Project Conference: The Future of National Development Banks

HOBART AND WILLIAM SMITH COLLEGES

MINDS

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BNDES-CAF-IPD Conference

Panel:

The roles of public banks in long-term funding

Banco Nacional de Desenvolvimento Econômico e Social (BNDES),

Rio de Janeiro, RJ, Brazil, September 16 2016

Outline

1. Organizing principles
2. Minsky’s Two masters of the Financial System
   i. what is the appropriate financial structure for EMEs promoting capital development?
3. Major Post-Crisis Challenges
4. Massive need for infrastructure in the emerging and developed world
5. What have we learned (or should have learned)?
   i. The roles of National Development Banks
   ii. The case of Brazil’s BNDES

1. Organizing principles

- Banks buy assets through the issuance of liabilities.
  - Schumpeter: “The form it takes is immaterial.”
  - Banker as “ephor”. A producer of means of payment and purchasing power
  - Liquidity creation. But not all liquidity is created by banks.
  - Keynes-Minsky-Schumpeter approach for development:
    - Inv. Driven by NPV. “MEC” (the nominal return to investment) can be too low or negative
    - BDs or even MP cannot guarantee that.
    - Domar Problem
    - crises are periodical due to the inherently instability of market economies, that is, booms and busts arise endogenously as a result of their normal operation
    - NDBs should not be seen in isolation. Its success also depends on the coordination between national economic policy to foster development and its funding ,-usually provided in part by NDBs.
  - Funding for development requires a theory of instability
  - Ensure the provision of a safe payment system and store of value and provide sufficient financing at a reasonable cost for productive investment

2. Minsky's Two masters of the Financial System

- Kregel (2015): Minsky's Irreconcilable Masters

  "one master requires assurance that the financing needed for the capital development of the economy will be forthcoming and the second master requires assurance that a safe and secure payments mechanism will be provided." (Minsky 1995, 3).

- One master requires **leverage** and **taking risks**:
  - Financing Capital Development and Innovation are inherently risky activities. Crises are periodical.
  - Keynes-Minsky-Schumpeter approach.
- The second requires a safe and sound payments system.
- How to reconcile two contradictory masters?
  - **Enhancing the role played by NDBs serving one of the masters: financing inherently risky innovations promoting capital development**

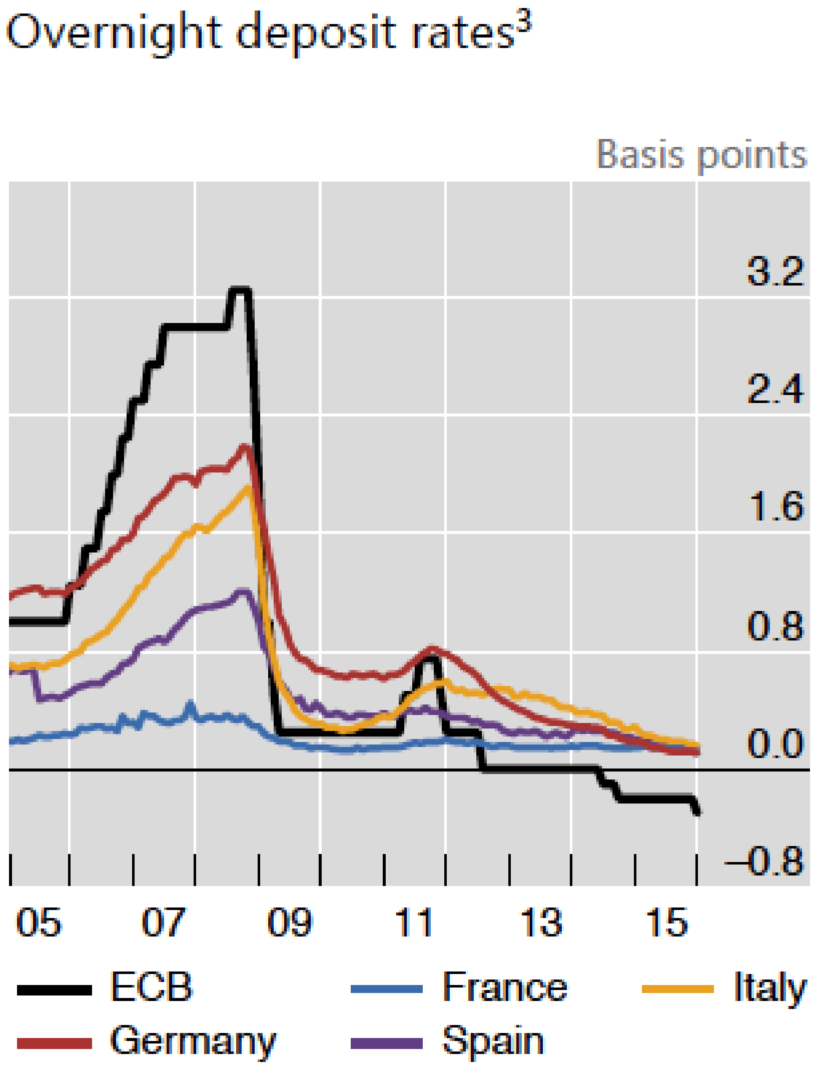
3. Major Post-Crisis Challenges

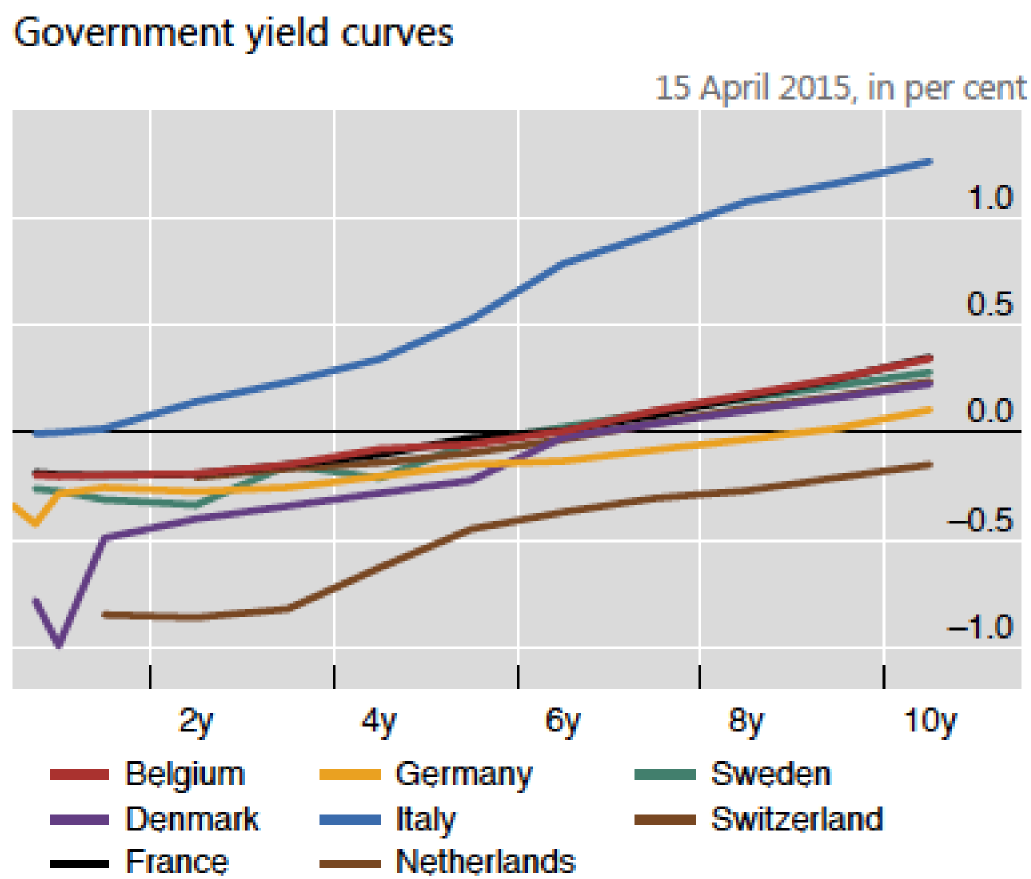
- Global stagnation and low investment. “Secular Stagnation”
  - **Public investment has been declining**, exacerbated by public policy shifts towards austerity. Cuts in discretionary public spending.
  - **Short-termism of financial markets** and **corporations**.
  - **Growing investment needs** (SDGs, low carbon economy, etc)
  - Low investment causing **massive infrastructure gaps**. OECD estimates US$70 trillion is needed by 2030.
    - WB: US$1-1.5 trillion each year will be required through 2030.
    - G20 (Feb. 2013): Developing countries will need to invest an additional $1 trillion a year through 2020.
  - **In spite of ultra-low interest rate** (ZIRP) environment (or even negative rates- NIRP). Banks under pressure. Global credit slows
  - Market turbulence roils global credit markets
  - Global growth prospects continue to weaken. EME concerns
  - **How to break the cycle?**

3. Major Post-Crisis Challenges

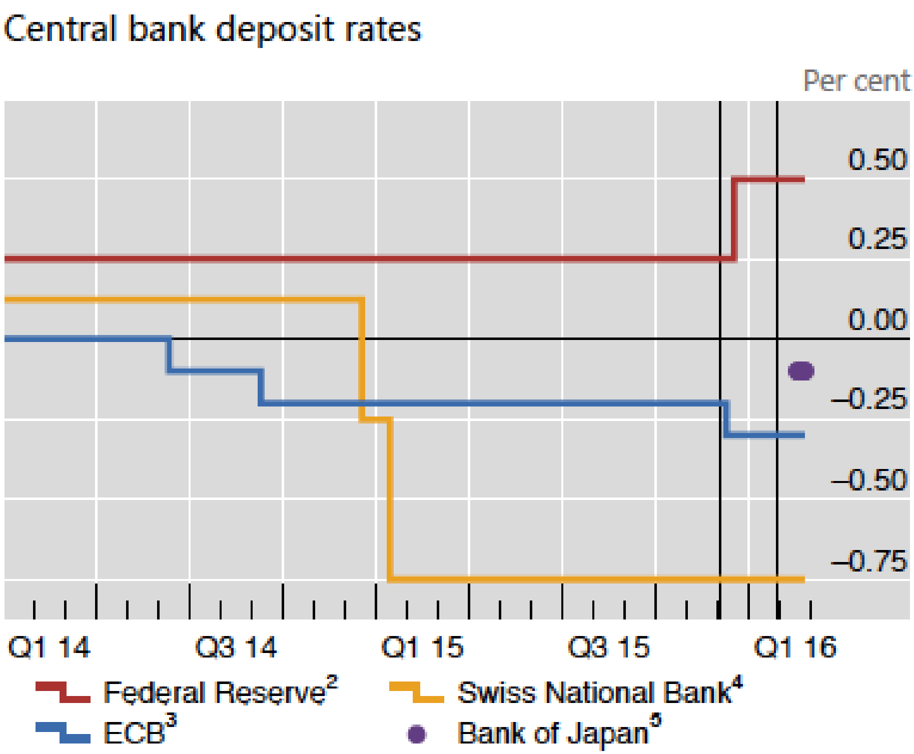
- IMF survey: *The Time Is Right for an Infrastructure Push*
- Infrastructure has emerged as a distinct asset class.
- *In OECD countries, institutional investors held over US$70 trillion in assets as of December 2011…Many of these investors are moving towards socially and environmentally responsible investment strategies. Also growing rapidly are Sovereign Wealth Funds (SWFs), with assets under management at end 2011 exceeding US$5 trillion. (G 20 2015)*
- Appetite for new infrastructure allocations among institutional investors? Blackrock survey suggests appetite is falling… "as the challenges facing the sector have increased"
- *IMF report: The initial hopes that the privatization wave of the 1980s would fuel a private-sector funded greenfield infrastructure investment boom have have fallen well short of expectations. (see Estache and Fay, 2007 and Iossa and Martimort, 2012).*
- **But growing mismatch between investment expenditures (and available financing) and investment needs. How to reconcile it?**

