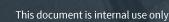


Infrastructure market review of 2019 and look ahead to 2020

January 2020



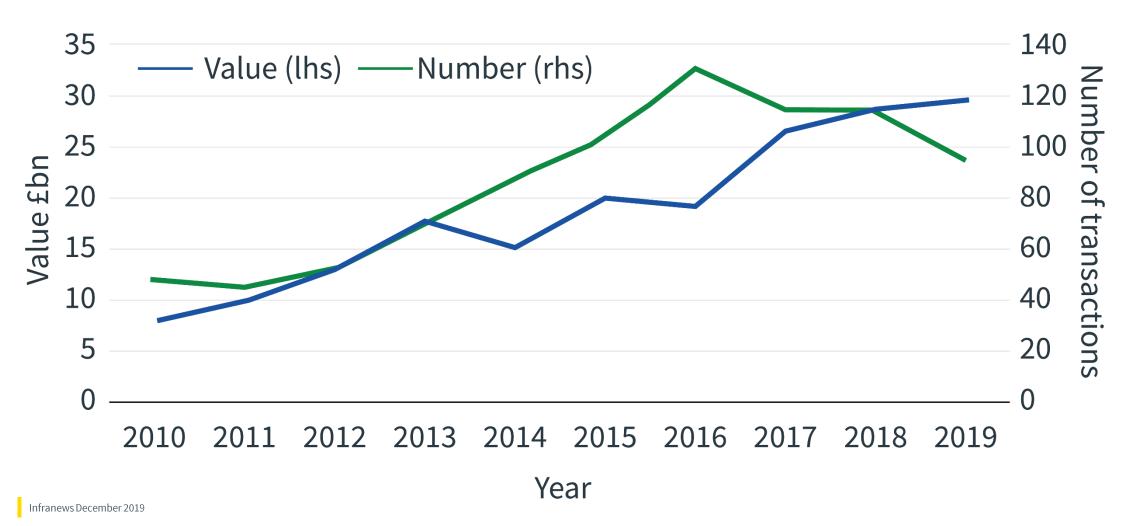




What did we say 10 years ago?



