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Scottish Futures Trust

An options appraisal to examine profit sharing finance schemes, such as the Welsh Mutual Investment Model, to secure investment for the National Infrastructure Mission and best value for tax payers

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1. Executive Summary

1.1. Introduction

Scottish Futures Trust has been asked to examine privately financed profit sharing schemes to deliver additionality of investment as part of the National Infrastructure Mission.

This appraisal presents an examination of the options and recommends an investment model to add to Scottish Government's range of infrastructure funding and financing approaches. An analysis of the commercial structure of the recommended option, affordability considerations and initial market testing has also been included.

The options appraisal has been informed by current Government guidance on Business Case development.

1.2. Strategic Case

In September 2018, as part of the Programme for Government, the First Minister set out a National Infrastructure Mission to steadily increase annual infrastructure investment, so it is £1.56 billion per year higher at the end of the next Parliament than in 2019-20.

This mission is to increase Scottish Government capital investment by an additional 1% of current Scottish GDP to maintain competitive conditions and deliver a long-term boost to Scotland's economy. The economic rationale for the delivery of the mission was set out in the Office of the Chief Economic Advisor's report, "Exploring the Economic Rationale for Infrastructure Investment" (December 2018).

The Draft Budget: 2019-20 notes that National Infrastructure Mission will be funded from a combination of approaches, including traditional capital expenditure, Financial Transactions, capital borrowing, revenue funded investment and innovative finance methods.

Should greater borrowing powers be made available to the Scottish Government, this would provide a lower cost financing option to deliver additionality. This appraisal assumes this option is not open to Scottish Government and examines new investment models over and above the current approaches that would require to be classified to the private sector to count as additional investment.

1.3. Options Appraisal

The options appraisal identifies and appraises the various investment models for delivery and recommends the option most likely to offer best value for money for additionality. The appraisal is based on maximising potential investment using privately classified, privately financed, revenue funded approaches.

Critical success factors have been determined to assess the options against. These factors are based on the requirements to secure investment (additionality) for the National

Infrastructure Mission and best value for tax payers. The critical success factors determined for the appraisal are:

Critical Success Factors	Description
Additionality	Secures additional investment beyond existing approaches (via sufficient risk allocation and ownership in the private sector to meet the “classification test”).
Value for Money	Capable of delivering the prescribed VFM features for a privately financed model set out in this appraisal.
Profit Sharing	Provides shared ownership which in turn enables sharing of any operational surpluses.
Affordability	Upfront public risk capital investment and future revenue commitments can be funded from available sources.
Market Deliverability	Market is established, willing to compete and able to deliver under the investment model option.
Financial Risk	Level of public sector risk (linked to shared ownership and public risk capital investment noted above).

The following long list of investment model options was developed:

Option	Investment Approach	Transfer to Short List Appraisal
1	Capital	No
2	Financial Transactions (FTs)	No
3	Public Works Loan Board (PWLb)	No
4	Non-Profit Distributing (NPD)	Yes (‘Do nothing’)
5	Hub DBFM	No
6	Evolved PFI	Yes
7	MIM (up to 20%)	Yes
7a	MIM variant (up to 30%)	Yes
7b	MIM variant (up to 40%)	Yes
8	New Infrastructure Finance Institution	No
9	Leasing	No

Transfer to the short list appraisal was determined based on alignment to the above noted critical success factors. Crucially to demonstrate each option meets the ‘Additionality’ criteria, the investment approach needs to be able to achieve a private classification under the current classification rules as set out by Eurostat.

Eurostat published revised guidance on the statistical treatment of Private Public Partnerships (“PPPs”) on 29 September 2016 (the “Eurostat Guidance”).¹ Accordingly, this was a pass/fail

¹ https://www.eib.org/attachments/thematic/epec_eurostat_statistical_guide_en.pdf

test in the appraisal. It is worth noting that although NPD no longer passes this test (given the changes made to the recent Eurostat guidance meaning that profit capping is not compatible with private sector classification), the investment approach was included in the short list appraisal for comparison purposes only.

