Reshaping Continents and the Role of Infrastructure Connectivity

The Dialogue of Continents Forum

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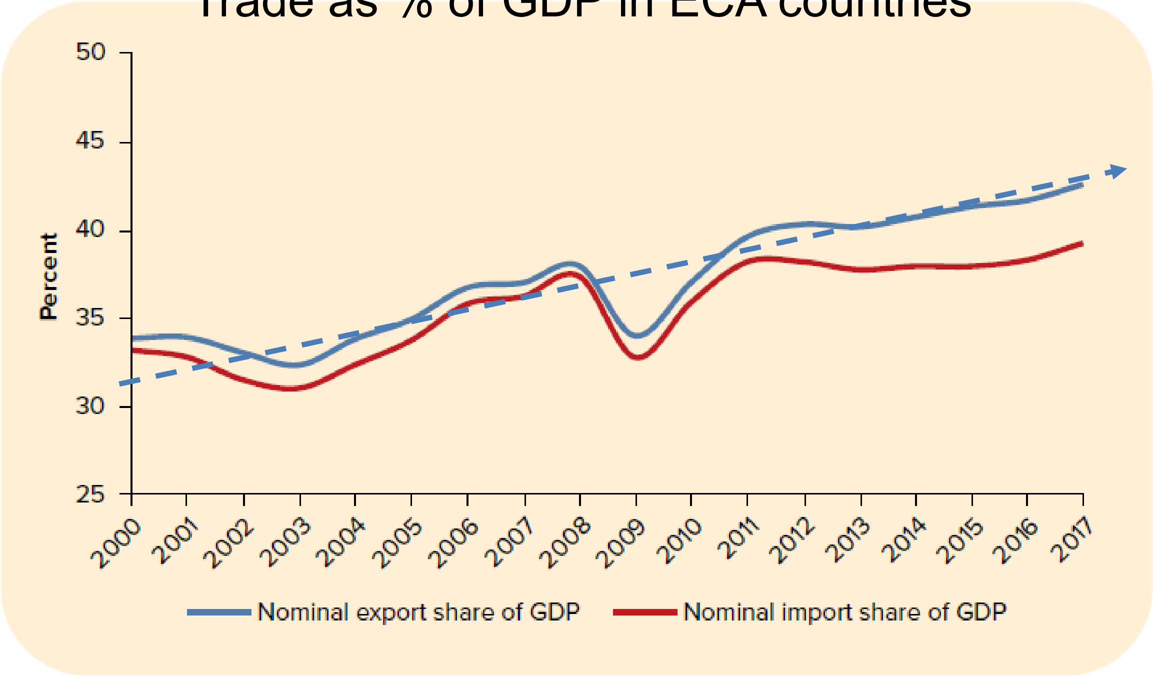
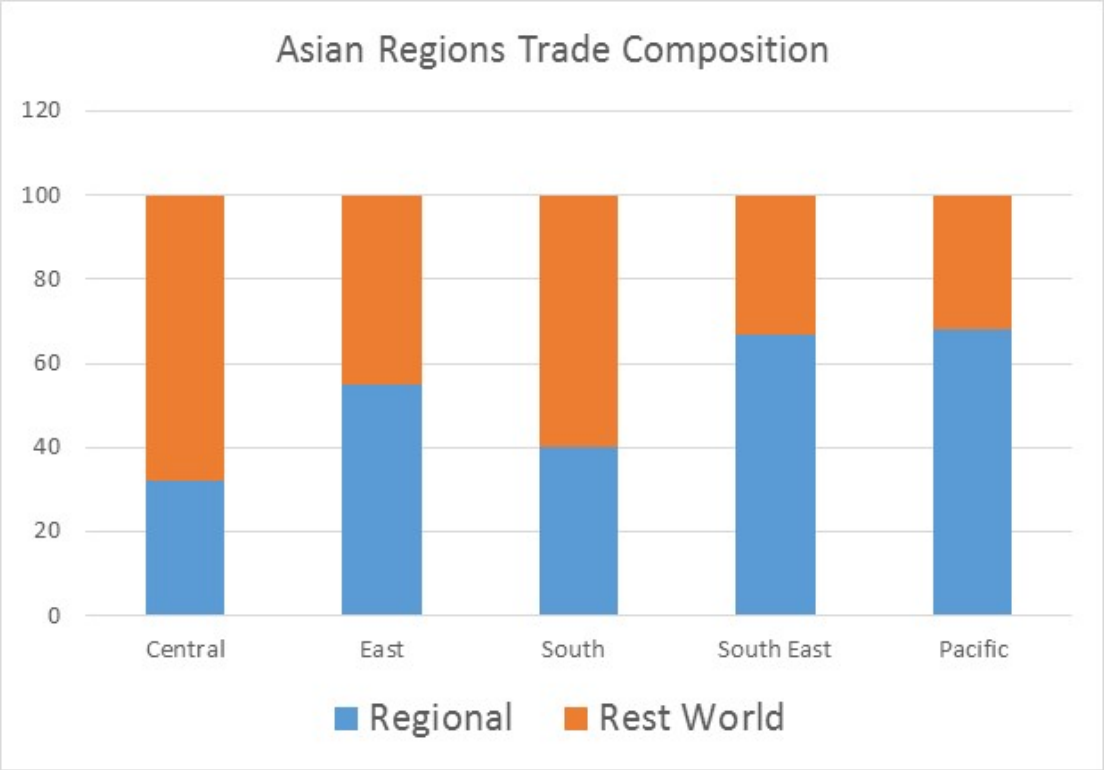
Connectivity is essential to prosperity