UK infrastructure debt over past decade



UK dealflow 2010-2019 largest transactions

Transaction Name	Туре	PPP	Sector	Sub-Sector	Financial close	Debt
Arqiva Refinancing (2013)	Refinancing	no	Telecommunications	Telecommunications Other	28 Feb 2013	3,636
Hornsea One 1.2GW Offshore Wind Sale (50% stake) (2018)	Brownfield	no	Renewables	Offshore wind	27 Nov 2018	2,975
Beatrice 588MW Offshore Wind Project Refinancing (2019)	Refinancing	no	Renewables	Offshore wind	9 Jul 2019	2,541
Intercity Express Programme (IEP) Phase 1 Debt Repricing	Refinancing	yes	Transport	Rolling Stock	7 Jul 2015	2,456
Intercity Express Programme (IEP) Phase 1	Greenfield	yes	Transport	Rolling Stock	25 Jul 2012	2,437
ConocoPhillips UK North Sea Oil and Gas Portfolio Sale 2019	Brownfield	no	Energy	Exploration & Production	21 Jun 2019	2,363
Triton Knoll 857MW Offshore Wind Farm	Greenfield	no	Renewables	Offshore wind	31 Aug 2018	2,332
National Grid Distribution Networks (Cadent) (61% stake)	Brownfield	no	Energy	Gas Distribution	31 Mar 2017	2,302
Intercity Express Programme (IEP) Phase 2	Greenfield	yes	Transport	Rolling Stock	15 Apr 2014	2,210
Chevron UK Oil and Gas Portfolio (Sale 2019)	Brownfield	no	Energy	Exploration & Production	12 Nov 2019	2,197
Airwave Refinancing (2014)	Refinancing	yes	Telecommunications	Telecommunications Other	27 Mar 2014	2,010
Neart Na Gaoithe 448MW Wind Farm	Greenfield	no	Renewables	Offshore wind	27 Nov 2019	2,000
Moray East 950MW Offshore Wind	Greenfield	no	Renewables	Offshore wind	6 Dec 2018	1,991
Beatrice 588MW Offshore Wind Project	Greenfield	no	Renewables	Offshore wind	20 May 2016	1,960
Associated British Ports (ABP) (Bank Refinancing)	Refinancing	no	Transport	Ports	11 Dec 2011	1,850
Eversholt Rail Acquisition (2010)	Brownfield	no	Transport	Rolling Stock	8 Dec 2010	1,700
National Grid Distribution Networks (Cadent) Refinancing (2019)	Refinancing	no	Energy	Gas Distribution	11 Jul 2019	1,640
Thameslink Rolling Stock	Greenfield	yes	Transport	Rolling Stock	27 Jun 2013	1,614
Thameslink Rolling Stock Refinancing (2015)	Refinancing	yes	Transport	Rolling Stock	27 Feb 2015	1,597
East Anglia One 714MW Offshore Wind 40% Stake Sale (2019)	Brownfield	no	Renewables	Offshore wind	30 Aug 2019	1,584
Walney Extension Sale (50% stake) (2017)	Brownfield	no	Renewables	Offshore wind	10 Nov 2017	1,512
Shell UK Limited North Sea Gas Assets Acquisition (2017)	Brownfield	no	Energy	Exploration & Production	31 Oct 2017	1,500
Galloper 340MW Offshore Wind Farm Refinancing (2018)	Refinancing	no	Renewables	Offshore wind	18 Dec 2018	1,454
Dudgeon 402MW Offshore Windfarm Refinancing (2018)	Refinancing	no	Renewables	Offshore wind	24 Dec 2018	1,408
Channel Tunnel Rail link (HS1)	Brownfield	no	Transport	Rail	19 Nov 2010	1,375
Galloper 340MW Offshore Wind Farm	Greenfield	no	Renewables	Offshore wind	30 Oct 2015	1,372
Race Bank 573MW Wind Farm (50% Stake) Refinancing (2018)	Refinancing	no	Renewables	Offshore wind	13 Dec 2018	1,362
Dudgeon 402MW Offshore Windfarm	Greenfield	no	Renewables	Offshore wind	11 May 2016	1,338
M25 Refinancing (2018)	Refinancing	yes	Transport	Roads	31 Jul 2018	1,307
Thames Tideway Tunnel (TTT) Project	Greenfield	no	Environment	Water	21 Aug 2015	1,250
BAA US Bond (2011)	Refinancing	no	Transport	Airports	22 Jun 2011	1,241
Race Bank 573MW Wind Farm Acquisition (50% stake) (2016)	Brownfield	no	Renewables	Offshore wind	21 Dec 2016	1,228
Silvertown Tunnel PPP	Greenfield	yes	Transport	Bridges and Tunnels	21 Nov 2019	1,200

Themes that shaped a decade

Infrastructure matures as an asset class

The financing market continues to evolve

The role of private investment into public infrastructure

The rise of renewables

The demise of PFI/PPP

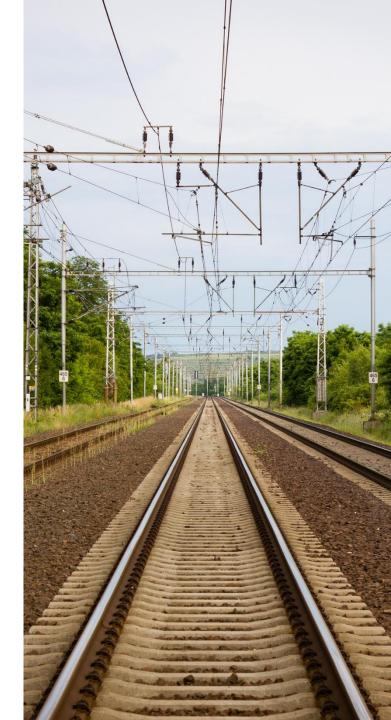
The success of the Regulated Asset Base model

Baseload energy transition is not easy

Challenges in the construction industry

Rail industry still struggles

Data related infrastructure as an asset class



Current political UK infra challenges

Stability is still not in sight

Political support for infrastructure is very clear

Government increasing level of publicly funded infrastructure – where is delivery capability?