The appraisal concludes that Option 7, a Scottish version of the Mutual Investment Model (MIM), with an up to 20% public sector risk capital investment, has the closest alignment to the criteria established for the appraisal. The Welsh Government may take a 15% risk capital investment in their procurements rather than the 20% maximum tested with Eurostat. In this option the public share in 15% of any operational surplus generated. Scotland may also opt to take this more prudent approach under this recommended option.

There are further variants on the MIM which would increase the risk capital stake beyond 20% but as well as bringing greater financial risk, they would need to be tested through the Eurostat classification process which has been known to take longer than 2 years.

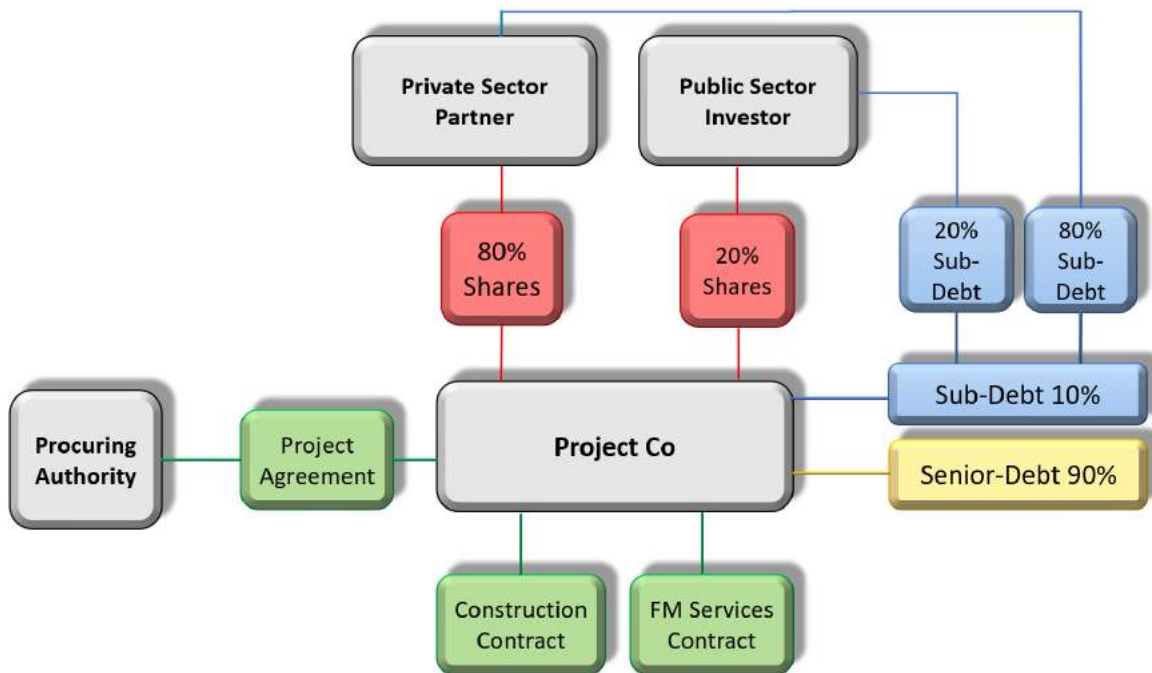
Option 7 MIM reflects the Welsh Mutual Investment Model, the structure which has already been classified by Eurostat to the private sector. Similar to the Welsh Government approach, when using the model for specific projects, it is anticipated some amendments would be made to the contract. Any Scottish amendments to the Welsh documents, which Eurostat have already reviewed and opined on, would be in areas where no classification impact is anticipated. Any specific contract amendments would be tested with the Office for National Statistics, the body which compiles the UK accounts according to the rules set by Eurostat.

