Geographies of infrastructure investment capital… implications for value, governance and the state

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Institutional investors…looking inside the black box

‘What is studied is a system which lives in the minds of economists but not on earth. I have called the result “blackboard economics”. The firm and the market appear by name but they lack any substance. The firm in mainstream economic theory has often been described as a “black box”. And so it is.’ (Coase, 1992)

‘Little is known about how financial institutions analyse and interpret public infrastructure as an asset class within internationalized and varied investment portfolios’ (Pike, 2014)

‘If we are to understand the economic landscape of C21st capitalism, it should be through global financial institutions’ and their ’investment practices’ (Clark, 2005)

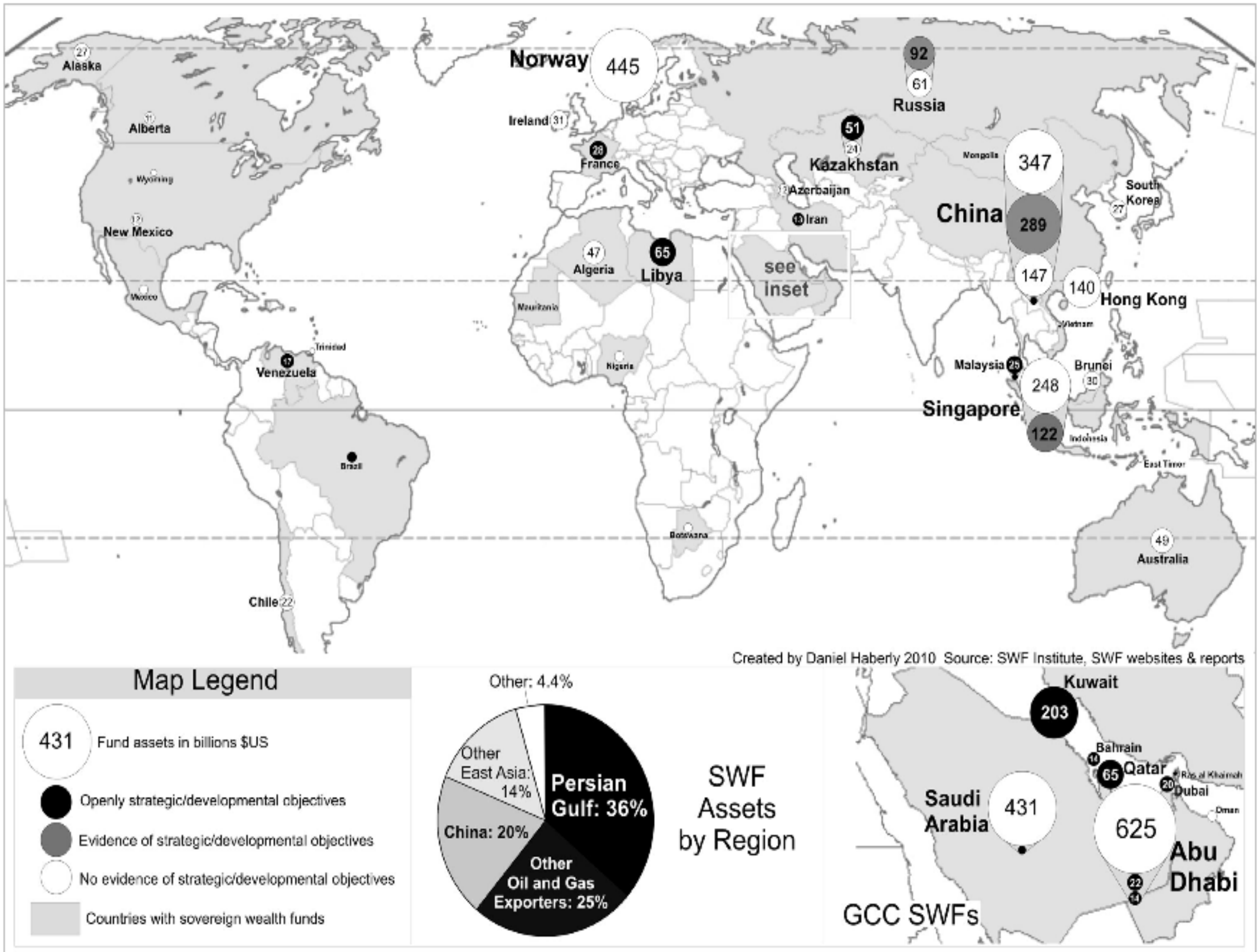
My research approach

Government departments and agencies
Multilateral Development Banks
Sovereign Wealth Funds
Public & Private sector Pension Funds
Insurers & Annuity providers
Infrastructure Funds & Asset Managers
Private Equity

$14tn in Assets under Management
$1tn invested in infrastructure

Concentrations of global investment capital : Sovereign Wealth Funds

Since 2005 more than 40 SWFs have been created. AuM $6.3tn in 2015 up from $3tn in 2008.
Stabilisation Funds, Reserve Investment Corporations, Commodity Funds, Pension Reserve Funds



