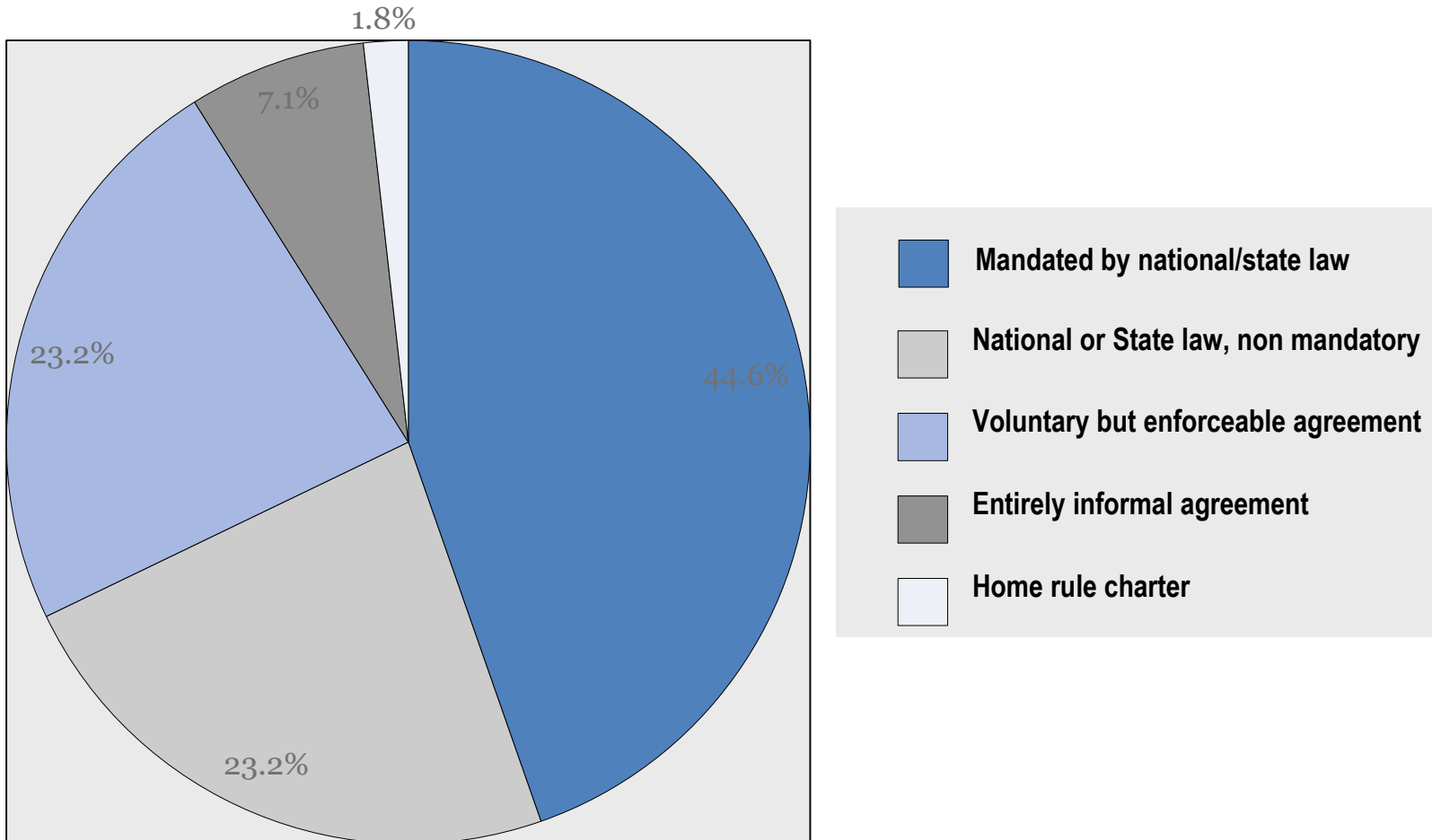
Role of different levels of governments in establishing MGBs



Source: 2nd Metropolitan Governance Survey, n = 56



Legal basis of surveyed MGBs



Source: 2nd Metropolitan Governance Survey, n = 56

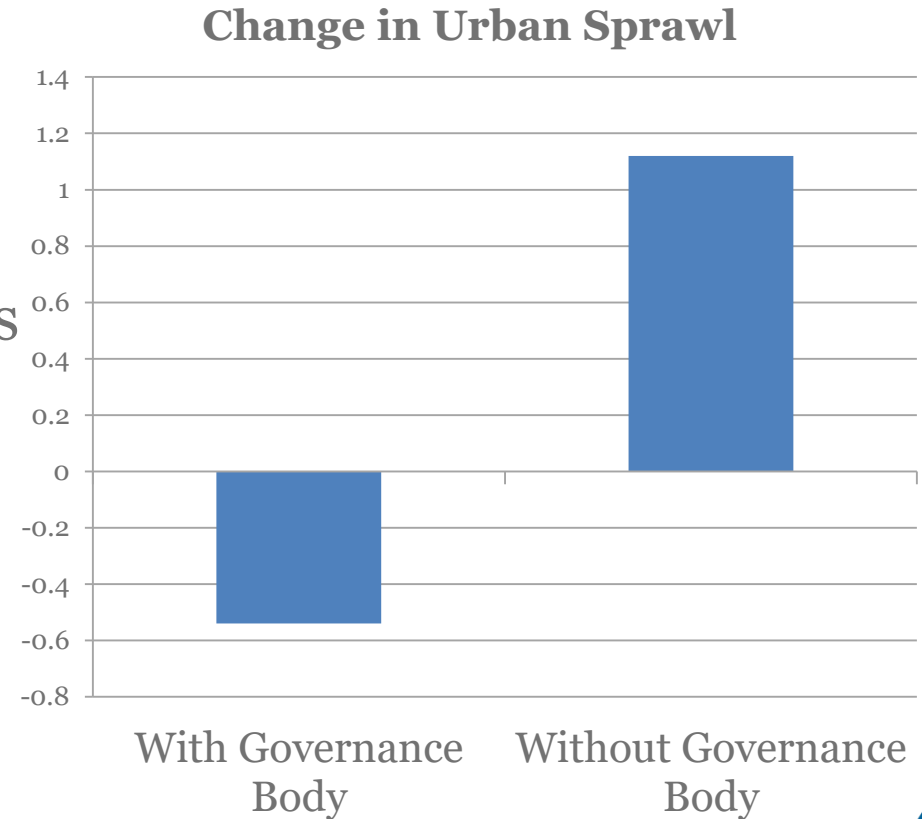


What are the effects of
Metropolitan governance?



