



Direct procurement for customers

A report prepared for Ofwat

May 2017



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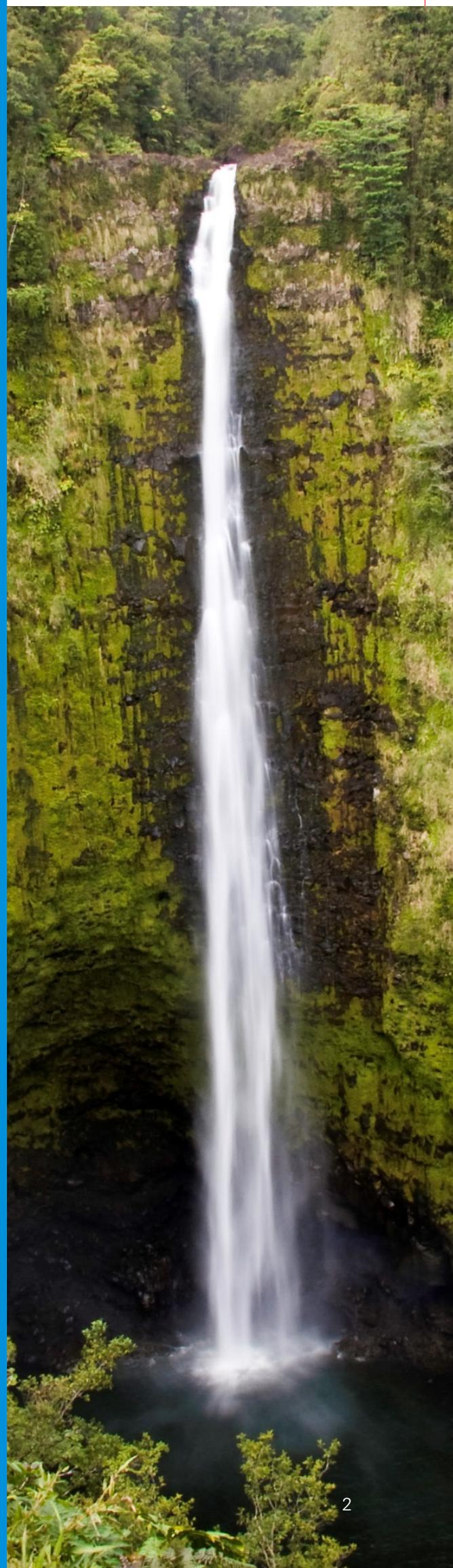
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Executive summary

KPMG has discussed Ofwat's proposals for 'Direct Procurement for Customers' (DPC) with a range of potential investors who may have an interest in the initiative. Investor appetite will be essential to increase levels of rivalry in any procurement and maximise the benefits for customers. Based on these discussions, in developing its proposals Ofwat should be mindful of five key points:

1. Establishing the precise risk allocation of the proposed DPC model is central to ensuring projects are financeable and attractive to target investors.
2. The certainty of the DPC revenue stream from the Appointee's price control and the entitlement to cash flows from customers will be a key consideration for investors.
3. The scope of activities covered by the DPC arrangements will affect the appetite for investment and the opportunities to drive benefits for customers.
4. Ofwat may want to revisit the criteria for DPC and consider the implications for the pipeline of projects which will affect investor interest.
5. The role of Ofwat in the initial procurement and ongoing arrangements between the DPC and the appointee is critical.

Executive Summary

As part of its 'Water 2020' programme, ahead of the next price review in 2019, Ofwat has set out initial proposals for the 'Direct Procurement for Customers' (DPC) of large projects by licenced water and wastewater companies.

Under these proposals, companies would competitively tender major investment projects that were 'discrete' and likely to have a value greater than £100m in whole life 'totex' (i.e. operating and capital expenditure). During the price review companies' plans would be tested by Ofwat to ensure that eligible schemes had been identified and considered for competitive tendering. KPMG has been commissioned by Ofwat to discuss its DPC proposals with potential investors in order to:

- understand the appetite of different investors for potential DPC projects in the sector and any issues or concerns they have to inform the design of the DPC model to maximise benefits to customers; and
- advise on Ofwat's approach to engaging with investors on the pipeline of potential DPC opportunities.

The evidence and engagement from this study may also help to inform Ofwat's choices around the structure of the direct procurement model for PR19 to maximise investor attractiveness, deliverability and benefits for customers.

Five key areas for consideration

In developing DPC proposals, our consultation with investors has highlighted five priority areas where further policy clarification is required:

1 Establishing the precise risk allocation of the proposed DPC model is central to ensuring projects are financeable and attractive to target investors.

Presently, there is considerable uncertainty around how the model will operate in practise and Ofwat may wish to either define the model further or set out some parameters for risk allocation and regulatory design that it would be open to seeing in company business plans for PR19. Based on our consultation with investors a comparable degree of risk transfer to customers to that provided by the current appointed water company model is likely to be required to deliver a competitive cost of finance compared to the appointee Weighted Average Cost of Capital (WACC).

Generally investors considered that it would be difficult to beat the cost of capital of a regulated water company except, potentially, on a marginal cost basis (i.e. reflecting a marginal cost of finance where new debt in the DPC is financed at current market rates compared to an appointed water company that receives a weighted average cost of capital reflecting both embedded and new debt).

Where Ofwat allocates more risk onto the appointee this might require a regulatory requirement or risk sharing mechanism, otherwise it is difficult to imagine an appointee choosing to accept that risk.

2 The certainty of the DPC revenue stream from the Appointee's price control and the entitlement to cash flows from customers will be a key consideration for investors.

Any major project will need a clear investment recovery path supported by an arrangement that investors can rely on, whether this is a concession, licence or long-term contract. Comparable models elsewhere typically include a fixed long-term revenue stream of c.15-30 years to cover initial investment and financing costs. Without this, it is very difficult to see DPC projects attracting low cost finance. At a minimum this implies an agreed revenue stream for financing costs spanning multiple asset management periods.

Operating costs could be treated differently and either fixed, as per Offshore Transmission Owners (OFTOs) and Competitively Appointed Transmission Owners (CATOs) - or re-opened through periodic review as under the High Speed 1 (HS1) model. A separate price control, or revenue designated for the DPC as part of the price determination for the appointee, might be a necessary minimum for this.

The more certain this revenue stream, the lower the cost of capital and the higher the gearing that can be expected (where a single entity delivers the DPC). A contracting model that resembles a Public Private Partnership (PPP) type arrangement could support greater certainty over the revenue stream if it is largely fixed. However, if payment is linked to volume or other variable factors, lower financing costs may be more difficult to achieve. In reducing these variable elements in the payment mechanism, customers may end up over paying if other factors impact on asset utilisation or operating costs, and the appointee is still committed to a fixed charge. In the regulatory model, opex re-openers could be a more effective way of ensuring that customers do not end up paying for redundant capacity if the regulatory framework also gives some comfort associated with the uncertainty created by a regular price review process (e.g. Ofwat's duty to ensure efficient companies are financeable).

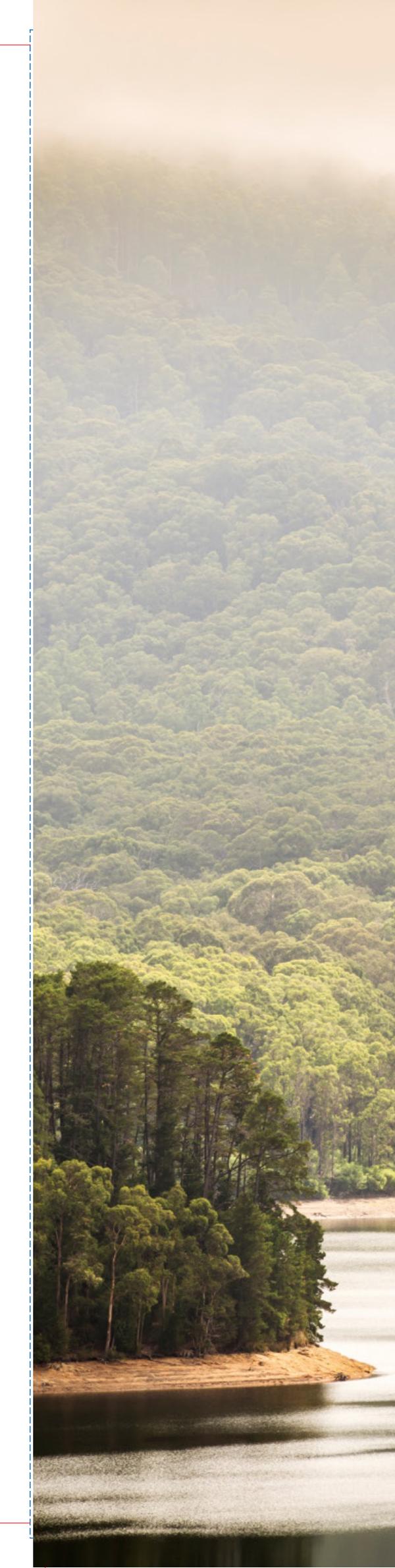
Investors generally did not see the existence of a licence as essential to deliver an effective DPC financing arrangement. However, investors largely shared the view that some form of direct relationship with Ofwat would be important and would provide greater confidence and to the extent that a licence provides greater certainty on revenues this will increase confidence in the regime. We note that licences may be important for other social policy reasons (e.g. special administration) and this issue was explored by First Economics in their recent work on the same subject but these issues were not the focus of our engagement with investors. Where a contract model is used, it would need a firm basis for supporting revenues to achieve a low cost of capital. Different investors we spoke to had different perspectives on utility and contracting (PPP-style) models.

3 The scope of activities covered by the DPC arrangements will affect the appetite for investment and the opportunities to drive benefits for customers:

There is an important strategic choice about the inclusion or exclusion of design and construction in the model. This needs to consider the difference between a model that excludes construction and planning risk and is therefore likely to attract maximum competition from investors for larger projects versus a broader model that includes these activities for smaller projects that therefore provides broader opportunities to find efficiencies for customers beyond financing costs.

Comparative models do not usually include design and planning risk, and some investors do not have a strong appetite to take this risk. Given the issues of interactions with the rest of the network and the time pressures ahead of PR19 there may be a strong case for focussing DPC on either a build, finance, operate (B, F, O) model like the current 'late' CATO model in energy networks or a F and O model like the OFTO or HS1 models.

The broader the scope of DPC and the larger the projects in the pipeline, the greater the potential for value to be generated from DPC if alternative providers can provide these activities more efficiently than the appointed company. Some contractors emphasised that without some elements of design it may be difficult to maximise the benefits from DPC. They noted that maximising these efficiencies would come from parties engaging with the water companies and working to develop more innovative solutions rather than simply building to a pre-determined specification. This has been one of the rationales behind the approach taken in the alliance model whereby companies work with the supply chain to procure new capacity and maintain their assets.



4

Ofwat may want to revisit the criteria for DPC and consider the implications for the pipeline of projects which will affect investor interest.

The scale of the threshold will affect the pipeline of projects and investor interest: At the proposed £100m totex threshold, DPC could include some very small projects by capex value that are unlikely to attract interest beyond the strategic investor/contractor group. Infrastructure funds are unlikely to consider an equity interest below c.£50m and some of the larger funds are only likely to consider projects where the equity interest is c.£150m or higher.

Given the potential for these projects to be highly geared, it seems unlikely that DPC projects will attract the broadest competition for investment unless the projects are very much larger than £100m. Whilst smaller projects may still attract interest from certain investor groups, those groups may typically seek higher returns. A capex value may be more meaningful in this context as this more directly relates to the investor interest.

The 'discrete' project criterion matters: Several investors voiced concerns about the 'interoperability' issues associated with potential DPC schemes. Where schemes are more discrete, interfaces would be simpler, contracts easier to agree, transaction costs lower and the impact on any scale and scope economies associated with the operation of the network reduced- this may imply that DPC is better suited to particular types of enhancement schemes.

Some contractors suggested that to address this problem and to maximise innovation, the scope of DPC could be expanded with new operators allowed to bid and operate, for example, smaller contiguous networks within the existing companies that might be broader than specific DPC enhancements. This would naturally broaden the scope for DPC and may represent a different policy objective, but may provide an alternative approach to addressing the interoperability issue.