source: D.Haberly, 2010 & SWF Institute and Reports

Concentrations of global investment capital : Sovereign Wealth Funds

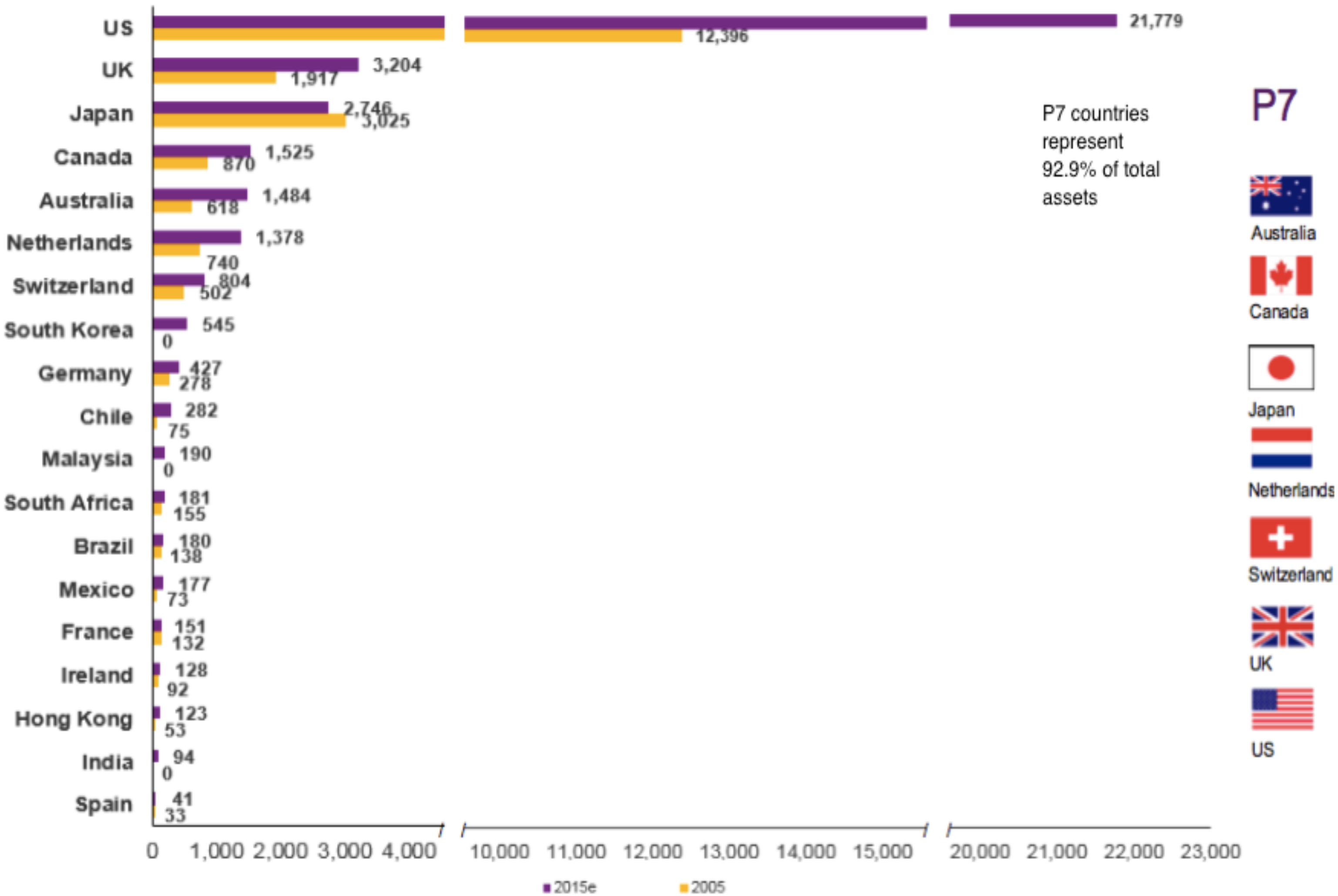
Largest SWFs by AuM

Rank	Fund Name	Source of Capital	Country	Year Established	Total Assets ($mn)
1	Government Pension Fund Global	Hydrocarbon	Norway	2006	817,957
2	Abu Dhabi Investment Authority	Hydrocarbon	United Arab Emirates	1976	773,000
3	China Investment Corporation	Non-Commodity	China	2007	650,000
4	State Administration of Foreign Exchange	Non-Commodity	China	1997	567,900
5	Kuwait Investment Authority	Hydrocarbon	Kuwait	1982	548,000
6	Hong Kong Monetary Authority	Non-Commodity	Hong Kong	1993	414,661
7	GIC	Non-Commodity	Singapore	1981	320,000
8	Qatar Investment Authority	Hydrocarbon	Qatar	2005	304,000
9	National Social Security Fund – China	Non-Commodity	China	2000	247,866
10	Temasek Holdings	Non-Commodity	Singapore	1974	160,674
11	Abu Dhabi Investment Council	Hydrocarbon	United Arab Emirates	2007	90,000
12	Korea Investment Corporation	Non-Commodity	South Korea	2005	85,000
13	Future Fund	Non-Commodity	Australia	2006	83,071
14	Samruk-Kazyna National Welfare Fund	Hydrocarbon	Kazakhstan	2008	78,000
15	Revenue Regulation Fund	Hydrocarbon	Algeria	2000	77,200

Source preqin sovereign wealth fund review, 2016

Concentrations of global investment capital : Pension Funds

Global pension assets evolution 2005-15 (US$bn)