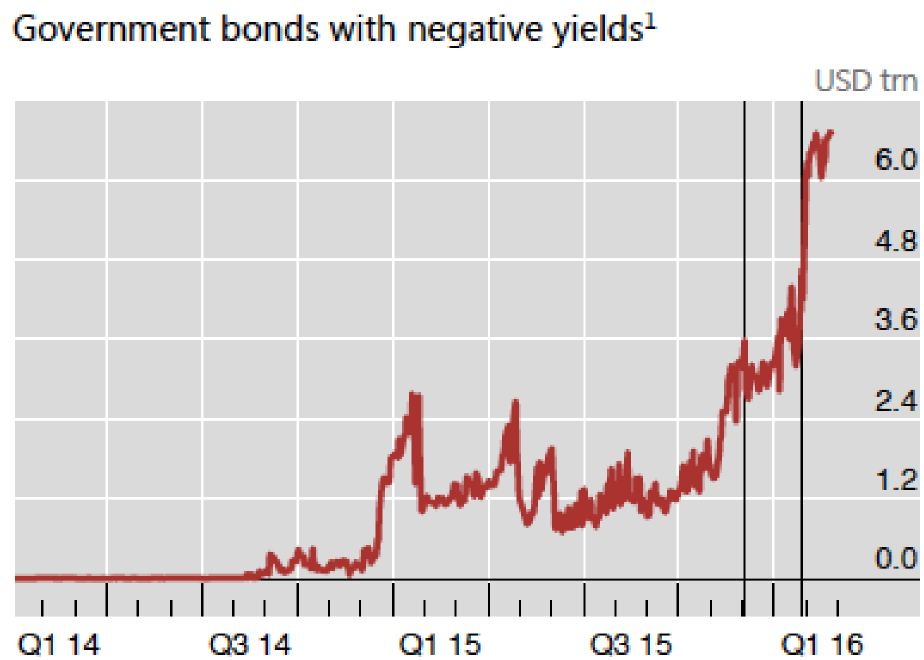
In spite of ultra-low interest rate (ZIRP) environment



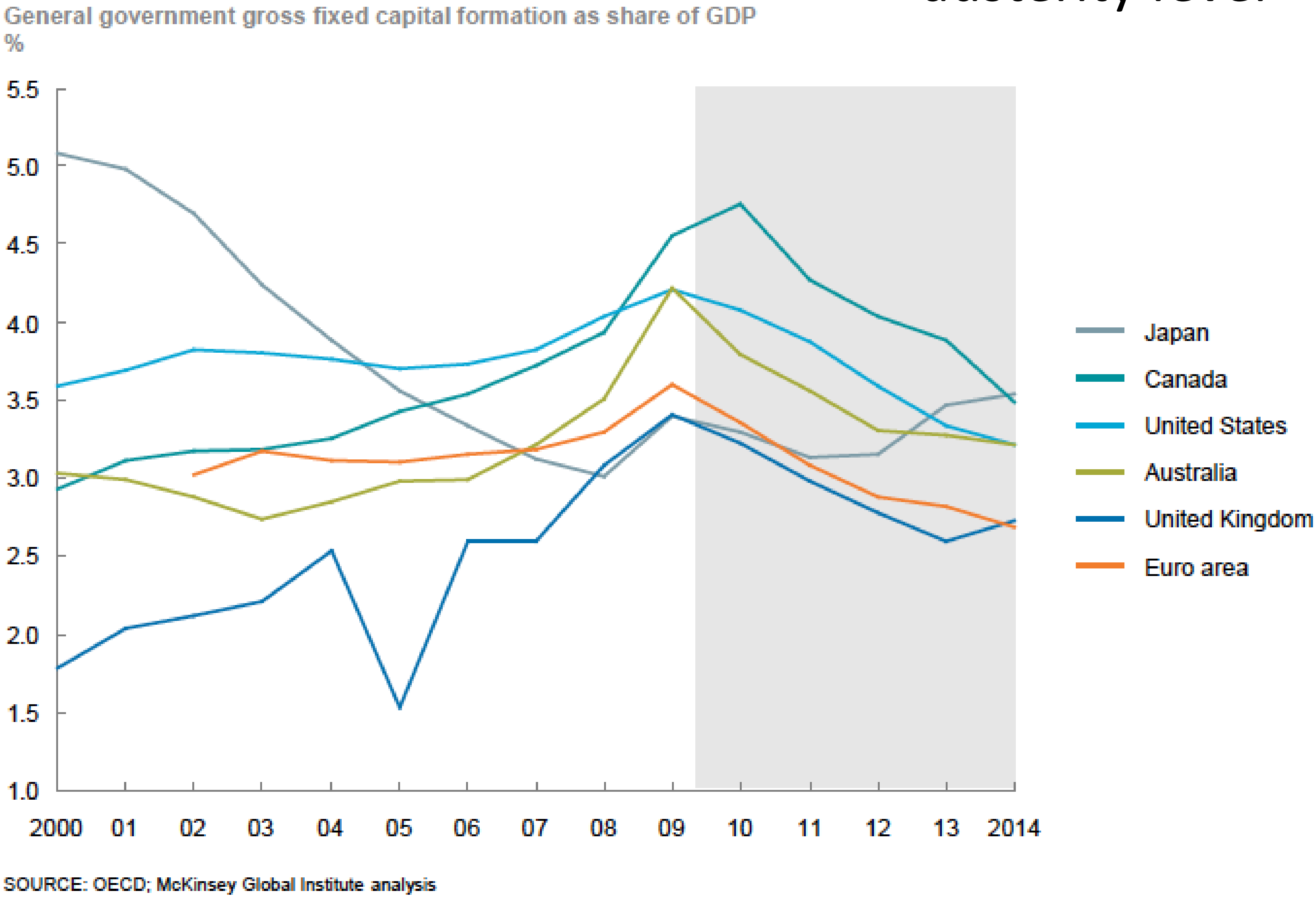


…or even negative rates- NIRP. More sovereign debt trades at negative yields





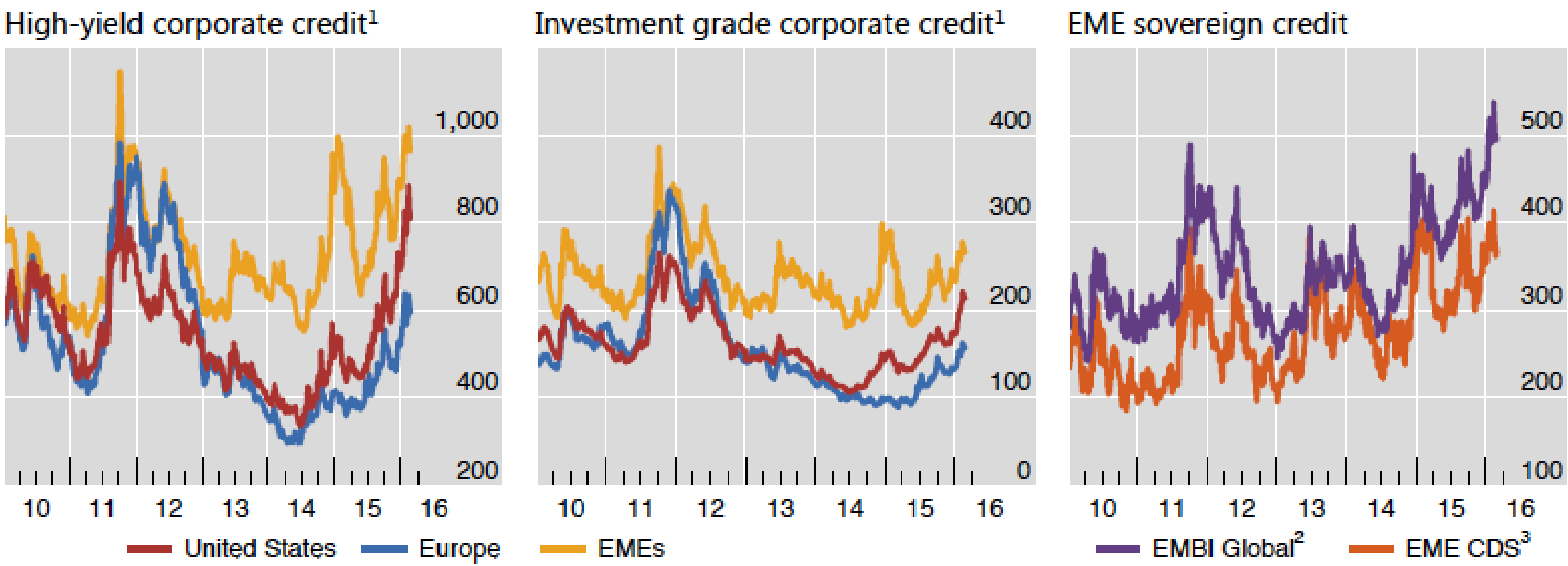
Public investment has been declining: victims of austerity fever



Market turbulence roils global credit markets

Spreads, in basis points

Graph 5

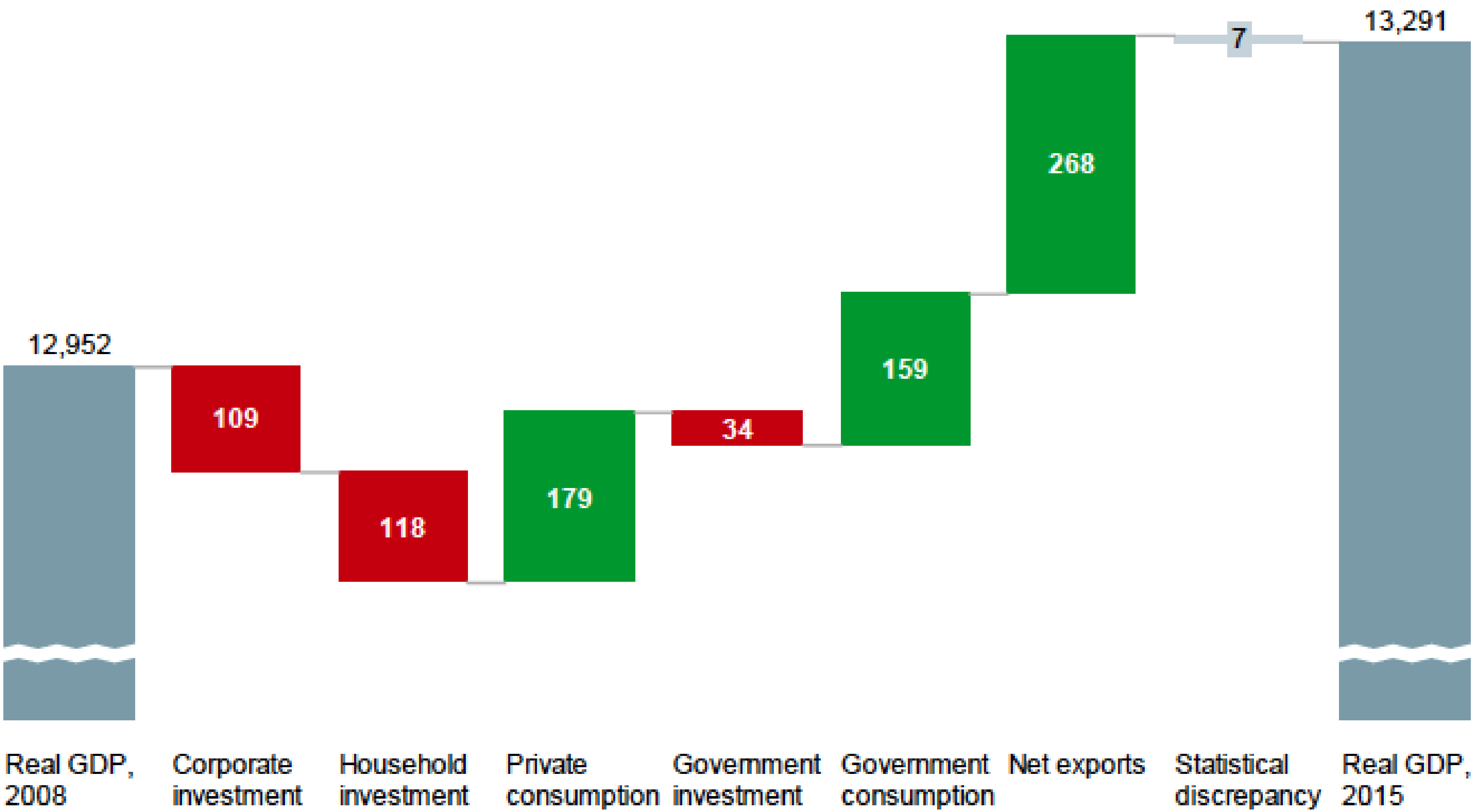


[1] Option-adjusted spreads over US Treasury notes. [2] JPMorgan EMBI Global index, stripped spread. [3] Emerging markets CDX.EM index, five-year on-the-run CDS mid-spread.