More broadly these interoperability issues may suggest that for some projects of sufficient scale DPC may still be inappropriate. In this context, how the performance regime for the DPC is defined and managed was also a significant area of concern for some investors. This could be set out in contracts between the appointed company or the DPC or could involve the regulator. To the extent that this impacts on the certainty of revenues, it will also affect the cost of finance. The more recent and advanced payment mechanisms designed under PPP/PFI type projects may provide flexible models for exploration.

Where companies retain responsibilities for meeting legal obligations to customers, but need to make use of a critical DPC asset to meet those requirements, it may also be right that they are very involved in both the specification of the asset and the ongoing operation of the asset in terms of KPIs/outcomes and performance. This may require some control over revenues to the DPC and, in extremis, step in rights given the obligations on appointed companies.

The bidding costs of one-off investments are only likely to justify larger projects. The costs of bidding for bespoke, infrequent projects can discourage many investors. A strong pipeline of significant and comparable projects is likely to attract the greatest interest and competition amongst investors.

A dispersed procurement model could weaken the pipeline. The approach currently being considered by Ofwat involves companies procuring DPC schemes themselves directly as per the Thames Tideway Tunnel (TTT) model. Investors raised concerns about the extent to which this would lead to a more dispersed process with companies taking different approaches that may increase transaction costs and weaken the project pipeline.

5 The role of Ofwat in the initial procurement and ongoing arrangements between the DPC and the appointee is critical.

Greater regulatory involvement is likely to increase investor interest provided that this supports long-term certainty on revenues. Most investors indicated that direct Ofwat involvement in the process would be helpful and for some preferable. The regulator’s participation could provide investors with a level of comfort regarding the regime. In the OFTO and CATO models the regulator is involved in the procurement, consultation processes and the projects’ ongoing delivery.

This provides significant assurance and confidence for investors and market participants. However, the degree of Ofwat involvement in the framework should be carefully managed. If the approach is too hands-on it could weaken market innovation and opportunities for further efficiencies. Market participants could be consulted to assess the correct balance of Ofwat involvement.

A clearly independent procurement process is necessary to give confidence to potential bidders. Several investors also expressed concerns about the risks of discrimination in the procurement process under DPC where these processes are taken forward only by the appointed incumbent companies. Addressing the real or perceived risk of discrimination is critical to attracting investor interest in DPC. This need not necessarily require significant involvement from Ofwat but it would require clear independent decision-making to be established around the procurement process by companies and a clear signal of this to provide confidence to potential bidders.

<p>1 Financial investors</p>	 Infrastructure funds  Greenfield funds  Pension Plans  Sovereign wealth
<p>2 Debt investors</p>	 Debt investors
<p>3 Strategic investors</p>	 Construction companies  Strategic investors
<p>4 Rating agencies</p>	 Ratings agencies

Balancing these considerations with customer benefits

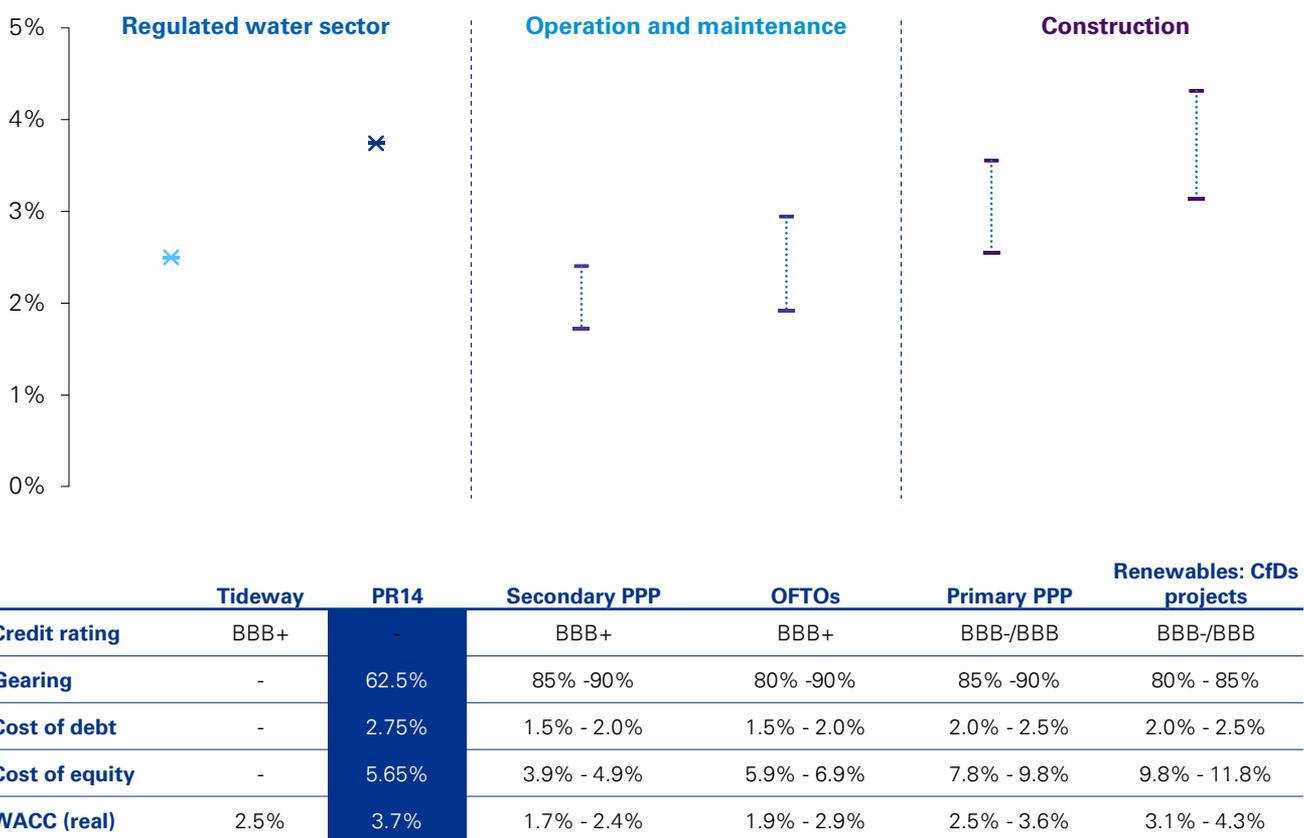
In addressing these considerations, Ofwat needs to ensure that the model delivers improved outcomes for customers. While the current state of the infrastructure market may suggest there is a shortage of projects, there are other opportunities for investors to consider that may prove more attractive and could potentially lessen the appetite, or reduce the benefits of competition for DPC schemes. There is also no certainty that current market conditions will continue into the future given the length of time it may take to progress these new schemes.



Ofwat needs to ensure that the model delivers improved outcomes for customers.

The chart below provides some indicative comparisons with other infrastructure models, which investors may compare with the expected DPC's returns to determine whether to allocate capital to these projects. Each of the comparison projects provided has its own set of specific features that will influence the underlying returns. The chart is intended to provide a high level range based on external sources and KPMG market analysis and observations. The figures in the table provided, whilst based on recent market evidence, are likely to be different depending on their timescales and market movements. The WACC estimates presented are not outturn figures and are all in real terms (in some cases sourced nominal returns have been deflated to provide a real term comparison). Given the underlying differences in key features associated with each of these models, caution should be exercised in drawing conclusions on where DPC may rank in terms of the cost of capital.

Figure 1: Estimates of potential market project returns (real contracted WACC)



Source: KPMG market observations; [KPMG OFTO report](#); [HICL Capital Market Seminar](#)



Introduction and purpose

Following the success of the Thames Tideway Tunnel and the development of other direct procurement models in energy networks (i.e. OFTOs and CATOs), Ofwat's Water 2020 proposals set out plans to introduce direct procurement in the water sector for schemes with a whole-life totex of over £100m.

In order to deliver customer benefits, Ofwat's proposals will need to be attractive to investors, while demonstrating value for money for consumers. KPMG has been commissioned to engage with potential investors to inform Ofwat on the market sentiment regarding the development and introduction of the DPC regime.



Ofwat considers that benefits to customers from DPC could arise from a number of sources, which include a lower cost of capital, improved efficiency and innovative approaches to project development and delivery.

Ofgem's OFTO and CATO models and the TTT are all recent examples of how this competition for the market model has been delivered. Each of these models has a specific set of characteristics that may be useful to consider in the context of Ofwat's DPC proposals.

Direct Procurement for Customers

As part of the 'Water 2020' programme, ahead of the next price review in 2019, Ofwat has set out initial proposals for the DPC of large projects by licenced water and wastewater companies.

Under these proposals, appointed companies would competitively tender major investment projects that are 'discrete' and of sufficient scale. During the initial assessment of business plans, companies plans will be tested to see if eligible projects had been prepared for competitive tendering. The licensed companies would not be obliged to use the DPC process, but will need to demonstrate consideration and justification for not using the DPC route.

Ofwat has suggested that projects which could benefit the most from the proposed scheme are those with a totex value in excess of £100m. However, this is described as a 'soft' threshold above which projects need to be considered for DPC rather than a hard requirement. These proposals potentially enable third party providers to compete to design, construct, finance and/or operate a given infrastructure project.

Ofwat considers that benefits to customers from DPC could arise from a number of sources, which include a lower cost of capital, improved efficiency and innovative approaches to project development and delivery (but the scope of DPC has not been defined by Ofwat).

Looking back over the last 15 years at the three previous price reviews 4-5 projects would have had a capex value in excess of £100m at each review (historic totex values do not exist as the shift to totex only occurred in 2015). These tend to relate to the very largest companies and include network enhancement and major new sewage treatment works as well as a small number of other projects. The average project size per regulatory control period is c.£275m but there is significant variance amongst the projects.

Other regulatory regimes

Other regulators have also been seeking to create markets for major new infrastructure investments. Ofgem's OFTO and CATO models and the TTT are all recent examples of how this competition for the market model has been delivered. These existing examples of competitive procurement of discrete projects demonstrate that competitive tendering may provide benefits, as highlighted in Ofwat's Water 2020 documents and impact assessments, which draw heavily from the OFTO experience and evidence. Each of these models also has a specific set of characteristics that may be useful to consider in the context of Ofwat's DPC proposals.

In this report we reference some of the key examples, such as the OFTO regime and development of CATOs in the energy sector, High Speed 1 (HS1) and the licencing structure of the TTT to identify potential lessons for the development of DPC. While the existing examples offer some insights into the way in which DPC could be structured, there are some key differences in the design of different models. These differences include the nature of the project/assets under consideration, the procurement approach, the contractual structure and regulatory model between the key parties, the risk allocation between DPC, incumbent utility and customer and finally the role of the industry regulator within the process.