Governance bodies can reduce sprawl

- Urban sprawl creates negative externalities in Metropolitan areas (MAs)
- Cooperation is a way to internalize the externalities when making policy decisions
- -> **Sprawl decreased in MAs with governance body, but increased in those without!**



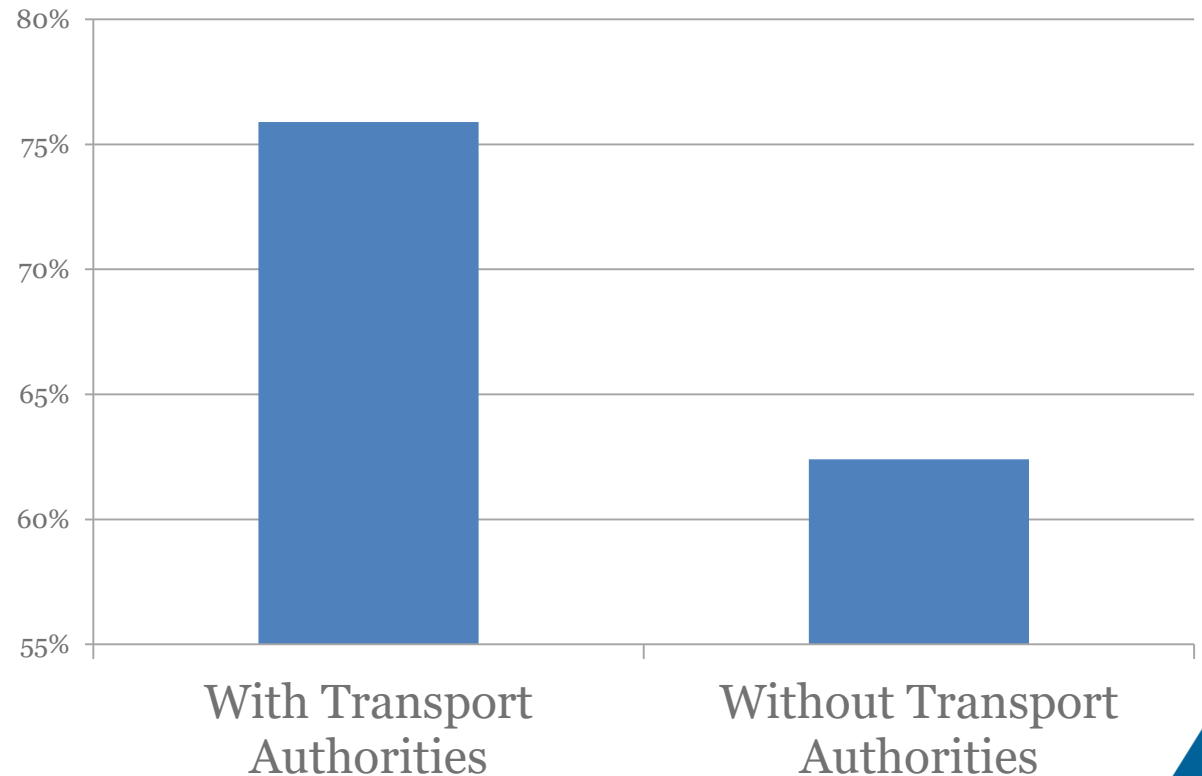
Difference significant at the 99%-level after controlling for log-population levels and country specific trends.



Governance bodies can increase well-being

- **Citizens are more satisfied in MAs that have sectoral authorities for public transport**
- **Those MAs have also lower pollution levels (PM)**

Share of Citizens Satisfied with Public Transport



Based on European Urban Audit perception survey.
Difference significant at 95% level.



Governance bodies positively affect economic productivity

- Within countries, cities with fragmented governance structures have lower levels of productivity.
 - For a given population size, a metropolitan area with twice the number of municipalities is associated with 5-6% lower productivity.
- Effect mitigated by almost half when a governance body at the metropolitan level exists.

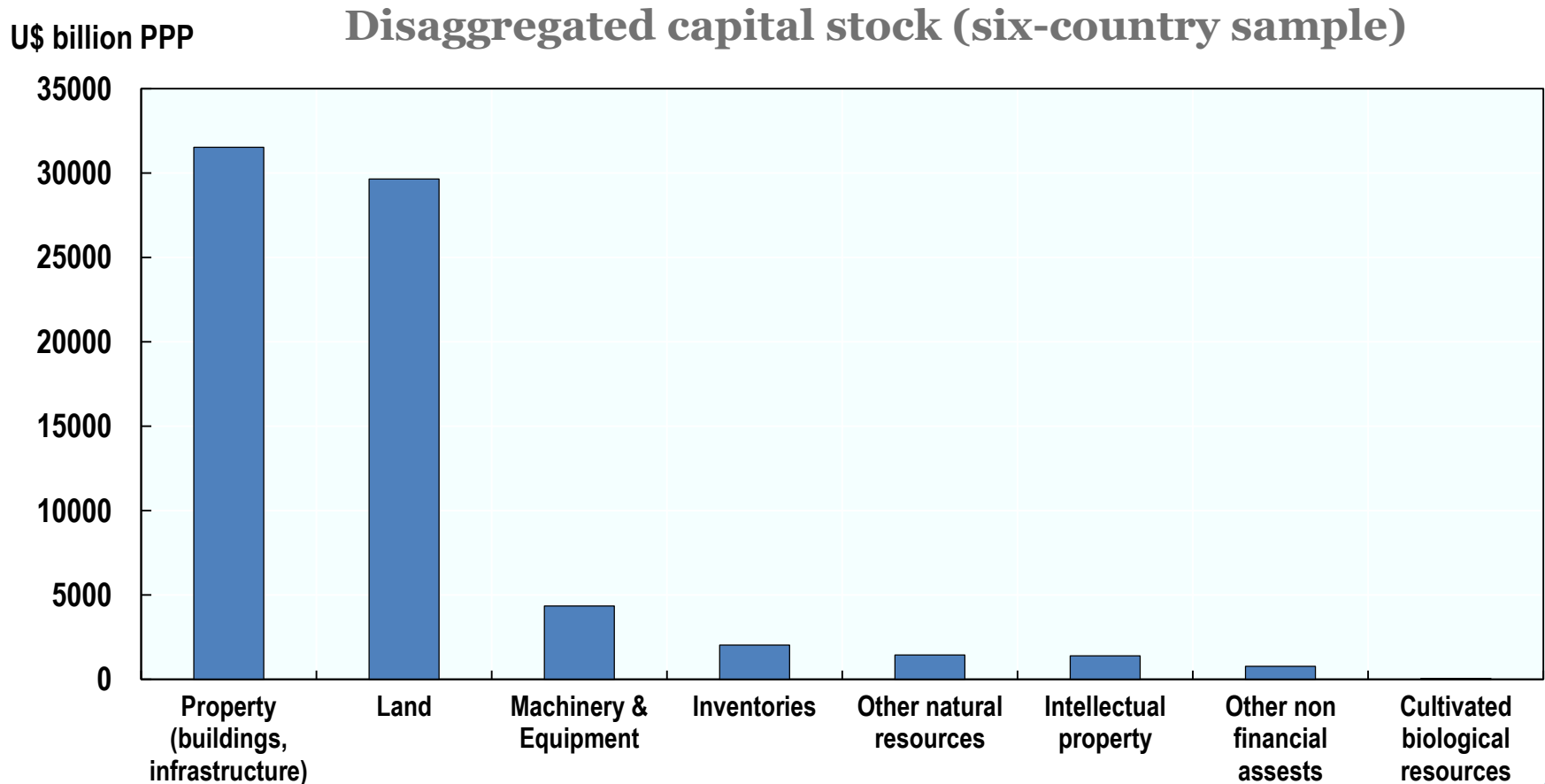


GOVERNANCE OF LAND USE

[HTTPS://YOUTU.BE/JUV3GEVERB4](https://youtu.be/JUV3GEVERB4)