Sources: Bank of America Merrill Lynch; JPMorgan Chase.

Since the crisis, investment has collapsed across all sectors in Europe

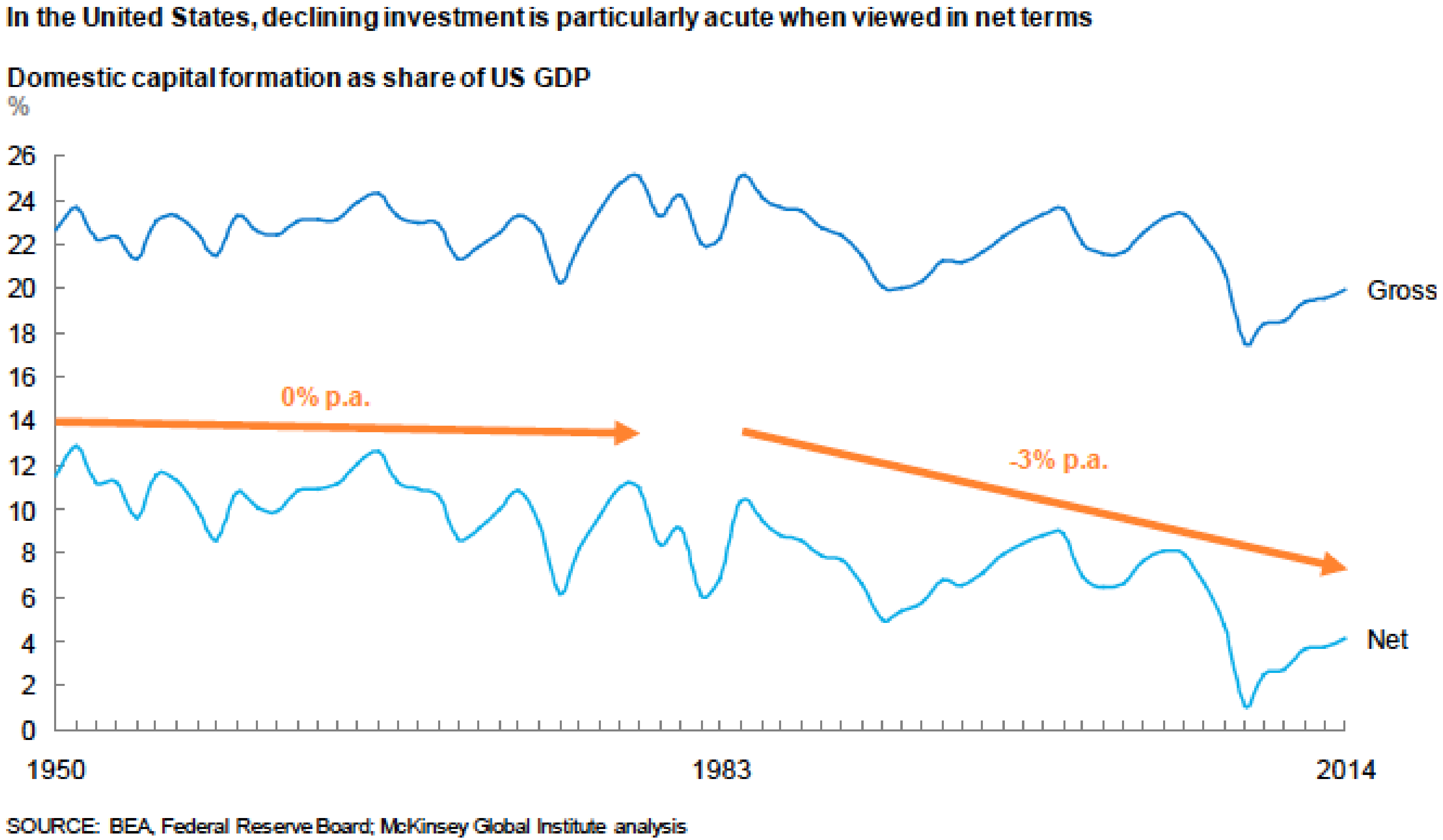
Change in real GDP, 2008–15
€ billion, chain-linked 2005, Europe-30



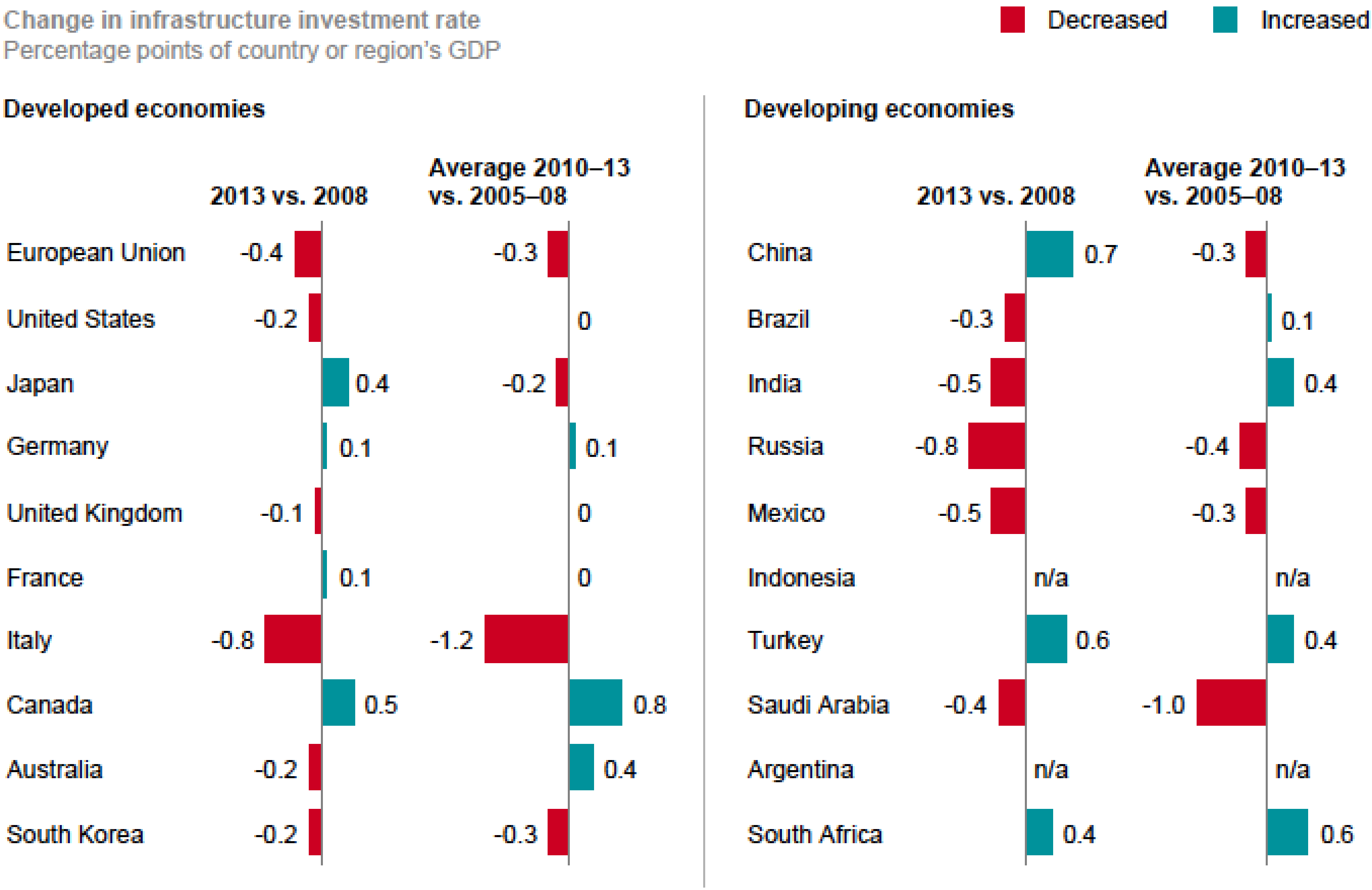
NOTE: No split of investment (gross capital formation) by source in Eurostat; government/household/corporate split from European Commission AMECO database applied to Eurostat total investment figures. Numbers may not sum due to rounding.

SOURCE: Eurostat; AMECO database; McKinsey Global Institute analysis

Declining US domestic capital formation % of US GDP



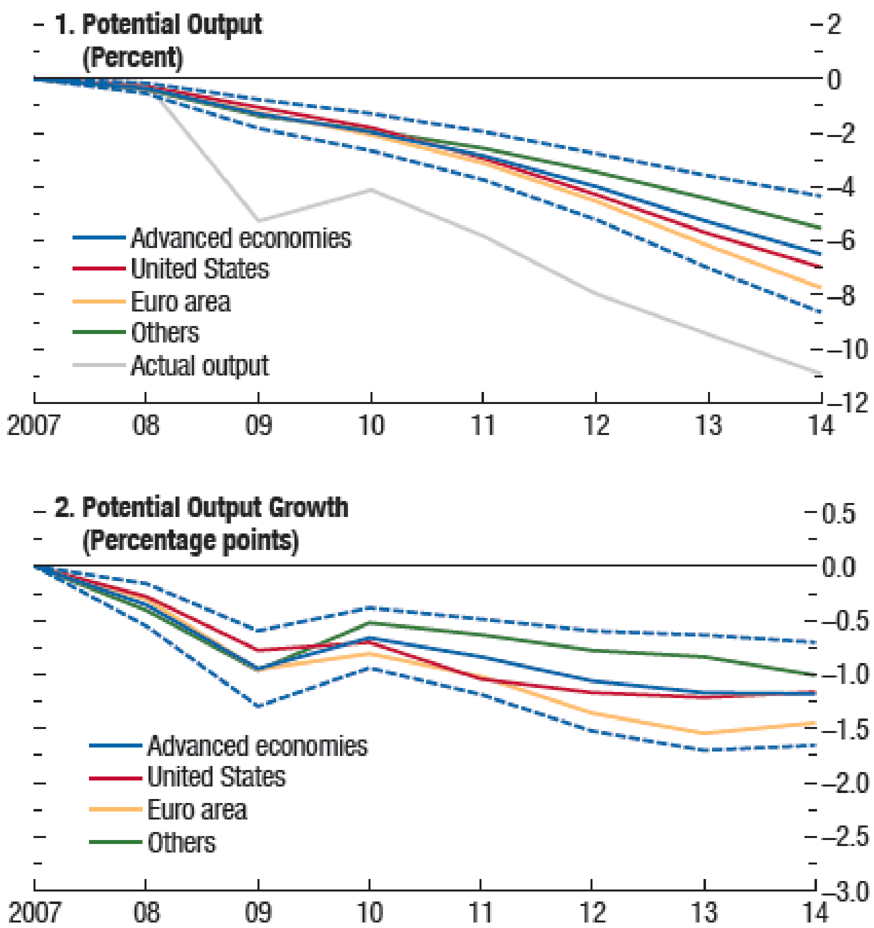
Infrastructure investment rates have declined since the 2007-2008 global financial crisis



