



HM Treasury



Infrastructure
and Projects
Authority

Private Finance Initiative and Private Finance 2 projects: **2017 summary data**

March 2018



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Contents

Chapter 1	Introduction	2
Chapter 2	2016-2017 summary data	6
Chapter 3	Equity return data	10
Chapter 4	Supporting information	20

Chapter 1

Introduction

- 1.1 This document provides information about Private Finance Initiative (PFI) and Private Finance 2 (PF2) projects at 31 March 2017. PFI and PF2 are forms of public private partnerships.
- 1.2 Public private partnerships (PPP) are long-term contractual arrangements between a public sector entity and a private sector provider. The private sector provider is engaged to design, build, finance, maintain and operate infrastructure assets and related services. The risks associated with construction delay, cost overrun and maintenance of the asset are transferred to the private sector partner.
- 1.3 The public sector entity does not pay for the asset during construction. Once the asset is operational and services are being provided the public sector entity pays a monthly fee – sometimes referred to as a ‘unitary payment’ – to the private sector provider. This payment includes the costs of construction, financing costs, lifecycle replacement expenditure, maintenance and services. The payment is subject to performance, which means that payments are reduced if services are not delivered to the standards set out in the contract. This form of payment mechanism is designed to provide a strong incentive on the private sector provider to meet their performance obligations and underpins the transfer of risk to the private sector.
- 1.4 Public private partnerships have been used to deliver investment in infrastructure across a wide range of sectors including hospitals, schools, roads, prisons, waste management and energy-from-waste infrastructure, housing, and military accommodation and equipment.
- 1.5 Projects signed pre-May 2010 have a capital value of £50.6 billion compared to £8.4 billion for projects after May 2010 (86% of the total). In the current year (FY17/18) the annual payment for projects signed pre-May 2010 is £9.7 billion (91% of the total payments). Between 1997 and 2010 on average 55 contracts were signed a year. Since May 2010, 84 contracts have been signed, an average of 12 a year.
- 1.6 Until 2012, the primary model of PPP used in the UK was PFI. During 2012 the government carried out a detailed review of PFI that aimed to address criticisms surrounding this form of contracting. PF2, the successor to PFI, was launched in December 2012.
- 1.7 The new PF2 model has improved transparency, reduced procurement times and improved the flexibility of private finance contracts. PF2 is one of many mechanisms government has to deliver investment in infrastructure and support growth and is only used where it is value for money.

- 1.8** The key differences between PFI and PF2 are:
- the government now acts as a minority co-investor to give greater visibility of the internal workings of projects
 - measures have been put in place to reduce procurement times
 - the front-line services, such as cleaning and security, have been removed from the standard contract to give more flexibility to decide what level of service we want
 - improved transparency including publication of equity returns and improving the information provisions within contracts
- 1.9** Being a shareholder provides the government with much greater visibility of the way in which these projects are delivered, the risks involved and the financial returns to investors. It also brings a more collaborative approach to project performance and managing risk.
- 1.10** A key criticism of PFI was a lack of understanding and transparency of the financial returns being earned by project company shareholders. In response to this, the government required the shareholders in new projects delivered under the PF2 framework to provide to HM Treasury information on financial returns. This information is published for the first time in this annual data publication.
- 1.11** The underlying data used in this report can be found in the excel documents published on the gov.uk website alongside this document and which provide the following information:
- the unique HMT project ID and name of the project
 - the sponsoring department and the procuring authority
 - the sector and region
 - key dates such as the beginning and end of the procurement process
 - the contract duration
 - the balance sheet and budgeting treatment
 - the capital value
 - the forecast annual payments
 - the shareholders identity
 - the project company name and address
- 1.12** The Infrastructure and Projects Authority (IPA)¹ collates data annually on PFI and PF2 projects on behalf of HM Treasury. Other forms of PPP, such as the NHS's Local Improvement Finance Trust (LIFT) programme and the non-profit