Land and property are by far the most important forms of capital



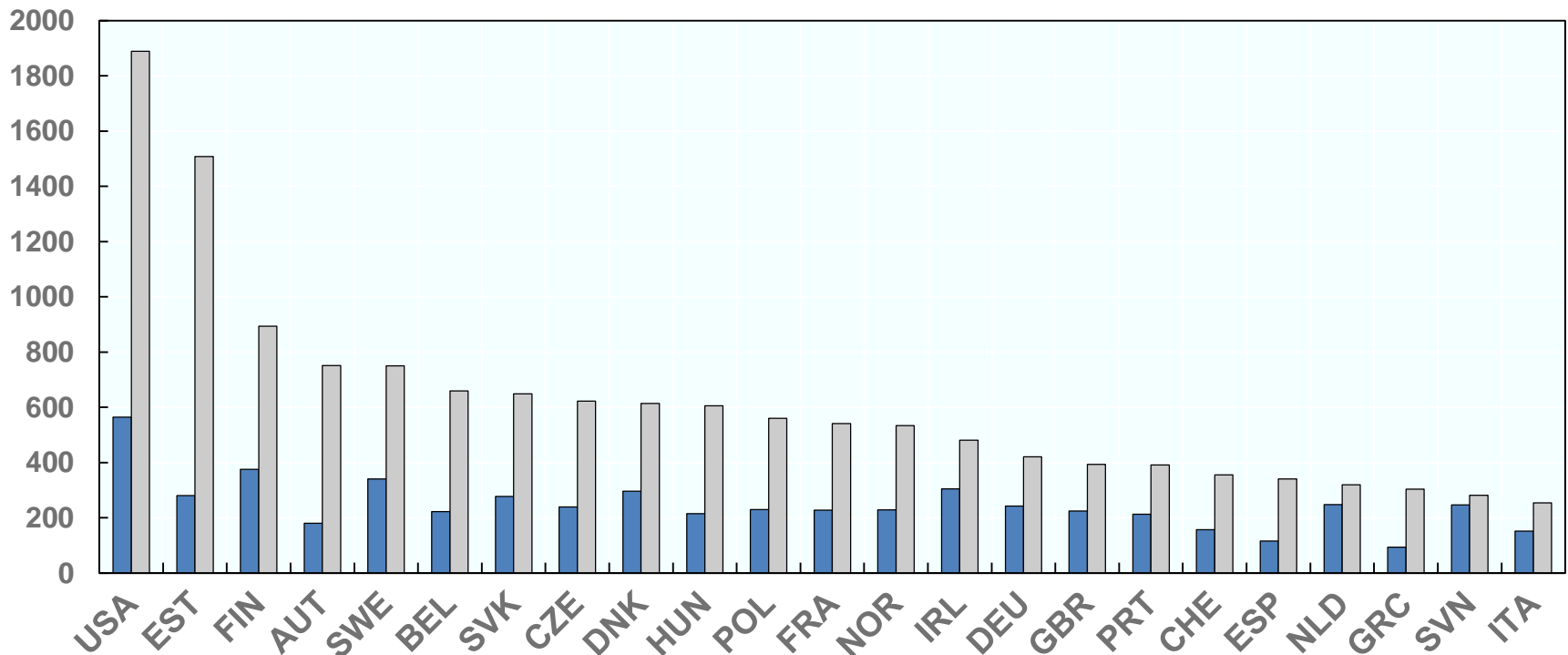
Note: Data includes Australia, Canada, Czech Republic, France, Japan and Korea.
Source: OECD National Accounts Table 9B



The amount of developed land per capita in urban areas differs across the OECD

Developed land per capita in urban areas

■ Developed land per capita in urban cores (in m²) □ Developed land per capita in commuting zones (in m²)

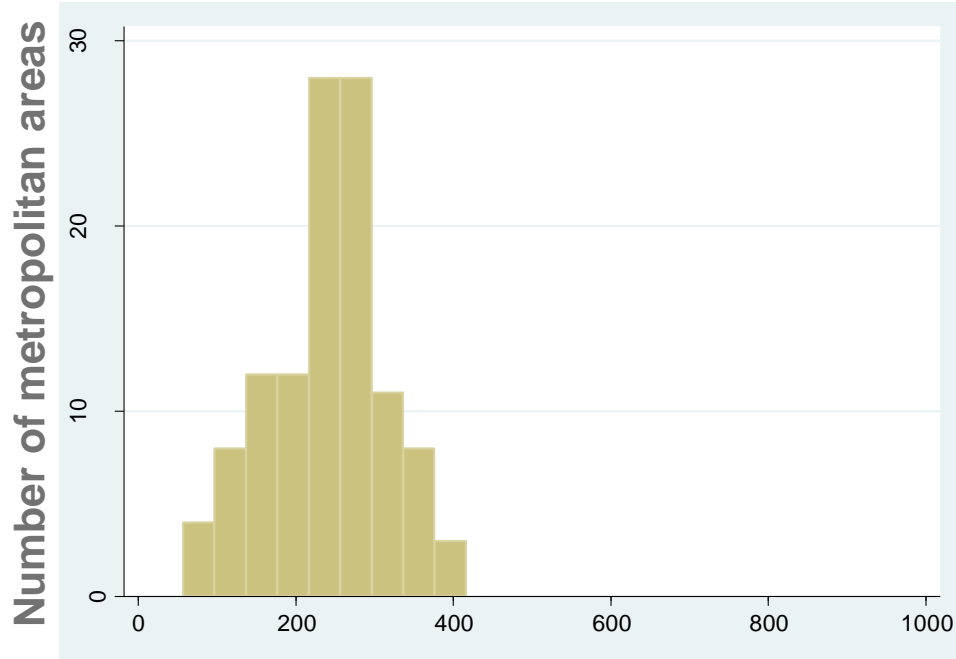


*All data is based on the OECD definition of Functional Urban Areas (FUAs)