SOURCE: IHS Global Insight; ITF; GWI; National Statistics; McKinsey Global Institute analysis

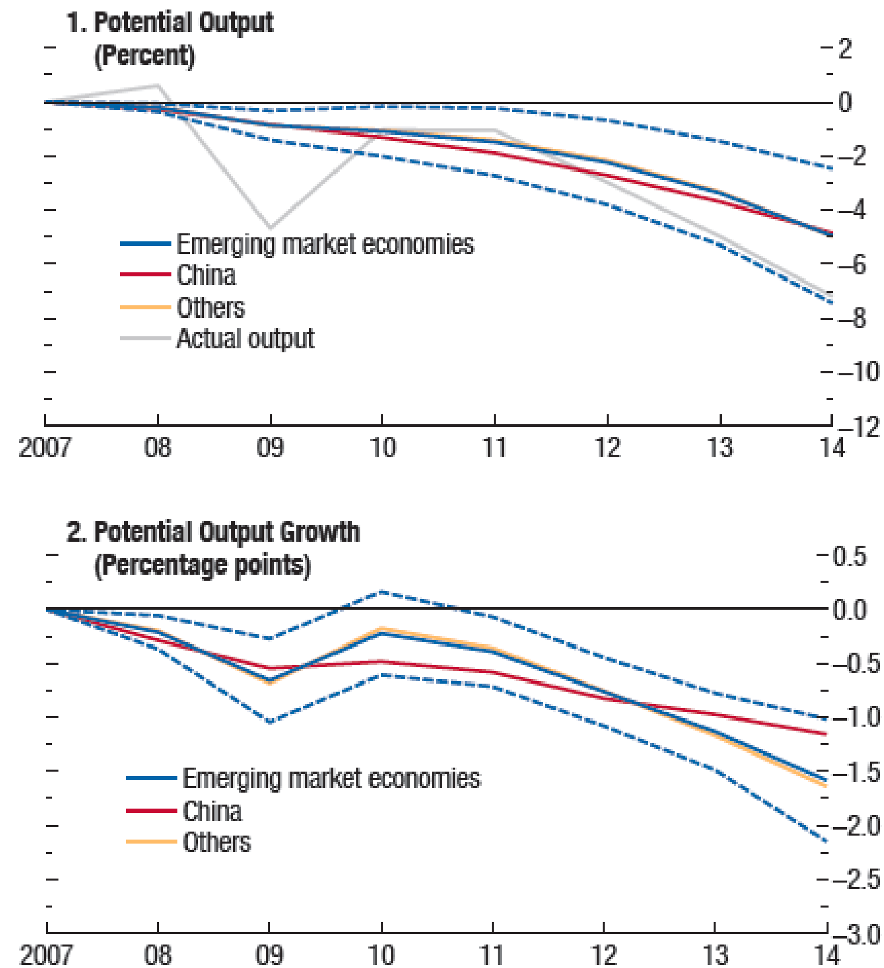
Lower Potential Output after the GFC

Annex Figure 3.4.1. Aftermath of the Global Financial Crisis in Advanced Economies



Source: IMF staff estimates.
Note: Dashed lines denote 90 percent confidence bands. Advanced economies are defined in Annex 3.1.

Annex Figure 3.4.2. Aftermath of the Global Financial Crisis in Emerging Market Economies

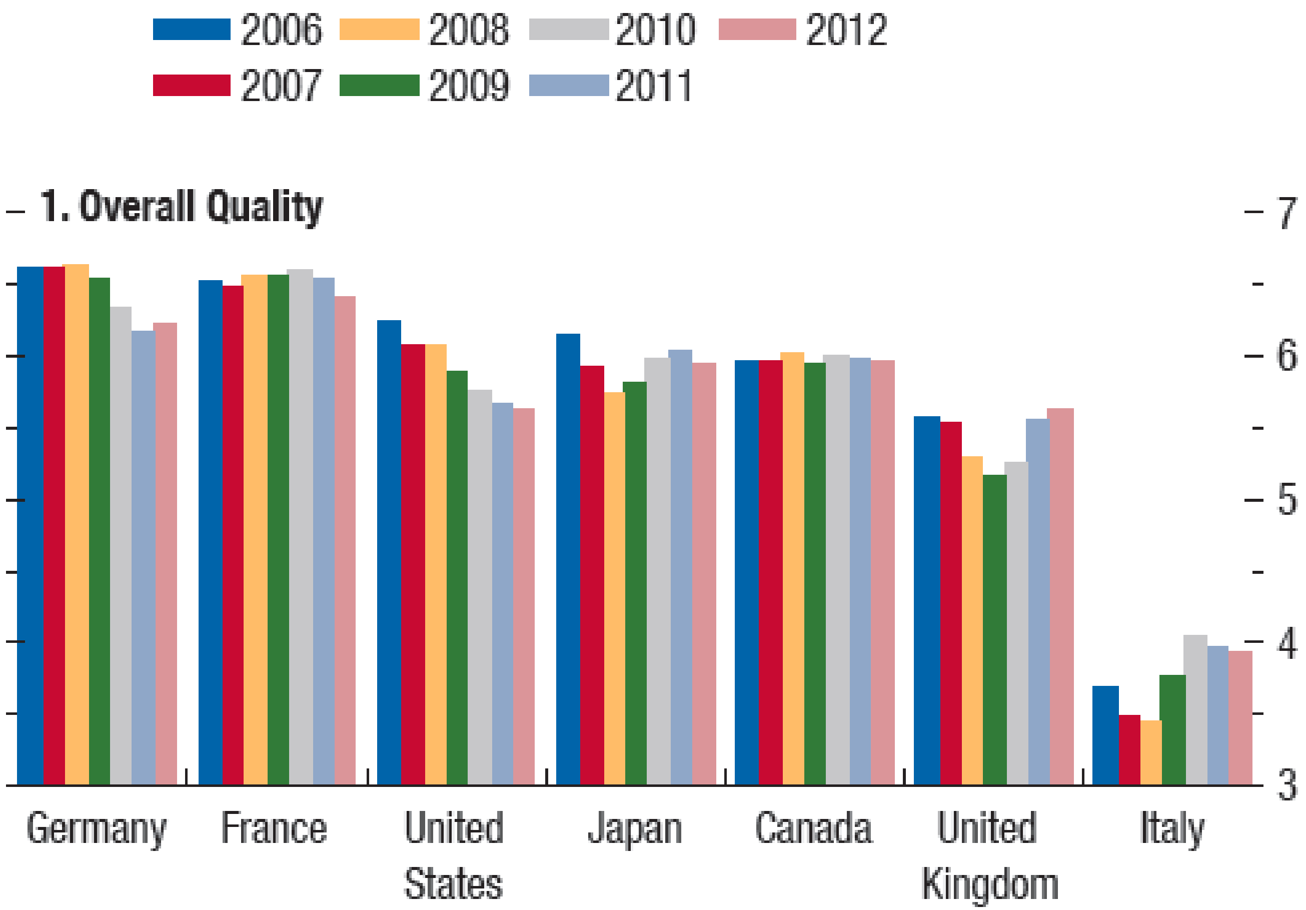


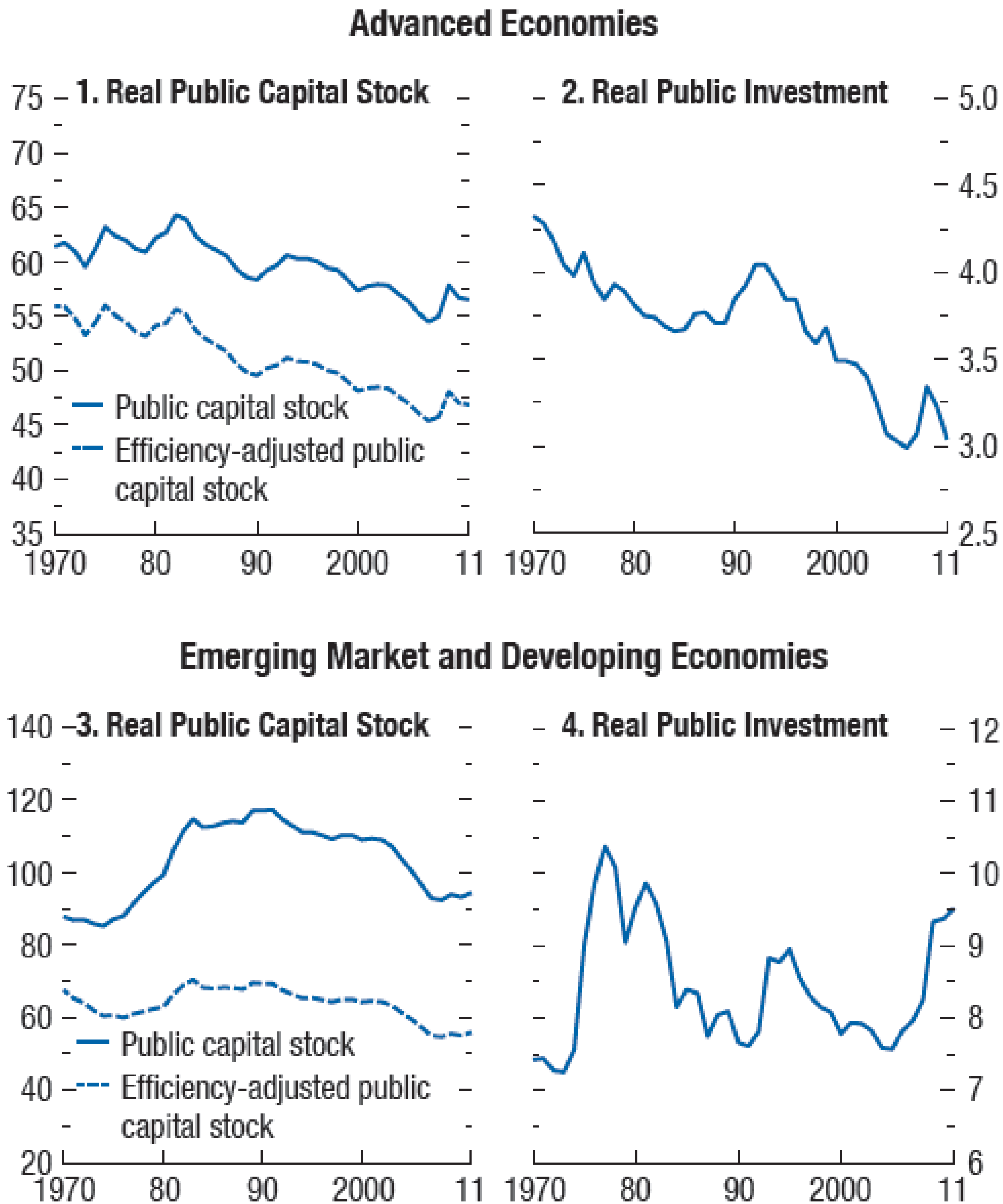
Source: IMF staff estimates.
Note: Dashed lines denote 90 percent confidence bands. Emerging market economies are defined in Annex 3.1.

Figure 3.4. Quality of Infrastructure in G7 Economies

(Scale, 1–7; higher score indicates better infrastructure)

In some advanced economies, there are signs of deteriorating quality in the existing infrastructure stock.