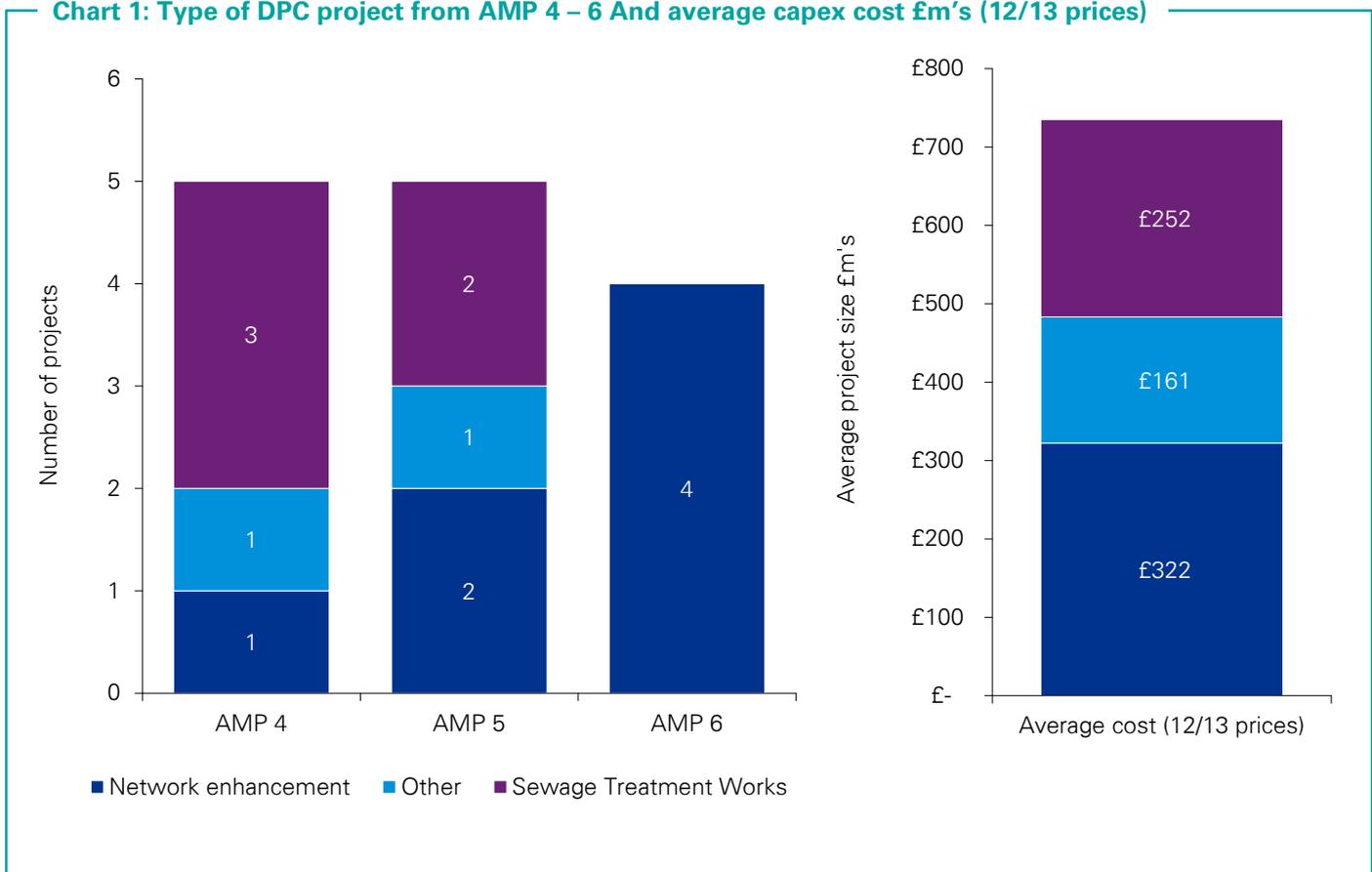
Focus of this work

This report builds upon Ofwat’s existing work and to date to gain further feedback from investors on the key considerations and issues that the DPC model will need to address.

The key objectives of this work are to seek the market’s views and perspectives on how the direct procurement model in water could work in order to deliver Ofwat’s objectives. Specifically this report provides:

- up-to-date information on potential equity investors and capital markets to inform Ofwat’s policy development;
- potential investors’ views on the risks associated with direct procurement that may be barriers to their participation, or limit any potential savings for consumers;
- the range of potential financing models for direct procurement, and what these would deliver for consumers; and
- the likely work Ofwat would need to complete to engage with the market ahead of implementing DPC, to ensure effective competition.

Chart 1: Type of DPC project from AMP 4 – 6 And average capex cost £m’s (12/13 prices)



Investor engagement

We have selected a range of potential stakeholders from the investor community that were willing to provide their views on these issues.

The pool of stakeholders with whom we spoke were chosen based on their existing involvement in the UK water sector, market activity in other projects in comparable sectors and their track record of delivering significant projects in the UK market.

The companies we spoke with were comprised of 'financial investors' such as infrastructure and greenfield funds and pension plans, 'debt investors' and 'strategic investors' including construction companies and finally 'rating agencies'.

While comments are not attributed to individual companies that have taken part, themes from different investor groups are drawn out in the findings.

We would like to thank all of those who took part in this work for their time which has enabled us to secure a wide range of views from across the investor community.

We note that another report on Ofwat's DPC proposals has been published by First Economics on behalf of Anglian Water, Thames Tideway, and Severn Trent Water which also makes a useful contribution to the development of DPC but has a different focus which is not only around investor interest and sentiment. Members of the KPMG team have participated in a workshop for that project and considered the hypotheses emerging from that work in our own findings but the reports are independent of one another.



The companies we spoke with were comprised of 'financial investors' such as infrastructure and greenfield funds and pension plans, 'debt investors' and 'strategic investors' (including construction companies and other strategic investors) and finally 'rating agencies'.

1 Financial investors

2 Debt investors

3 Strategic investors

4 Rating agencies



Infrastructure
funds



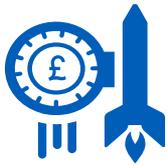
Greenfield
funds



Pension
Plans



Sovereign
wealth



Debt
investors



Construction
companies



Strategic
investors



Ratings
agencies



Investor landscape

There is a strong appetite amongst investors for infrastructure assets, which has been observed in the market over recent years.

Largely driven by the financial crisis in 2008 and the emergence of infrastructure as a separate asset class, the amount of capital available has exceeded the pipeline of infrastructure opportunities available. This has resulted in strong competition and, combined with lower interest rates, increased pressure on investor returns.

Infrastructure investments are typically long term, large-scale fixed asset investments in sectors of the economy which exhibit high barriers to entry. Once in operation, these projects provide stable cash flows with relatively low risk exposure.

Growth of the UK infrastructure investment

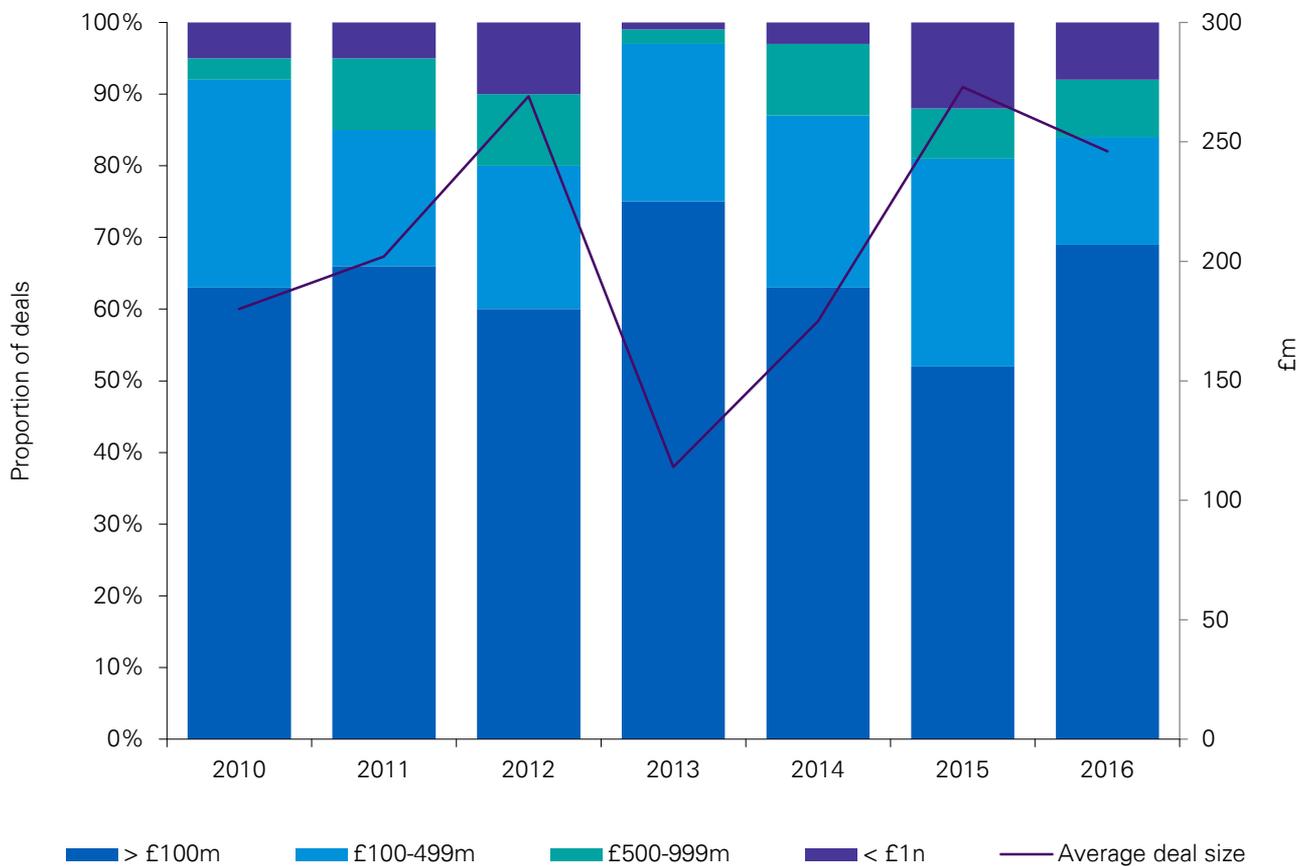
Investment in the UK's infrastructure sector has been growing in recent years with c.170 completed deals (fund managers or investors that are bidding for, buying or selling infrastructure assets) per annum and an average project value equal to c.£250m in 2016. Preqin, in the UK Infrastructure Market report, have stated that since 2006, almost £51bn of private capital has been raised by over 100 infrastructure funds to finance this asset class globally in what is an international flow of capital.

Investment levels are expected to continue to grow and reach new record highs in the future. The UK government, in the National Infrastructure and Construction Pipeline report published in December 2016, provided a projection of planned projects worth over £500bn with over £300bn planned to be invested by 2021. The pipeline includes both private and public investment where the government will be responsible for c.40% of total investment.



Since the global financial crisis in 2008/09, there has been a significant growth in interest among investors for these types of projects. This growth has been driven by a number of factors including a historic 'flight to safety' and the steady support of governments to provide underpinning protections for infrastructure projects alongside stable and predictable regulatory regimes.

Chart 2: Proportion and size of UK infrastructure deals



Source: Preqin Infrastructure online, 2016



The availability of infrastructure equity remains strong for operational infrastructure projects or companies as demonstrated by recent market activity



State of the Market – Supply of equity

The availability of infrastructure equity remains strong for operational infrastructure projects or companies as demonstrated by recent market activity. This market is undergoing a gradual change with the rise of direct investors over and above the fund manager market. These direct investors are largely Pension funds and Sovereign Wealth funds. While these funds have an appetite to invest significant capital, they remain reticent to increase exposure to greenfield projects. In many cases exploring wider geographic markets as opposed to taking construction risk in their existing markets.

Another development in the market is the development of the PPP equity funds who have had to react to a decline in the PPP market. Over the past 12 months we have seen secondary PPP assets continue to be bought at record prices, mainly led by five or six funds. We have also seen more activity at a fund manager level given the IPO of John Laing, the sale of Equitix to Tetragon and the partnership of Amber with Hunt in the US. This is consistent with the continued expansion of these funds into overseas markets, i.e. US, Canada, Australia and SE Asia.

Equally, a number of these funds have continued to focus on small scale renewables in the UK and some are now beginning to look at larger scale renewables, for example Pru M&G and Infrared interest in Swansea Tidal Lagoon.

The Government has encouraged the participation of UK local authority pension funds and the concept of regional wealth funds has been proposed to provide a critical mass of investment through aggregation. However, these pension funds want to focus on low-risk, long-term, index-linked cash flows, and are not suited to taking complex construction risk.

In addition to the more conventional infrastructure investors, companies within the infrastructure supply chain are showing increased interest in moving up the value chain and directly investing in infrastructure assets. This is a good fit for some companies where they have the expertise to design, build and operate assets and can earn higher returns through direct investments. In some cases companies may seek to partner with project equity, taking a smaller share in the Special Purpose Vehicle (SPV) equity which is often attractive to investors who pass down the delivery of construction, operation and maintenance (O&M) to these providers. A number of these players have experience in PFI/PPP projects similar to project finance infrastructure arrangements and will therefore understand the key risks and issues involved.

The other potential players that may be interested in the DPC proposition are UK and international water and wastewater companies. International companies such as the French companies (Veolia, Suez and SAUR) whose typical model outside of the UK is a concession with a regional municipality and therefore may see similarities with the DPC proposition. Some of these companies already own and operate the UK water and wastewater PFI/PPPs in Scotland, Northern Ireland and England (e.g. MoD Aquatrine) and so may have strong credentials in this market.

These strategic investors also have some history in owning equity in regulated water companies in the UK much of which they have subsequently divested. As a result, these companies may be more cautious about committing significant capital to the UK market and may prefer a partnership with project equity given some of their experiences. In general, these players will seek higher returns from their investments in line with PPP/PFI equity returns.

State of the Financing Market – Supply of debt financing

While the decline in PFI/PPP projects has seen a reduction in bank project finance, many banks have remained active in London with infrastructure teams working across all sectors which has managed the decline in deal flow in the UK and Western Europe.