Brexit impact risk low?

North of England set to win

Scottish independence

Institutional support for infra – a new Govt vehicle post IFR?

Net Zero and role of infrastructure investment

National Infrastructure Strategy to be published 2020



2019 UK infrastructure finance review

Consultation launched by HMT/IPA in March 2019

Context is the £600bn 10 year investment plan (50% private finance)

Main driver was NIC publishing the NIA commenting on the impact of the loss of the EIB post-Brexit

Responses were submitted by June 5

Formal output expected within the National Infrastructure Strategy



2019 UK infra market themes

Dealflow remained steady with refinancing continuing to drive market

Remained a very competitive liquid market with banks continuing to drive down pricing

Refi of existing assets or newly acquired assets remained the focus

Limited large M&A but growing mid-market secondary sales

Greenfield limited – Silvertown only real PPP deal, some student accommodation

OSW remained active for greenfield and refinancing

After a number of rail financings in 2019, end of single franchise rail cycle

PPP refi opps limited in competitive market



Current UK financing market

Liquidity remains high with low all in cost of capital

Market recovered quickly in early 19 and remained stable through the year

Most debt action in cross-over credit (BBB- to BB) suiting bank capital

Limited illiquidity premium

Hybrid bank-institutional model now well established

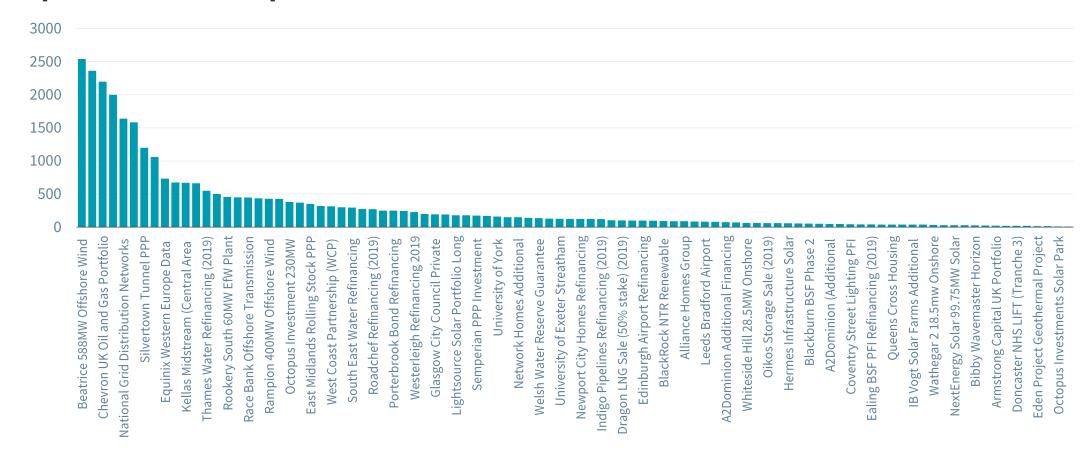
Signs of banks looking to reduce assets

Increasingly bank model u/w with distribution strategy – partnership model with institutions will be important going forward

Origin	Name	Amount (GBP)	Projects
FRA	BNP Paribas	2,493m	10
GBR	Lloyds Banking Group	2,141m	27
JPN	Sumitomo Mitsui Banking Corp	1,923m	17
ESP	Santander	1,659m	20
GBR	Royal Bank of Scotland	1,598m	23
JPN	Mitsubishi UFJ Financial Group	1,479m	11
FRA	Credit Agricole	1,217m	16
GBR	Aviva Investors	977m	12
NLD	ING Group	877m	10
USA	JP Morgan	784m	5