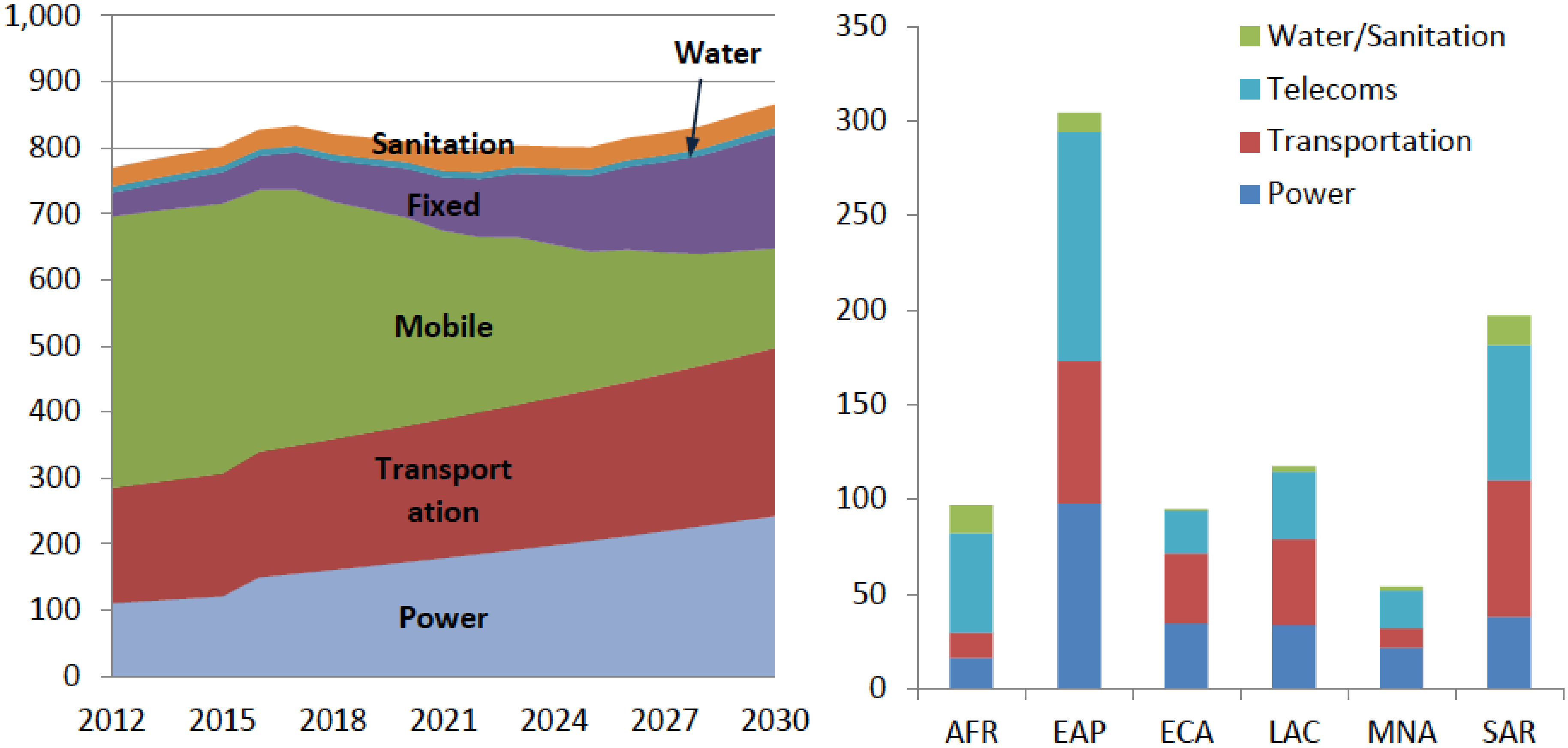


Evolution of Public Capital Stock and Public Inv. (Percent of GDP, PPP weighted)

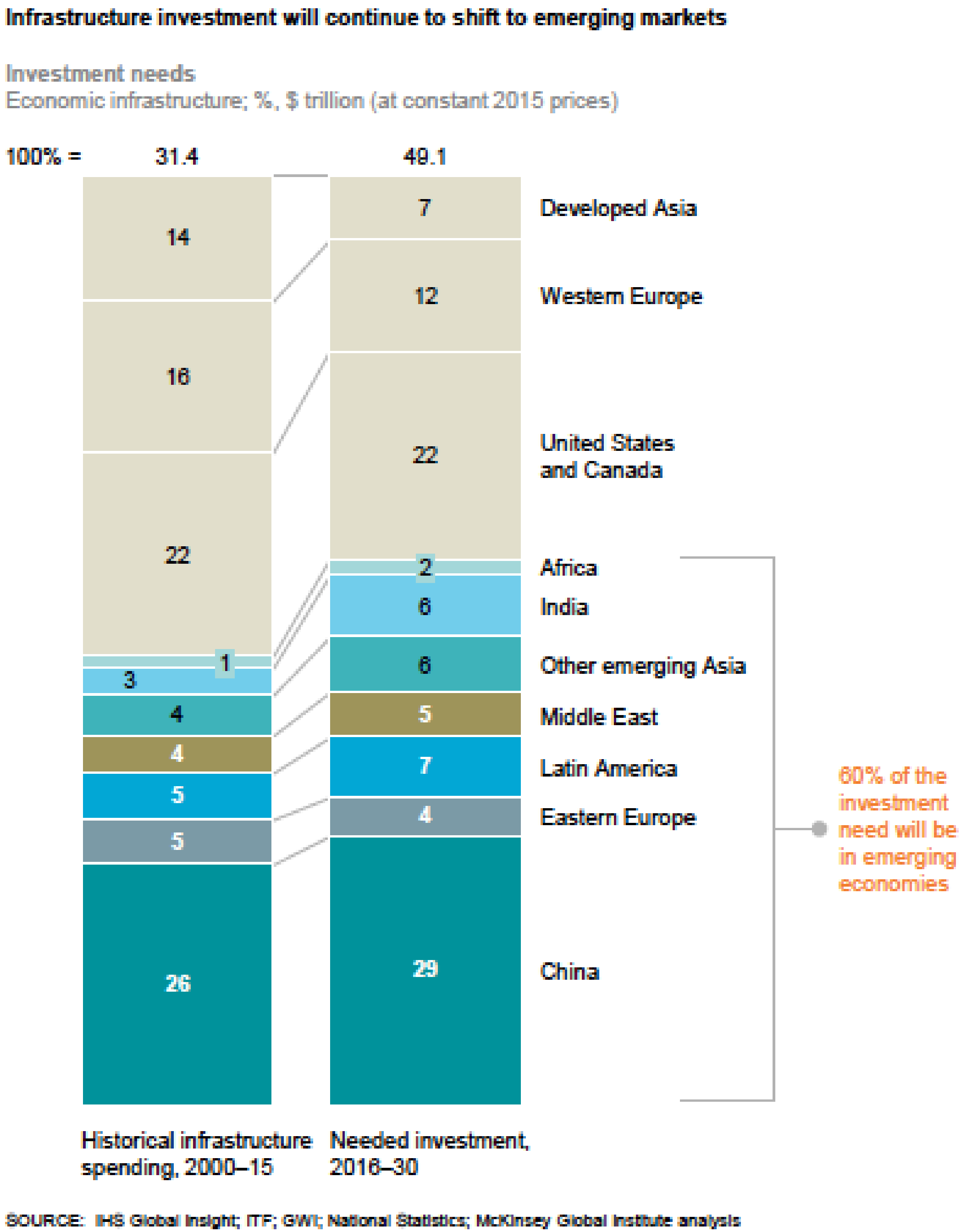
4. Massive need for infrastructure in the emerging and developed world

Figure 1.1: Annual infrastructure investment needs in developing countries will be substantial for the next two decades, with the greatest needs in East and South Asia *(US$ billions)*

a. Total infrastructure needs, 2010-30 **b. Regional infrastructure needs, 2030**



Source: World Bank, Global Development Horizons, 2013.

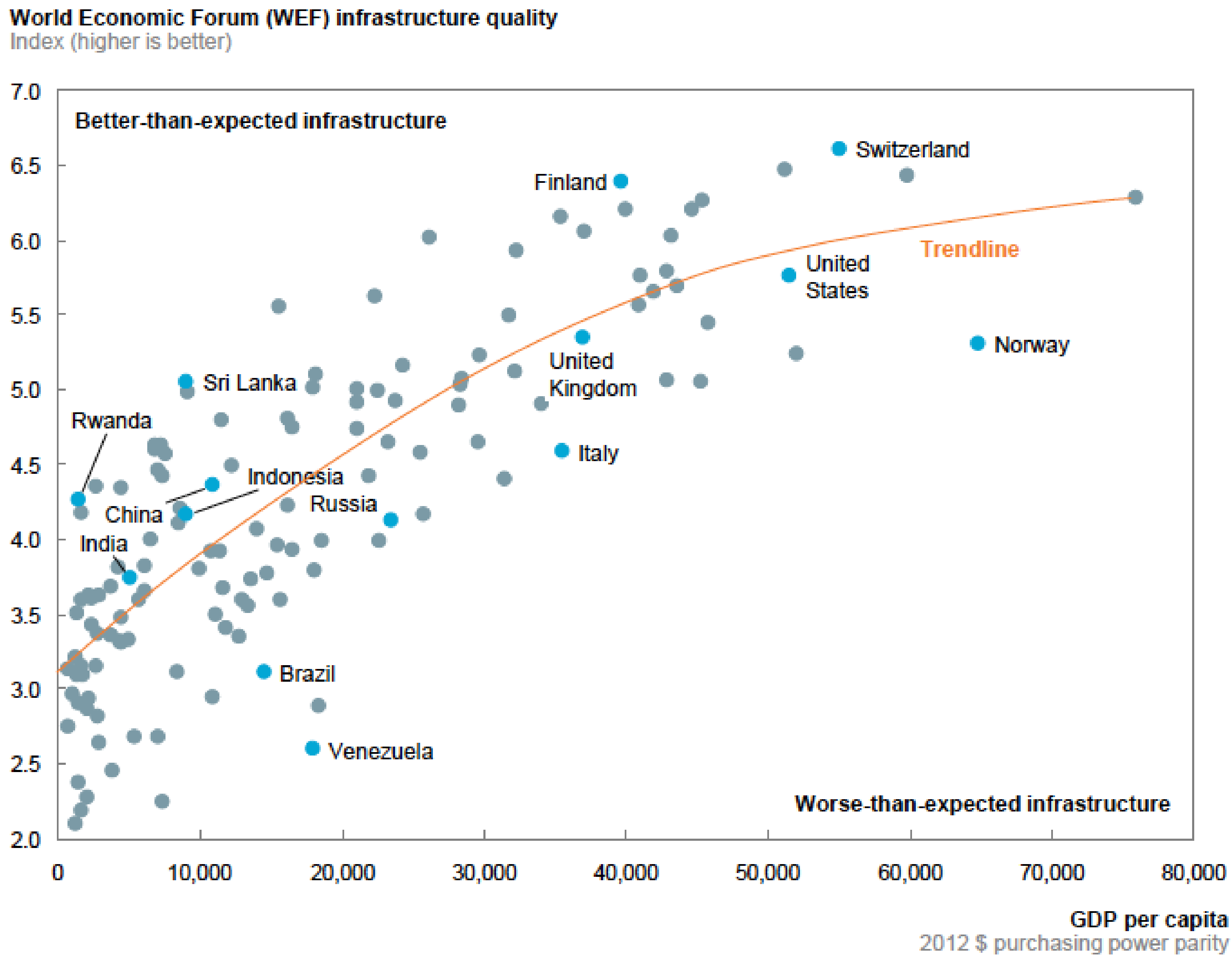


60% of the investment needed will be in EMEs.

5. Paving the way

- What have we learned (or should have learned)?