Source: willis towers watson, 2015

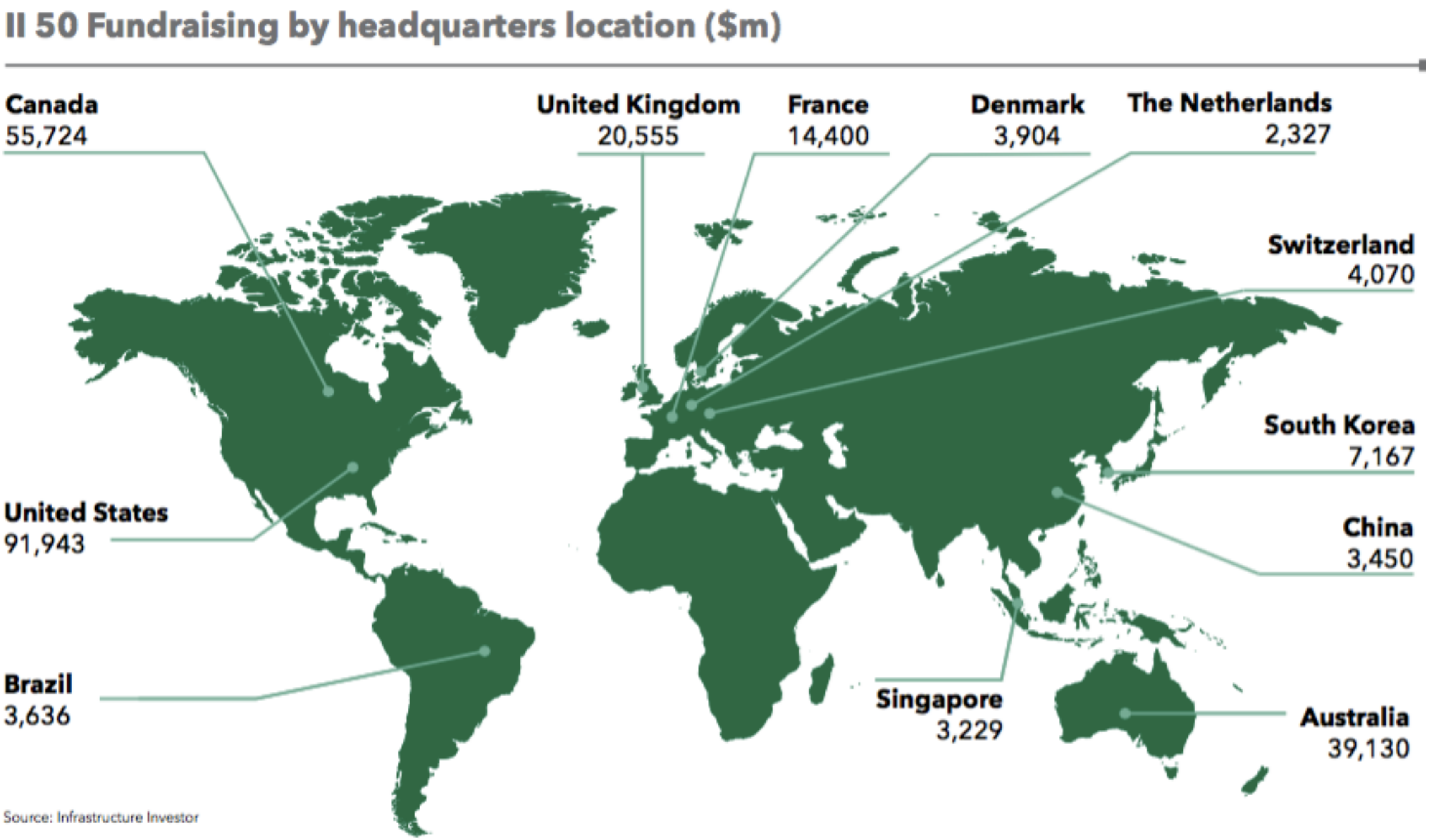
Concentrations of global investment capital : Pension Funds