Furthermore, many are still lending long term (i.e. over 10 years). The most striking change in the market is greater collaboration between commercial banks and institutional investors. We have had a period of intense competition between these sources of debt capital on many deals but now banks are working with institutions as the more natural long term holder of assets. In some ways as a secondary market source in the absence of the syndicated bank market which has not really returned in significant form since the financial crisis.

Changes in the geo-political landscape are creating further demand for defensive investments like infrastructure with longer term revenue certainty. Similarly, whilst there is much speculation over the future of the UK in European Union, the only tangible issue to address at this time in terms of infrastructure financing is the role of the EIB. We believe that the role of the EIB within the UK financing market, at best, will reduce under Brexit if not completely fall away. This will have an impact in terms of overall cost of financing, given their attractive pricing terms but the scale of the impact is likely to be small.

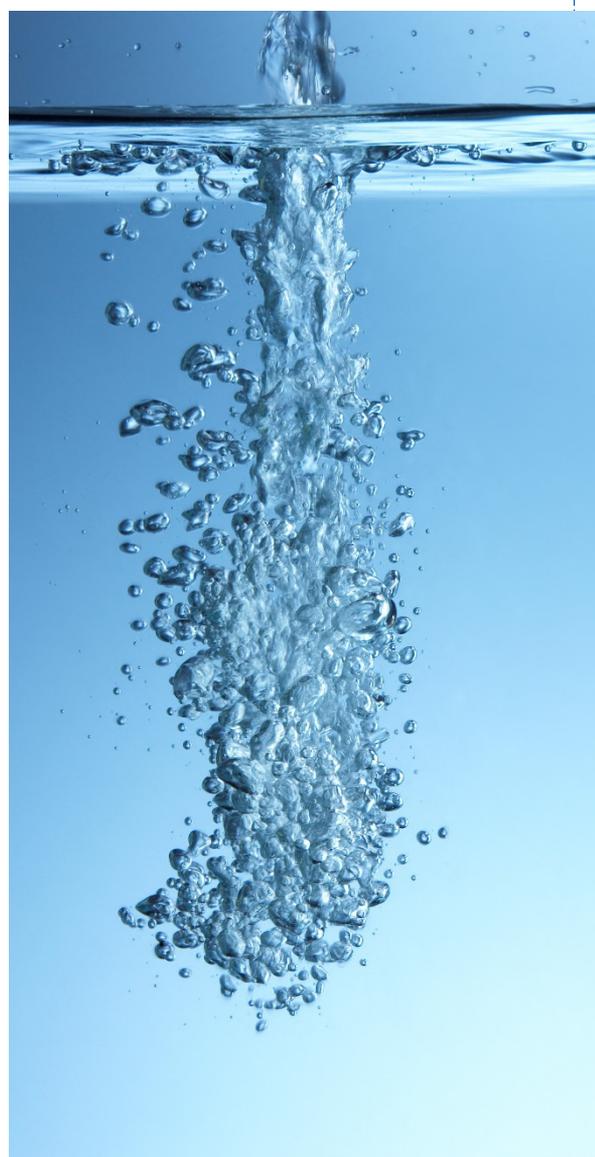
The slower deal flow in the market has made it difficult to determine the maximum market liquidity. We believe there is sufficient commercial bank debt to finance £1-2bn per project at competitive pricing for a PPP type risk profile, however this is a purely based on anecdotal market experience.

Finally, in terms of the debt financing market, it is clearly difficult to predict the future. In spring 2015, we saw credit margins fall to post-crisis lows, with a slow increase to current levels over the course of 2016. The general market sentiment suggests pricing may still increase further, and perhaps of greater concern, credit structures may weaken if demand continues to exceed supply of deal flow. The impact of banking regulation (e.g. Basel III) remains uncertain, UK banks remain convinced other banks are yet to feel its impact yet international banks are adamant their business lending long term is fully Basel III compliant. Institutional investors seem set to stay, although many are concerned with the contraction in spreads. Infrastructure will remain of interest as long as its relative value remains when compared to other illiquid assets.

State of the Market - Demand

The National Infrastructure Plan 2014 (NIP) set out the project finance opportunities which totalled £79bn noting that £44bn of that number relates to nuclear. Aside from TTT, all of this capital is required in the energy sector. Currently, there is no plan to utilise private finance in transport other than localised schemes such as Silvertown Tunnel, Lower Thames crossing or roads under the Scottish and Welsh Non Profit Distribution programmes (subject to current accounting issues on treatment of off-balance sheet financing). Even more striking is the nature of the projects that need financing are generally complex construction projects such as nuclear, offshore wind or merchant energy from waste projects. Hence, in the absence of PPP type risk profile projects, there is a potential risk that the capital available is not aligned with the project pipeline under development.

The NIP deliberately avoids social infrastructure and there remains a small pipeline in Scotland and possibly Wales, along with student accommodation, health estates, housing and regeneration projects. The Government announced in the Autumn Statement in 2016 a pipeline of PPP deals which is set to be formally launched in 2017 and is likely to include roads, defence, education and prison transactions.



Changes in the geo-political landscape are creating further demand for defensive investments like infrastructure with longer term revenue certainty.



1 Financial investors

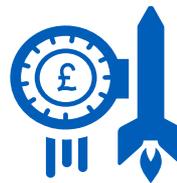


Infrastructure funds



Greenfield funds

2 Debt investors



Debt investors

3 Strategic investors



Construction companies



Strategic investors

4 Rating agencies



Ratings agencies



Pension Plans



Sovereign wealth

- Typically focussed on long-term stable cash-flows in economically insensitive sectors.
- Long term investment focus of c.15-30 years.
- Generally focussed on brownfield opportunities with exception of greenfield funds.
- Index linked revenues important particularly for pension plans.
- Sovereign wealth funds may also have broader political objectives.
- Likely to focus principally on larger projects with some of this group unlikely to consider equity cheque of less than £50-£100m.

- Debt finance provided by banks seeking low risk stable investments with investment grade credit rating.
- Various different instruments available including senior or junior debt or bonds with fixed, variable or index linked arrangements and varying tenor.
- Government supported debt is available under the UK Guarantees Scheme.
- Utility companies and projects are typically highly geared where the large level of debt finance is achievable through commercial arrangements.

- Focussed on all aspects of infrastructure lifecycle.
- Contractors often involved in supply chain of companies but may also have established investment arms.
- Strategic investors often represent UK arms of international companies that operate in more common franchising model in other countries or potential subsidiaries of existing appointed UK Water companies.

- Assign ratings to debtors ability to pay back debt by making timely interest payments.
- Play an important role given highly geared nature of these investments.

A photograph of a rocky coastline. The foreground shows large, dark, textured rocks. The middle ground is a calm, blue body of water. In the background, there are rolling hills or cliffs under a clear blue sky. The overall scene is serene and natural.

Approach

KPMG in collaboration with Ofwat, has created some indicative models for discussion – the ‘Utility model’ and ‘Contract model’.

These models represent extreme illustrative options for how the DPC arrangements could operate in practise rather than a choice or preference for different investors. As part of our engagement with investors, we have discussed key potential dimensions between these two models that may affect investor interest.

Engagement and consultation process

During the course of our work we have conducted interviews with a variety of different investor groups including financial investors, managed funds and greenfield investors, debt providers and other strategic investors and contractors. In total we have completed 16 interviews with the following organisations. The companies we selected to speak with were chosen based on their familiarity and experience with the UK water sector and having similar interests in adjacent sectors or major UK infrastructure projects.

List of interviewed investors:

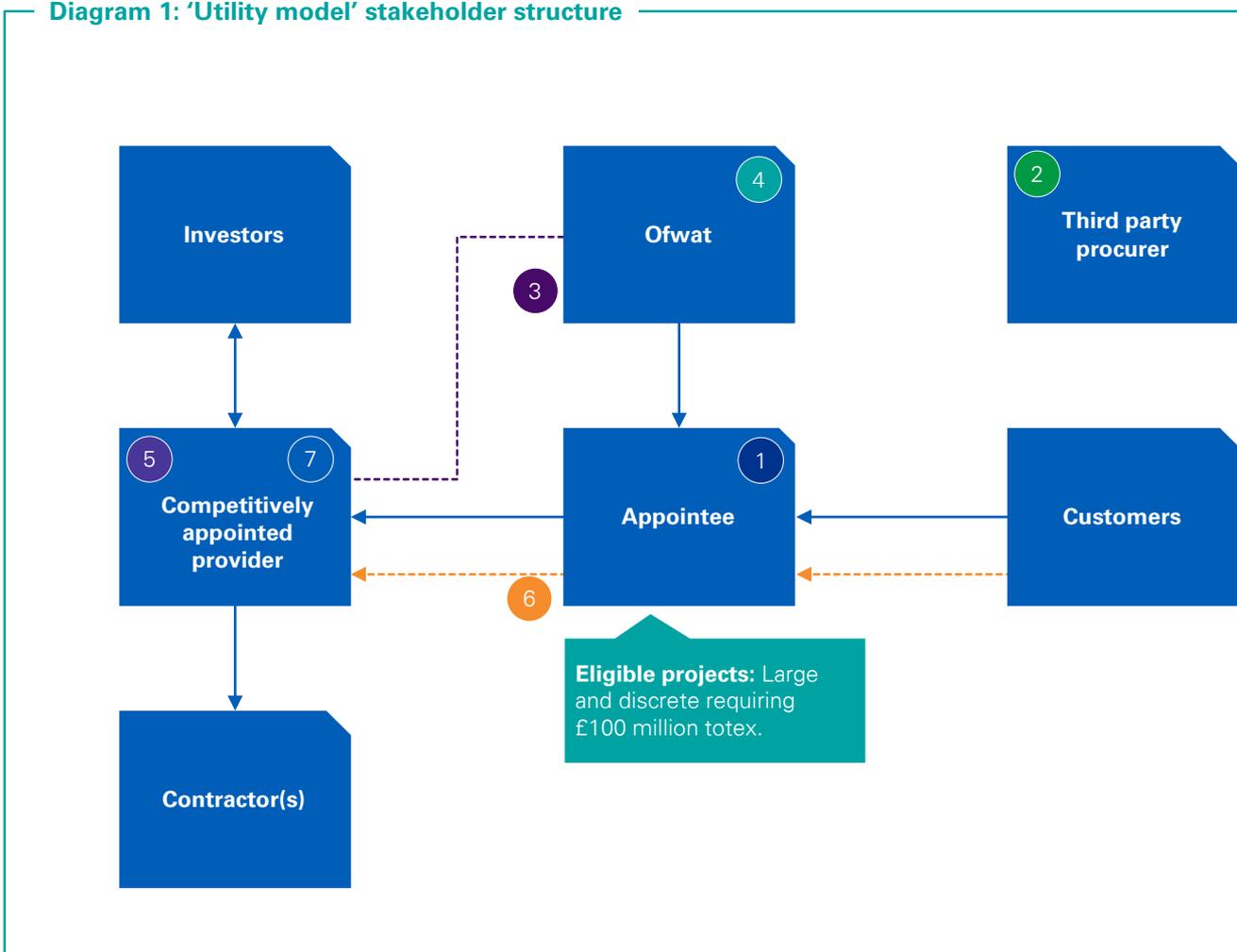
1 Financial investors	<p>Infrastructure funds: </p> <p>Pension plans:  </p> <p>Greenfield funds:  </p>
2 Debt investors	<p>  </p>
3 Strategic investors	<p>Contractors:   </p> <p>Strategic investors:   </p>
4 Rating agencies	

Utility model'

The first indicative model presents a proposition similar to a typical utility-like structure, which is named the 'Utility model'. In this model, the appointed business receives a guaranteed allowed revenue set by Ofwat that is passed to the DPC provider via a regulated revenue stream. The diagram below presents the key characteristics of the model.

1. The appointee identifies a discrete set of enhancement schemes that it will need to build in the regulatory period 2020-25 or beyond. Eligible projects are required to meet the threshold of whole life project totex equal to £100m. The appointee then specifies the need and completes at least the outline design phase. The expected scope of work for the DPC is determined at this stage.
2. The procurement process is run by an independent party using detailed guidelines provided by Ofwat. The process will be clear and independent of any incumbent appointee's influence. Both the competitively appointed provider and the appointee are allowed to bid to design, build, finance and operate the asset.
3. The successful bidder will receive ring-fenced regulated revenues set by Ofwat via the appointee price control. Key terms and conditions will be set out in the regulated contract set directly between the bidder and Ofwat.
4. The revenue allowance will be set as in the current regime using the standard building block approach. It will include indexation and will allow a re-opening of that allowance where there are material adjustments to costs that are outside of management control.
5. The ownership of the asset will be held by the DPC for at least the duration of the financing period, however the DPC will be contracted to provide the services back to the appointee.
6. The Appointee recovers the DPC's revenues from customers and then passes them to the DPC. The appointee effectively takes an administrative role and has no control over the cash flow and hence there is no exposure to the counterparty risk.
7. Service risk sits with the DPC and it reports on the delivery of the settlement directly to Ofwat. The communication and reporting requirements between the DPC and appointee are limited.