This model does carry some risk and mitigation strategies require to be put in place to manage this risk. The Eurostat guidance manuals, which are used to determine classification by assessing economic ownership and the balance of risk and reward, are revised periodically. The next version is expected to be published in 2019. It is anticipated there will be some changes to the classification of non-profit institutions such as charities. Given there are no non profit institutions associated with the MIM structure, no impact is expected. By way of mitigation there is ongoing proactive engagement with Eurostat, ONS, and HM Treasury to understand and discuss any upcoming changes to the guidance.

Having completed the appraisal, **Option 7 is the recommended investment model for privately financed, privately classified, revenue funded infrastructure.**

1.4. Commercial structure

The parties to the commercial structure for any project contracted through a MIM model will be dictated by the procurement route. The anticipated structure is as follows:



Following a procurement, a project company (Project Co) will be established as a special purpose vehicle (SPV), which in turn subcontracts the design, build and long-term operation of the asset to a Construction Contractor and a Services Provider for Facilities Management (FM) services.

Construction and operational risk are transferred to the private sector. Payment is made to Project Co in the form of an annual unitary charge. This charge is payable from when the asset is complete throughout the contract period, which is normally 25-30 years.

The public sector will invest in up to 20% of the risk capital of the Project Co, noting that in Wales the initial procurements may take a stake of 15%. Appropriate scrutiny processes and experienced individuals with investment experience will be required to manage the risks associated with the ownership stake.

It is proposed that standard form roads and standard form accommodation project agreements are developed to support the development of the recommended option.

As with all Design Build Finance Maintain (DBFM) type contracts, in the MIM structure there is significant element of risk which occurs in the upfront construction period with the reward to shareholders spread over the life of the contract. The contracts are expensive to break – with the private sector likely to sustain substantial losses if the contract is terminated for their poor performance leading to a default, and the public sector likely to face substantial costs if it terminates voluntarily to compensate investors for their lost return.

The value for money features associated with previous hub and NPD models, which are types of DBFM contracts, are capable of being delivered through this model. There is scope to link to wider principles for the National Infrastructure Mission and National Performance Framework as appropriate as part of the development of standard form contracts and procurement documentation for any projects to be procured through this route.

The features of the MIM will include:

- Standard form contracts, assurance processes and robust conditions for funding learning from previous revenue funded programme experience;
- Competitive processes to attract value for money project finance;
- Strong project and programme governance and resourcing in place to deliver;
- Focus on wider community benefits and economic stimulus;
- Project diligence and scrutiny on the design and maintenance of the asset;
- A Project Co that ensures the asset is maintained during the contract period;
- Whole life costing approach and programme approaches to benchmark project costs;
- Access to SFT as a centre of expertise during the project development, procurement, construction and operational phases of projects; and
- A focus on delivering high quality, low carbon and digital enabled assets in all programmes and projects within the National Infrastructure Mission.

1.5. Affordability and Financial Risk

The affordability and financial risk section considers the affordability and funding requirements of the Scottish version of MIM within the sustainable investment parameters set by Scottish Government (which are that revenue funded investment commitments should not exceed 5% of the total Scottish Government resource budget (excluding social security)).

In the absence of a project pipeline, affordability modelling is informed by data collected and published across the Non Profit Distributing and hub programmes. The section sets out the categories of costs associated with the model, noting that revenue funded projects may also require capital budget for enabling works to ensure robust project preparation for the market and in some cases for elements of operational equipment.

Affordability

Under this investment model, a significant proportion of the future revenue commitments are locked in at contract signature for the 25-30 year operational period.

Analysis has been undertaken to examine potential future revenue commitments relative to the construction costs for projects procured under the recommended option and compares this with traditional routes of capital grant funding and public borrowing.

Two ratios have been established informed by contracted NPD/hub and schools programme data. The ratio ranges take into account sensitivity analysis on movements in inflation and the cost of private finance noting that the previous revenue funded programmes were contracted at a time of historically low underlying market funding rates.

The first **Cost Multiplier ratio** considers the revenue commitments for the 25 year life of a community campus building asset with a construction cost of c.£50 million procured using capital, public borrowing and private borrowing.

