



GLOBAL LISTED
INFRASTRUCTURE
ORGANISATION



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February 24, 2017

Why Infrastructure?

WHAT'S NEEDED?

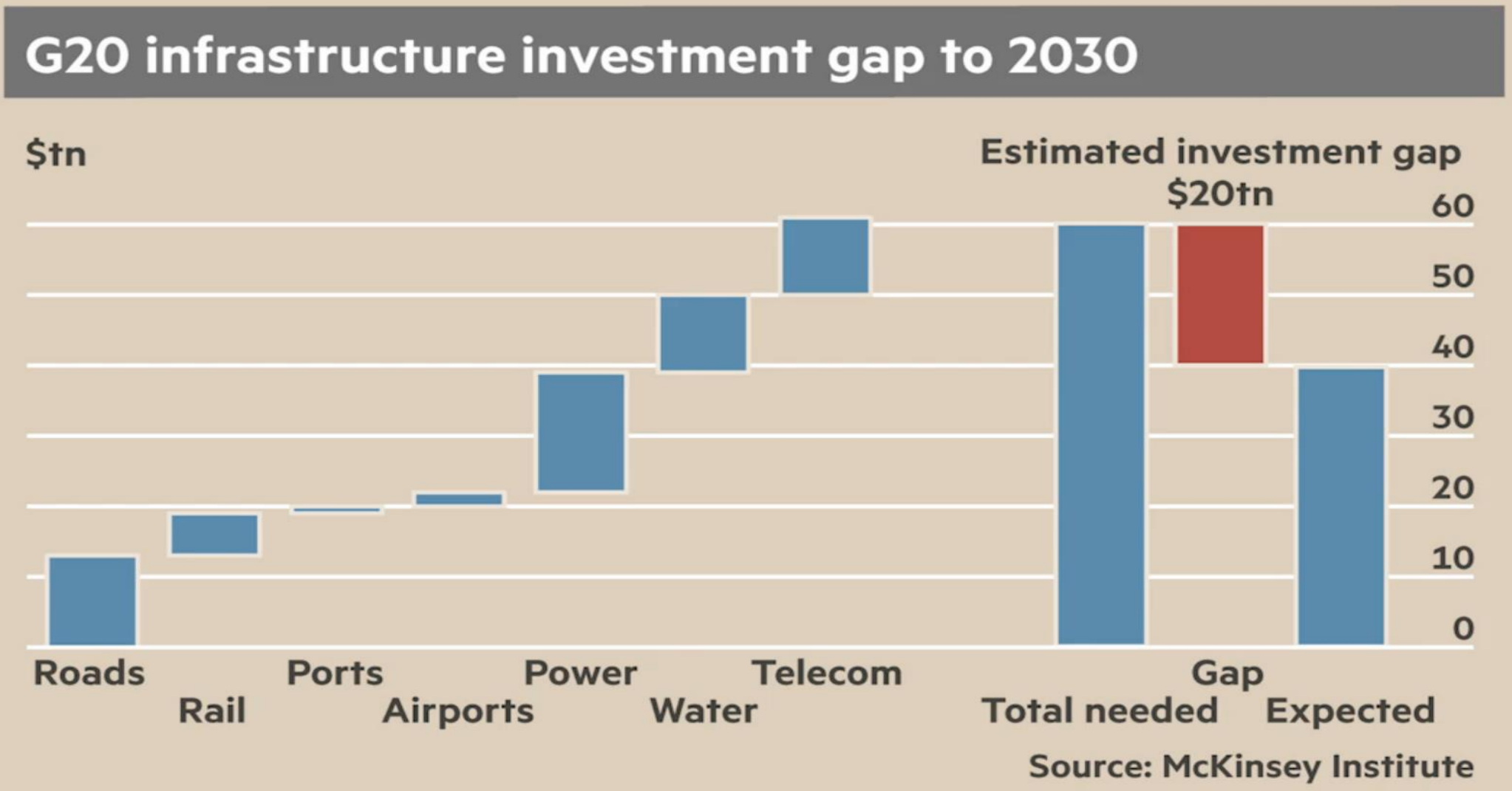
- \$57tn of global infrastructure investment is required by 2030 (1)
- \$3.7tn is required per year, but only \$2.7tn is invested - mostly by governments (2)
- IMF estimate that \$1 investment in infrastructure could drive \$3 output, if done efficiently (3)