- Trade corresponds to a growing parte of GDP and bounds together whole regions

Trade as % of GDP in ECA countries

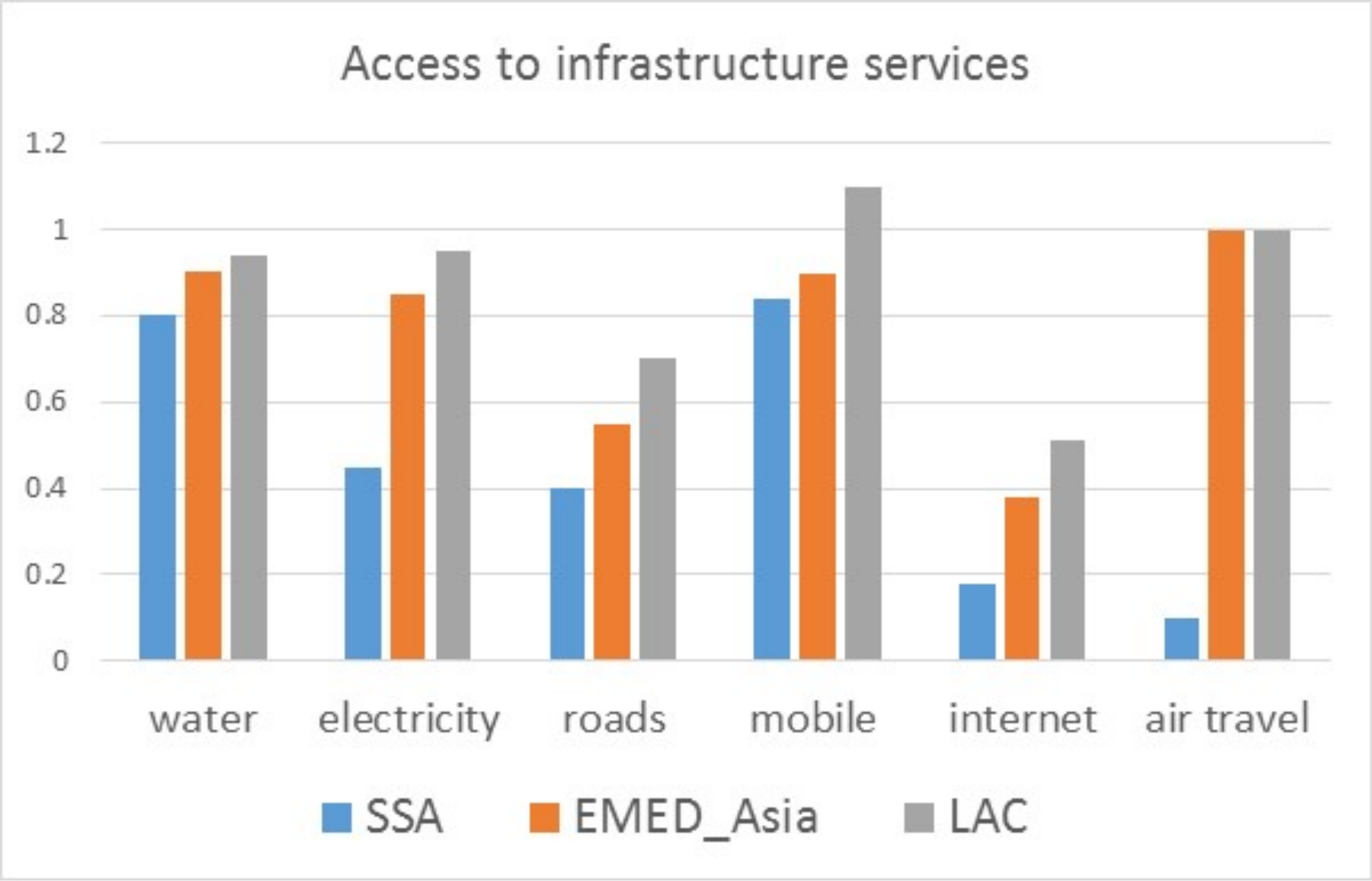


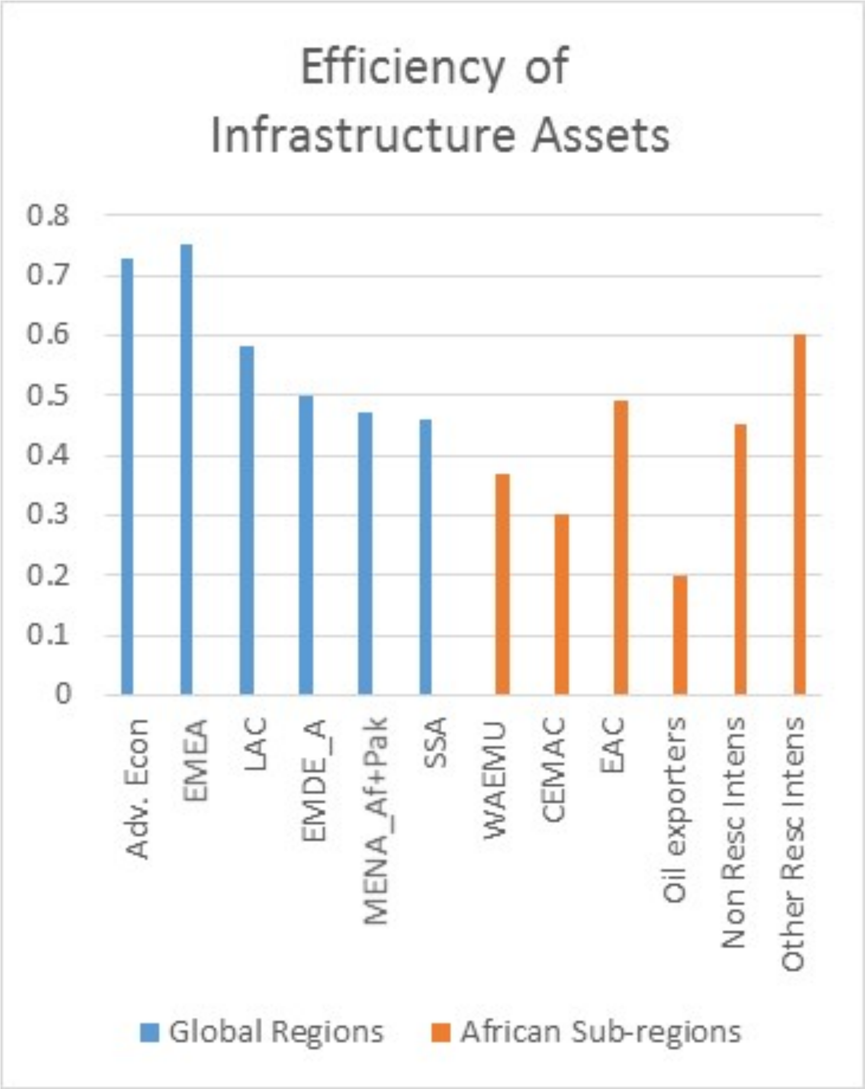


Asia is still not as integrated as Europe, but it is more integrated than LATAM and notably Africa

Infrastructure is a key ingredient to connectivity

There is ample room to improve connectivity through efficient investment





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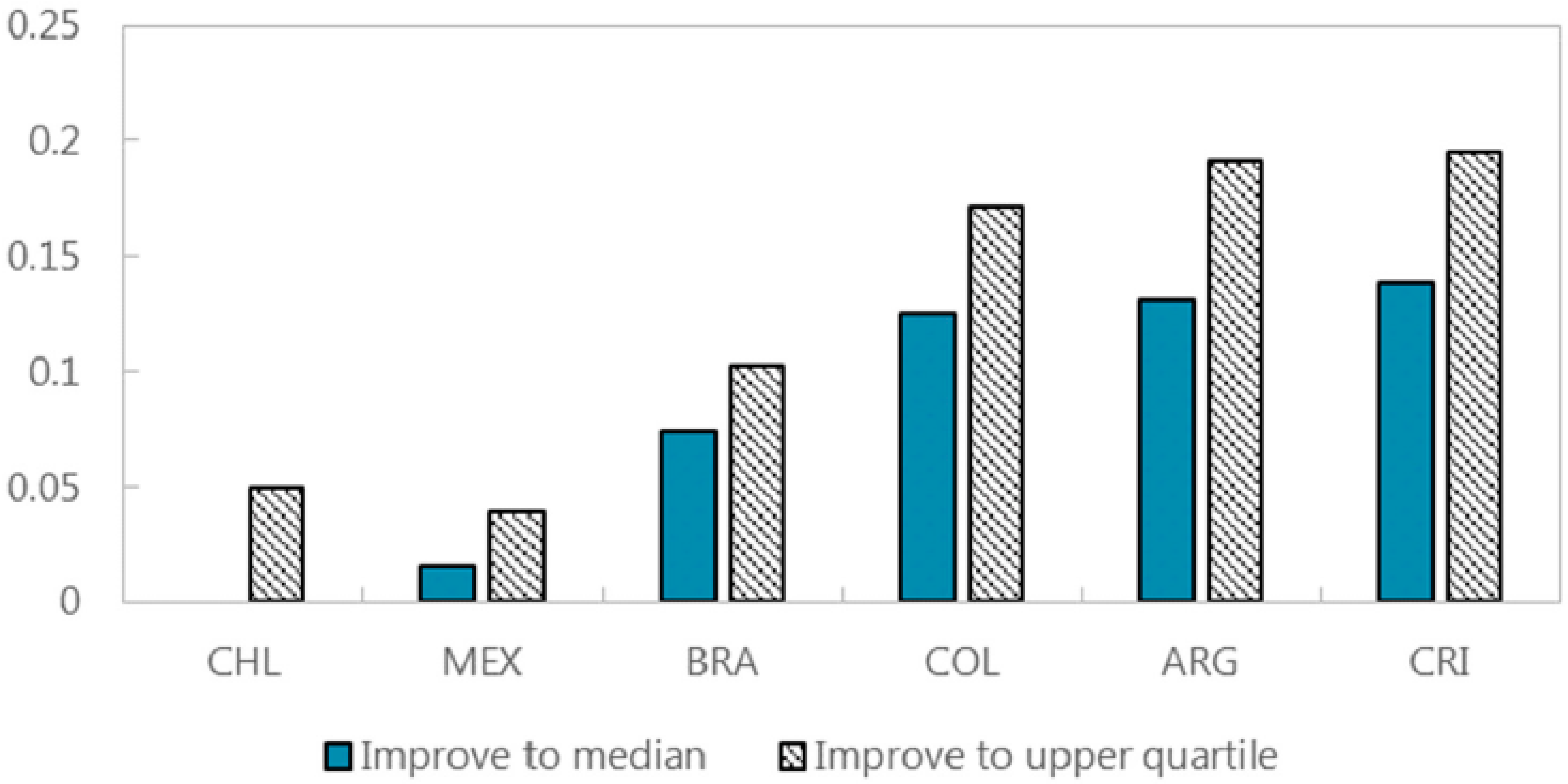
Good infrastructure can increase GDP growth