Funding source	Cost Multiplier Ratio	Example Whole Life Asset Cost	Revenue Commitments Ratio
Capital Grant	1.5x	£75m	n/a
Public Borrowing	1.9x - 2.6x	£95 - 130m	7-10%
Private Borrowing (MIM)	2.6x - 3.3x	£130m - £165m	9-12%

It is estimated that using private finance under the recommended option to fund a new building such as a secondary school will be in the range of 2.6 to 3.3 times the construction cost over the 25 year of the asset. This compares with 1.9 to 2.6 times the construction cost if financed using public borrowing. An asset funded using capital grant, and importantly maintained to the same standard over 25 years is estimated to be 1.5 times the construction cost.

For acute health and college facilities these ratios will be greater across all funding sources reflecting relative higher maintenance costs and differing VAT positions. In the case of roads, the relative maintenance costs are lower, however the construction length and contract lengths are 30 years which increase the average multiplier in this sector. A set of private finance **cost multiplier ratios** has been calculated for each sector where private finance was used on hub and NPD to demonstrate sectoral differences.

	Cost Multiplier Ratio (Funding commitments/ Construction cost)
Schools	2.6x
Colleges	3.1x
hub health	2.6x
Roads	3.7x
NPD health	2.7x
Average across the programme	2.9x

Supporting value for money analysis on the use of a privately financed MIM model

Should ministers choose to use private finance as one of the available tools to deliver infrastructure investment, a further ratio has been developed to monitor the movement in cost of the privately financed investment model pre contract signature. The ratio measures the revenue commitments in the first full year of a project as a percentage of the construction cost, the **Revenue Commitments Ratio**.

This test would be a programme level test for the investment model which would be set and monitored at both programme and project level. A base case ratio would be established for each sector in which the investment model is used. The revenue commitments associated with the investment would be re-confirmed, as part of the National Infrastructure Mission modelling to demonstrate they fit within the 5% self imposed cap. For sectors where NPD/hub investment has been deployed, it is proposed that the base case Revenue Commitments Ratios are based on the historic NPD/hub contracted projects as follows.

	Revenue Commitments (First year revenue commitments/ Construction cost)
Schools	9.5%
Colleges	11.6%
hub health	9.7%
Roads	11.7%
NPD health	10.2%

Illustrative example

£50m community campus asset

- *Run sensitivities for MIM and NIM modelling on a Revenue Commitments Ratio range of 9-12% to establish affordability parameters for this type of asset/sector*
- *Allocate an anticipated project or investment programme Revenue Commitments Ratio of 9.5% (Based on contracted schools data)*
- *Set tolerance at which the project would require to be reviewed*
 - *The Revenue Commitments range 9-12% is representative of a c.3% increase in the cost of the senior finance for the project or approximately £35m in cost over the life of the project. It is suggested that a tolerance/review point occurs when the project Revenue Commitments Ratio increases by 1.5%*
- *If Revenue Commitments Ratio >11%, re-model and reassess as part of the wider programme*

It is proposed that the ratio is calculated by the project owners at key milestones and that movements outside of the tolerance are reported and the project is re-referred for programme level assessment. An increase in the ratio indicates additional whole-life revenue cost to deliver a fixed amount of capital additionality. The monitoring of this ratio creates the

opportunity to assess the relative affordability of the investment model at a programme level as conditions such as the market cost of private finance changes, and the ability to re-confirm that the overall programme fits within the 5% sustainable investment cap.

It is noted that Scottish Government does not have resource allocations beyond 2019-20 and therefore the estimated annual revenue commitments would require to be managed each year as part of the budgeting process within the 5% investment parameter.

The Affordability section also draws attention to the difference in project and programme level affordability and notes key areas for Accounting and VAT treatment and classification which could impact on projects delivered using this investment model.

Financial Risk

The public sector faces risk both as a customer and as an investor under MIM contracting arrangements. As a customer, in addition to the affordability and classification risks already noted, there are risks associated with the availability of private finance in the market, counterparty credit risk. Mitigation strategies would be put in place to manage these risks.