Top 10 pension funds investing in infrastructure by commitment size

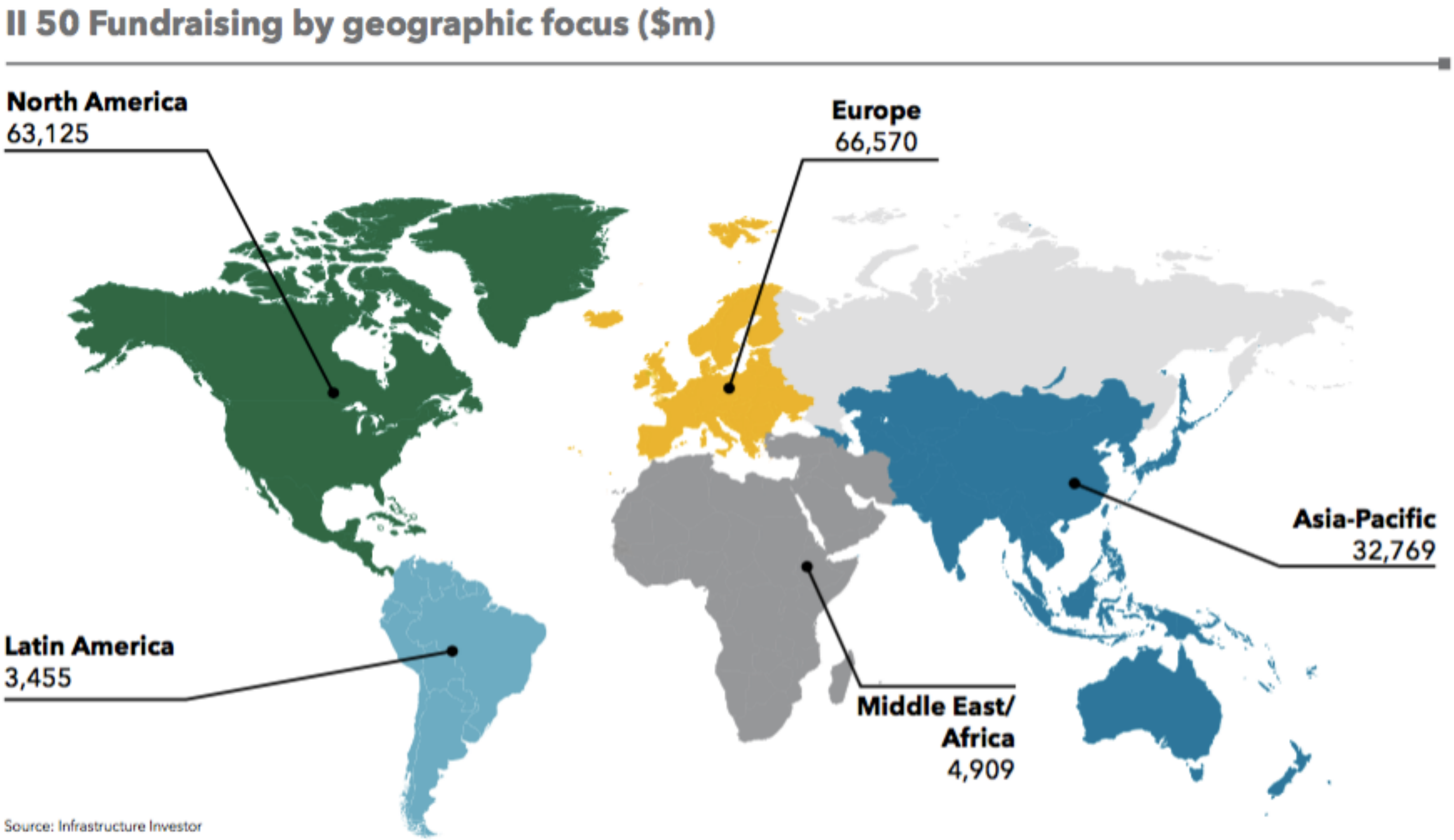
Investor	Currently Committed to Infrastructure ($bn)	Investor Type	Investor Location
OMERS	14.3	Public Pension Fund	Canada
CPP Investment Board	9.2	Public Pension Fund	Canada
Ontario Teachers' Pension Plan	7.8	Public Pension Fund	Canada
TIAA-CREF	6.5	Private Sector Pension Fund	US
ABP	6.0	Public Pension Fund	Netherlands
AustralianSuper	5.1	Superannuation Scheme	Australia
ATP Lifelong Pension	2.6	Public Pension Fund	Denmark
Public Sector Pension Investment Board	2.3	Public Pension Fund	Canada
Construction and Building Industries Superannuation Fund	2.2	Superannuation Scheme	Australia
California Public Employees' Retirement System (CalPERS)	1.7	Public Pension Fund	US