Improvement in Roads and Potential GDP Growth in LAC*

(Percentage points of additional growth)



*Lanau, 2017, The Growth Return of Infrastructure in Latin America

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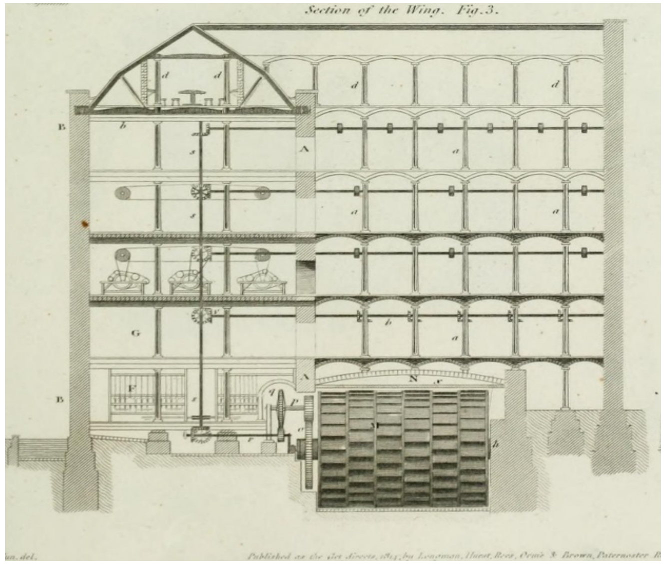
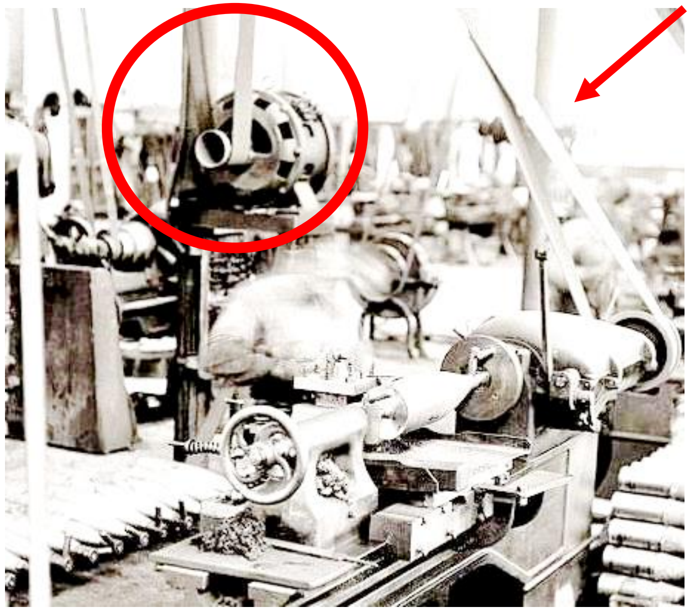
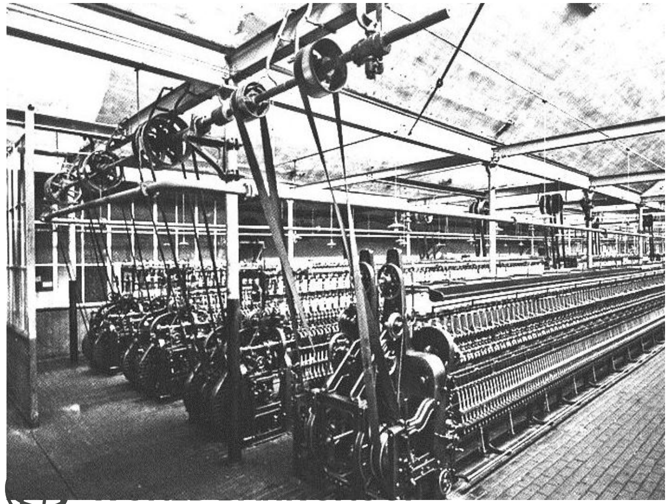
Connectivity benefits from technological innovation

- Cell phones integrate producers into global markets, with information and access to finance
- Blockchain (+IoT) is already transforming value chains, trade monitoring and financing with permanent registry (WB has just issued a bond using blockchain to replace usual documentation)
- Service charges can be customized, facilitating cost recovery
- New energy sources and building techniques lower building costs and increase the resilience of infrastructure

Can we be optimistic about productivity?