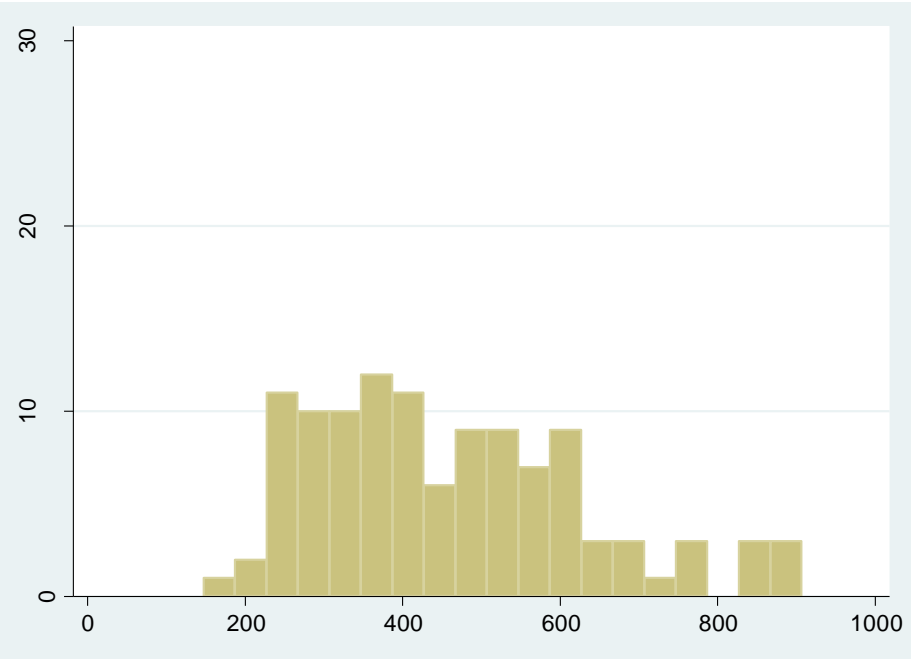
Land use in urban cores and commuting zones in Europe

Urban Cores



Developed land per capita in m²

Commuting zones



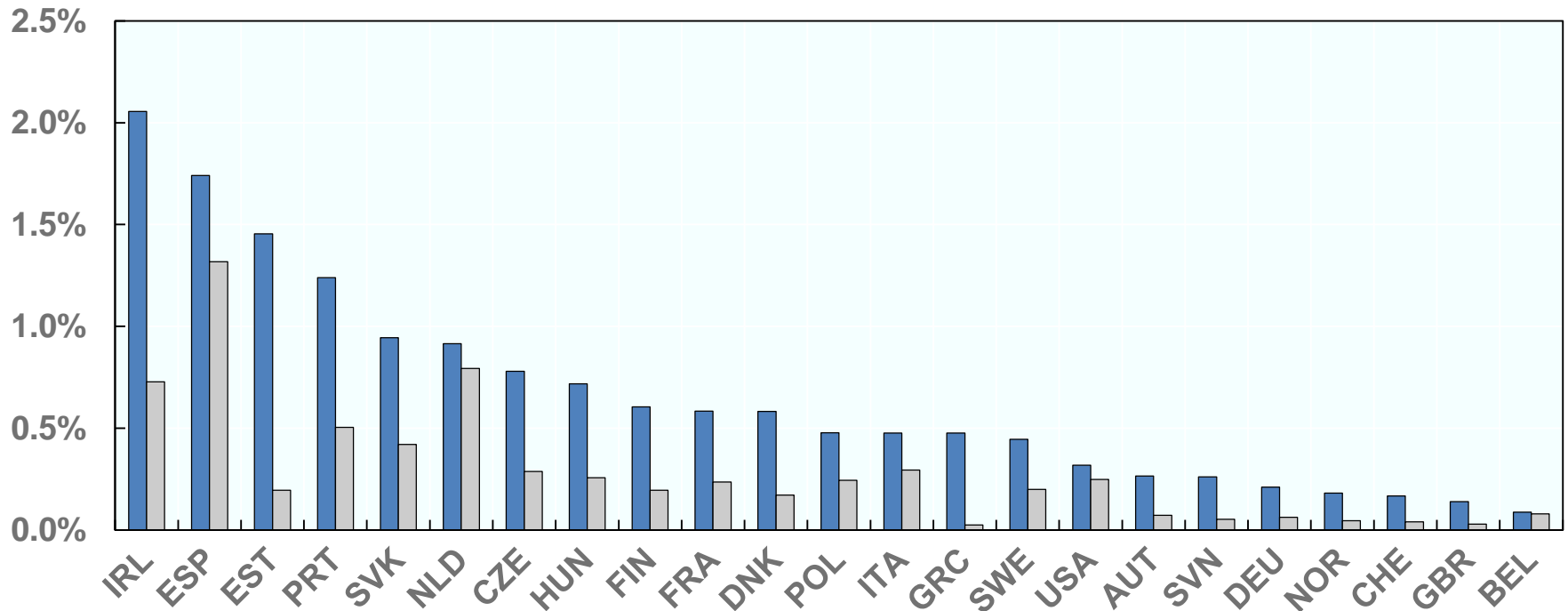
Developed land per capita in m²



Developed land is growing everywhere...

Annual growth rates of developed land between 2000 and 2012

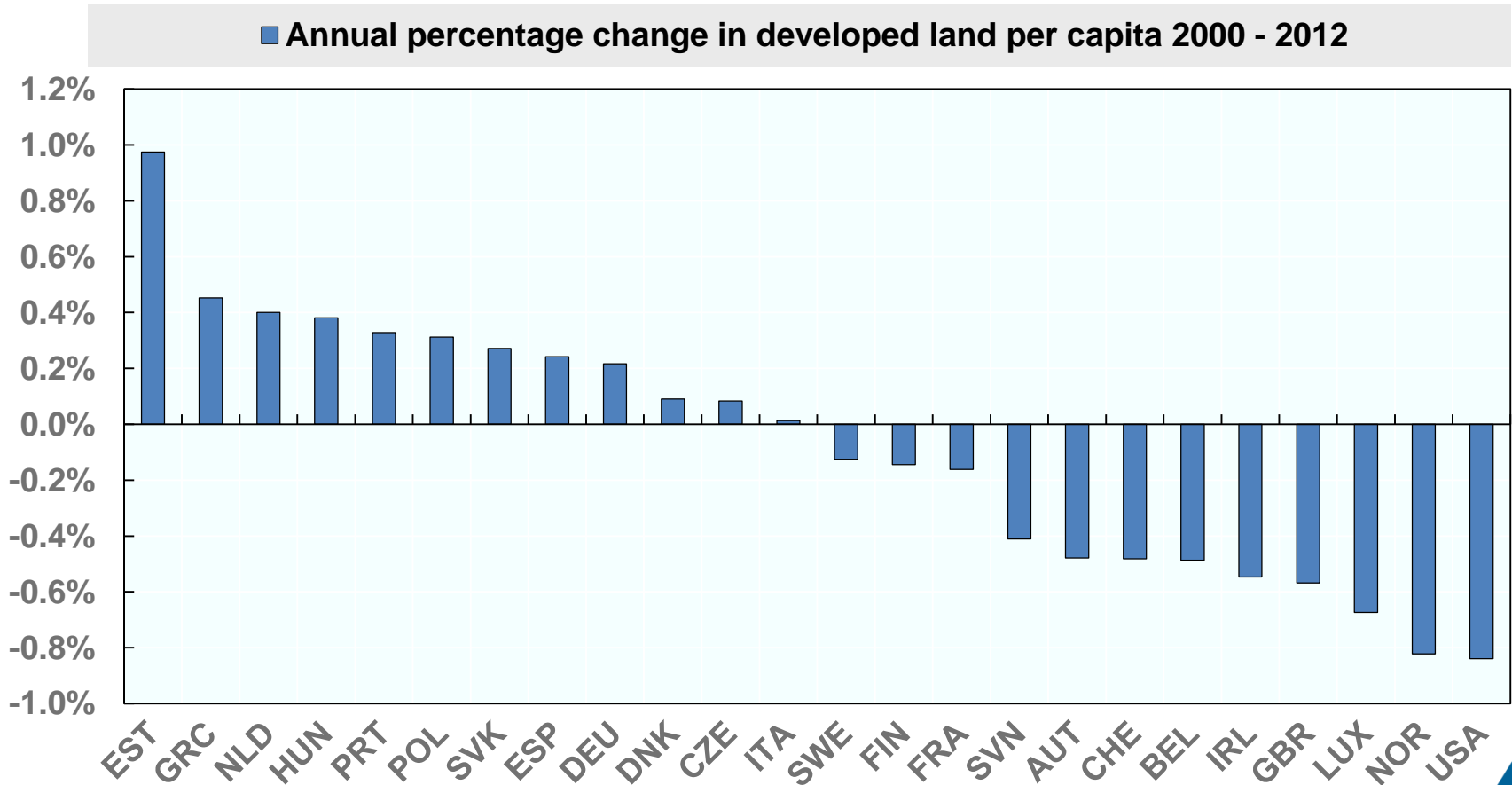
■ Annual % growth of developed land in commuting zone □ Annual % growth of developed land in core