¹ Please see <https://www.gov.uk/government/organisations/infrastructure-and-projects-authority> for information on the Infrastructure and Projects Authority.

distributing (NPD) model used in Scotland are not covered in this publication.²

- 1.13 The information is provided by the central government departments and devolved administrations³ that have procured or sponsored⁴ projects. The contracting public sector entity for the majority of projects are local authorities, NHS Trusts and other arm's length bodies.
- 1.14 Gaps in data generally indicate that the department and/or contracting authority has not provided the information. The data and information provided for this publication is not audited by HM Treasury or IPA. IPA continues to work with departments to improve the quality and completeness of the data.
- 1.15 In order to facilitate the reading of this document, key terms used are defined in the table below.

Data	Definition
Capital Value	This is the total nominal capitalised costs of the project as recorded in the financial model at financial close. This includes SPV debt plus total shareholder funding (equity and shareholder loans) plus any authority capital contribution.
Department	Name of the sponsoring department
Equity	This is the combination of shares and subordinated debt invested in the project
Financial Close	The date that the project reached contract signature
Procuring Authority	The procuring authority responsible for commissioning the project
Project IRR	The projected nominal pre-tax project IRR. This reflects the operating margin for the project, pre-debt and equity costs
Special Purpose Vehicle (SPV)	The name of the project company carrying out the project
Unitary Charge	The payment made by the procuring Authority to the contractor from the start of operation until the end of the contract. It covers the cost of the construction of the asset, of borrowing debt and equity funding, taxes, operating services such as cleaning, and maintenance

² Thameslink Rolling Stock and Intercity Express Programme, which closed respectively in 2013 and 2012, are also excluded from this data publication as they are not classified as PFI projects due to their bespoke contract terms.

³ The Scottish Government no longer uses PFI (or the new PF2 model) as a procurement method. Scottish PPP projects are procured under the Non-Profit Distribution and hub models, and these do not form part of this publication.

⁴ Sponsored means projects which receive financial support from Departments but which are delivered by other bodies such as Local Authorities or NHS Trusts.

Data	Definition
Weighted Average Cost of Capital	The total cost of capital for the project, calculated as the blended rate of equity (including equity and shareholder loans) and senior debt costs based on the gearing of the project