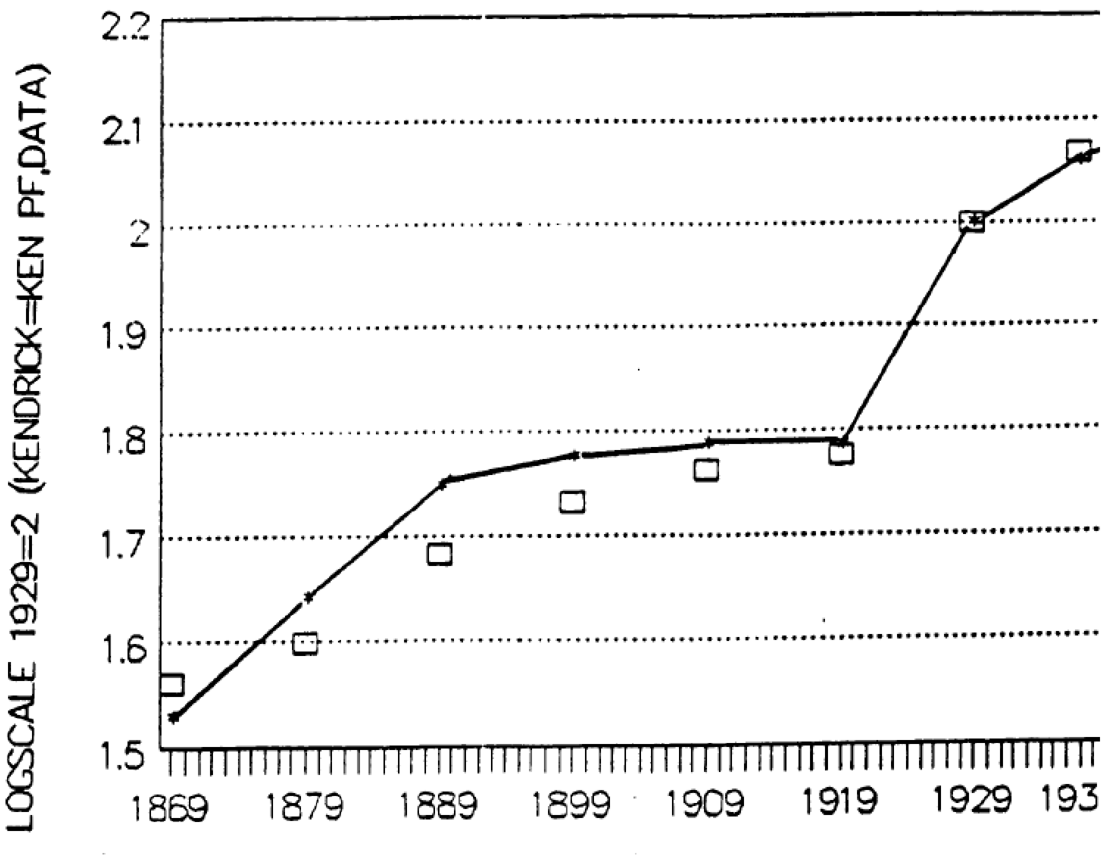




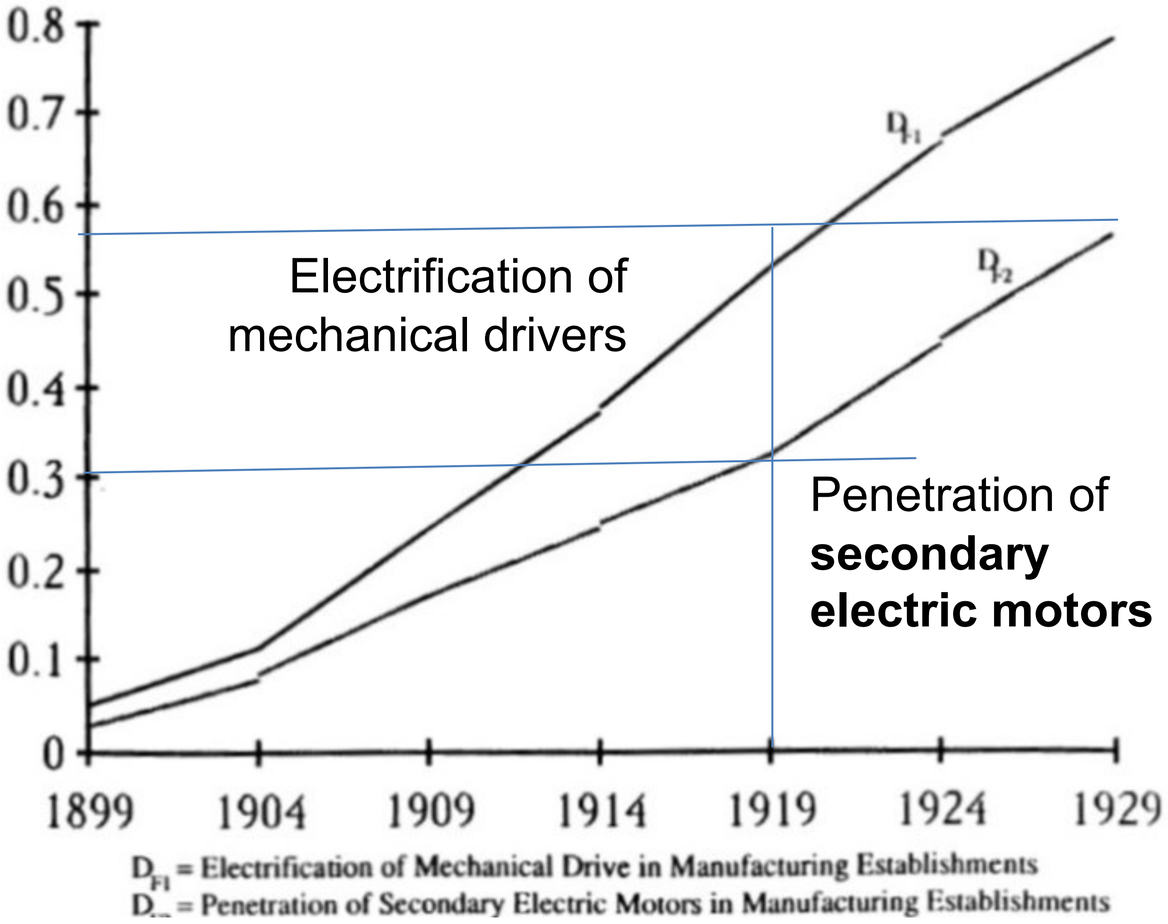
It took many years for electricity drastically **transform manufacturing power** and show up in productivity leaps

Can we be optimistic about productivity?*

TFP in the US manufacturing during the period of diffusion of electricity



Electrification of US factories



Channeling capital flows to connectivity

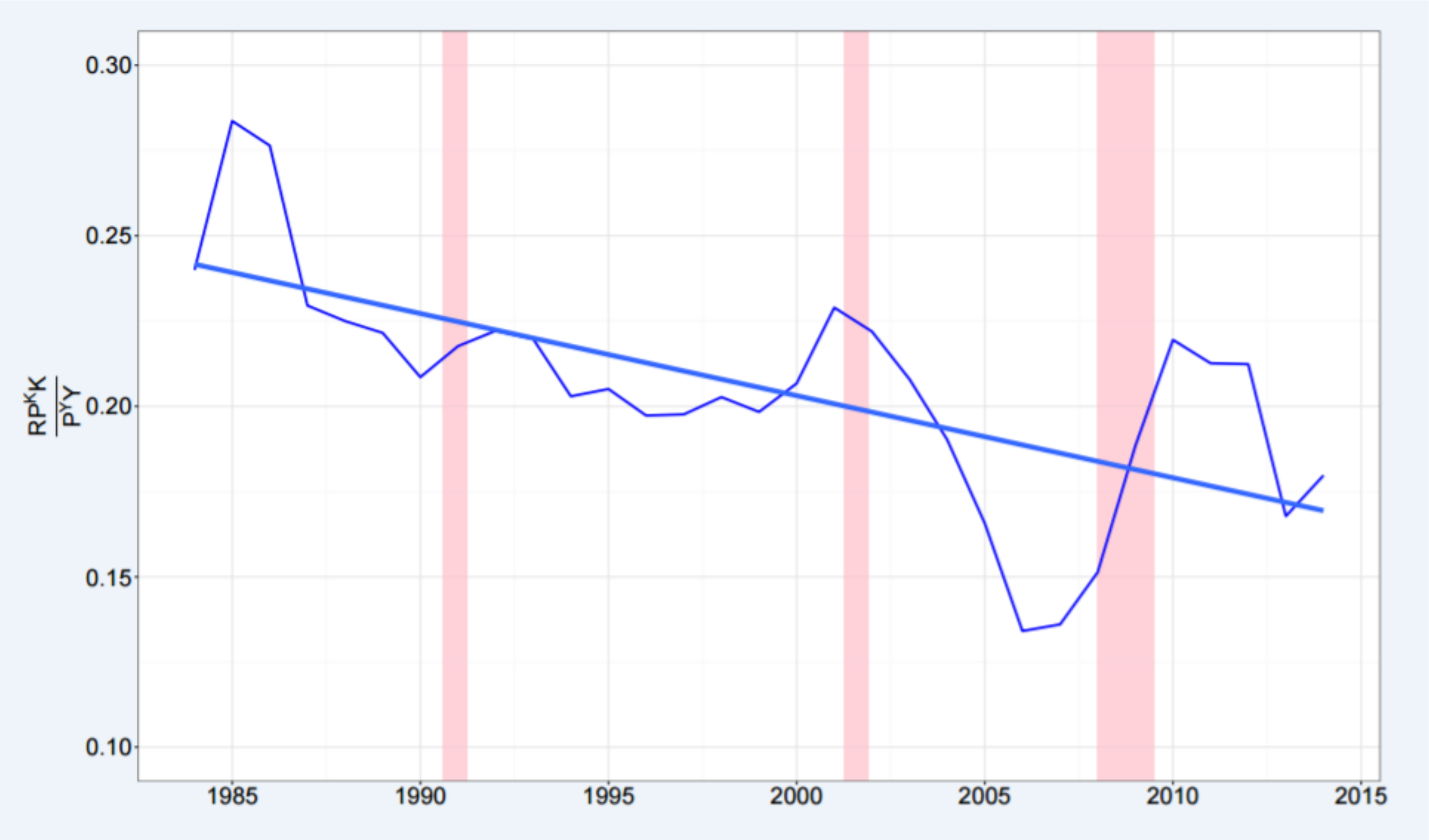
- Periods of "**excess savings**" often translate into surges in trade and global investments