Diagram 1: 'Utility model' stakeholder structure

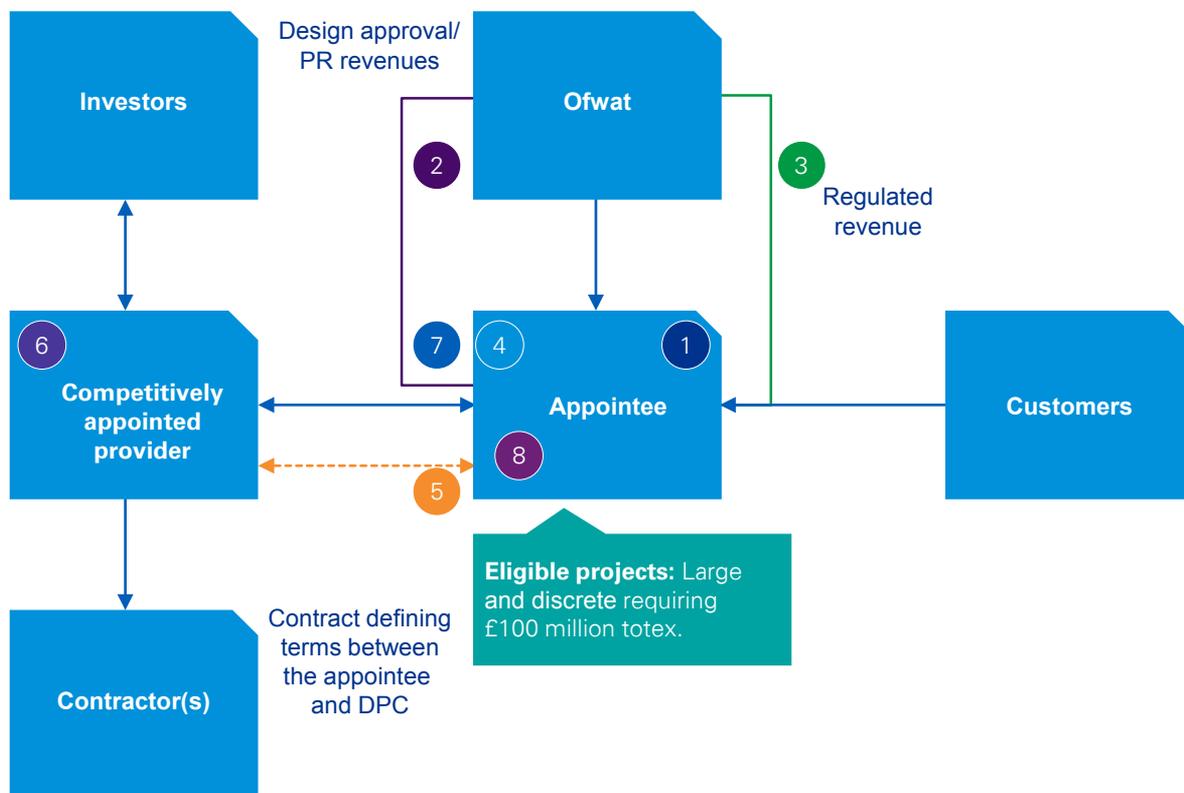


Contract model'

The second indicative model represents a similar structure to the current PPP/PFI financing models that exist in the sector. In the 'Contract model', the contractual arrangements between the appointed business and the DPC define the revenue received by the DPC for its services, i.e. Ofwat is not directly involved in overseeing the cash flow and determining the revenue received by the DPC.

1. The appointee identifies discrete enhancement schemes that it will need to build in the regulatory period 2020-25 or beyond. Eligible projects are required to meet the threshold of whole life project totex equal to £100m. The appointee then specifies the need and completes at least the outline design phase. The expected scope of work for the competitively appointed provider is determined at this stage.
2. Ofwat provides regulated allowed revenues for the project through the price control of the appointee.
3. A standard building block approach is applied and the price control covers the full expected cost of the project.
4. The appointed business runs a ring-fenced procurement process based on clearly set out guidelines provided by Ofwat. The appointee has an option to also bid for the project.
5. The DPC has a legally binding contract for a set period of time with the appointee. The structure of the contract is similar to a typical PPP/PFI contractual arrangement, which is not regulated by Ofwat. The contract will only cover arrangements in respect to specific areas to build, finance and operate the asset set out prior to the bidding process.
6. Ownership of the asset would sit with the DPC for at least the duration of the financing period, however the DPC will be contracted to provide the services back to the appointee.
7. The Appointee recovers the allowed revenues from customers and controls the cash flow passed to the DPC. There is significantly less visibility in the cash flow pass through than in the 'utility model'. As a result, the DPC takes on the appointees counterparty risk.
8. Service risk sits with the DPC and it is reporting on the delivery of the settlement directly to the appointee. Service levels are set between the DPC and the Appointee under the contract arrangements.

Diagram 2: 'Contract model' stakeholder structure





Feedback from investors on DPC

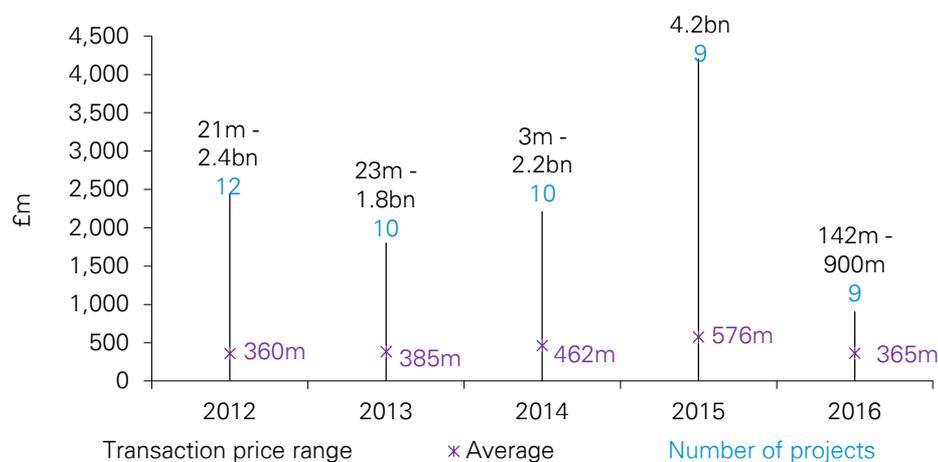
As part of our consultation we met with 15 potential investors and one rating agency to seek their views and feedback on Ofwat's DPC proposals and our indicative models to better understand which features of the DPC model would be key in their investment decision.

The companies we selected to speak with were chosen based on their familiarity and experience with the UK water sector and having similar interests in adjacent sectors or major UK infrastructure projects.

Scale of projects in the DPC pipeline

At a threshold of £100m of totex, it is clear that there will be projects that generate interest from certain investor groups. Indeed, the transfer value of OFTO projects in early tender rounds was at around £100m.

Chart 3: UK Greenfield Infrastructure private and PPP financed – transaction price range/deal flow



Source: InfraDeals database; KPMG analysis

The chart above presents the transaction price ranges and volumes of deals for greenfield infrastructure projects in the UK in the past five years. The deal flow has been largely steady between 2012 and 2016 with 9-12 deals brought to financial close per annum. The average transaction size per annum has varied between £360-580m per annum. The maximum transaction size peaks in 2015 with the TTT (£4.2bn). This supports the view that at a £100m totex threshold there is likely to be some investor interest, albeit that the average deal values are much higher than this threshold.

However, most of the investor groups we spoke with considered that:

- the ‘totex’ threshold appears to be quite low and it is the capex element that is most relevant- consistent with Ofwat’s focus on potential cost of capital benefits;
- the £100m threshold is very much a ‘minimum’ for some groups and for others, particularly the larger infrastructure funds, is far too low to attract their interest given the scale of the equity cheque this would require (they would need to be £1bn+ investments); and
- investors generally see the DPC proposals as focussed on new ‘enhancement’ schemes rather than maintenance of existing infrastructure.

Table 4: Potential investor appetites at different project sizes

Project size	Infrastructure funds & Pension Plans	Greenfield funds	Debt investors	Contractors	Strategic investors
£100m totex	Limited	Some	Some	Some	Some
£100m capex	Limited	Significant	Significant	Significant	Some
£1bn+ capex	Significant	Significant	Significant	Limited	Limited

Across different groups of investors based on the interview feedback we have inferred an indicative view of the levels of likely investor interest in schemes of different sizes. This is based on our consultation feedback and should be considered with caution.



During our consultations with potential investors a large number of them raised significant concerns around the interoperability issues associated with some of these projects and the rest of the local appointed company's network.

Type of projects in the DPC pipeline

Ofwat acknowledges in its historical analysis of projects with capex values in excess of £100m that there may be a wide variety of different schemes 'caught' by the DPC arrangements. During our consultations with potential investors a large number of them raised concerns around the interoperability issues associated with some of these projects and the rest of the local appointed company's network.

While it was noted that in some instances companies already have contracts in place with third parties to deliver services (e.g. through their alliances and the water sector PFI projects in Scotland and Northern Ireland) there was a concern that companies always retained a high degree of control. In this context different investors highlighted:

- the essential service/public health issues of water supply and the obligations of the licence which they considered were likely to be constraining factors in identifying appropriate projects;
- concerns around the ability to optimise across the network if a key asset/resource is not owned by the network operator/incumbent; and
- concerns about the risk of failure of the asset and the potential need for step in rights by the incumbent.

Hence the extent to which eligible DPC projects are sufficiently 'discrete' was seen as being of much greater importance in both the identification of the projects for DPC and the successful delivery of the new arrangements. In this context the TTT scheme was seen as a good example of a 'discrete' project with relatively simple and limited interfaces with the network. Few investors considered that these issues were insurmountable but that they would likely increase transaction and contracting costs and potentially increase certain risks. In this context investors suggested that:

- in order to reduce interoperability issues, appointed companies should specify the design for the DPC; and
- others considered that for PR19, given these concerns, Ofwat should seek to identify a small number of truly discrete pilot schemes for which the interfaces with the incumbents' networks were simple and manageable.

Table 5: Potential investor appetites at different types of project

Project type	Infrastructure funds	Greenfield funds	Debt investors	Contractors	Strategic investors
STW/ WTW	Limited	Limited	Significant	Significant	Significant
Network transfer	Limited	Some	Significant	Significant	Some
Large reservoir	Significant	Significant	Significant	Some	Limited

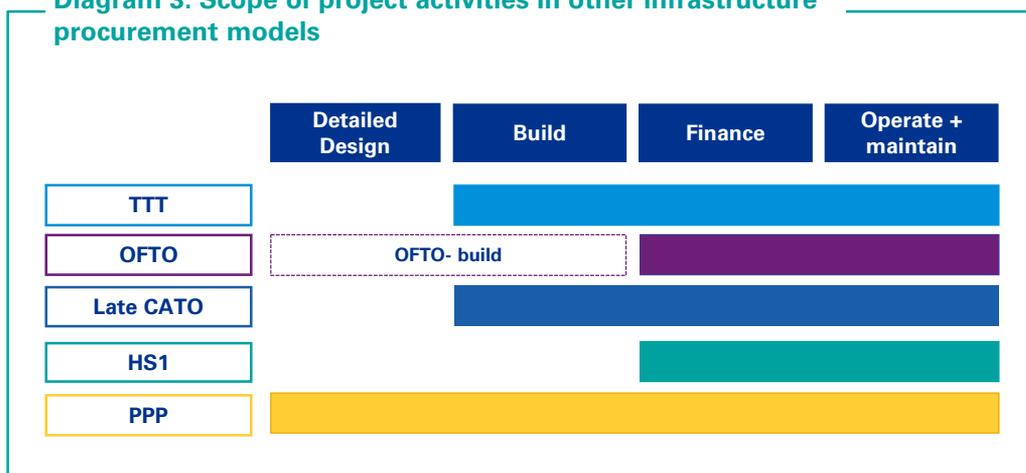
Scope of DPC projects

The competitive tendering of infrastructure investments could cover a range of project activities, including Design, Build, Finance and Operation and Maintenance (DBFO).