UK infrastructure debt deals closed 2019

Top 20 deals make up 70% of total value

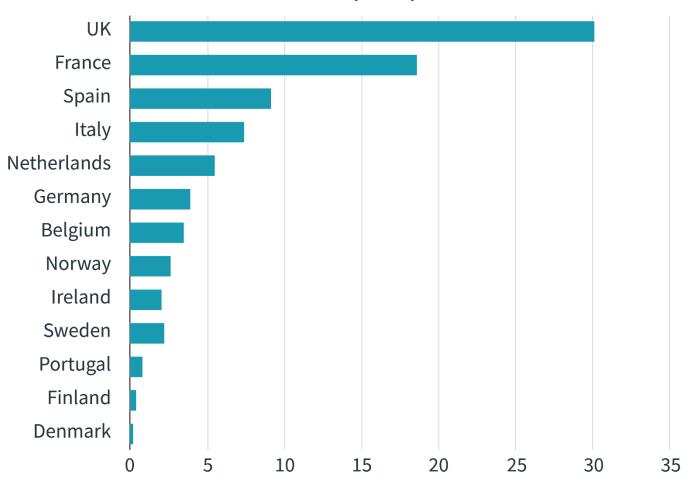


UK dealflow 2019 – largest transactions

Transaction Name	Туре	Sub-Sector	Total Debt £m
Beatrice 588MW Offshore Wind Project Refinancing (2019)	Refinancing	Offshore wind	2,541
ConocoPhillips UK North Sea Oil and Gas Portfolio Sale 2019	Brownfield	Exploration & Production	2,363
Chevron UK Oil and Gas Portfolio (Sale 2019)	Brownfield	Exploration & Production	2,197
Neart Na Gaoithe 448MW Wind Farm	Greenfield	Offshore wind	2,000
National Grid Distribution Networks (Cadent) Refinancing (2019)	Refinancing	Gas Distribution	1,640
East Anglia One 714MW Offshore Wind 40% Stake Sale (2019)	Brownfield	Offshore wind	1,584
Silvertown Tunnel PPP	Greenfield	Bridges and Tunnels	1,200
Elizabeth Line Rolling Stock Sale (2019)	Brownfield	Rolling Stock	1,059
Equinix Western Europe Data Centres Portfolio	Greenfield	Data Centre	734
Sovereign Housing	Greenfield	Social Housing	675
Kellas Midstream (Central Area Transmission System (CATS)) Refinancing	Refinancing	Gas Pipeline	670
Wales and Borders Rolling Stock	Greenfield	Rolling Stock	662
Thames Water Refinancing (2019)	Refinancing	Water	550
Drax Group 6.5GW Energy Portfolio Refinancing (2019)	Refinancing	Gas fired	500
Rookery South 60MW EfW Plant	Greenfield	Energy from waste	457
Ark Data Centres Debt Raise (2019)	Refinancing	Data Centre	450
Race Bank Offshore Transmission (OFTO) Link	Brownfield	Electricity Transmission	449
John Laing Infrastructure Fund (JLIF) Refinancing (2019)	Refinancing	Other	436
Rampion 400MW Offshore Wind Farm 25% Stake Refinancing (2019)	Refinancing	Offshore wind	429
Furlong 433MW Onshore Wind Portfolio Refinancing (2019)	Refinancing	Onshore wind	427
Octopus Investment 230MW Onshore Wind Portfolio Refinancing (Project Helm) (2019)	Refinancing	Onshore wind	381
Welcome Break Refinancing (2019)	Refinancing	Transport Other	370
East Midlands Rolling Stock PPP	Greenfield	Rolling Stock	350
Forth Ports Refinancing (2019)	Refinancing	Ports	320
West Coast Partnership (WCP) Rolling Stock	Greenfield	Rolling Stock	315
Gatwick Airport Bond Issuance (2019)	Refinancing	Airports	300
South East Water Refinancing (2019)	Refinancing	Water	295
Cubico 200MW UK Renewables Refinancing	Refinancing	Renewables Other	273
Roadchef Refinancing (2019)	Refinancing	Transport Other	272
Anglian Water Group RCF Refinancing (2019)	Refinancing	Water	250