  "Excess savings" can arise from technological, demographic or political changes that favor capital accumulation

  - "Opening of America" in the late 1600s – expansion of finance instruments;
  - Victorian expansion with Industrial Revolution
  - "4th industrial revolution" with <u>less capital intensive</u> high-growth sectors?
    - **BRI a mirror image of the search of yield in western economies, creating opportunities to cross border flows**

The share of capital as a production factor in GDP has been decreasing 1/

Share of capital in gross value added for U.S. non-financial corporates 1984–2014



1/ Simcha Barkay (2017), "Declining Labor and Capital Shares," PhD dissertation, University of Chicago. Note: capital payments are the product of the required rate of return on capital and the value of the capital stock. The capital share is the ratio of capital payments to gross value added. The required rate of return on capital is calculated as R = (i − E [π] + δ). Capital includes both physical capital and intangible capital. The cost of borrowing is set to Moody's "Aaa" bond yield and expected inflation is calculated as a three-year moving average.

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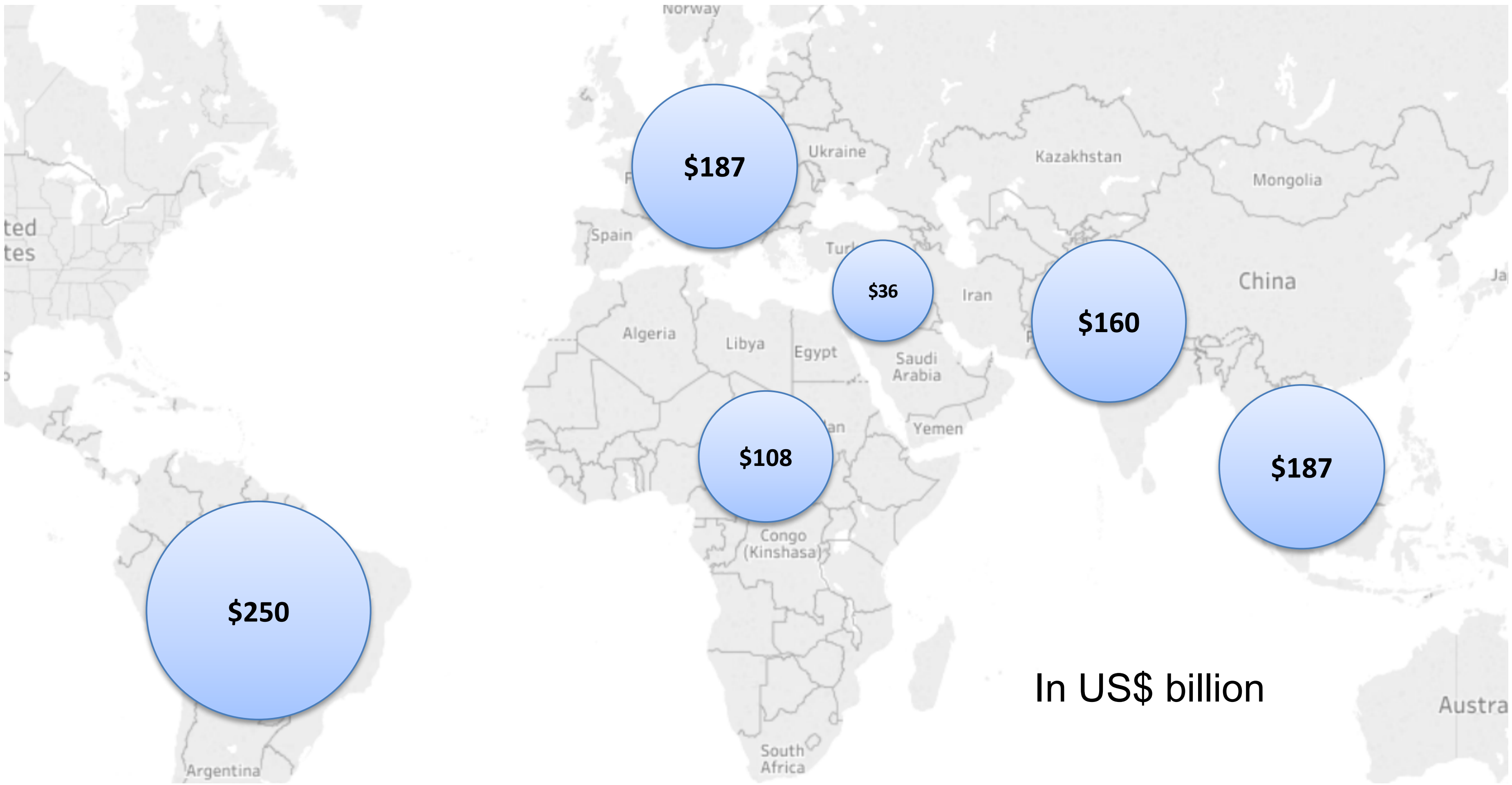
Infrastructure can be a meaningful outlay for “excess savings”

Infrastructure Pipeline open to private investment/financing in Emerging Markets and Developing Economies

There is a total of nearly $1 trillion worth of investment projects in EMDEs aiming at financial closure.

Aabout 2/3 of the opportunities are or can be in **<u>‘climate smart’ sectors</u>** *(excl. heavy rail, nuclear and coal-fired power)*