The scope of DPC was explored in a parallel study by First Economics. That study concluded that the scope of DPC should be focussed on those areas where Ofwat considers that benefits could arise for customers. For example, if Ofwat considers that the benefits for customers are likely to arise from the financing and maintenance of the project then DPC should be focussed on these elements. However, the study reached no conclusions about which model is likely to be most appropriate/beneficial to customers.

We explored the scope of DPC with potential investor groups. Given the early stage of development of Ofwat's proposals most groups considered that while a range of potential models could operate effectively, it was difficult to identify a preferred model at this stage.

Diagram 3: Scope of project activities in other infrastructure procurement models



There was recognition that the financing elements could be a key area of potential outperformance particularly in the context of today's low interest rate environment and, consistent with Ofwat's own rationale for DPC, this should form part of the scope of DPC. In addition:

- most investors considered that allowing companies to specify the design of the new arrangements would be appropriate to manage interoperability issues- if companies did not have control of the design and specification of the scheme then some investors considered that they must have step-in rights (the ability to take operational control in certain extreme circumstances), including in relation to construction;
- some investors went further considering that the design and construction should be led by the water company if the asset was likely to become a critical part of their network;
- contractors and strategic investor groups generally wanted the DPC arrangements to cover a broad range of activities, including in particular the operation and maintenance and construction elements. Some also noted that the DPC model should be flexible recognising the need for agility in future evolving service models in the sector and to ensure value for money is achieved by guarding against DPC becoming a fixed, expensive and less collaborative arrangement particularly where a DBFO type model is introduced with complex SLAs and where water companies existing (counterfactual) procurement arrangements are efficient; and
- most investors generally saw ownership and tradability of the asset as a key factor in attracting their interest except for some strategic investors.

There was limited discussion in the interviews around how much of 'design' should be undertaken by the company versus the DPC provider. We note that the preferred CATO 'late' model, TTT model and most PPP/PFI models generally required planning consents to be obtained before the procurement could be commenced and certain groups of investors may not be willing to take on the planning risk.

Diagram 4: Scope of project design activities with incumbents in other infrastructure procurement models

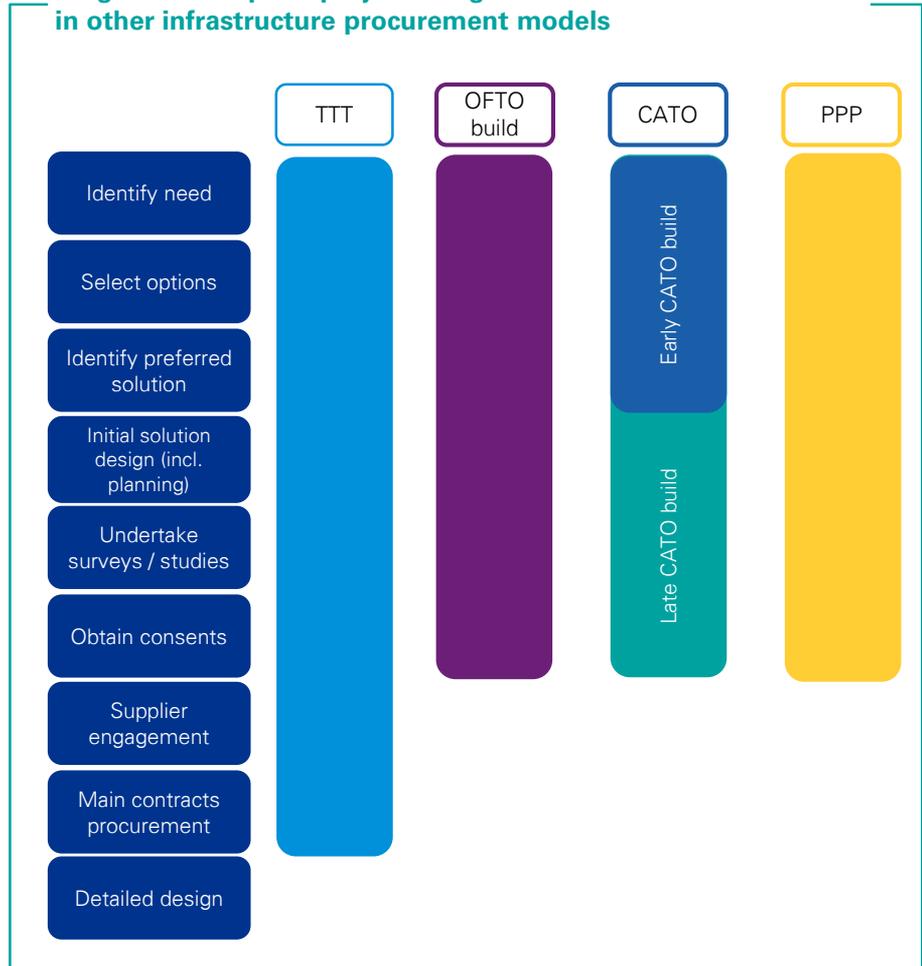


Table 6: Potential investor appetites for different DPC scope options

DPC scope options	Infrastructure funds	Greenfield funds	Debt investors	Contractors	Strategic investors
DBFO	Some	Some	Significant	Significant	Significant
BFO	Some	Significant	Significant	Significant	Significant
F+O	Significant	Significant	Significant	Significant	Significant

Revenue and price control arrangements

The form and nature of the DPC revenues and the interactions with the appointee price controls are strongly influenced by the scope of the DPC. For example, most investors noted that if the DPC arrangements were to include the 'build' then there should be no price control reopened during the construction phase and whilst investors would prefer to have the investment generating revenue during construction like TTT, this was not widely emphasised. There were different views about the extent to which it may be sensible to re-open revenue allowances during an operation and maintenance phase, for example through a periodic review.

However, all the investors we spoke to considered that long term certainty on revenues was important with several noting that this was consistent with other comparable schemes in which they had invested and that this would increase customer benefits. Those investors who suggested a timescale generally considered that this concession period should range from 15 to 30 years. Some contractors similarly commented that such an arrangement would allow DPC to be used for very long term projects than might span multiple reviews.

Most investors saw benefit in a separate ring-fenced allowance in the appointee's price control for a DPC provider with one noting that this would help to avoid the risk of co-mingled funds. This does not need to involve a separate price control but clearly defined allowances would be helpful. However, the investors' focus was very much on the contractual arrangements between the appointee and the DPC that give effect to that revenue stream rather than the price control of the appointee.

There was a concern that if the price control period was shorter then this may create a mismatch with the concession period, which may make it difficult for the DPC and appointee to enter into contracts.

Example 1: High Speed 1 (HS1)



HS1 Ltd holds a concession through to 31 December 2040 to operate and maintain the high speed rail line connecting St Pancras to the Channel Tunnel. HS1s revenue comes from access charges which are paid by two main train operators (Eurostar and LSER) plus freight operators. These revenues are regulated with financing costs fixed over the life of the concession whilst opex is subject to periodic price review. It also receives unregulated retail revenues at its four stations.

Table 7: Comparison of price control arrangements

Regime	Duration	Opex	Re-openers?	Indexation?	Incentives?
TTT	Fixed during construction with first price review in c.2029	Post construction revenues subject to periodic review	Limited – government support package for high-impact/low-likelihood risks, and true-up for difference between forecast and outturn during construction	Yes – as well as revenues, there is a financing cost mechanism that protects against large changes in the market cost of debt	Yes – incentive for delivery
OFTO	20 year revenue stream (TRS)	Covered by TRS	Limited – adjustments for changes in specific cost elements, or as a result of additional capex required during the operational phase	Partial – proposals for which elements of the revenue allowance are indexed are included in the bids	Yes – availability incentive
CATO	25 year revenue and depreciation	Covered by 25 year revenue stream	Limited – adjustment to revenues allowed as the result of unforeseen events, considered on a case-by-case basis	Partial – proposals for which elements of the revenue allowance are indexed are included in the bids	Yes – incentives for timely project delivery, operational performance, asset management, environmental performance and enabling connections (where relevant).
HS1	c.30 year concession	Periodic reviews look at opex and maintenance	Yes – re-opener linked to minimum volume guarantee	Yes	Yes – performance and capacity incentives

Several investors across different groups commented positively about the risk sharing arrangements, for example, around debt indexation on the TTT. The introduction of such arrangements is likely to increase the appetite amongst investors to participate in DPC schemes albeit that we recognise that this would push risks onto consumers.

There were mixed views on the fixing or re-opening of opex with different investors highlighting previous arrangements that they have invested in with different activities reflected. Some investors noted that having periodic reviews of opex had been helpful in managing risk whilst others considered that the regulatory uncertainty around periodic reviews of opex made such reviews less preferable.

Generally real revenues were preferred, but most investors suggested that either an index linked revenue stream or a fixed revenue stream could operate effectively and had experience of both. There was limited discussion around the relative merits of RPI or CPI linked revenues.



Several investors across different groups commented positively about the risk sharing arrangements, for example, around debt costs indexation on the TTT.

Setting of KPIs and outputs/outcomes

In line with their concerns about interoperability and the need for appointed companies to have appropriate sanctions over DPCs in the provision of services most investors considered that appointed companies would need to be involved in the setting of KPIs. Investors generally saw this as a negotiation between the company and the DPC with limited regulatory involvement, potentially in arbitration or dispute resolution.

Several investors from different groups supported the introduction of performance based incentives where those were symmetrical and offered both rewards and penalties.

Some investors noted that if companies were involved in specifying the design of the scheme then this could be undertaken as part of that process. This would also continue to allow companies to engage with their customers on these performance standards.

Several investors highlighted that PFI/PPP type mechanisms could be used to set KPI outputs/outcomes. Historical PPP/PFI contracts in the sector that were referenced by different parties should be considered in more detail.

Some investors noted that whoever sets KPIs/performance arrangements they should also be able to enforce them. If this is Ofwat, then there would need to be re-openers set out in the price control. If this is companies, then they would need to be able to withhold revenues. However ultimately there could be very material impacts on the appointed company of a DPC default for a critical asset and the withholding of revenues may in any event be insufficient to address these impacts.

Diagram 5: Water and wastewater specific revenue adjustment mechanisms



Water treatment plant

Payments commence post construction

Payments based on:

- Capacity charge based on availability of water treatment asset
- Partially volume based on output from treatment works

Performance deductions based on reduced capacity, quality and management reporting

Share of any refinancing gains

Capacity charges are partially index linked and volumetric charge fully index linked



Wastewater treatment plant

Payments commence post construction

Payments based on:

- Banded volume based payments based on treatment volumes to the treatment works
- Banded load based payment for sludge treatment based on level of biological oxygen, chemical oxygen and diluted oxygen levels within the effluent and volume

Performance deductions for effluent discharges in breach of performance standards within the contract

Share of any refinancing gains

Share in returns in excess of those projected in the project financial

Payment mechanisms are highly specified providing detailed calculations over the charges associated with outputs and KPIs

Diagram 5 sets out an example of some of the key elements of certain existing payment mechanisms from PPP/PFI schemes in the water sector in the UK as an example of the sort of mechanism that could be developed.

We note that there may be instances, for example due to environmental regulation changes or other factors in relation to specific projects where additional capital may be required following the construction phase. This may be something that could be considered as part of the initial procurement (for example, we note that OFTOs are required to potentially fund an additional 20% of capex over the period of the licence) or indeed as part of a re-opener on price limits. Further work would be needed on the precise detail of these arrangements and we would expect them to vary from project to project.

Counterparty risk and control of cash-flows

The counterparty risk faced by the DPC and the certainty of cash-flows from the appointee was seen by investors as a key area that needs to be clarified and defined for the DPC regime.

Counterparty risks were generally not seen as a key area of concern for the DPC:

- many investors noted that appointed water companies already have a regulatory requirement to maintain an investment grade credit rating;
- some investors expressed a preference for an ability to raise revenues from customers directly in extremis as under the TTT arrangements, but this was not widely emphasised; and
- some investors queried where they would feature in the creditor hierarchy in the event of default, with some expressing a view that they would want to be pari passu with the appointee's senior debt investors but this may not always be possible.