Chapter 2

2016-2017 summary data

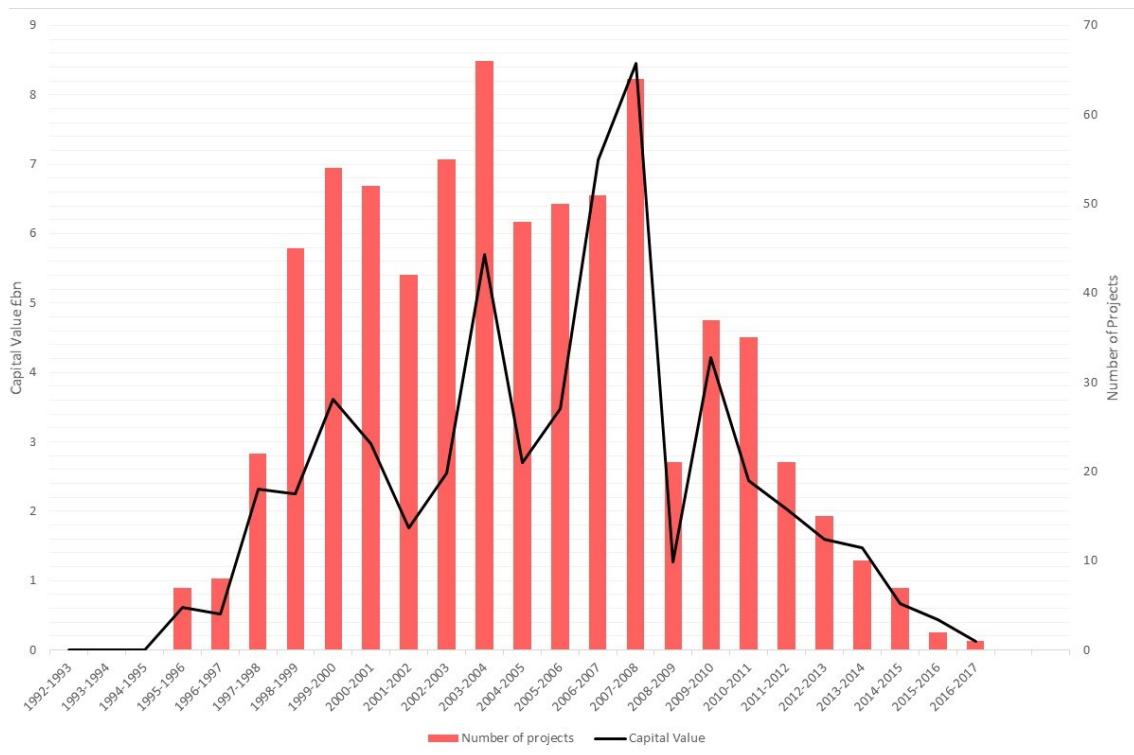
Existing portfolio

2.1 The graphic below shows the number of existing PFI and PF2 projects and their total capital values. A current project is either in operation or in construction. Projects which have reached the end of their contract period or that have been cancelled are not included.

Size of government's PFI and PF2 portfolio

- 2.2 As at 31 March 2017, there were 715 current PFI and PF2 projects. 699 projects were Operational and 16 were in construction.
- 2.3 The total capital value of projects was £59.1 billion, compared to £59.4 billion as at 31 March 2016
- 2.4 Of these projects 631 were signed before May 2010 and have a capital value of £50.6 billion (86% of the total).
- 2.5 Chart 2.A shows the number of PFI and PF2 projects that were signed (reached financial close) in each financial year. This represents the point at which contracts are signed and construction begins. The chart also shows the corresponding capital values for the signed projects.

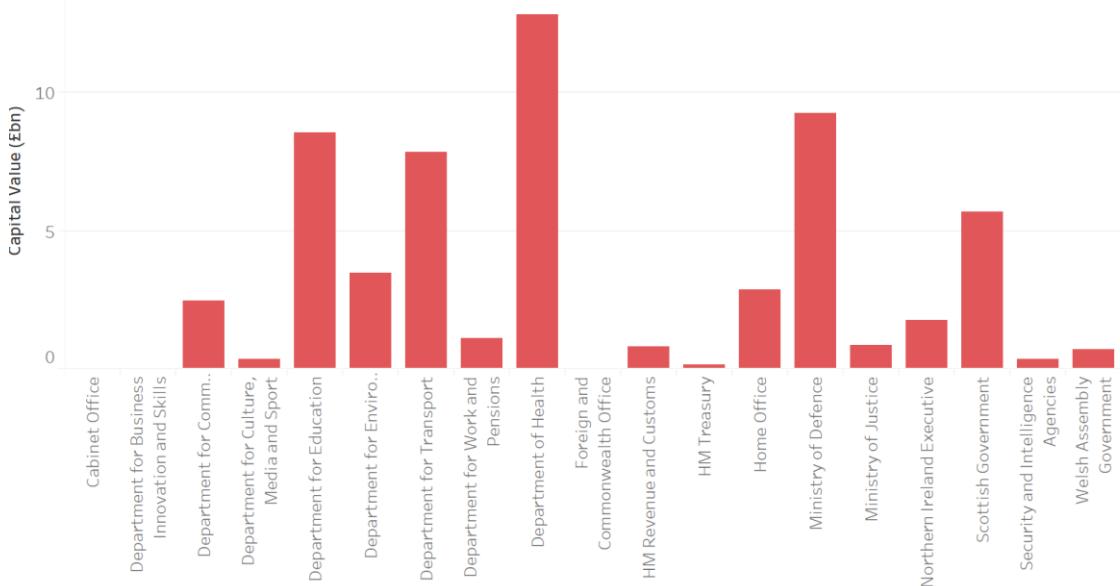
Chart 2.A: Number of signed projects by year



Source: Number of project signed based on departmental and devolved administration returns. This chart excludes project cancelled or finished.