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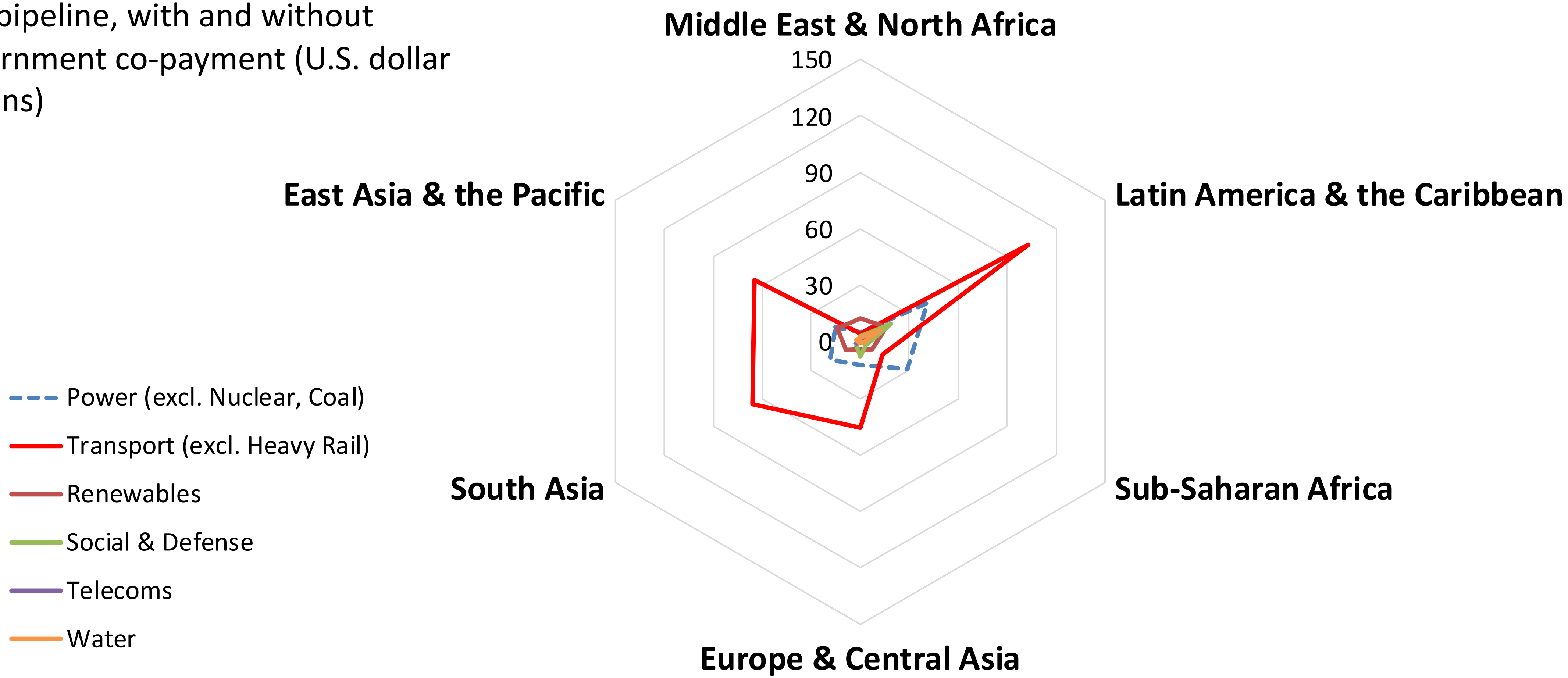
Source: WBG Discussion Paper: “The Country Infrastructure Investment Pipeline: Size, Scope, and Opportunities” (2017)

Connectivity (transportation) ranks high among investment opportunities

PPP pipeline, with and without government co-payment (U.S. dollar billions)



urce: IJ Global Database. Note: All regional country groupings follow World Bank Group regional classifications.

“Excess” savings has bred a new type of investor

- Traditional investor → FDI, specialized company with support of banks
- New type of investor → Portfolio investment
  - Changes in regulations making more difficult for banks to hold long-term assets
  - Institutional investors holding long-term savings – sophisticated with in-house capacity, most depending on asset managers and other intermediaries
  - Different level of demand on information, willingness to go into detail and ability to absorb risks
  - Looking for simpler instruments, with some degree of liquidity, even if to be held to maturity

Infrastructure credit/fixed income has an attractive risk profile

Risk-return indicators of EM infrastructure and related Global Fixed Income Indexes (in US$)

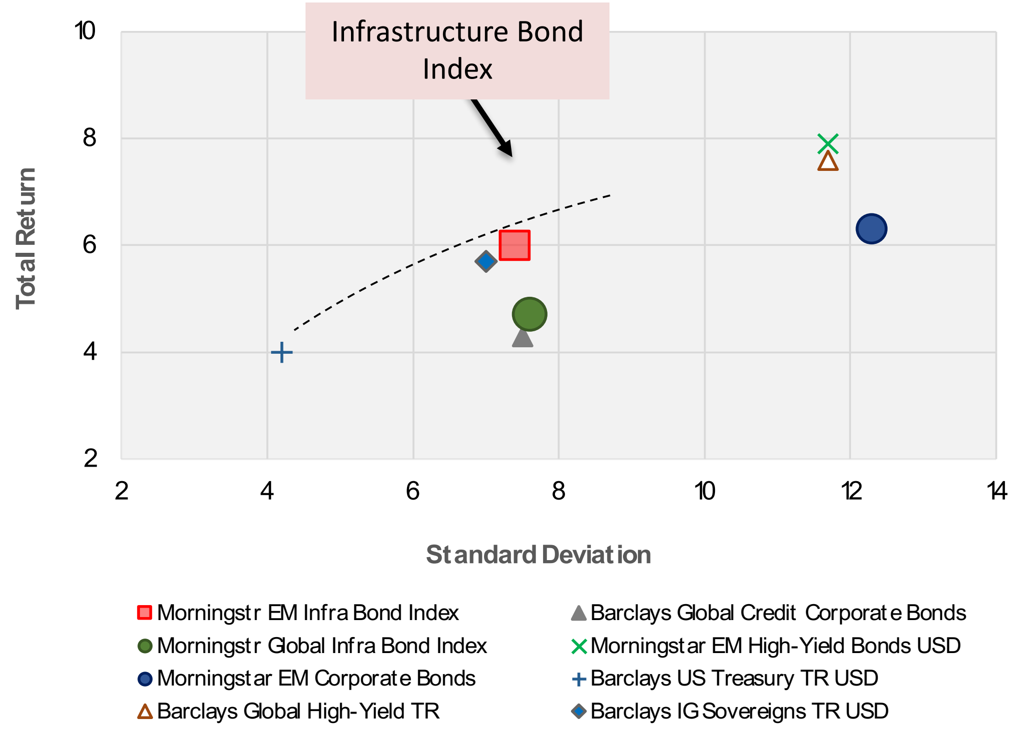
Total Returns USD 10-Years Ended December 2017

Bond Index Name	Return	Std Dev	Sharp	Maximum Ratio	Drawdown
EM Infrastructure*		6.17	7.37	0.81	(21.07)
Global Infrastructure*		5.04	7.58	0.65	(17.27)
EM Corporate***	6.76	12.26	0.58	(35.21)	
EM High Yield **		8.10	11.31	0.72	(27.75)

* Investment Grade

** High Yield (and Sovereign)

*** Both IG & HY



Source: Morningstar. Note: TR=Total Return.