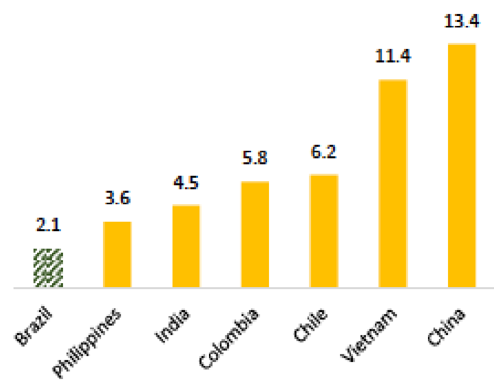
Infrastructure quality vs. GDP per capita



SOURCE: World Economic Forum; World Bank; McKinsey Global Institute analysis

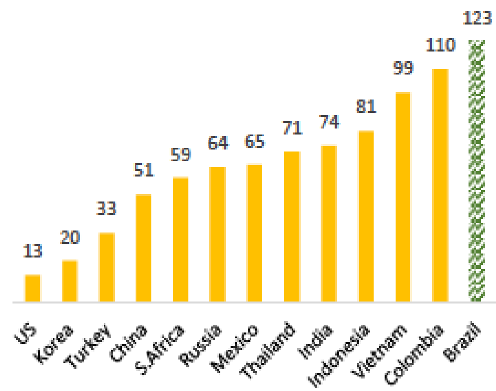
Investment in infrastructure vs quality of infrastructure

Figure 4.6: Investment in Infrastructure, 2011 (Percent of GDP)



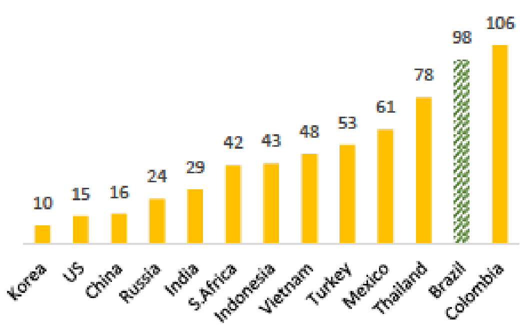
Source: World Economic Forum (WEF), Credit Suisse, 2013.

Figure 4.7: Quality of Overall Infrastructure Rank, 2015



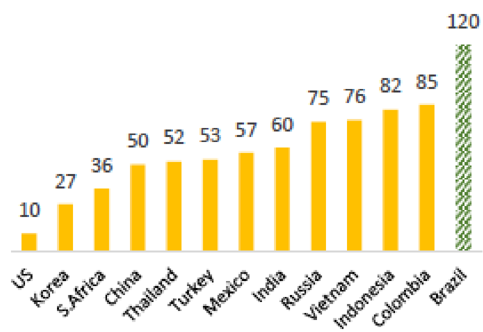
Source: WEF, Global Competitiveness 2015–2016.

Figure 4.10: Quality of Railroad Infrastructure Rank, 2015



Source: WEF, Global Competitiveness 2015–2016.

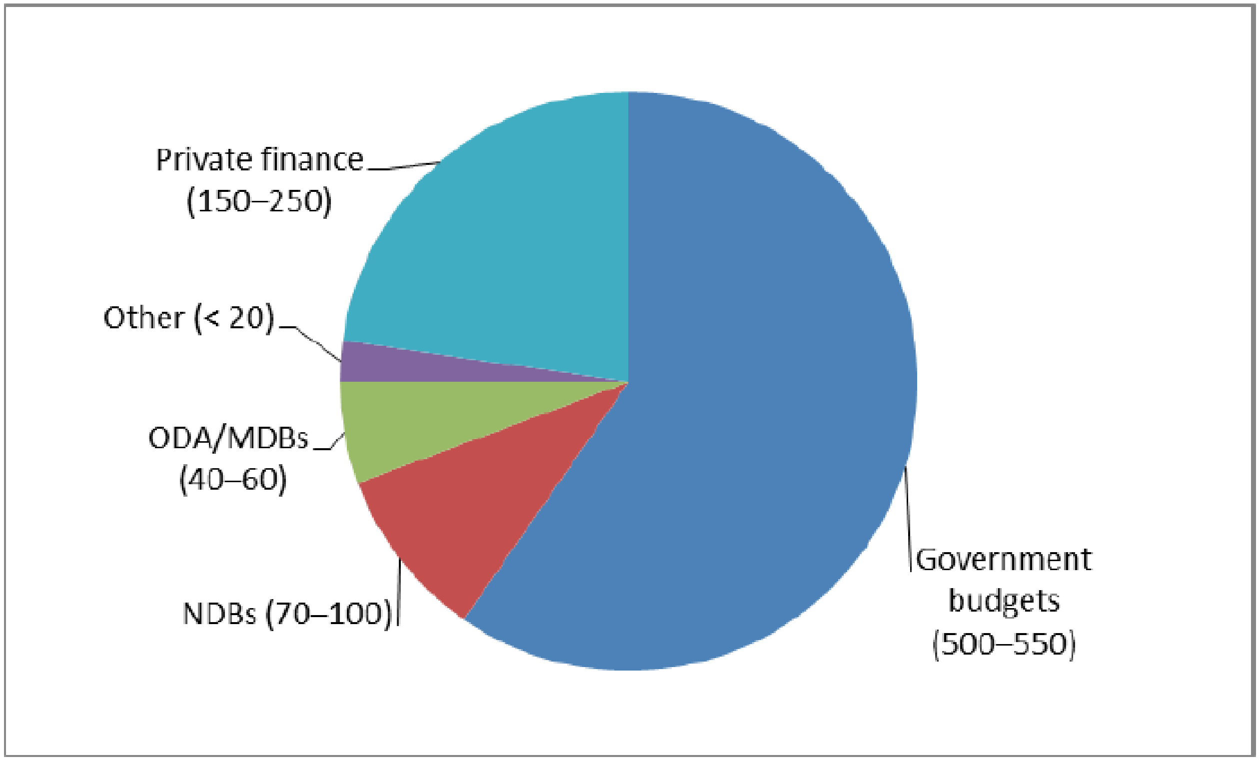
Figure 4.11: Quality of Port Infrastructure Rank, 2015



Sources of Infrastructure Finance in EMDEs

In EMDEs, public funding of infrastructure accounts for about 70% of total infrastructure expenditure

($ billion)

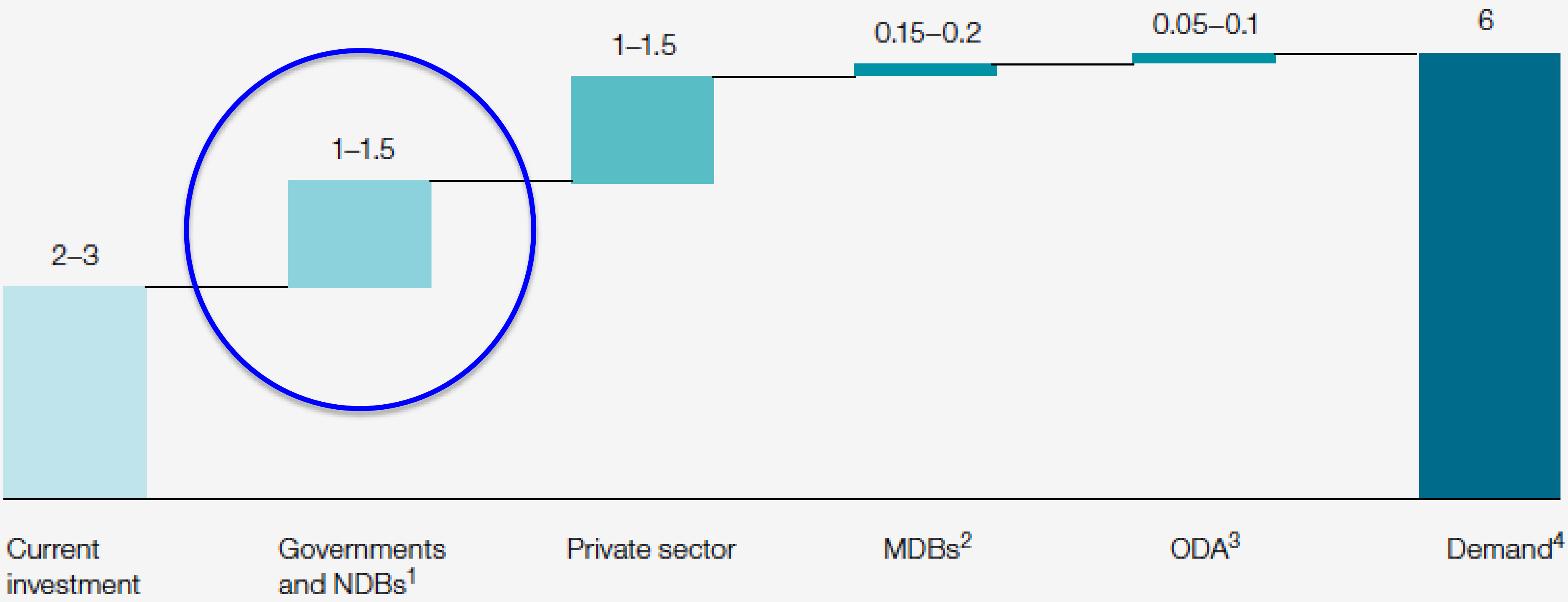


MDB = multilateral development bank, NDB = national development bank, ODA = official development assistance.

Source: Bhattacharya et al. (2012).

Annual incremental spending by actor to close infrastructure gap

Proposed annual incremental spending by actor to close infrastructure gap,
$ trillion (constant 2010 $)

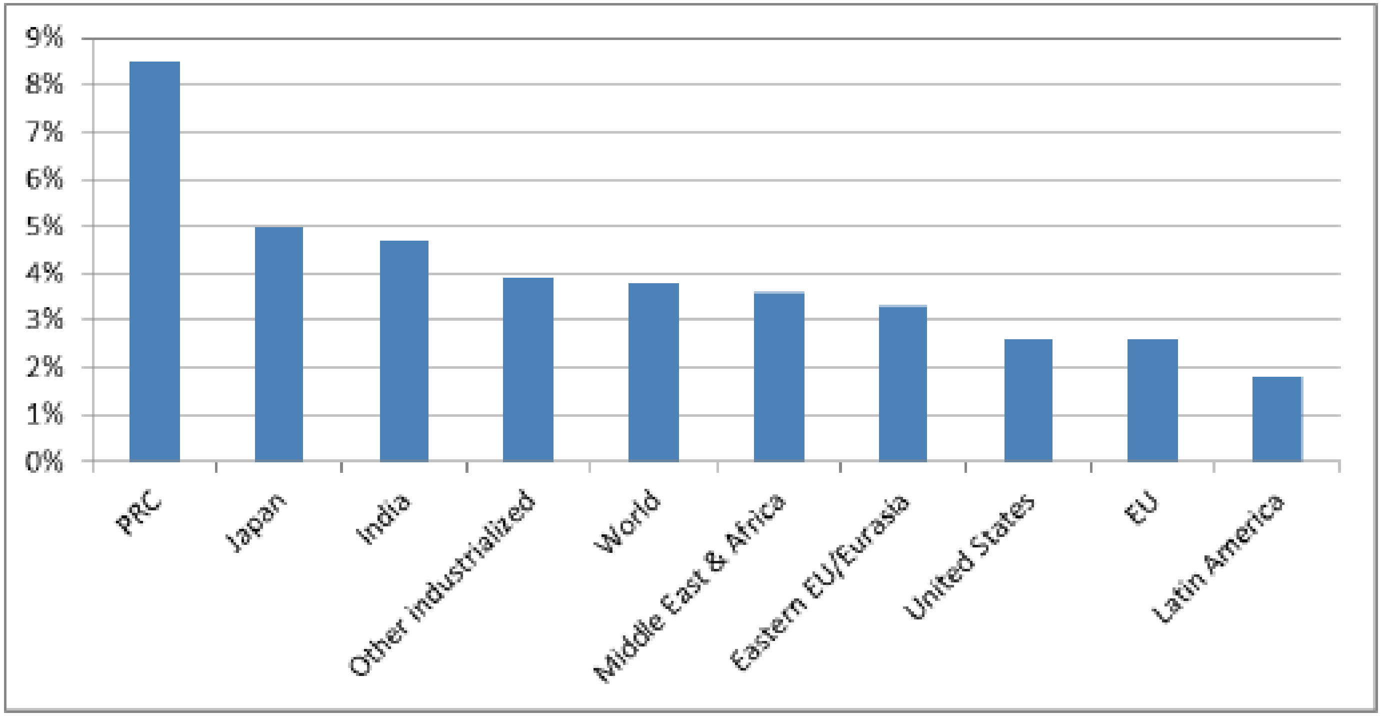


[1] National development banks.
[2] Multilateral development banks.
[3] Official development assistance.
[4] Based on demand of ~$93 trillion over 15 years (~$6 trillion per year).