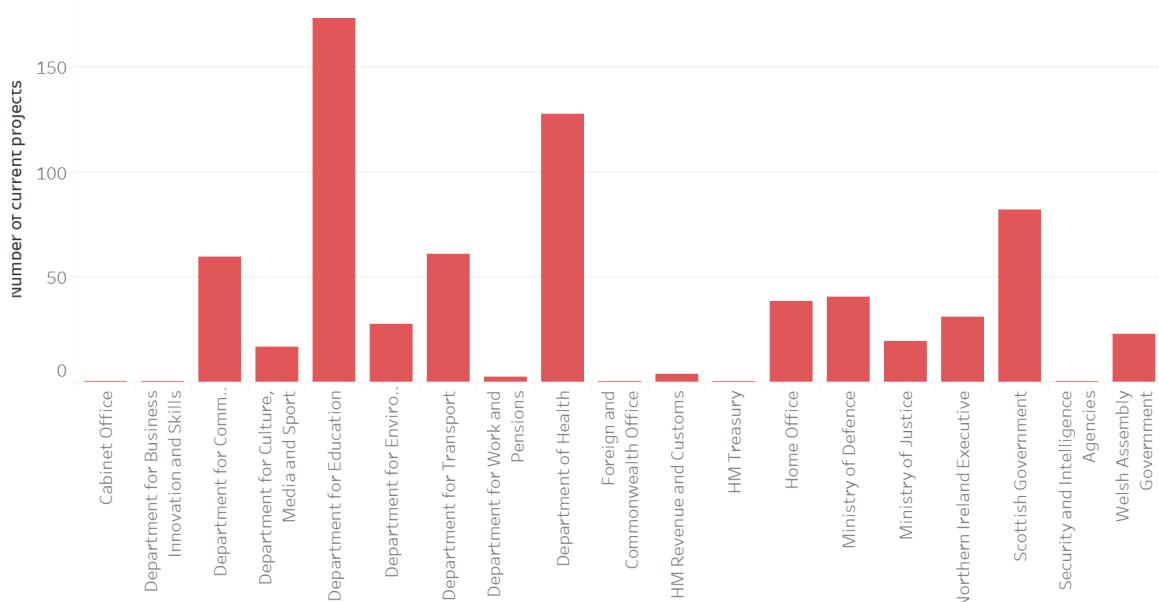
2.6 Charts 2.B and 2.C below show the number and capital value of projects across government.

Chart 2.B: Portfolio of current PFI and PF2 projects across government by capital value



Source: Current projects figures based on departmental and devolved administration returns.

Chart 2.C: Portfolio of current PFI and PF2 projects across government by number of current projects



Source: Current projects figures based on departmental and devolved administration returns.

New projects

- 2.7 One project reached financial close during 2016-17 and has been added to the current projects list. The project is detailed in Table 2.A below.

Table 2.A: Projects which have reached financial close since 31 March 2016

Project ID	Project name	Date of financial close	Department	Capital value (£m)
1510	PSBP Yorkshire	26/04/2016	Department for Education	123.5

- 2.8 In addition, Table 2.B below, details projects added to the current projects list due to a technical omission in previous years.