...but per capita land use is declining in many countries

Per capita growth of developed land in functional urban areas (cores and commuting zones combined)

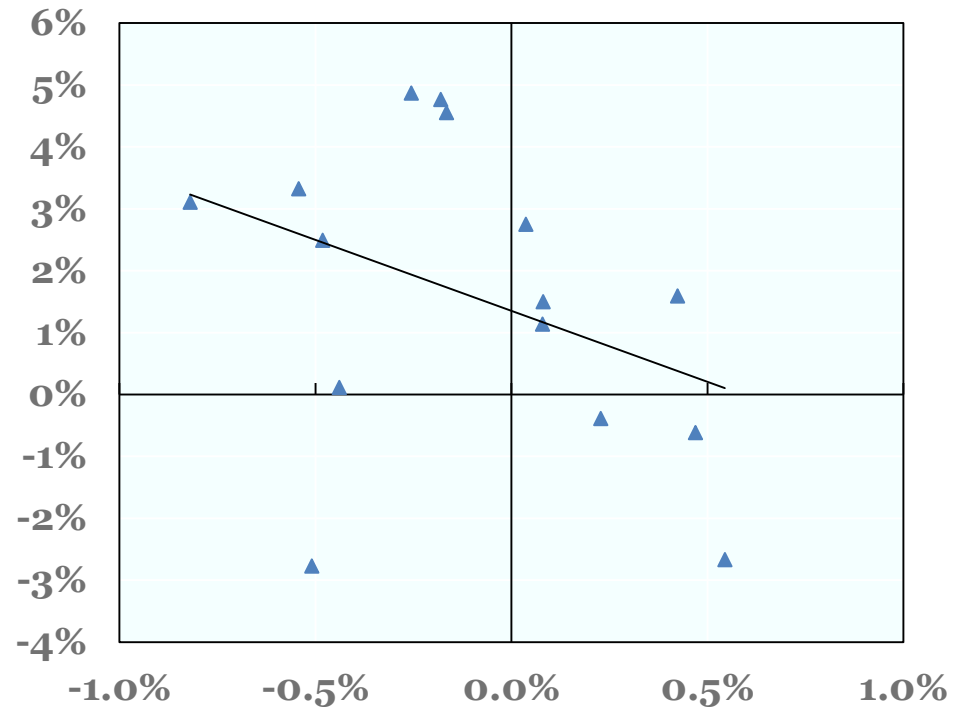




Restrictive land use policies can lead to rising housing costs

- Land use regulations should aim to prevent sprawl...
- ...but have to provide sufficient space to construct housing for growing populations
- Otherwise, housing costs rise

Annual change house prices
(2000-2012)

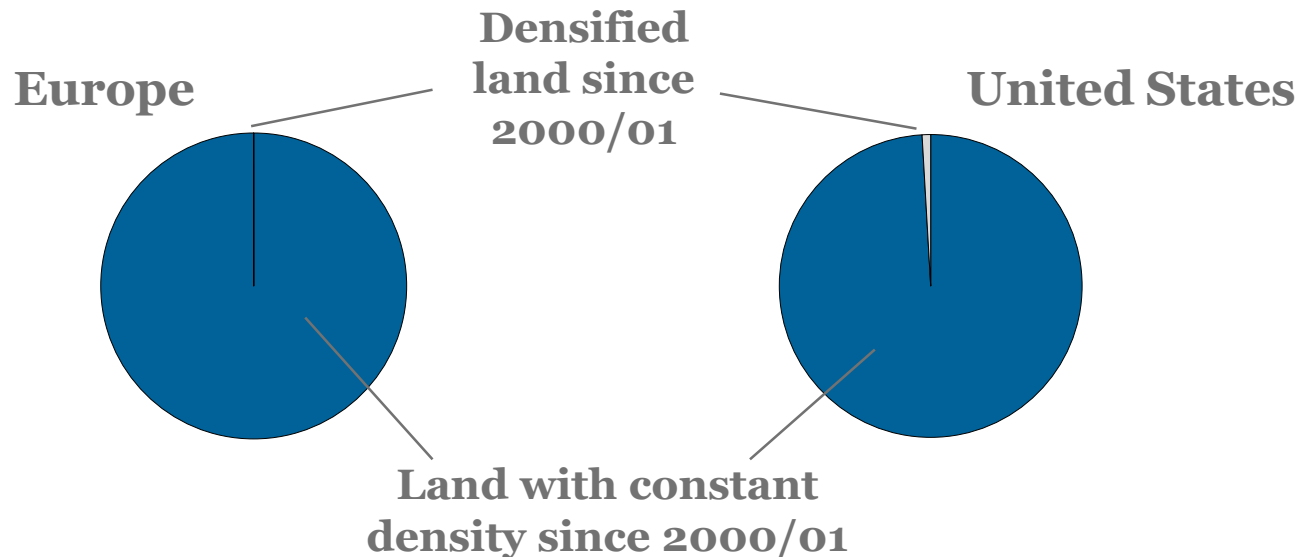


Annual change in developed
land per capita (2000-2012)



Very little densification is taking place

- Very little densification of building stock on-going since 2000
- Less than 0.01% of developed land in data has changed to a higher density class in Europe; less than 1% has changed in the U.S.
- **Caveat:** existing data not ideal to measure density; only two density classes for Europe; four density classes for the U.S.





High quality density is needed

- Many cities have densities similar to when they were much smaller
 - Low density neighbourhoods that were once at the urban fringe are now within urban cores without having densified
- Greater densities are needed to adapt urban form and build housing for greater populations
- Public spaces need to be of high quality in denser environments to ensure well-being



How to make planning more flexible and foster good land use?