Diagram 7 sets out a simplified diagram of the ranking of different creditors in the event of a default by the appointee. Given the comments raised by investors, there is an important question as to the extent to which this ranking could be influenced through the regulatory framework, which is beyond the scope of our work.

Many investors noted that appointed water companies already have a regulatory requirement to maintain an investment grade credit rating.



Diagram 6: Water Company licence requirement for investment grade rating

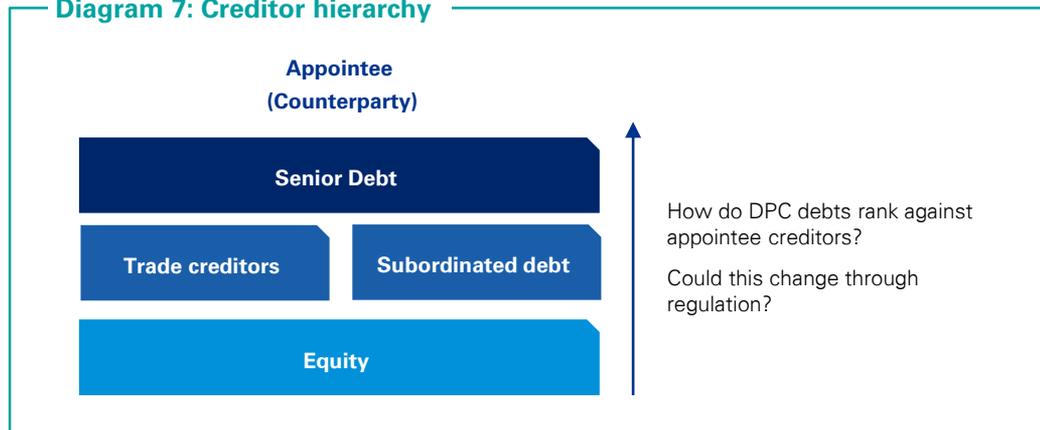


“the Appointee shall use all reasonable endeavours to ensure that it, or any Associated Company as an issuer of corporate debt on its behalf, maintains at all times an issuer credit rating which is an Investment grade rating”

Licence condition F, Appointed Water Company Licences

In line with comments about interoperability, most investors considered that it was reasonable for companies to withhold an agreed proportion of the cash-flows in certain circumstances. This similarly reflected a concern over the counterparty risk on the Water company from the DPC. For example, when the asset was failing to deliver the outputs/outcomes that the appointed company required. The extent to which revenues are withheld (i.e. a proportion or all of revenues) was not discussed, but we would expect the extent to which revenues were withheld to be a key concern for debt investors, for example.

Diagram 7: Creditor hierarchy



This expectation differs from the OFTO experience where revenues are guaranteed provided that the asset ensures the transmission is available. This may also be important in the context of the rating of the undertaker as greater involvement in the DPC may lead to the consolidation of the asset with the appointee for rating purposes.

This was a key area of concern and needs to be defined clearly to support investor involvement in the DPC arrangements in the future.

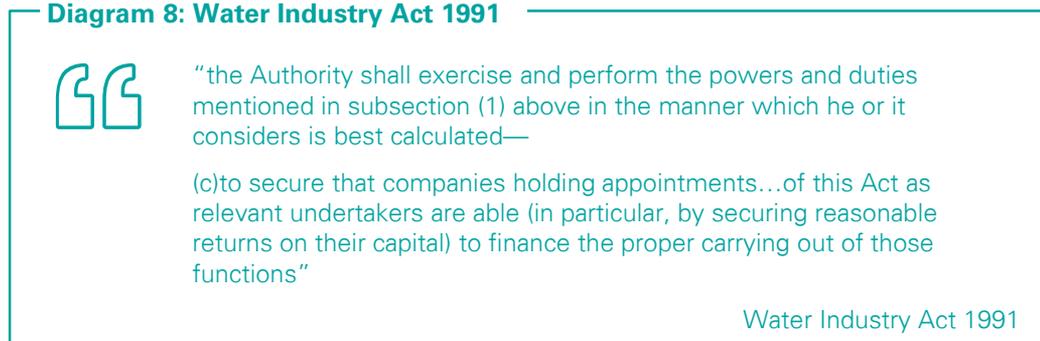
Further work is needed with companies on whether, and if so, when and how DPC revenues might be withheld by the appointed company.

Regulatory contract

None of the models we discussed with investors involved the DPC obtaining a licence. However, we note that a key recommendation of the First Economics work was that Ofwat should explore more fully the extent to which it could licence a DPC under its existing powers. That work considered that a contracting approach was likely to be 'second best' to a licence.

Generally investors considered that either model could be made to work but several noted that the 'Contract model' would most likely require a higher financing cost which could constrain benefits to customers. Investors generally did not see the creation of a licence as essential for their purposes, some suggested that a licence would be preferable, whilst others were comfortable without a licence. Indeed, some of the investor groups we spoke to do not generally own assets that hold a regulatory licence. Their concerns were more focussed on the certainty of cash-flows and the contract, i.e. the licence is only important from an investor perspective so far as it provides certainty of revenues.

Diagram 8: Water Industry Act 1991



This suggests that to attract different groups of investors a licence is not an essential ingredient albeit that this presumes that the licence is not required to deliver the certainty of revenues under whatever model is adopted (i.e. that regulatory involvement in revenues could be done through regulating the contract between the appointee and the DPC and through the appointee's licence and price control).

This is also fundamentally a legal question and involves a broader range of issues that the existing legislative framework for water covers, including special administration for example. We have not considered these legal questions through our work.

In the context of creating a clear pipeline of projects to attract investor interest several investors commented that there would be value in standardising certain aspects of the contracting arrangements. There is a clear tension here between the standardisation of these arrangements and the wide variation in particular projects but it should remain possible to standardise some contract elements regardless. For example, under the previous PFI model a wide variety of contracting and risk allocation aspects were standardised, across a wide variety of different sectors and project types. This standardisation must imply some regulatory involvement even if it is simply to publish template contracts upon which initial discussions could take place.

Diagram 9 outlines some of the key features from an existing water appointed water company licence that investors draw comfort from. This list is not meant to be exhaustive, but if a contracting arrangement were to be adopted then these features would ideally be replicated through contracts to create a similar risk profile which could be challenging. In many instances these features are already common elements of PFI/PPP contracts (except Ofwat's financeability duty).

Diagram 9: Key features typical in the utility licence that would provide comfort for investors



Ensuring a level playing field in procurement

Ofwat has suggested that appointed companies would run the procurement process in its Water 2020 publications but asked us to explore these issues with investors. Almost all investors raised concerns with the potential for appointed companies to both run the procurement process and also bid into that process. The key concerns raised were:

- Whether the appointee would be sufficiently independent in running the procurement process to deliver a level playing field, with concerns specifically around the decision making process within the procurement.
- For the contractor group, the extent to which their involvement in the DPC process damaged their relationships with the appointees for (much larger) opportunities through their alliances/existing procurement arrangements.

Clearly, if the incumbents were not able to bid into the process then these concerns around the level playing field would be removed.

To address these concerns, investors generally suggested that an independent decision-making body was needed to take the procurement decisions and run a fair process.

A small number of investors suggested a preference for Ofwat to run the procurement process, as Ofgem does for OFTOs and potentially CATOs.

We note that in the OFTO example the EU Third Package legislation effectively removed the risk of incumbent generators bidding in the process.

However, most investors suggested that the key was to ensure independent governance in the process- this could be done in a number of ways including the procurement being run by a third party on behalf of the appointed company or through a separate legal entity with independent governance to the appointee. Various forms of separation are potentially possible and the experience of other regulated utilities may be relevant in this context.

Several investors noted the offsetting transaction costs of a greater level of independence and separation in the procurement process and suggested that this needed to be balanced against the potential benefits for customers of a DPC arrangement. Whilst the greater the level of separation required by the model, the higher the transaction costs, the incremental costs are unlikely to be linear with functional separation requiring significant incremental cost to the status quo and legal and ownership separation likely to be a less significant incremental cost on top of functional separation.

Diagram 10: Degrees of separation in procurement

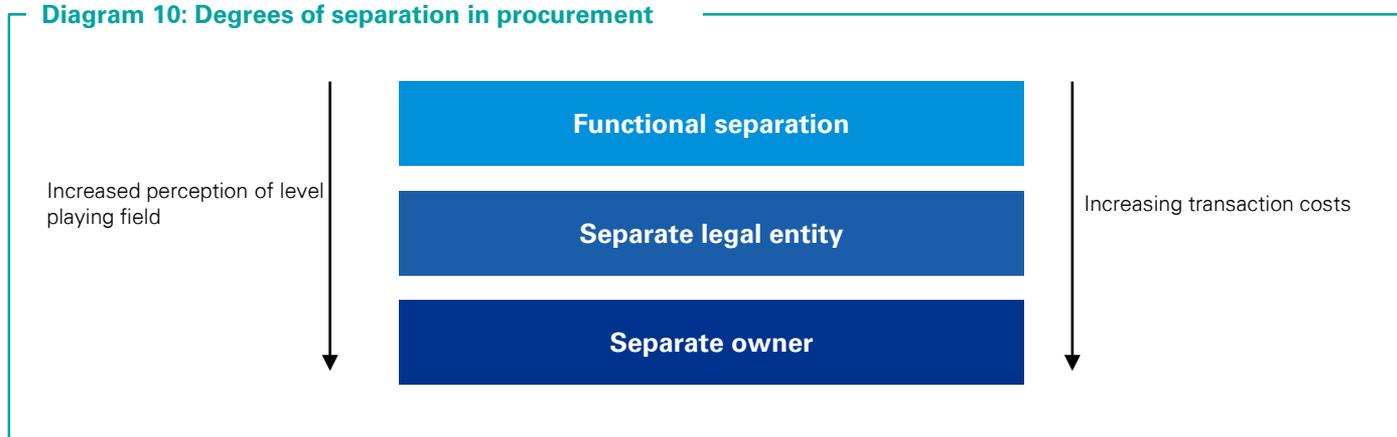


Table 8: Appointee's role in the procurement process

Regime	Procurement function	Appointee able to bid?
OFTO	Ofgem	Offshore generators bid in TR1, but subsequently were prevented (EU 3 rd Package Energy Legislation)
CATO	Ofgem	Yes, must be a separate legal entity from regulated appointee
TTT	Appointee	No

Furthermore, some investors considered it would be difficult for the appointee not to be involved if it is taking responsibility for critical assets. They highlighted the Tideway example where Thames specified the process in detail and then who ran that process became a much more secondary issue because of how tightly the process and requirements were defined..

Feedback on investor engagement

Market engagement will be key in attracting the target investors as Ofwat's proposals develop, and live opportunities emerge. The size, strength and visibility of the investment pipeline will be important to maintain investor interest, and ensure the procurement process achieves a healthy level of competition.



How should Ofwat engage with investors?