Table 2.B: Projects added to the current list and omitted from last year's submission

Project ID	Project name	Department	Capital value (£m)	Reason
370	Selly Oak and Queen Elizabeth Hospitals	Department of Health	43.1	Technical omission
11699	Cardiff Gate Training Centre	Welsh Assembly Government	7.9	Technical omission

Projects removed

2.9 Four projects have been removed from the current projects list and are detailed in Table 2.C below.

Table 2.C: Projects removed from the current projects list since 31 March 2016

Project ID	Project name	Department	Capital value (£m)	Reason
3	Compass	Crown Prosecution Service	2.9	Reached end of contract period
405	Ammanford Police Station	Home Office	5.3	Cancelled
523	Eschools Data Warehouse	Northern Ireland Executive	4.6	Reached end of contract period
531	New Renal Dialysis facilities	Northern Ireland Executive	2.9	Reached end of contract period

Projects in procurement

2.10 One project was in procurement and is detailed in Table 2.D below.

Table 2.D: Project in procurement as at 31 March 2017

Project ID	Project name	Department	Sector	Expected capital value (£m)
738	Arc21 Residual Waste Infrastructure Procurement	Northern Ireland Executive	Waste	318.6

Chapter 3

Equity return data

Purpose

- 3.1 To improve transparency under PF2 the government required the private sector to provide actual and forecast equity return information for publication.
- 3.2 This section sets out the projected Equity IRR data as at 31 March 2017 for PF2 projects which have reached financial close.¹ Data has not been included for the PSBP Midlands or Midland Metropolitan Hospital projects where Carillion provided construction and facilities management services. The liquidation of Carillion plc is likely to have a material impact on the equity returns in these projects which would not be taken into account in the data as at March 2017, before the liquidation. It would be misleading to publish data that is known to be inaccurate. Future publications will include returns for these projects and take into account the impact of the liquidation of Carillion plc.
- 3.3 The equity data is included in a supporting spreadsheet available alongside this report on the gov.uk website.
- 3.4 This section also includes wider project and financial information, reflecting the government's commitment to provide such information for its equity holdings.
- 3.5 Finally, this section provides context for the projected returns, including a comparison to PFI projects and other infrastructure investments, based on publicly available information.

Definitions

- 3.6 A range of data is provided for each project. Further IRR definitions are set out below:

Data	Definition
Real Equity Internal Rate of Return (without Fees)	The projected real internal rate of return (IRR) represents the return equity providers expect to receive over the whole life of the project, after inflation is excluded. The calculation

¹ Subsequent to this date, on the 15th January 2018 Carillion Plc, who provided construction and facilities management services to PSBP Midlands and Midland Metropolitan Hospital, entered liquidation. This data does not include the potential resulting impact on projected returns for these projects.

Data	Definition
	of the projected returns are set out in the spreadsheet accompanying this publication and is the post project tax pre shareholder tax real equity IRR.
Real Equity Internal Rate of Return (with Fees)	The projected real equity return as above but including fees paid to each shareholder. Fees include any upfront fees at financial close as well as ongoing fees, such as Director's fees.
Real Equity Internal Rate of Return (Current)	The real equity IRR to date. For projects in construction this excludes fees. This is because in some projects the full amount of equity (via shareholder loan) is not invested in the project until construction ends. Small payments, such as Director's fees paid during this period can create an artificially high IRR, creating a spike for a short period that is unrepresentative of the whole project.
Real Equity Internal Rate of Return by Investor (with fees)	The projected real Equity IRR with fees projected for each shareholder over the whole project life.
Nominal Equity Internal Rate of Return (without Fees)	The projected nominal internal rate of return (IRR) represents the return equity providers expect to receive over the whole life of the project, including the impact of inflation. The calculation of the projected returns are set out in the spreadsheet accompanying this publication and is the post project tax pre shareholder tax nominal equity IRR.
Nominal Equity Internal Rate of Return (with Fees)	The projected nominal equity return as above but including fees paid to each shareholder. Fees include any upfront fees at financial close as well as ongoing fees, such as Director's fees.
Nominal Equity Internal Rate of Return (Current)	The nominal equity IRR to date. For projects in construction this excludes fees. This is because in some projects the full amount of equity (via shareholder loan) is not invested in the project until construction ends. Small payments, such as Director's fees paid during this period can create an artificially high IRR, creating a spike for a short period that is unrepresentative of the whole project.
Nominal Equity Internal Rate of Return by Investor (with fees)	The projected nominal Equity IRR with fees projected for each shareholder over the whole project life.