Public policies aimed at steering land use

- Spatial planning
- Transport planning
- Land use planning
- Environmental regulations
- Building code regulations

Public policies *not* targeted at land use

- Tax policies
- Transport taxes and subsidies
- Fiscal systems and inter-governmental transfers
- Agricultural policies
- Energy policies



How land is permitted to be used



How individuals and businesses want to use land



How land is used



Aligning fiscal and tax incentives to land use objectives

Fiscal and tax systems incentivise:

- i. local governments' planning policies
- ii. land use decisions by firms and individuals

➔ Incentives need to be better aligned with land use objectives



Examples: How fiscal and tax systems influence land use

In some countries, local governments obtain a large share of revenues from business taxes



Local governments have incentives to allocate as much land as possible to commercial uses to maximise tax revenues.

In some countries, ownership of single-family homes receives preferential tax treatment



Residents have incentives to live in low-density neighbourhoods in sub-urban areas



Examples: How fiscal and tax systems influence land use

Agriculture is heavily subsidised across most of the OECD



Without subsidies, agricultural land uses would change

Many countries make expenses for commuting by car tax deductible



Lower costs of commuting provide incentives to live further from the place of work (often in peri-urban areas) and increase car reliance



Key message: Need to pay greater attention to incentives

- By paying greater attention to the incentives that public policy provides for land use, planning can become less restrictive and more effective
 - Taxes and fiscal systems matter most
 - Regulatory and economic instruments need to be combined
- ➔ Effective governance mechanisms are a prerequisite for a successful implementation



Incentive-based land use policies require monitoring and evaluation

- The use of fiscal instruments to steer land use can result in land patterns that are more desirable but at the same time less predictable
- Systematic evaluations of land use policies are lacking
- Knowledge about evaluation practices is rare
 - data on land use and land use regulations is scarce



MLG INDICATORS

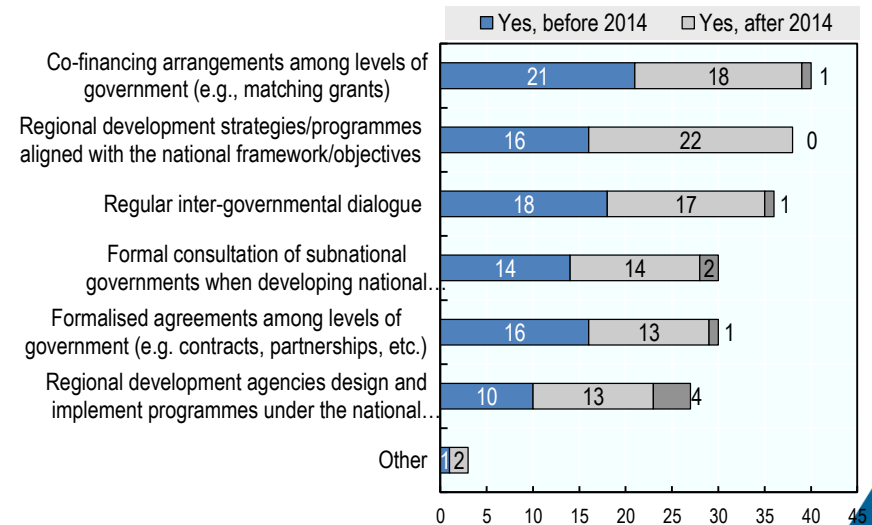


Implementation: sectoral coordination in action

✓ Co-ordination across sectors seems to have improved at the national level but remains a big challenge at the subnational level:

- At the national level, **22 Adherents have adopted integrated investment strategies with a territorial dimension**. Notably, **progress seems to be made on data collection** by Adherents: 17 Respondents release consolidated data on PI by region (TL2 or TL3)
- A **majority** of Adherents have implemented mechanisms to **co-ordinate public investments across sectors** (Czech Republic, Italy, Poland, Portugal, Netherlands, UK, among others).
- Still, **cross-sectoral co-ordination** for investment planning represents a **significant challenge at the SN level**: 80% of European SNGs consider the lack of co-ordination across sectors is a major challenge
- Adherents are increasingly aligning regional development strategies with national objectives

Across national and subnational governments, has your country developed or strengthened any of the mechanisms listed below to co-ordinate public investment for regional development?



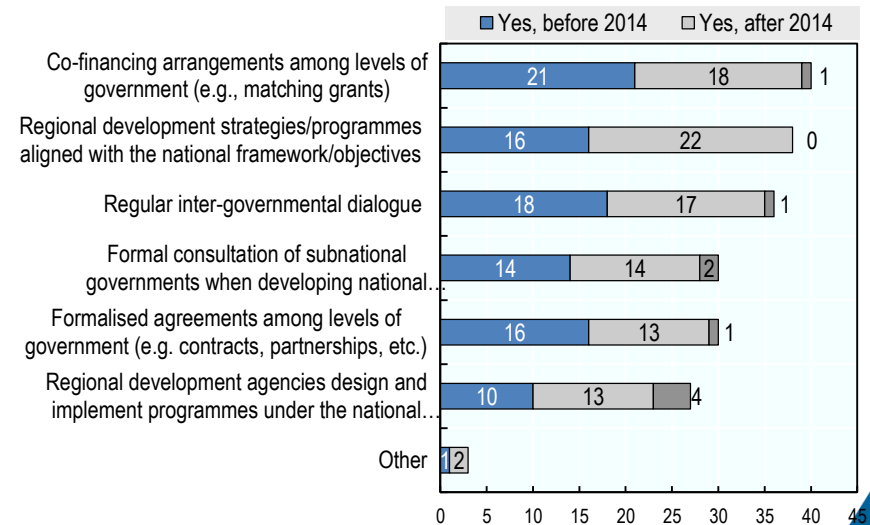


Implementation: vertical coordination in action

✓ Adherents are increasingly co-ordinating public investment policies vertically:

- **Co-financing arrangements** as well as **platforms for regular inter-governmental dialogue** are two of the **most popular governance instruments** used by Adherents to co-ordinate interests vertically (Australia, Luxembourg, Sweden, among others)
- Co-ordination platforms, in general, do not have decision-making authority
- Still, from the subnational perspective, co-ordination with the national level is

Across national and subnational governments, has your country developed or strengthened any of the mechanisms listed below to co-ordinate public investment for regional development?