(1)Source: McKinsey Global Institute, 2013

(2)Source: World Economic Forum, 2015

(3)Source: IMF Study, 2014

G20 \$20TN FUNDING GAP



DRIVERS OF GROWTH

- Global population: additional 1 bn people by 2030 ⁽¹⁾
- Urbanization growth: +1.5% p.a. to 2030 ⁽²⁾
- World trade growth: +3% p.a. last 5 years ⁽³⁾
- Government spending cuts & deficits means investors must fill the 'funding gap'
- Plus Governments have a long list of infrastructure projects to maintain & develop

(1) Source: United Nations Population Fund (UNFPA), 2014

(2) Source: World Health Organization (WHO), 2014

(3) Source: World Trade Organization (WTO), 2015

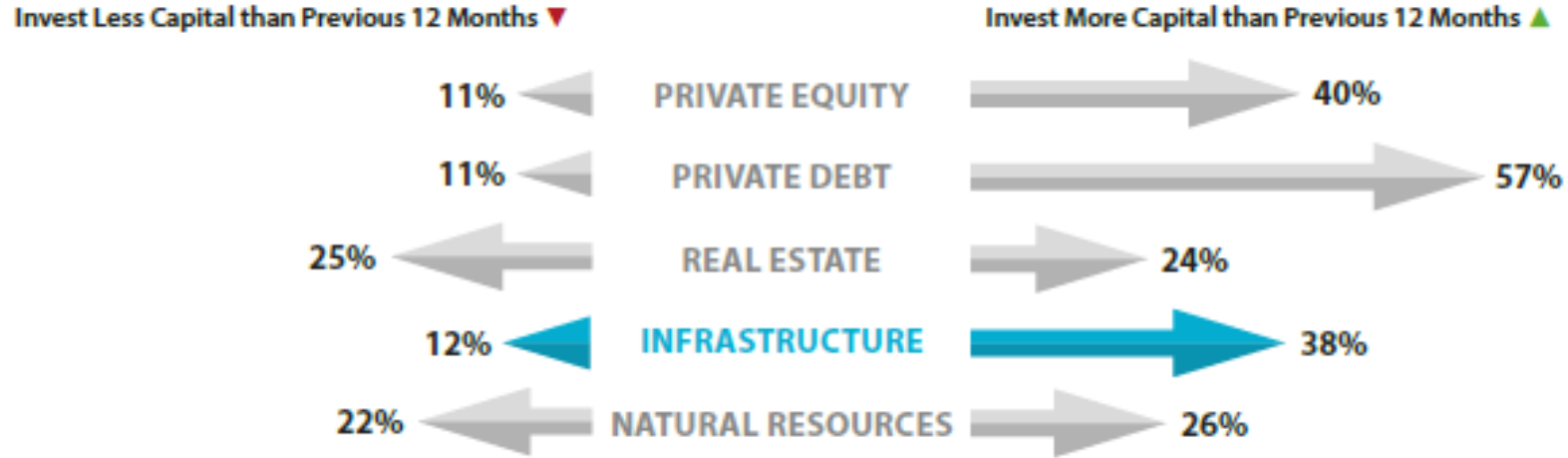
UNDERINVESTMENT - US EXAMPLE



- US spending has fallen significantly since 1950, from 3% to 1% of GDP
- 1950s saw Eisenhower's interstate highway system, "as necessary to defence as it is to our national economy and personal safety"
- La Guardia Airport was compared to "Third world country" by Ex Vice- President Biden