European activity 2019

Infrastructure Debt Closed (£bn)





European dealflow 2019 - largest transactions

UK dominated

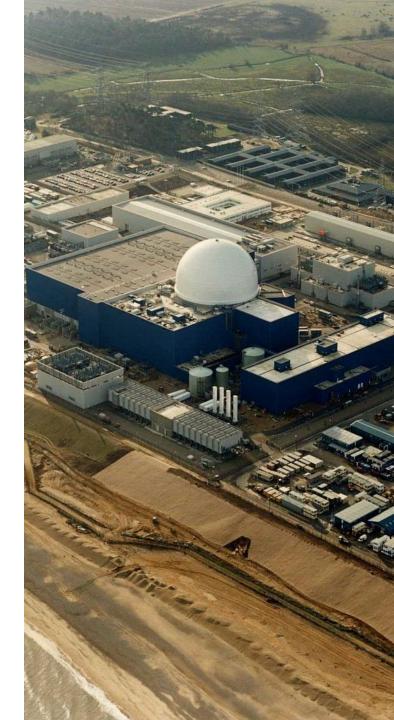
Transaction Name	Country	Туре	PPP	Sub-Sector	Total Debt £m
Abertis Refinancing	Spain	Refinancing	No	Roads	2,624
Beatrice 588MW Offshore Wind Project Refinancing	UK	Refinancing	No	Offshore wind	2,541
ConocoPhillips UK North Sea Oil and Gas Portfolio Sale	UK	Brownfield	No	Exploration & Production	2,363
Chevron UK Oil and Gas Portfolio	UK	Brownfield	No	Exploration & Production	2,197
Sain Nazaire 480MW Wind Farm Project	France	Greenfield	No	Offshore wind	2,084
Neart Na Gaoithe 448MW Wind Farm	UK	Greenfield	No	Offshore wind	2,000
Tours-Bordeaux (LISEA) HSR PPP Refinancing	France	Refinancing	Yes	Rail	1,965
Gas Natural Fenosa (20% Stake Amend and Extend)	Spain	Refinancing	No	Gas Distribution	1,714
BreBeMi Toll Road Refinancing	Italy	Refinancing	Yes	Roads	1,713
SFR FTTH (Altice) Additional Financing	France	Refinancing	No	Fixed Line	1,686
National Grid Distribution Networks (Cadent) Refinancing	UK	Refinancing	No	Gas Distribution	1,640
East Anglia One 714MW Offshore Wind 40% Stake Sale	UK	Brownfield	No	Offshore wind	1,584
Ermewa Refinancing	France	Refinancing	No	Rolling Stock	1,247
Silvertown Tunnel PPP	UK	Greenfield	Yes	Bridges and Tunnels	1,200
Boralex 1GW France Portfolio Refinancing	France	Refinancing	No	Onshore wind	1,088
Elizabeth Line Rolling Stock Sale	UK	Brownfield	No	Rolling Stock	1,059
AKIEM Refinancing	France	Refinancing	No	Rolling Stock	1,003
Italo Refinancing	Italy	Refinancing	No	Rail	943
HES Internal Sale	Netherlands	Brownfield	No	Oil & Gas Storage	938
Ital Gas Storage Refinancing	Italy	Refinancing	No	Oil & Gas Storage	783
Terres d'Energie/Tenergie (Phoenix) 255mw Solar Portfolio Refinancing	France	Refinancing	No	Portfolio	737
Rentel 309MW Offshore Wind Farm Refinancing	Belgium	Refinancing	No	Offshore wind	732
Ellevio Refinancing	Sweden	Refinancing	No	Electricity Distribution	725
IP Only Sale	Sweden	Brownfield	No	Fixed Line	679
Finerge 889MW Onshore Wind Refinancing	Portugal	Refinancing	No	Onshore wind	678
Sovereign House	UK	Greenfield	No	Social House	675
Kellas Midstream (Central Are Transmission System (CATS) Refinancing	UK	Refinancing	No	Gas Pipeline	670
Fryslan 320MW Offshore Wind Project	Netherlands	Greenfield	No	Offshore wind	666
Wales and Boarders Rolling Stock	UK	Greenfield	No	Rolling Stock	662
Delta Comfort Refinancing	Netherlands	Refinancing	No	Fixed Line	650
L-9 Metro Line, Barcelona - Tranche 2 Refinancing	Spain	Refinancing	Yes	Light Rail	647
A9 Amstelveen - Ouderkerk Amstel (Holendrecht Junction - Badhoevedorp Junction)	Netherlands	Greenfield	Yes	Roads	600
Gradi Stazioni SpA Refinancing	Italy	Refinancing	No	Rail	583
Thames Water Refinancing	UK	Refinancing	No	Water	550
CEPSA (37% Stake)	Spain	Brownfield	No	Exploration & Production	539
Liefkenshoek Rail Tunnel Refinancing	Belgium	Refinancing	Yes	Bridges and Tunnels	502
Drax Group 6.5GW Energy Portfolio Refinancing	UK	Refinancing	No	Gas fired	500