MORNINGSTAR

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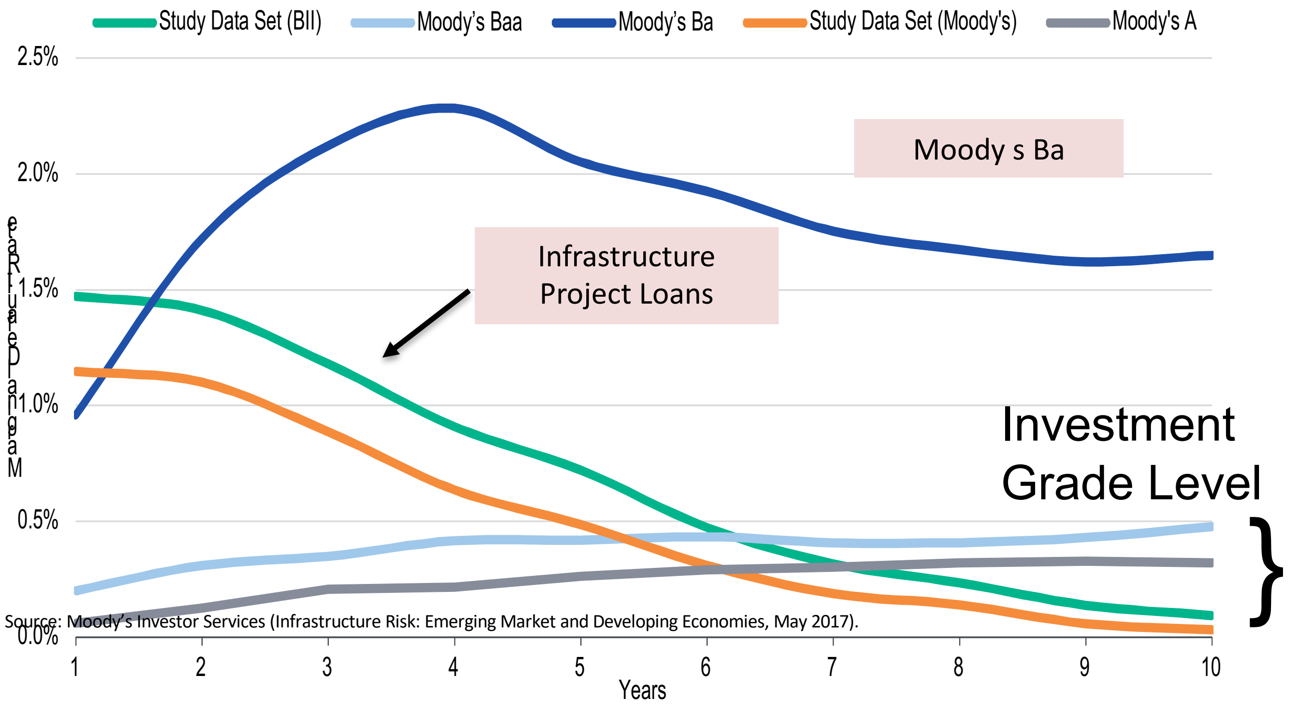
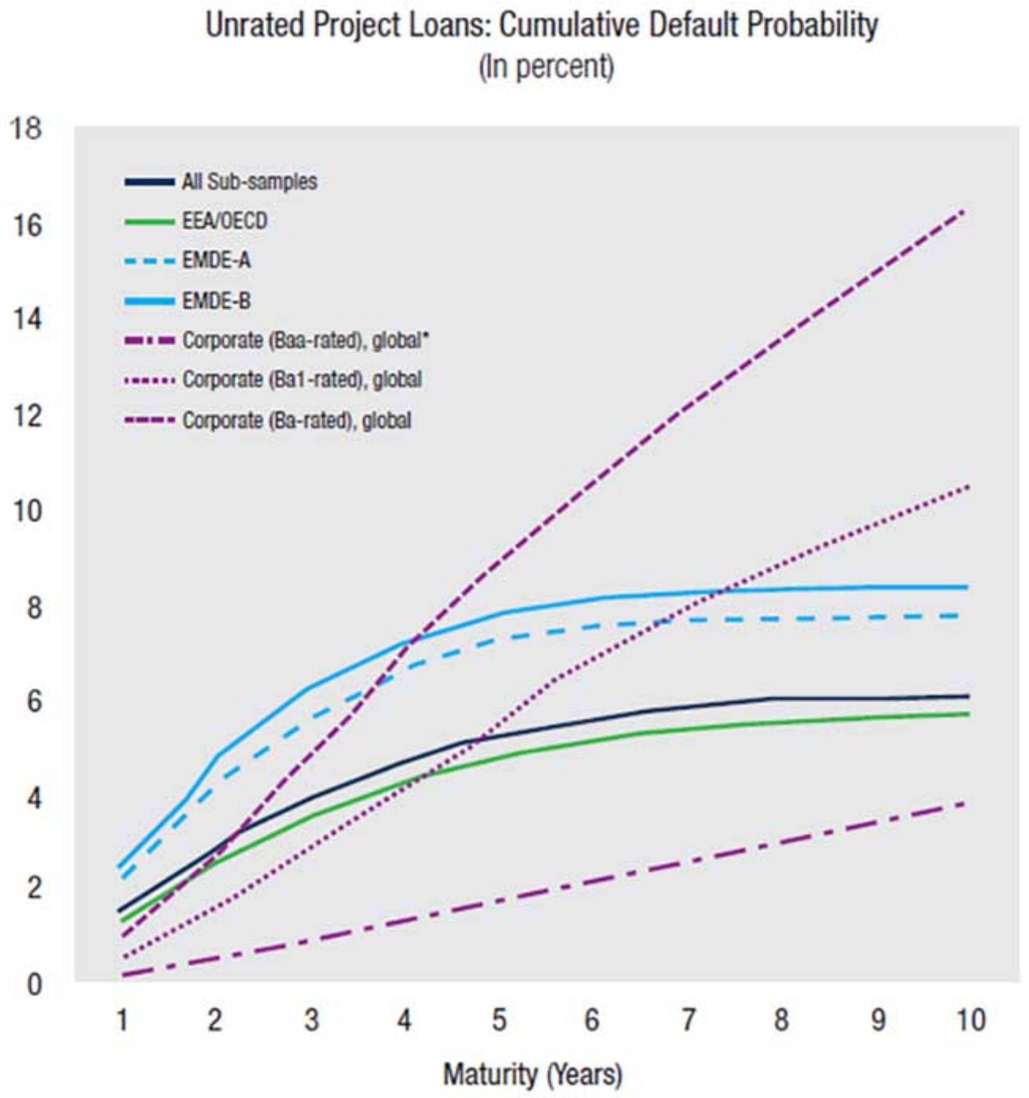
We can make infrastructure credit suitable to a broader market

- Expanding demand for infrastructure credit will require credit enhancements, especially to attract institutional investors
- “Monolines” wrapping up credits worked well in the US municipal bond market, reducing due diligence costs, and bringing liquidity
- “Monolines” were successful in EM and LDIC. More than 200 transactions ($ 42 bn) with just 7 bps in losses over 20+ years; success required avoiding currency mismatch and undercapitalized projects, focusing on recycling infrastructure assets and trade-related finance
- Attractive rate of return for global investors (12% ROE) opening commercial finance to EM and LI countries committed to governance