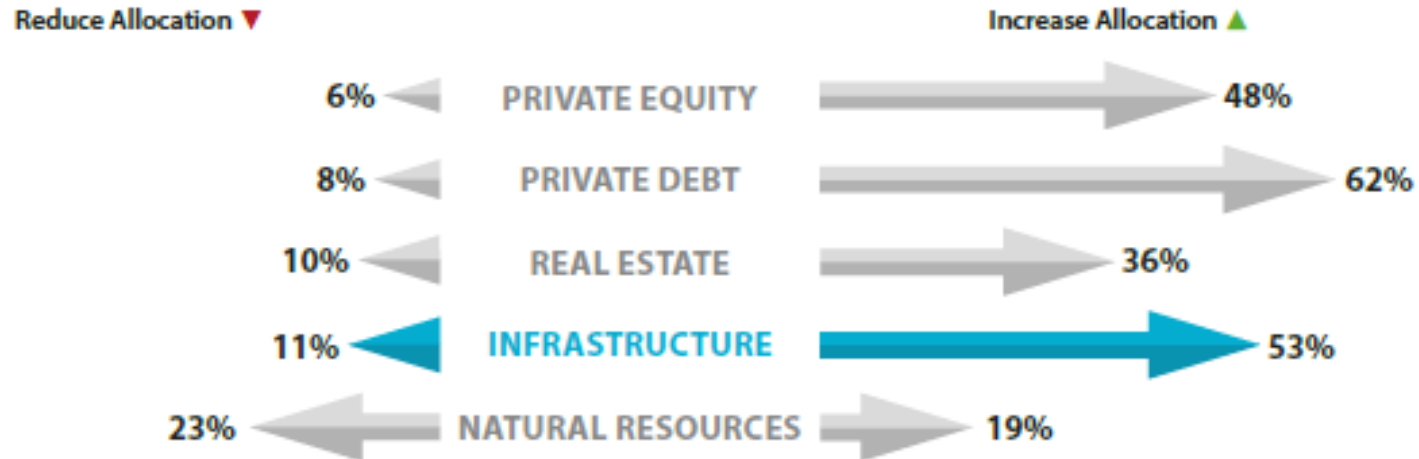
PREQIN: INVESTMENT PLANS SURVEY 2016

Fig. 2.9: Institutional Investors' Plans for the Coming Year



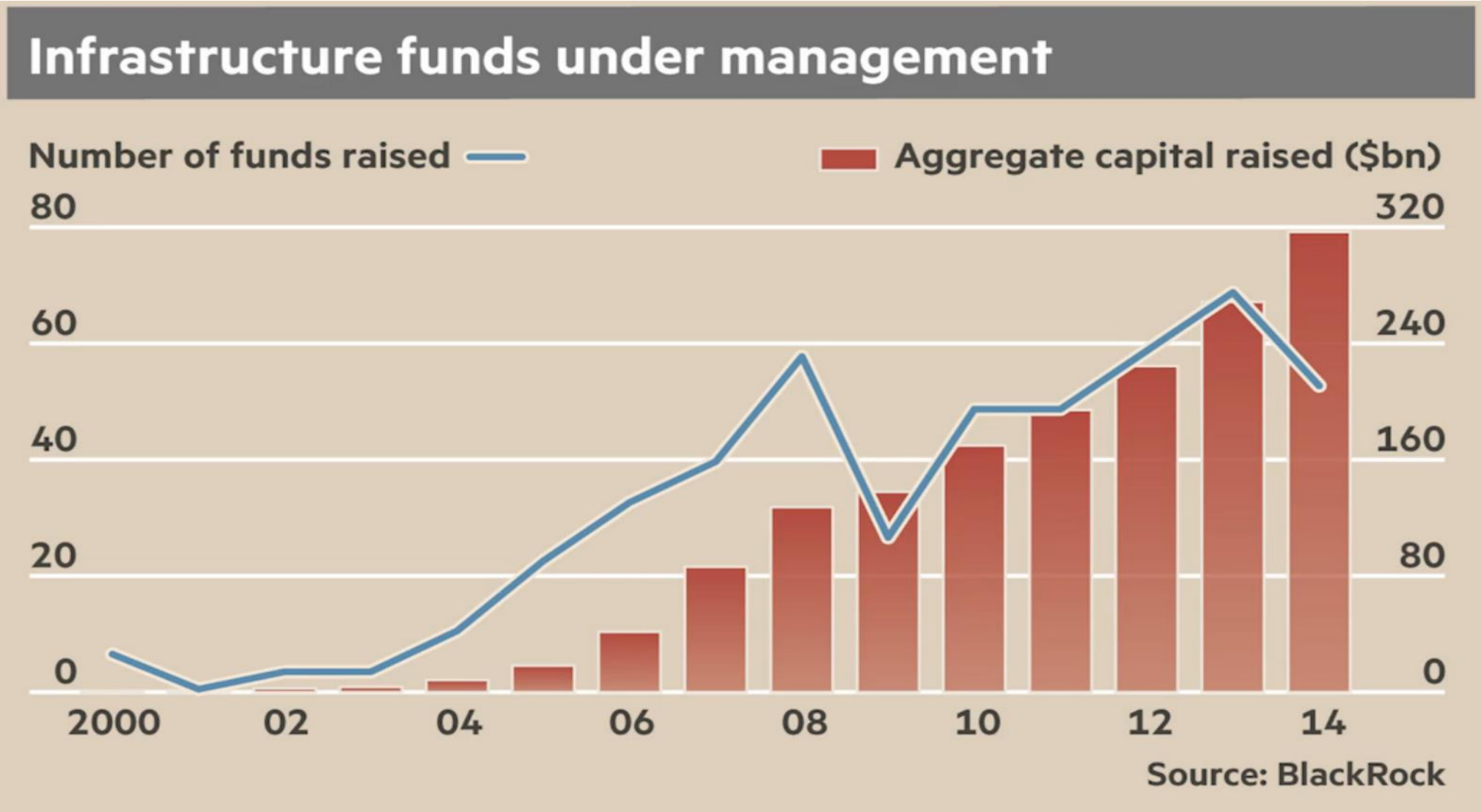
Source: Preqin Investor Interviews, December 2016

Fig. 2.10: Institutional Investors' Plans for Allocations in the Longer Term



Source: Preqin Investor Interviews, December 2016

CAPITAL RAISED SINCE 2000



Listed Infrastructure in Focus

BENEFITS OF LISTED INFRASTRUCTURE

- High risk-adjusted returns (attractive total returns & moderate volatility)
- Income – attractive yields for investors
- Regulated contracts cut out income fluctuations
- Contracts index-lined - Inflation hedge
- Diversification benefits
- Liquidity v direct investment
- Cost effect v direct investment
- Targeted exposure – greenfield, brownfield or mature?

BENEFITS OF LISTED INFRASTRUCTURE

- Broad global opportunity set is approximately \$2bn Mkt Cap
- Vital economic functions – monopolistic in some cases
- Essential services that are resilient in downturns
- Assets require high level of capital to manage, maintain and develop – why own directly?