- 3.7** As well as the projected IRRs described above, each return includes a graph of the projected returns, both real and nominal. This shows the timing of when returns are due to be made.

IRR return data by PF2 project

Priority Schools Building Programme: Hertfordshire, Luton and Reading			
Project Summary			
Construction of 7 new secondary schools benefitting more than 8,900 pupils			
Department		Procuring Authority	
Department for Education		Secretary of State for Education	
Special Purpose Vehicle		Wholelife Unitary Charge	
HLR Schools Limited		£324.2m	
Financial Close	Date of Operation	Years in Operation	Capital Value
19/03/2015	31/08/2016	25	£138.9m
Key Metrics			
Project IRR		Weighted Average Cost of Capital	Senior Debt Rate
4.98%		4.08%	3.44%
Real Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
7.7%		7.8%	0%
Projected Real Equity Internal Rate of Return by Investor (with Fees)			
Interserve Investments Ltd (45%)		Kajima Partnerships Ltd (45%)	IUK Investments Ltd (10%)
7.8%		7.8%	7.8%
Nominal Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
10.4%		10.5%	0%
Projected Nominal Equity Internal Rate of Return by Investor (with Fees)			
Interserve Investments Ltd (45%)		Kajima Partnerships Ltd (45%)	IUK Investments Ltd (10%)
10.5%		10.5%	10.5%

Priority Schools Building Programme: Midlands			
Project Summary			
Construction of 8 new secondary schools with a capacity of almost 9,500 students			
Department		Procuring Authority	
Department for Education		Secretary of State for Education	
Special Purpose Vehicle		Wholelife Unitary Charge	
PSBP Midlands Ltd		£338.3m	
Financial Close	Date of Operation	Years in Operation	Capital Value
12/08/2015	25/06/2016	25	£141.8m

- 3.8 Carillion provided construction and facilities management services on PSBP Midlands, as well as being a 42.5% shareholder in the SPV.
- 3.9 The liquidation of Carillion plc is likely to have a material impact on the equity returns in this project which would not be taken into account in the data as at March 2017, before the liquidation. It would be misleading to publish data that is known to be inaccurate. Future publications will include returns for this project and take into account the impact of the liquidation of Carillion plc.

Priority Schools Building Programme: North East			
Project Summary			
Construction of 6 new primary schools and 6 secondary schools with a capacity of over 8,000 places			
Department		Procuring Authority	
Department for Education		Secretary of State for Education	
Special Purpose Vehicle		Wholelife Unitary Charge	
GT NEPS Limited		£291.9m	
Financial Close	Date of Operation	Years in Operation	Capital Value
10/03/2015	28/12/2015	25	£104.6m
Key Metrics			
Project IRR	Weighted Average Cost of Capital	Senior Debt Rate	
5.83%	4.62%	3.81%	
Real Equity Internal Rate of Return			
Projected (without fees)	Projected (with fees)	Current	
9.3%	9.3%	0%	
Projected Real Equity Internal Rate of Return by Investor (with Fees)			
Galliford Try Investments NEPS Limited (45%)	Infrastructure Investments Holdings Ltd (45%)	IUK Investments Ltd (10%)	
9.3%	9.3%	9.3%	
Nominal Equity Internal Rate of Return			
Projected (without fees)	Projected (with fees)	Current	
11.9%	11.9%	0%	
Projected Nominal Equity Internal Rate of Return by Investor (with Fees)			
Galliford Try Investments NEPS Limited (45%)	Infrastructure Investments Holdings Ltd (45%)	IUK Investments Ltd (10%)	
11.9%	11.9%	11.9%	