We sought views on how Ofwat should engage with investors as the DPC arrangements develop, they highlighted:

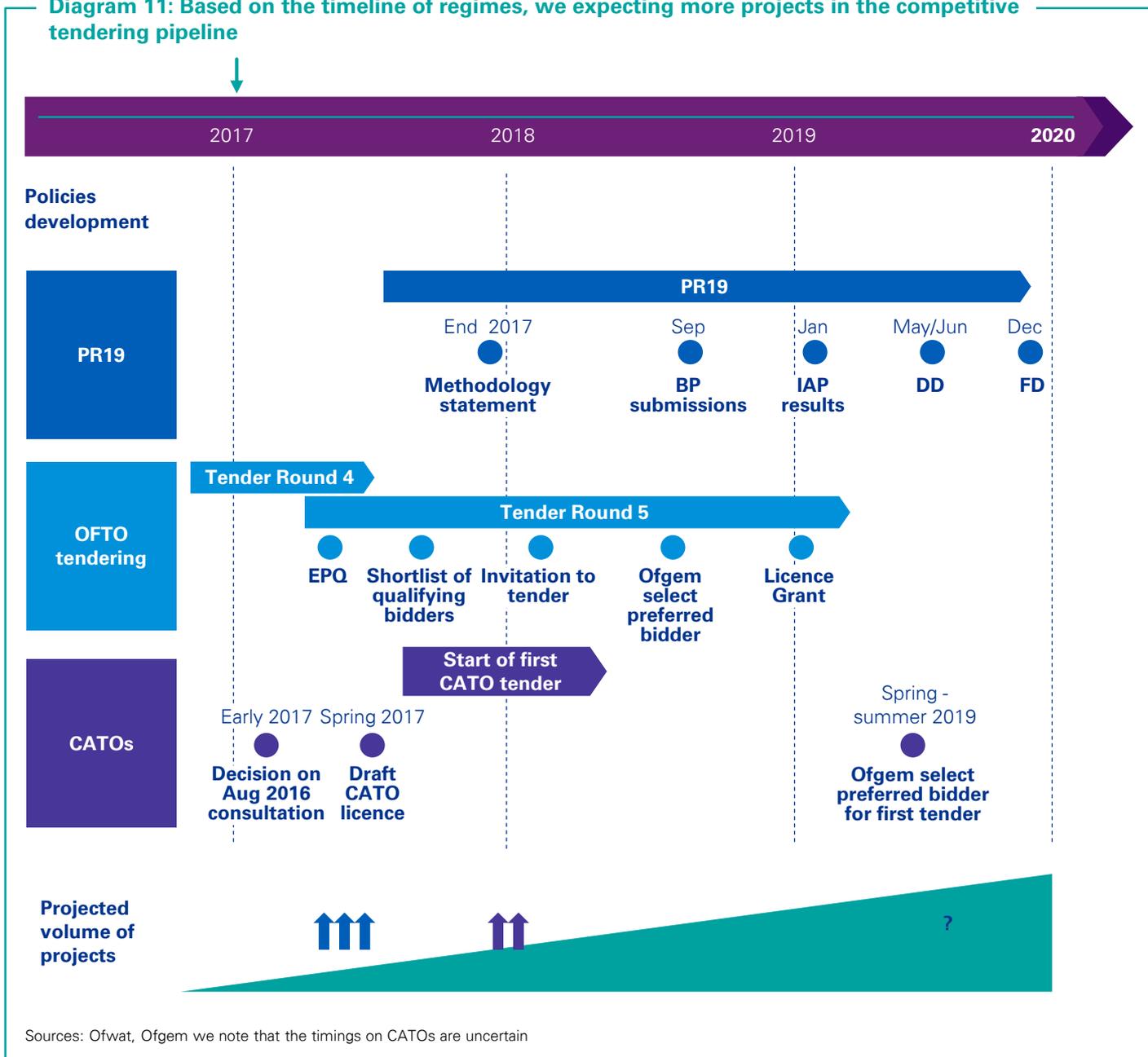
- that Ofwat should provide its brand for the process— international investors draw significant confidence from the historic regulatory regime;
- there would be benefit in standardising key elements of the framework or the model for DPC to create a clear pipeline of common potential projects;
- providing as early a pipeline as possible to potential investors is key but the non-conformity of projects and the dispersed procurement arrangements across companies will influence the pipeline;

- there may be benefits to piloting some early projects to prove the concept to investors given that the regime is new; and
- Ofwat should publish a clear timetable of the process for DPC and when information on projects would be made available.

Based on Ofgem’s experience in developing the CATO regime, heavy consultations with the market are beneficial. However, currently any further engagement with the market is not worthwhile until a clear proposition and specific features of the model have been established.

Recognising the increasing importance of regulators working together it may also be worth considering a joint-approach with Ofgem to a pipeline of DPC/CATO projects.

Diagram 11: Based on the timeline of regimes, we expecting more projects in the competitive tendering pipeline



Appendix

Overview of investor groups

1 Financial investors



Infrastructure funds



Greenfield funds



Pension Plans



Sovereign wealth

Objectives

The primary objective of financial investors is to maximise returns with low exposure to the risk of any loss. They generally seek to invest in high-quality assets with long-term prospects ranging from 15 to 30 years.

These investors typically diversify their exposure through investment in multiple sectors, geographies and infrastructure asset types, which includes transportation (toll roads, bridges, ports and rail), utilities (electricity/gas generation and distribution, water and renewable energy), communications (cable networks and satellite systems) and social infrastructure (hospitals, schools and institutional buildings).

Investment profile

These investors tend to be more interested in projects or ideally companies that are already operational ('brownfield' investments) that provide an immediate stream of stable cash flows. However, some groups also invest in greenfield projects although these are likely to be much larger projects given the amount of capital they have available to deploy.

Infrastructure funds

Typically infrastructure funds seek to invest in assets that offer long term access to relatively stable, economically insensitive, index-linked cash flows.

These infrastructure assets provide opportunities for investors to generate consistent growth in returns and cash flows that are uncorrelated with other asset classes, i.e. resulting in diversification benefits. Due to the long-term nature of infrastructure funds, investors are able to hold infrastructure assets for a long period of time to take the advantage of long-term steady cash flows.

The size of infrastructure funds varies greatly from one fund to another. The funds discussed in the report have at least £1bn of assets under management (AUM). The project size can range from c.£40m to £1bn+ with a modal project value of around c.£300m.

The funds are able to actively manage over 50+ investments across multiple asset types and geographical locations.

Greenfield funds

Greenfield funds target projects at different stages of the asset's lifecycle to achieve higher returns. The greenfield funds specifically invest in new infrastructure assets at a pre-operational phase, i.e. construction.

This strategy provides opportunities for higher rates of return in order to compensate for the additional development and construction risks, i.e. construction delays or cost overruns.

These investors tend to be willing to take on more control of the decision making process throughout the project delivery lifecycle compared to investors focused on investing in brownfield projects. They also look to balance the construction, financing and operating risks to drive down the prices in their bids which can encourage innovation.

Pension plans

Another key segment of investors in this group are pension plans. These groups invest in infrastructure assets to earn the best possible returns, at an appropriate level of risk, to pay pensions to their members. They also seek to close the gap between asset values and pension obligations, which is the best way to achieve a contribution rate and benefit stability for their members. Hence the index link may be important for these investors but many also take an active role in the management of the asset.

Sovereign wealth funds

The sovereign wealth funds are state-owned investment funds that invest in both public and privately trading asset types. These funds tend to have complex structures and investment objectives that need to consider both returns and strategic political perspectives. In recent years, sovereign wealth funds have also increased exposure to infrastructure assets and have similar characteristics to infrastructure funds, i.e. funds with large sources of capital interested in investing in long-term low volatility assets. Recent examples include, China Investment Corporation (CIC) and Abu Dhabi Investment Authority (ADIA) investment in Thames Water.

Although the risk profile of large discrete infrastructure project is high these investments are characterised by high level of debt finance which is achievable through the commercial arrangements that drive the reduced risk profile of the projects. There are a number of different debt products used to finance infrastructure projects each having a different impact on the cash flows. This includes, for example, senior or junior debt, bonds, variable/fixed/index-linked instruments and medium/long-term debt arrangements.

Infrastructure debt financing is provided by banks and institutions with capital seeking low risk stable investments.

Objectives

The primary objective of debt investors is to source opportunities typically with an investment grade credit rating that provide a stable and predictable long-term revenue stream.

Government-supported debt

The UK Guarantees Scheme was established in 2012 to provide Government-supported finance for infrastructure projects based on the UK's strong sovereign credit standing. The scheme aims to promote and accelerate the development of significant infrastructure projects that would otherwise be delayed due to an inability to secure financing where the risks are too great.

The pricing of the guarantee is determined by prevailing market prices which are assessed based on the credit quality of the underlying project being considered.

Corporate finance debt

Another source of debt financing includes corporate loans or issued bonds. Typically corporate loans are used to support core operating activities by providing additional lines of credit, refinance existing debt and support acquisitions. In these scenarios, they act as bridging facilities to complete an acquisition after which they are often refinanced with a longer-term structure (typically in the bond market).

There has been recent increased refinancing activity primarily due to companies seeking to exploit the low-interest rate environment and to deleverage from higher gearing levels set prior to the Global Financial Crisis.

Utility companies are capital-intensive businesses and typically highly geared, hence they often rely on bond financing to support their capital investment needs.

2 Debt investors



Debt investors

3 Strategic investors



Construction companies



Strategic investors

Contractors

Contractors provide a wide range of services associated with infrastructure investments that include raising project finance, design, development, project management, construction, commissioning, operation, maintenance and asset management. They play a key role in the delivery of large engineering projects. Some contractors have established separate investment arms to make direct investments into infrastructure projects. Contractors already play a significant role in the water sector supply chain providing services to companies across a range of models including contracting, partnering and alliancing.

Objectives

The primary objective of contractors is to engage in the development of the infrastructure assets across the full infrastructure lifecycle. Their portfolio of projects mainly includes investments in health and education infrastructure, student accommodation, roads, bridges, tunnels, renewables, power and water utilities.

Investment profile

Contractors are active in the infrastructure sectors and typically invest in PPP projects where the scope of the project includes construction.

The large contractors tend to have, on average, over £1bn of capital employed in long term infrastructure projects. The majority of the investments are at a building (pre-operational) phase, however most contractors maintain a proportion of operational projects in their portfolios. Construction firms will often dispose of their interests in the project post construction.

Their experience in efficient, cost effective, and innovative solutions for large scale projects enables them to deliver better value.

Capital deployed

The contractors tend to have relatively large portfolios of investment with up to 70 projects managed worldwide. The contractors discussed in the report have projects in excess of c.£1bn in asset value.

In the water sector, contractors participate in a wide variety of projects from pipeline network installation to construction and upgrading of water treatment works.

Strategic investors

This group of potential investors operate water and wastewater assets globally and are used to PPP type models. These companies tend to have more experience in the process technologies that are required to operate water and wastewater facilities.

In addition to French companies, the non-regulated arms of existing UK regulated water companies (e.g. Severn Trent, Anglian Water and Northumbrian Water) may also be interested in DPC opportunities.

Objectives

The key objective of the strategic investors is to identify routes to market in the UK. Since the current privatised model is different to the typical model adopted in their overseas markets and provides limited opportunities for growth despite these companies having significant capabilities and experience in the global water sector.

Investment profile

The typical investment horizon for strategic investors is long-term for which they are willing to accept a higher level of risk than the pure financial investor but will also expect higher returns.

The strategic investors could be willing to consider involvement in a consortia and in particular partnering with an equity finance provider.

These contractors and strategic investors are also often leading or important delivery partners, i.e. they design, deliver and operate assets and therefore have important views and perspectives as partners to potential investors.

Rating agencies are companies that assign credit ratings, which rate a debtor's ability to pay back debt by making timely interest payments and the likelihood of default. Because of the high leverage of infrastructure projects and the requirement to borrow debt these agencies play an important role in rating the credit quality which correspondingly dictates the pricing of the debt.

Each agency identifies the key project features that could affect the probability of default or loss of financial strength. In particular they would look at a project's complexity, cost risks, contractual arrangements and debt structure.

Further consideration has to be made in respect of the type of project, i.e. whether the key focus is on the construction or the operational phase.

Factors in assessing construction phase projects

Key factors in assessing rating for projects during the construction phase (typical for PPP/PFI projects) are:

- How construction risk is allocated between the private and public sector - in some cases government agrees to take on or share construction risk. This factor looks at what specific construction risks are shared or taken on by the parties and assesses the terms and conditions of the contractual agreements for the project.
- Construction complexity - As the complexity increases, the uncertainty as to the final cost and the schedule to complete the construction becomes greater. This factor assesses the complexity of site preparation requirements, structure complexity, construction technology, performance and construction risks.
- Contractors experience and project readiness – This evaluates experience of the key constructor staff who will lead the project construction and the project entity's staff who will oversee the project.
- Contractor's resilience to cost overruns – This primarily looks at project size, robustness of the construction budget, profit margins, contingencies and credit quality of the constructor or its guarantor.
- Project's resilience to cost overruns - This factor assesses how the project could manage delays before the contracted target date that primarily depends on construction schedule room, distance to the long-stop date and the level of liquidity.

Factors in assessing operational projects

Key factors in assessing the rating for operating projects (typically for PPP projects) include:

- The complexity of project operations and the performance regime - This factor looks at how the scope of services can affect outcomes and performance obligations and the relationship between the project entity and its sub-contractors (including contractual triggers for a sub-contractor's replacement and the related ability and practicality of such a replacement).
- Strength of contractual arrangements and operational approach – This factor assesses the risk of a material gap between the project entity's revenue that relates to its maintenance and service obligations and the cost of providing those services.
- Performance and quality of subcontractors - This factor looks at the quality of the sub-contractors' performance, expertise and experience.
- Gearing and coverage ratios - A forward looking analysis of gearing and financial ratios assesses the potential for a project entity to default.

4 Rating agencies



Ratings agencies

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