Source: Preqin Infrastructure online, 2012

Concentrations of global investment capital : Infrastructure Funds



Concentrations of global investment capital : Infrastructure Funds



Geographies of investment capital…

INFRASTRUCTURE INVESTMENT ATTRACTIVENESS INDEX

The Index Results Table

Country	Rank	Index Score	Movement since last Index
UK	1	174	↔
CANADA	2	161	NEW
US	3	153	↑
AUSTRALIA	4	152	↓
UAE	5	142	↑
GERMANY	6	128	↑
SINGAPORE	7	121	NEW
FRANCE	8	109	↓
BRAZIL	9	108	↓
TURKEY	10	107	NEW
NORWAY	11	104	NEW
CHINA	12	101	↓
SAUDI ARABIA	13	95	NEW
ITALY	14	94	↑
QATAR	15	91	↑
KUWAIT	16	86	NEW
INDIA	17	84	↓
SPAIN	18	84	↑
PHILIPPINES	19	83	↑
THAILAND	20	79	NEW
INDONESIA	21	72	↑
MALAYSIA	22	60	↔
JORDAN	23	41	↑
VIETNAM	24	40	NEW
EGYPT	25	34	↑

Key:
↔ No change
↑ Moved up
↓ Moved down
NEW New entry

Source: Nabarro, 2015

Why is the UK number 1?

Credit and stability
70

Sustainability and innovation
67

Tax environment
70

National stability
88

Ease of doing business
88

Private participation rate
92

'spending money, not raising it, is the biggest problem when it comes to financing infrastructure' *(McKinsey & Co, 2014)*

'We buy risk; when risk is cheap we want to buy lots of it, and when it is expensive we sell it' *(SWF, author interview, 2016)*

Geographies of investment capital…

Evolutionary economic geographies matter – ‘stronger’ states continue to find favour

Many investors HAVE to, or want to, be in the core infrastructure markets such as the UK, the US and other OECD countries...there is therefore huge competition for assets

These ‘thick’ investment markets arguably trend toward greater efficiency – something that can, with a proactive state actor, be harnessed for user and taxpayer benefit

Thick markets enable the state to construct new funding models and incorporate social/ environmental outcomes, due to heavy institutional competition for assets

however…

This does not detract from the need for well evidenced funding models, visibility of deal pipelines and institutional capacity to execute

Complex, highly fractured ownership, control or operation of interdependent and interconnected infrastructures poses real governance challenges

Infrastructure in thick markets

Market demand as policy enabler…

Thames Tideway Tunnel (TTT), London £4bn

Effective and decisive state action. Creating market driven value for the state

Driven by economic and environmental imperatives (EU fines)

Required primary legislation of parliament and a new institutional framework

Lengthy global consultation and marketing to institutions

Significant risk mitigation by government (and customers of Thames Water)

Market outcome was more than a full percentage point lower WACC than that in OFWAT's draft models

CDPQ Infra (Réseau Electrique Métropolitain - REM), Montreal

Enlisting the market oriented public institution to solve the problem

A public – public solution, the 'virtuous circle'?

3rd largest automated mass transit system in the world (67km)

Required primary legislation of regional parliament and a new institutional framework

Outsourcing Quebec's transport procurement and delivery?

'Every time passengers use their new transit system, they will be helping to secure their future retirement' *(CDPQ Infra, 2016)*

Closing thoughts…

Geographies of institutional capital & geographies of infrastructure need are not the same

At least 30-40% of global institutional investment capital ($25-30tn) is publicly derived (at various removes from government). The public finance cupboard is NOT bare

When talking of value we need first to understand there is no such thing as absolute value.

Good or bad governance is not the preserve of either public or private sectors

Marketised solutions render political decisions into contractual obligations

Thick markets can represent a real opportunity to realise value for public actors and services

Thin markets rarely deliver value for public actors

A note of caution…some thick markets are showing signs of emergent bubbles

Be it public – public or public – private; what is needed is proactive action by informed public actors (the market makers), stakeholder alignment and involvement in structuring, honesty re whole life costs, and a sustainable funding and regulatory model

Acknowledgements

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