Source: Amar Bhattacharya, Jeremy Oppenheim, and Lord Nicholas Stern, "Driving sustainable development through better infrastructure: Key elements of a transformation program," Brookings Institution global working paper, number 80, July 2015, brookings.edu; McKinsey analysis

5. What have we learned? Infrastructure Spending, 1992–2011

(% of GDP)



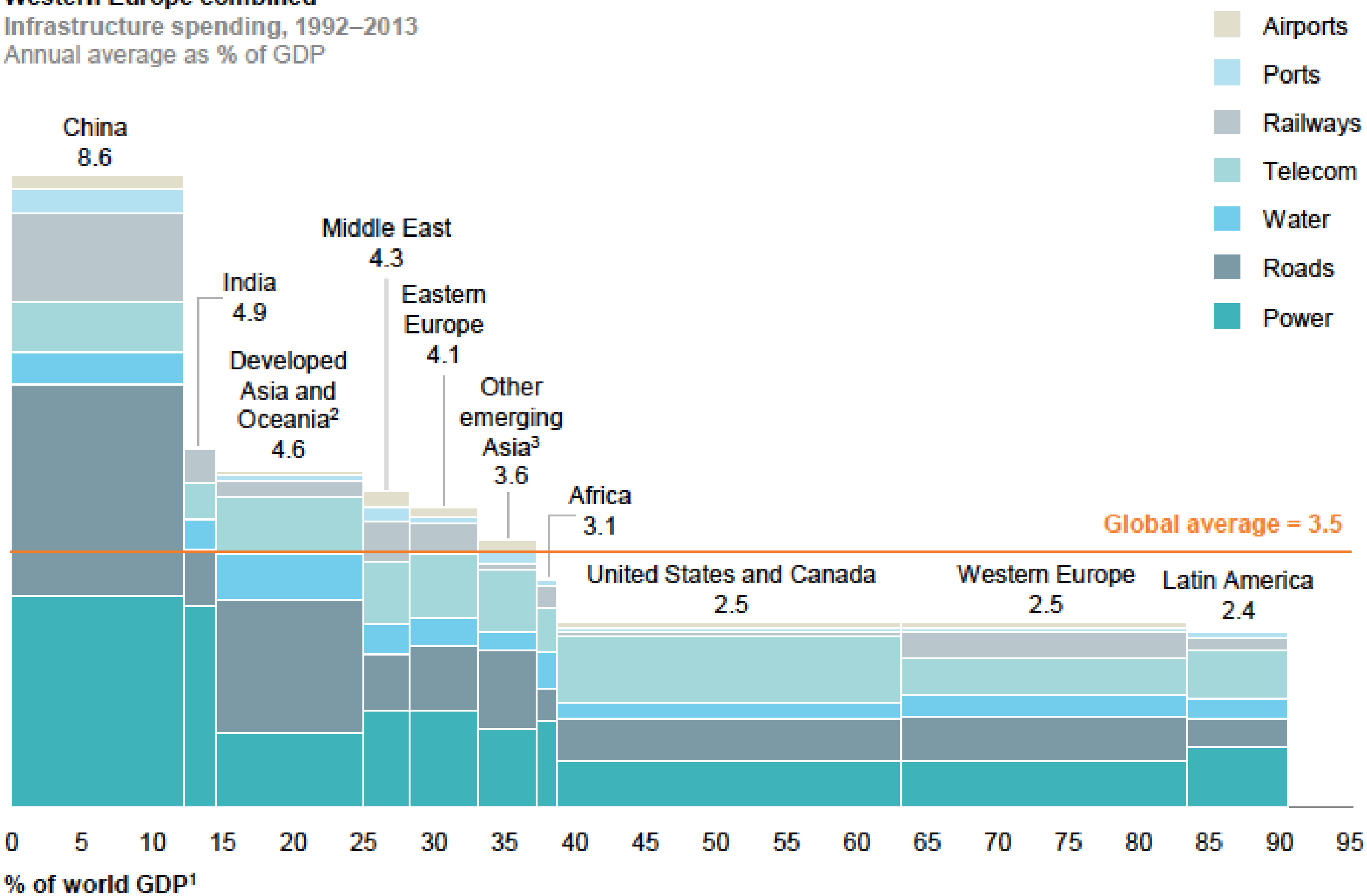
EU = European Union, GDP = gross domestic product, PRC = People's Republic of China.

Source: McKinsey (2013).

China spends more on economic infrastructure annually than North America and Western Europe combined

Infrastructure spending, 1992–2013

Annual average as % of GDP



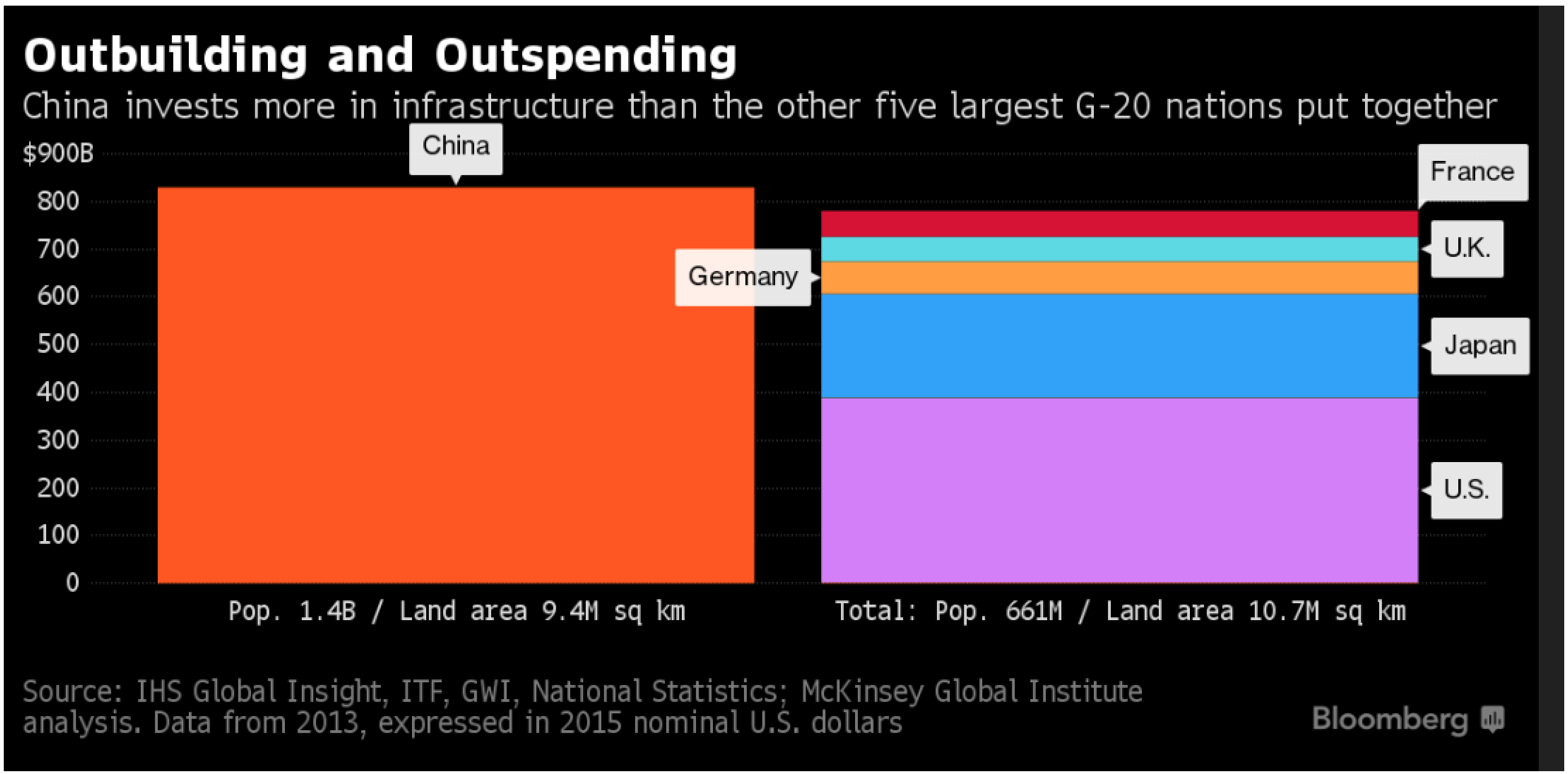
Infrastructure spending, 2013

$ billion

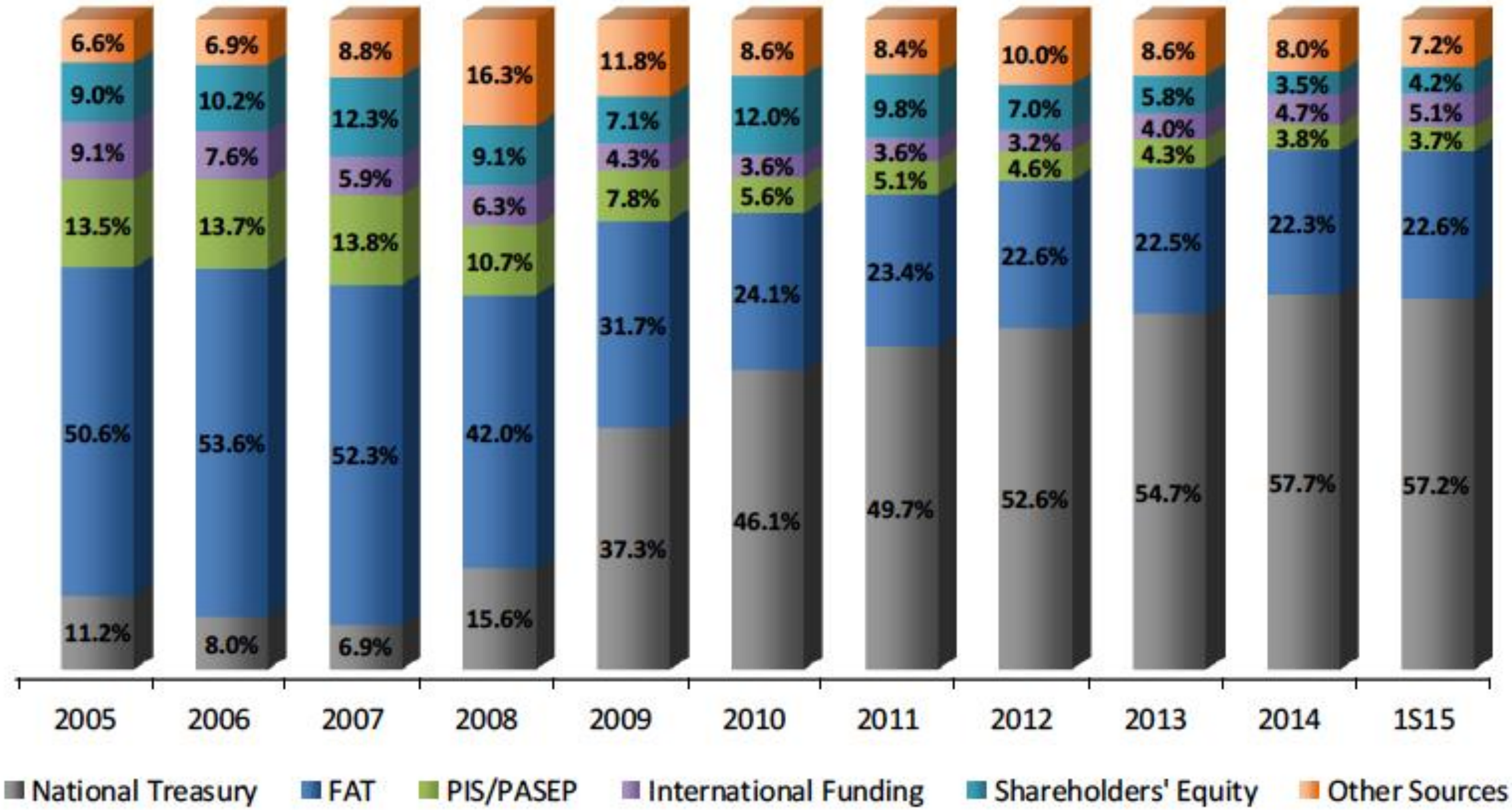
1 Percentage of world GDP generated by the 75 countries in our analysis for 2013.
2 Includes Australia, Hong Kong, Japan, New Zealand, and Singapore.
3 Includes Bangladesh, Indonesia, Malaysia, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam.