GLIO - CREATING A CLEAR GLOBAL PICTURE



Sector	MC \$bn	MC Wght	FF MC \$bn	FF Wght	Yield
Electric Utilities	624,604	32.8%	532,754	34.2%	4.0%
Oil & Gas Distribution	263,784	13.8%	232,356	14.9%	3.7%
Ground Freight	239,862	12.6%	215,484	13.8%	2.1%
Multiutilities	173,628	9.1%	147,778	9.5%	5.0%
Telecom & Satellites	122,052	6.4%	106,846	6.9%	3.2%
Ground Transportation Services	113,660	6.0%	92,126	5.9%	1.3%
Gas Utilities	99,229	5.2%	67,563	4.3%	2.7%
Highways & Railways	76,196	4.0%	47,890	3.1%	4.4%
Airports	91,246	4.8%	47,044	3.0%	3.0%
Water Utilities	64,090	3.4%	44,884	2.9%	2.7%
Marine Ports	29,212	1.5%	15,022	1.0%	4.0%
Environmental Services & Equip	4,229	0.2%	3,933	0.3%	4.1%
Construction & Engineering	4,809	0.3%	3,726	0.2%	1.2%
Grand Total	1,906,602	100.0%	1,557,405	100.0%	3.4%

Source: GLIO

GLOBAL LISTED AIRPORTS – STAR PERFORMERS

Rank	Airport	Owned by	Passengers (m)
1	Atlanta	Government	101
2	Beijing	Listed	90
3	Dubai	Government	78
4	Chicago	Government	77
5	Tokyo Haneda	Listed	75
6	London Heathrow	25% Ferrovial	75
7	Los Angeles	Government	75
8	Hong Kong	Government	68
9	Paris CDG	Listed	66
10	Dallas/Fort Worth	Government	64
11	Istanbul Ataturk	Listed	62
12	Frankfurt	Listed	61
13	Shanghai	Listed	60
14	Amsterdam	8% ADP	58
15	New York JFK	Government	57

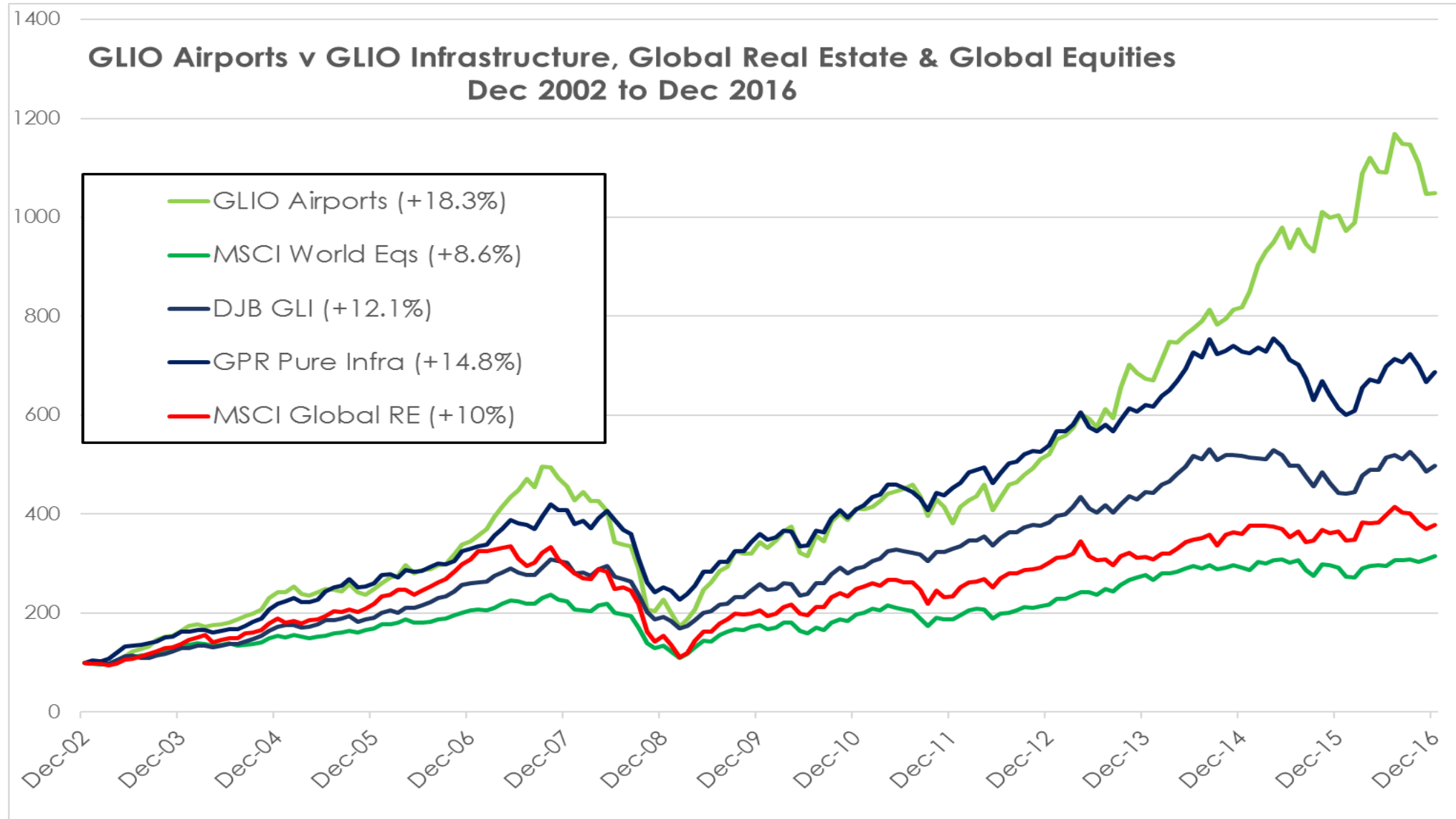
Source: ACI World Data, Company websites