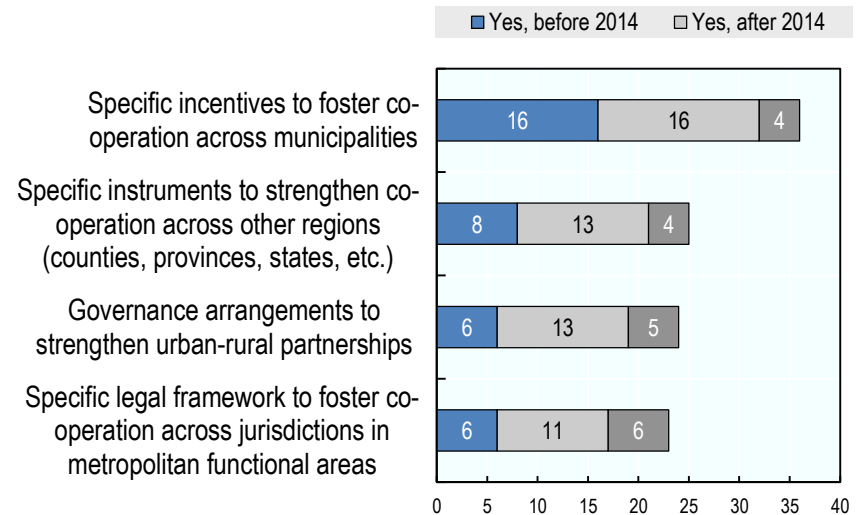


Implementation: horizontal coordination in action

✓ Adherents are increasingly co-ordinating public investment horizontally:

- Several OECD countries have recently enacted regulations to encourage horizontal collaboration (France, Portugal, Japan, among others).
- Co-ordination is generally designed on a voluntary basis and governments use incentives to promote it (Slovenia, Spain)
- Adherents are increasingly fostering co-operation across regions, provinces or states
- Co-operation has been particularly encouraged at

Horizontally across jurisdictions, has your country developed or strengthened any of the mechanisms listed below to co-ordinate public investment for regional development?

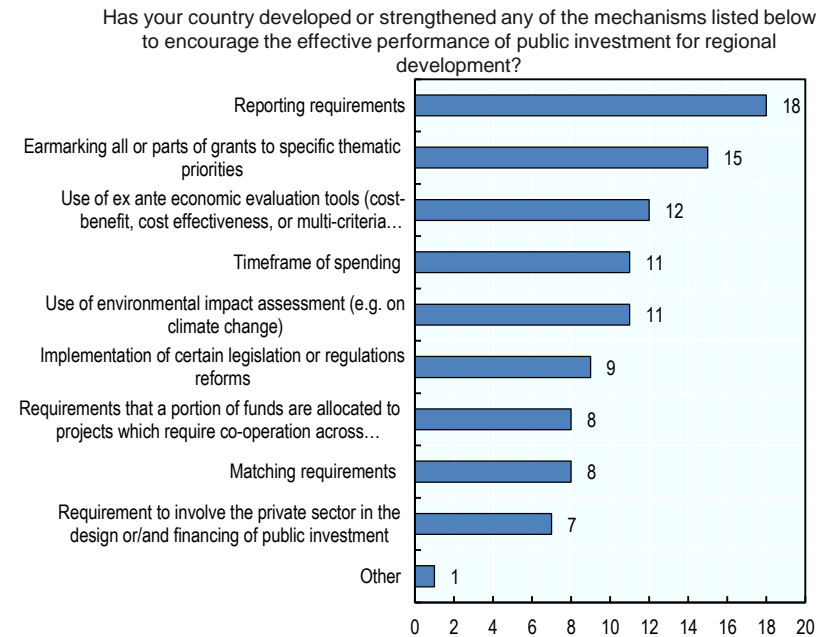




Implementation: the capacity bottleneck

✓ The capacity challenge remains the most important bottleneck:

- **Ex ante assessment** of the long-term impact and risks of public investments is **one of the weakest aspects** of government capacity
- **At the SN level the impact of ex-ante evaluations remains limited:** 2/3 of EU SNGs EU believe that *ex-ante* analyses are performed, but that their results are not consistently used in decision-making.
- **Stakeholder involvement in the design phase has improved:** 15 Respondents have mechanisms to engage private sector representative in defining priorities for PI (Australia, Austria, Czech Republic, Denmark, Italy, Mexico, Netherlands, the UK, among others)
- **At the SN level, stakeholder engagement represents an important challenge:** 65% of SNGs reported insufficient involvement of civil society, citizens or NGOs in the choice of infrastructure projects



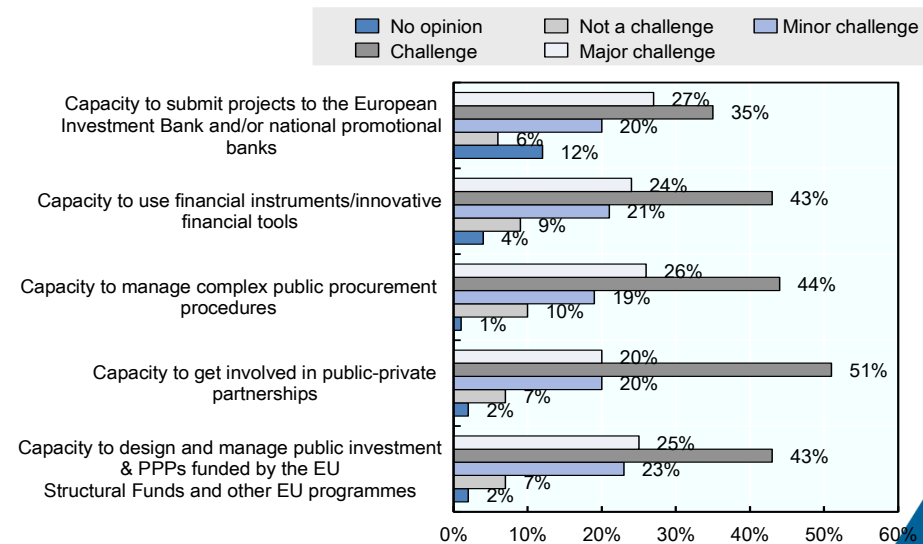


Implementation: leveraging public investment

✓ Adherents need to strengthen capacities to leverage private investment:

- Private involvement to finance investments at the SN level remains one of the most important challenges
- **SNGs make little use of external financing options for public investment:**
 - Limited capacity to use innovative financial tools, manage complex public procurement procedures, combine different streams of financing and funding, lack of appropriate skills to manage PPPs
- At the SN level, **access to financing is often limited to the credit market** (loans), eliminating access to capital markets (bonds).
- **PPPs at the SN level need to be further developed** and be accompanied by adequate capacity-building to use these tools: only 8 Respondents have particular legislation on subnational PPPs

Regarding the quality of public administration, for which of the following aspects of the public administration in your city/region do you see potential challenges to public investment?
- CAPACITY aspects -





Implementation: enhancing capacities

✓ How Adherents are addressing the capacity challenge:

- The **lack of appropriate skills and expertise** to plan, manage and evaluate public investment **is a main barrier** for effective public investments, especially at the SN level
- A **majority** of Adherents have in place **some mechanism to strengthen technical skills** of policy-makers
- Some Adherents have also adopted new IT tools or joint e-government platforms to narrow the capacity gap (Australia, Colombia, the EU)
- The responsibilities for capacity building at the national level are often

Has your country introduced the policies/mechanisms listed below to reinforce the skills and capacities of national and subnational public officials and institutions to better support public investment for regional development?