Priority Schools Building Programme: North West			
Project Summary			
Construction of 7 new primary schools and 5 secondary schools for over 8,000 pupils			
Department		Procuring Authority	
Department for Education		Secretary of State for Education	
Special Purpose Vehicle		Wholelife Unitary Charge	
PSBP NW Projectco Limited		£274.6m	
Financial Close	Date of Operation	Years in Operation	Capital Value
25/03/2015	11/04/2016	25	£114.2m
Key Metrics			
Project IRR		Weighted Average Cost of Capital	Senior Debt Rate
4.66%		4.16%	3.39%
Real Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
9.3%		9.4%	0%
Projected Real Equity Internal Rate of Return by Investor (with Fees)			
Community Solutions for Education Ltd (45%)	Equitix Infrastructure 3 Ltd (45%)	IUK Investments Ltd (10%)	
9.4%	9.4%	9.4%	
Nominal Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
12.0%		12.2%	0%
Projected Nominal Equity Internal Rate of Return by Investor (with Fees)			
Community Solutions for Education Ltd (45%)	Equitix Infrastructure 3 Ltd (45%)	IUK Investments Ltd (10%)	
12.2%	12.2%	12.2%	

Priority Schools Building Programme: Yorkshire			
Project Summary			
Construction of 7 new secondary schools benefitting more than 7,000 pupils			
Department		Procuring Authority	
Department for Education		Secretary of State for Education	
Special Purpose Vehicle		Wholelife Unitary Charge	
Yorkshire Learning Partnership ProjectCo Ltd		£288.3m	
Financial Close	Date of Operation	Years in Operation	Capital Value
26/04/2016	12/04/2018	24	£123.5m
Key Metrics			
Project IRR		Weighted Average Cost of Capital	Senior Debt Rate
4.75%		4.04%	3.39%
Real Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
8.4%		8.4%	0%
Projected Real Equity Internal Rate of Return by Investor (with Fees)			
Laing O'Rourke Plc (70%)		Equitix Ltd (20%)	IUK Investments Ltd (10%)
8.4%		8.4%	8.4%
Nominal Equity Internal Rate of Return			
Projected (without fees)		Projected (with fees)	Current
11.2%		11.2%	0%
Projected Nominal Equity Internal Rate of Return by Investor (with Fees)			
Laing O'Rourke Plc (70%)		Equitix Ltd (20%)	IUK Investments Ltd (10%)
11.2%		11.2%	11.2%

Midland Metropolitan Hospital			
Project Summary			
Construction of new 669 bed acute hospital serving 0.5m people			
Department	Procuring Authority		
Department for Health	Sandwell and West Birmingham Hospitals NHS Trust		
Special Purpose Vehicle	Wholelife Unitary Charge		
The Hospital Company (Sandwell) Ltd	£692.2m		
Financial Close	Date of Operation	Years in Operation	Capital Value
09/12/2015	20/10/2018	30	£297.0m

- 3.10 Carillion provided construction and facilities management services on the Midland Metropolitan Hospital, as well as being a 50% shareholder in the SPV.
- 3.11 The liquidation of Carillion plc is likely to have a material impact on the equity returns in this project which would not be taken into account in the data as at March 2017, before the liquidation. It would be misleading to publish data that is known to be inaccurate. Future publications will include returns for this project and take into account the impact of the liquidation of Carillion plc.

Analysis

- 3.12 A summary of the data for the 4 PF2 projects is set out below. This excludes the PSBP Midlands and Midland Metropolitan Hospital projects:

Data	Range	Average
Real Weighted Average Cost of Capital (WACC)	3.8% - 4.4%	4.0%
Nominal Weighted Average Cost of Capital (WACC)	4.0% - 4.6%	4.2%
Real Equity IRR (with fees)	7.8% - 9.4%	8.7%
Nominal Equity IRR (with fees)	10.5% - 12.2%	11.5%