Rank	Airport	Rank	Airport
28	Denver	59	JFK
32	Cincinnati	71	Houston
37	San Francisco	75	Minneapolis
43	Atlanta	89	Detroit
54	Seattle	91	Los Angeles
58	Dallas	97	Boston

Quality Rank	Skytrax Stars	Airport	Ownership	Passenger Rank	Passengers (m) (on 2014)
1	5	Singapore Changi	Government	16	55 (+2.5%)
2	5	Incheon Intl Airport	Government	22	49 (+8.2%)
3	5	Munich Airport	Government	34	41 (+3.2%)
4	5	Tokyo Intl Airport	Listed – JAT	5	75 (+3.4%)
5	5	Hong Kong Intl Airport	Government	8	68 (+8.2%)
6	4	Centraair Airport (Nagoya)	Listed – JAT	+100	10 (+5.2%)
7	4	Zurich Airport	Listed	70	26 (+3.2%)
8	4	London Heathrow	Private (25% Ferrovial)	6	75 (+2.2%)
9	4	Kansai Intl Airport (Osaka)	Listed – JAT	79	23 (+19.9%)
10	4	Doha Hamad	Government	58	31 (+17.1%)
11	4	Narita Intl Airport	Listed – JAT	48	37 (+4.9%)
12	4	Frankfurt	Listed – Fraport	12	61 (+2.5%)
13	4	Schiphol	Government (8% ADP)	14	58 (+6.0%)
16	4	Beijing Capital Airport	Listed	2	89 (+4.4%)
21	4	Auckland Airport	Listed	+100	17 (+9.1%)
23	4	Sydney Airport	Listed	38	40 (+2.7%)
27	4	Barcelona	Listed – Aena	40	40 (+5.7%)
29	4	Vienna Airport	Listed	83	23 (+1.3%)
31	3.5	Madrid Airport	Listed – Aena	24	47 (+12%)
33	4	Paris CDG Airport	Listed – ADP	9	66 (+3.1%)
36	3	Bangkok Suvarnabhumi	Listed – AOT	20	52 (+13.8%)
48	4	Xi'an Airport	Listed – Fraport	54	33 (+12.7%)
49	3.5	Lima Airport	Listed – Fraport	+100	17 (+9.2%)

Source: ACI World Data

GLOBAL AIRPORTS PERFORMANCE



Source: GLIO, GPR, Reuters

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