Implementation: enhancing frameworks

✓ Ensuring sound framework conditions to make the most of public investments remains challenging:

- Adherents have made important **advances** in increasing **budgeting transparency** at the national level (transparency portals): since 2014, 13 countries have made budgetary information of PI publicly available
- Adherents **need to better develop multi-year approach** to investment by connecting planning and budgeting frameworks
- **Excessive administrative procedures** and red tape is a major challenge, especially at the SN level.
- A high number of Adherents recognize the **need to minimise the administrative burden** associated with PI projects: 15 countries are planning to adopt policies for the simplification of regulatory processes.





Thank you



The presentation draws from:

[Ahrend, Farchy, Kaplanis and Lembcke \(2014\), “What Makes Cities More Productive? Agglomeration economies & the role of urban governance: Evidence from 5 OECD Countries”](#)

[Ahrend and Schumann \(2014\) “Does regional economic growth depend on proximity to urban centres?”](#)

[Ahrend, Gamper and Schumann \(2014\) “The OECD Metropolitan Governance Database: A Quantitative Description of Governance Structures in Large Urban Areas”](#)

[Ahrend and Lembcke \(2016\) ”Does It Pay to Live in Big\(ger\) Cities?”](#)

[OECD \(2017\), The Governance of Land Use in OECD Countries](#)

[OECD \(2015\) The Metropolitan Century: Understanding Urbanisation and its Consequences](#)

[OECD \(2015\) Governing the City](#)

[OECD \(2012\) Redefining Urban: a new way to measure metropolitan areas](#)



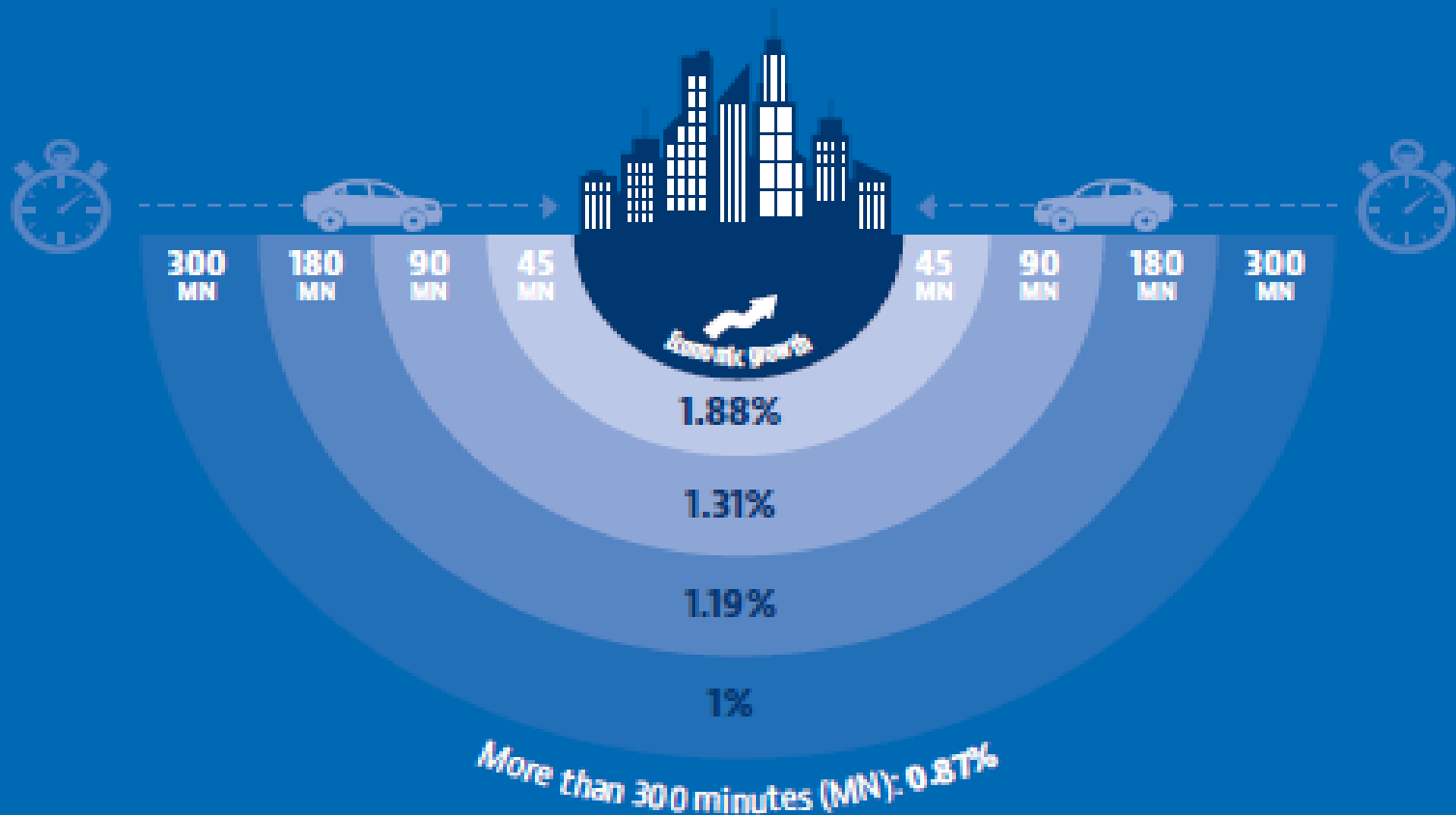
RURAL URBAN LINKAGES



Space matters: proximity to cities benefits surrounding rural & intermediate regions

Economic growth increases with nearness to large cities

Yearly growth rates of GDP per head (1995-2010) and driving time to the closest large metropolitan area of 2 million or more inhabitants in OECD countries





Sources of catching-up: proximity to cities

Rural remote regions present a higher variation in productivity growth rates than other types of regions

	Annual average labour productivity growth, 2000-12	Standard deviation	Coefficient of variation
Predominantly urban	1.01%	1.02%	1.019
Intermediate	1.07%	1.09%	1.024
Predominantly rural close to cities	1.36%	1.32%	0.972
Predominantly rural remote	0.70%	1.15%	1.641

Note: Labour productivity is defined as real GDP per employee. GDP is measured at PPP constant 2010 US Dollars, using SNA2008 classification; employment is measured at place of work. The coefficient of variation represents the ratio of the standard deviation over the mean.

Source: OECD Regional Outlook 2016



Why are we interested in urban-rural partnerships?

- ✓ Rural and urban areas are **interconnected** through different linkages (commuting, provision of amenities, transportation, economic transactions etc.)
- ✓ The way these linkages are **governed** has an impact on the economic development and people's wellbeing both in urban and rural communities



- ✓ Better understanding of interdependencies (unit of analysis = self-contained space of relationship, **functional region**)
- ✓ Design **governance solutions** to facilitate an integrated approach that improves the outcome of the rural-urban partnerships



The policy use of functional regions: challenges and experiences

- High heterogeneity in forms of cooperation
- The governance model of Rurban partnerships varies on the basis of different issues
 - a) Management oriented vs. project oriented
 - b) Flexibility of the boundaries
 - c) Main objectives and domains of intervention
 - d) Single purpose vs. holistic approach
 - e) Top down vs. bottom-up processes
 - f) National framework (degree of formal acknowledgment)