The risk profile of infrastructure credit has unique features

EMDE Project Loans: Marginal Default Rate





Lifelong Expected Losses of infrastructure stabilize at relatively low levels

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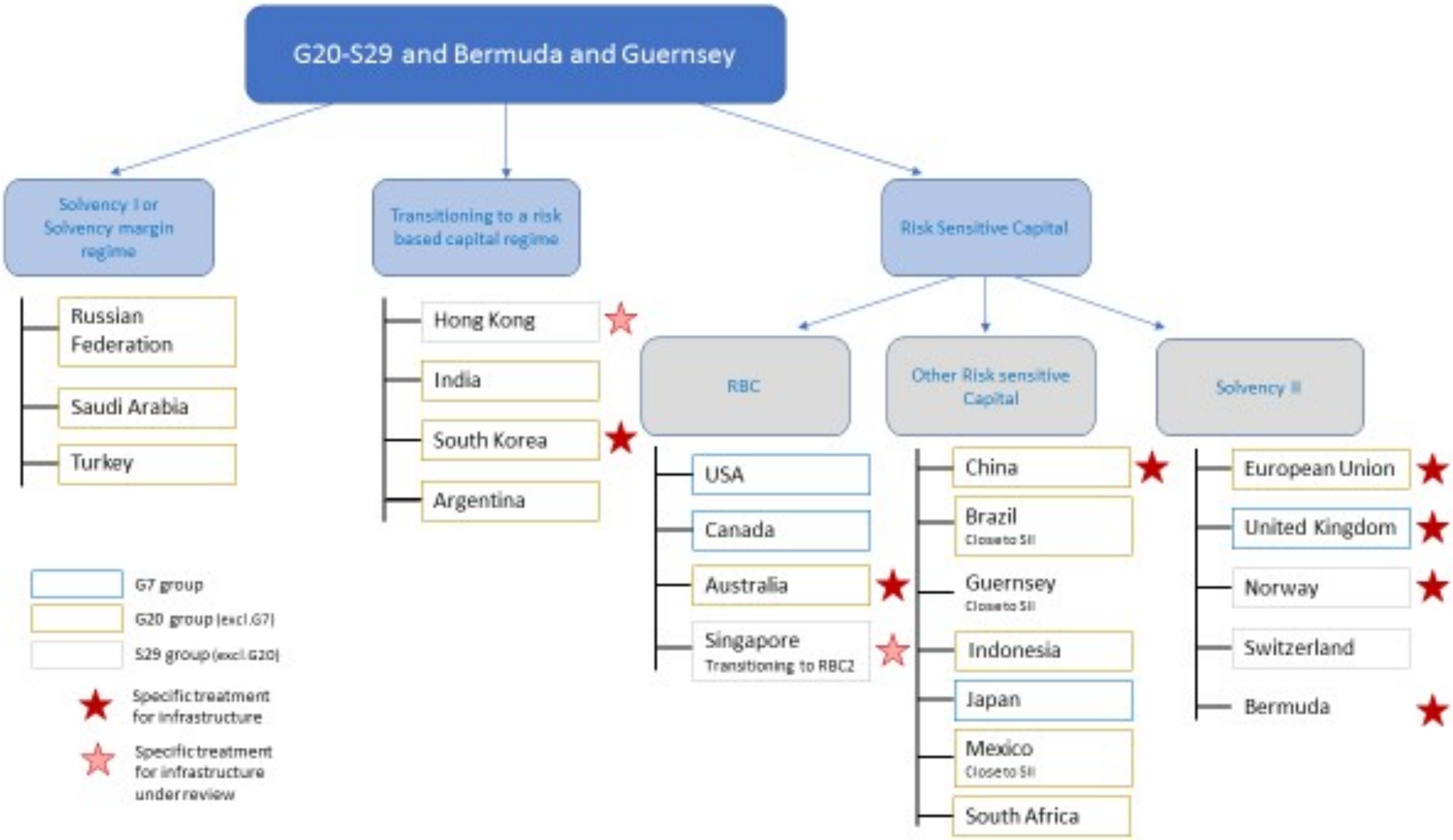
Infrastructure deserves special treatment on its merits



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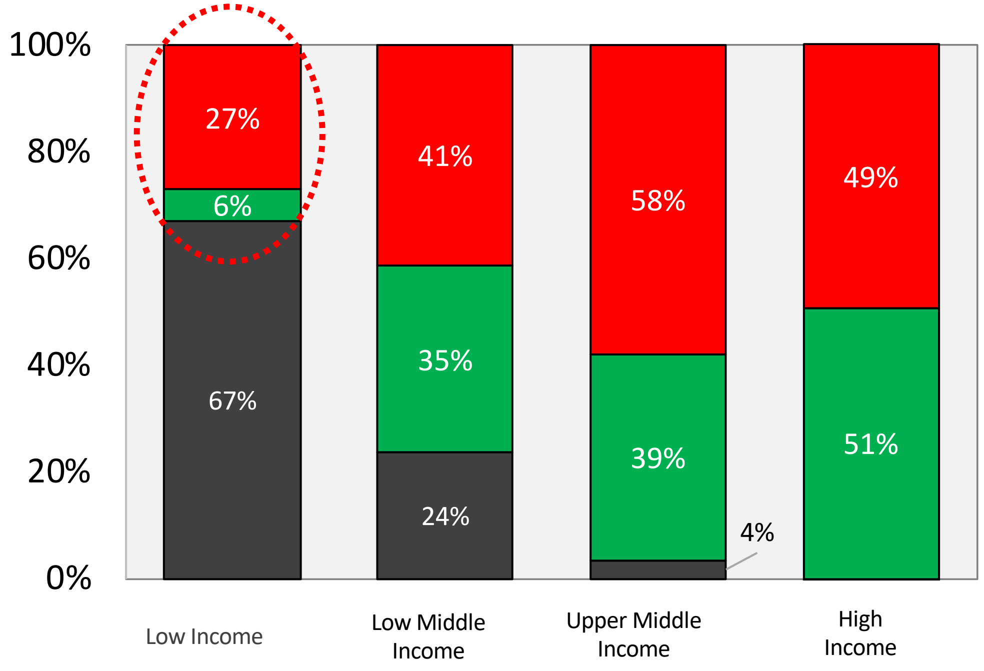
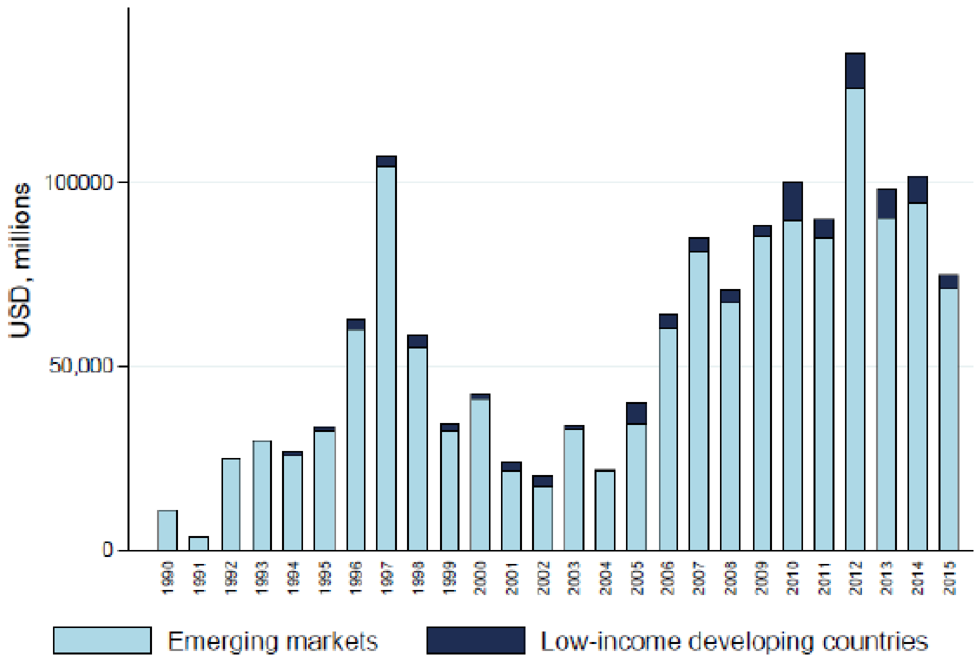
Capital flows to LIDC are still too small

Distribution of Net Private Capital Flows per Country Income Level
Percent



Source: OECD and World Bank staff calculations.

PPP investment in EM and in LIDC



Source: World Bank's PPI database

Close coordination across sectors, priorities and partners is necessary to maximize developmental impact of investment and avoid excess indebtedness

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We need more than to adjust risk perceptions

- Increase information about countries’ risks – Macro, ESG, regulatory
- Improve project preparation and focus on economic viability to make projects more bankable – **Global Infrastructure Facility - GIF**
- Improve business environment by supporting reforms with financial and technical assistance operations
- Use financial innovation and MDBs balance sheet to make risk compatible with investors’ capacity (e.g. address X-rate risk)
- Develop local capital markets and partner with local institutional investors with global ones

Conclusion

- "Excess savings" are likely to last, even if central banks unwind part of their portfolios
- Infrastructure can absorb "excess savings" with projects promoting prosperity in EM and LIDC, raising trade and productivity in these countries
- Financial regulations can help broaden investor base
- Risk mitigation/transfer mechanisms, in some cases with public sector support can help fill the gap between the risk capacity of savers and the reality of many projects, even in favorable environment
- Careful project selection and integrated development strategies are essential to promote debt sustainability, especially in LIDC

Thank you!

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