Equity IRR

- 3.13 The Equity IRR represents the equity cost of the project. Due to the nature of project financing this is typically around 10% of the overall financing requirement, with the remaining 90% provided by senior debt (known as the gearing of the project). This is demonstrated by the WACC for the PF2 projects being significantly lower than the Equity IRR, as senior debt is cheaper than equity as it is lower risk.
- 3.14 The Equity IRR reflects the risk of the project. The NAO published a report on Equity Investment in Privately Financed Projects² in 2012. This report set out that the expected return to investors when the PFI contracts were signed ranged between 12% and 15% pre-2012. The PF2 projects have a projected average return of 11.5%, with the highest return, including fees being 12.2%.
- 3.15 A 2017 report by the GIIA and PwC on Global Infrastructure Investment³ also identified a reduction in equity returns expected by Infrastructure funds from 14% in 2004 to 10.6% in 2016. A Deloitte survey of European Infrastructure Investors⁴ in 2016 also identified that target IRRs had reduced to 10%-12%. Infrastructure funds invest in a wide range of infrastructure projects and sectors as well as at different stages of the project, for example many invest after construction risk has passed. However, the PF2 projects are in line with these wider returns for infrastructure projects in other sectors.

Weighted Average Cost of Capital (WACC)

- 3.16 This section provides a broad comparison of the PF2 projects' WACC against other infrastructure projects' WACC. However, there are a number of reasons why these are unlikely to be directly comparable:

² NAO Report (HC 1792 2010-2012): Equity investment in privately financed projects

³ GIIA/PwC, Global Infrastructure Investment

⁴ Deloitte, European Infrastructure Investors Survey 2016

- the WACC for utilities are for corporates, rather than an individual project, which are subject to demand and other risks not included in an individual PF2
- the project vs corporate nature of the WACC also means there is a significant difference in the gearing (debt to equity) between a PF2 and utility
- the WACC is for a shorter pricing period (c.5-7 years) for utilities compared to a 25-30 year PF2 project
- the PF2 deals were signed at different dates and so the underlying debt rate assumptions will be impacted by timing of PF2 vs price control periods

3.17 The table below sets out the average real WACC of the PF2 projects compared to those in the waste and energy sector. The data is, where possible, taken from March 2015 which reflects the timing closest to when the PF2 deals closed.

Data	WACC	Delta to PF2
PF2 Average Real WACC	4.00%	-
OFWAT Pricing Period 2015-2020 ⁵	3.60%	-0.40%
OFGEM RIIO-ET1 Gas 31 March 2015 ⁶	4.25%	0.25%
OFGEM RIIO-ET1 Electricity 31 March 2015 ⁷	4.65%	0.65%
OFGEM RIIO-GD1 Gas Distribution Networks 21 March 2015 ⁸	4.11%	0.11%
OFGEM RIIO-ED1 Electricity 31 March 2016 ⁹	3.76%	-0.24%
Average Delta	0.07%	

3.18 The table above shows that the WACC of OFWAT/OGFEM projects range between 0.4% below and 0.65% above the PF2 average WACC, with an average of 0.07% below. While this demonstrates the WACC for the PF2 projects is similar to that of the other projects this is only a broad comparison, noting the caveats identified above.

⁵ [OFWAT final price control determination notice: policy chapter A7 risk and reward, Setting price controls for 2015-2020](#)

⁶ [OFGEM RIIO-T1 Gas Financial Model WACC for March 2015](#)

⁷ [OFGEM RIIO-T1 Electricity Financial Model WACC for March 2015](#)

⁸ [OFGEM RIIO-GD1 Gas Distribution Financial Model WACC for March 2015](#)

⁹ [OFGEM RIIO-ED1 Electricity Distribution Financial Model WACC for March 2016 \(the first year this data was produced\)](#)

Chapter 4

Supporting information

- 4.1 Alongside this document are three Excel workbooks: the first details the current projects as at 31 March 2017, the second details information relating to projects in procurement as at 31 March 2017 and the third details the IRR data of the PF2 projects.

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