UK infrastructure outlook

Asset class is changing – challenge for investors is ability to be agile

What will we be talking about?

- Rail Williams Review
- HS2
- Welsh PPP for social infrastructure
- DPC to make progress?
- District heating and energy efficiency
- CCUS
- Sizewell C to take a step forward



UK infrastructure outlook

What will we be doing?

- Corporates continue to take advantage of low cost of financing
- PPP Refi last year of opportunity?
- OFTOs backlog of deals to start reaching FC
- Rolling stock refi of Thameslink & IEP as franchise competitions come to end of cycle
- Greenfield DBFO remains limited A465 in Wales
- Offshore wind will continue Dogger Bank will test liquidity
- Waste becomes mainstream Wheelabrator, Viridor, Amey all possibly in market
- Interconnectors Brexit confidence?
- Broadband & Datacentres



Euro infrastructure outlook

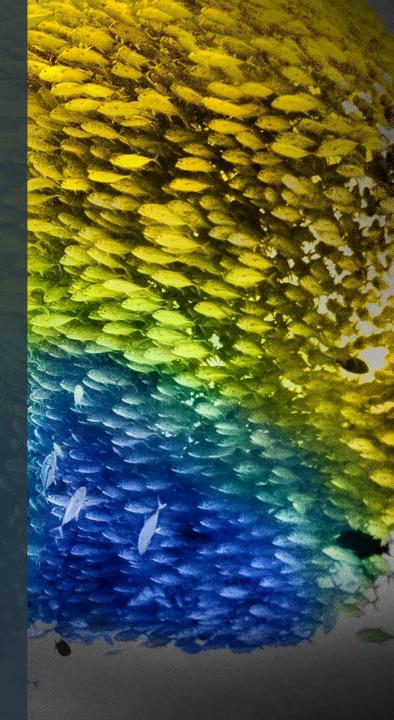
Similar trends to UK but growing M&A infra market

- 2019 dominated by Scandi utility M&A activity, rolling stock leasing refinancings and Southern European renewables
- Main opportunities in corporates ie following similar trends to UK; energy services, storage and district heating
- PPP activity remains very low across Europe
- Low cost of finance will continue to drive refinancings
- Subsidy free renewables
- Fibre and datacentre opportunities across a range of countries
- HoldCo debt remains source of opportunity for investors





Thank you



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