SOURCE: IHS Global Insight; ITF; GWI; National Statistics; McKinsey Global Institute analysis

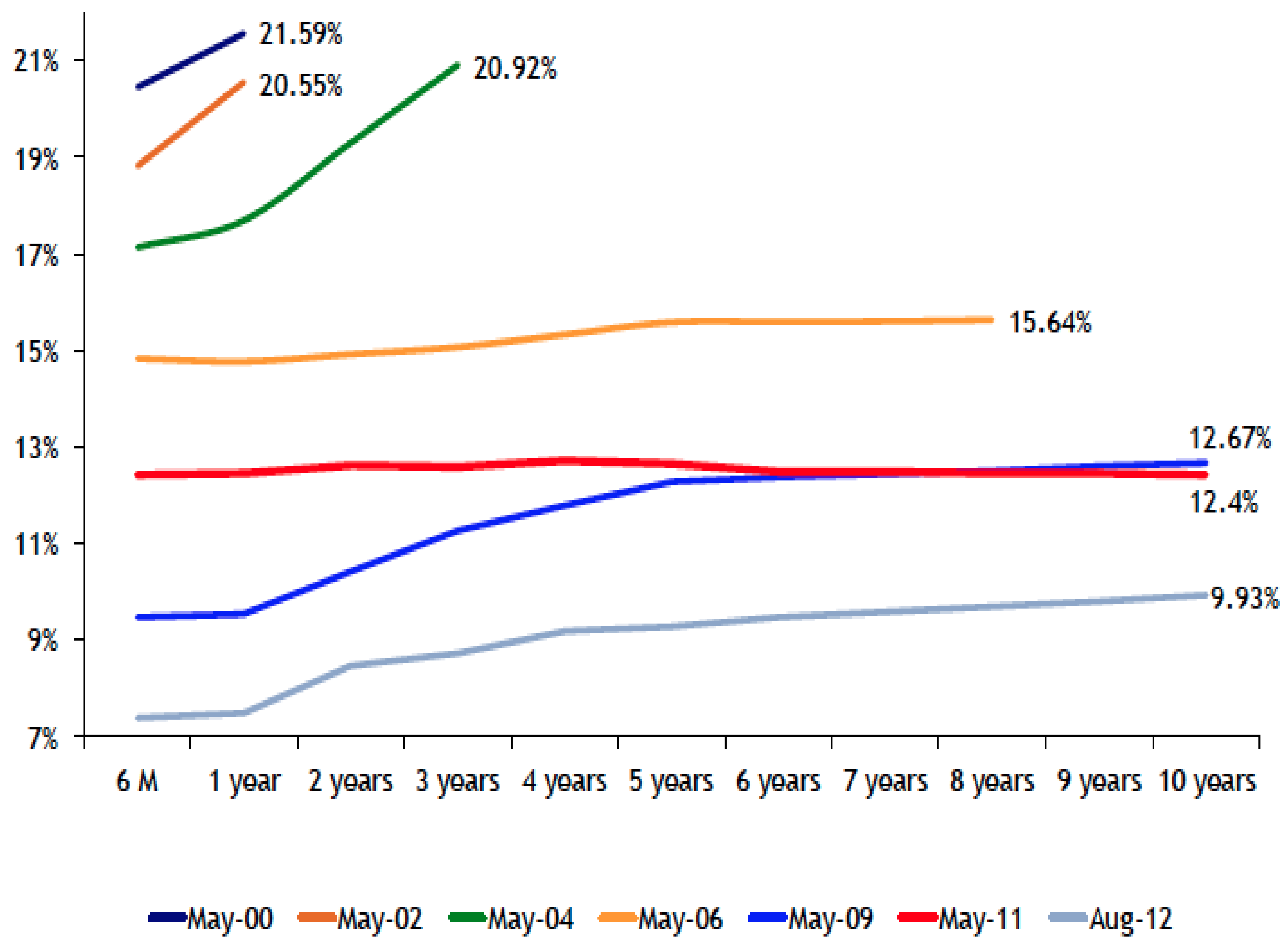
China invests more in infrastructure than the other five largest G-20 nations put together



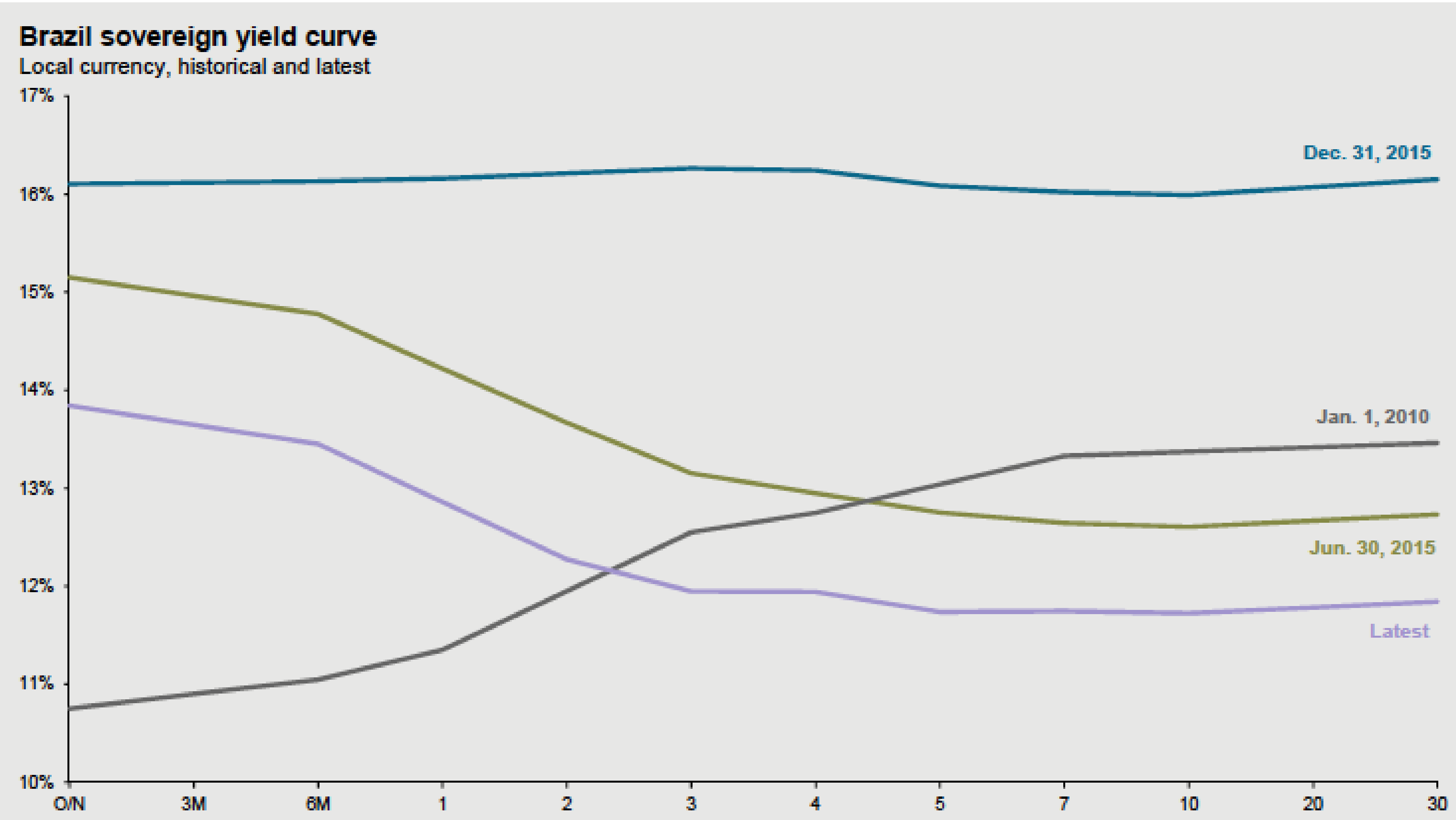
BNDES using non-capital market financing: 87.7% of BNDES' total liabilities and shareholders' equity are represented by federal government resources.



Brazil: Yield curve for fixed rate government securities



Yield curve shock: High (and volatile) interest rates



PUBLIC FINANCE IS STILL THE PRIMARY SOURCE OF FUNDING

- Public investment: Crowding in or crowding out?
  - Public investment has "a significant and long-lasting effect on output. They also typically reduce the debt-to-GDP ratio…The level of private investment rises in tandem with GDP." IMF Oct 2014
  - IMF: "The effects of public investment on output and debt tend to be stronger when there is economic slack, when public investment efficiency is high, and **when public investment is debt financed**."
  - "Public investment booms in emerging market and developing economies are associated with higher output"
- Growing consensus to increase public financing and close the investment gap, IMF WEO OCT 14/15. "*debt-financed projects could have large output effects without increasing the debt-to-GDP ratio if clearly identified infrastructure needs are met through efficient investment*"
- However, the conventional belief public-sector financing capacity influences the narrative.
- "government expenditure is both growth- and productivity- enhancing."
- Requires monetary sovereignty
  - Currency issuers vs currency users
- **CBs funding DBS. Bernanke 2009:**
- **"It is not tax money. The banks have accounts with the Fed, much the same way you have an account at a commercial bank. So, to lend to a bank we simply use the computer to mark-up the size of the account that they have with the Fed."**
- CBS: Low and stable interest rates. CB announce targets for 2-yr, 5yr, 10yr yields.

The G-20 is no longer debating growth versus austerity

- Austerity failed where it was implemented.
- Consensus towards the use of fiscal policy to support growth: China, Japan, UK, US, and even Wall Street…:
- Failure of monetary policy (ZIRP, NIRP, QE) to support growth
- "**today, the G-20 is no longer debating growth versus austerity, but rather how to best employ fiscal policy to support our economies**" U.S. Treasury Secretary Jacob J. Lew G-20 speech 2016
- Commitment to use all policy tools to generate sustainable full employment. Coordination between fiscal, monetary, and development policies to full employment and stability.
- Macroeconomic support is essential for DBs to be successful.