1.6. Market Testing

The concept of the Mutual Investment Model (MIM) has been tested through a market engagement exercise with a range of participants including contractors, investors and advisors. The economic climate has changed in recent years with many UK contractors carrying significant risk on their balance sheets. The participants noted many factors which impact on their bidding decisions and these should be taken into consideration when developing procurement routes for projects to be delivered through MIM.

Funders are currently willing to provide 25 year project finance but require robust projects and contractors with a sufficient security package to pass tender credit process. In particular UK tier 1 contractors are seeking a series of accommodation contracts of up to £100m to justify significant bidding costs.

An overarching message was that certainty and stability of a pipeline of projects was essential to allow contractors to mobilise and take investment decisions. Without development of a project pipeline, the presence of a competitive bidding market cannot be assured.

Market Interest

The report sets out the typical characteristics of a project suitable to be delivered through the MIM as well as a market view of the sectors and scale of projects which would attract bidders. At a macro level, the market interest can be split as follows:

	Accommodation Projects	Civils Projects
Small (£30 - £100m)	Scottish or wider UK contractor interest as part of a sustained visible pipeline.	N/a

	Less likely/too small to attract international contractors.	Contract structure not suited to small civils due to the relatively small maintenance packages unless some form of bundling.
Large (100m +)	Limited pool of interest: Scottish or wider UK contractors for non-complex accommodation. Potential interest from international contractors if sufficiently large and complex.	Unlikely that UK contractors can lead development due to financial risk. More likely to attract international contractors.

Some early consideration of procurement approaches is included which will require to be developed in conjunction with Scottish Government Procurement Directorate to match the sectors where the model is used, the number of projects and the timeframe over which they are to be procured.

1.7. Conclusion

SFT has been asked to examine privately financed, privately classified, revenue funded investment models to support Scottish Government in delivering its National Infrastructure Mission.

This appraisal concludes with a recommended option of a Mutual Investment Model (MIM) to meet this requirement. The option is based on the Welsh Mutual MIM which replicates many of the value for money features introduced in the Scottish Non Profit-Distributing model but removes the private sector profit capping features and replaces this with profit sharing with the public sector.

The Welsh MIM has received a private classification from Eurostat and is currently being used to procure a large road project in Wales. The recommended MIM structure will have to be assessed for future use as and when new guidance is produced to consider whether the structure remains classified to the private sector.

In the proposed MIM commercial structure for Scotland the public sector takes up to a 20% risk capital investment in the project companies established to deliver national infrastructure projects. It is worth noting that the Welsh may elect to take a 15% investment on initial projects which is also an option for the Scottish model.

The market conditions for this type of contract have changed since Scotland last launched a revenue funded programme in 2010. Whilst the market has been positive about the Welsh MIM contract structure, the market has also been clear that their decisions to mobilise teams

and bid in Scotland for projects delivered under this structure are dependent on a stable and sufficient project pipeline and appropriate procurement approaches to attract bidders.

The appraisal demonstrates how the affordability and funding requirements of the MIM can be monitored to test against the sustainable investment parameters which are that revenue funded investment commitments should not exceed 5% of the total Scottish Government resource budget (excluding social security). This will include a test to monitor movements in the estimated revenue commitments arising from projects delivered using the investment model from changes in economic and financial conditions.

A decision to use the MIM as a privately financed, privately classified investment model will provide an option for additionality to support the delivery of the National Infrastructure Mission alongside the range of infrastructure investment tools already open to Scottish Government.

2. Introduction

The aim of Scottish Futures Trust, established by Scottish Government, is:

“to improve the efficiency and effectiveness of infrastructure investment and use in Scotland by working collaboratively with public bodies and industry, leading to better value for money and providing the opportunity to maximise the investment in the fabric of Scotland and hence contribute to the Scottish Government’s overarching purpose to increase inclusive economic growth.”

Drawing on our significant experience of developing and delivering infrastructure investment models, SFT has been asked to “examine new profit sharing finance schemes, such as the Welsh Government’s Mutual Investment Model, to help secure both the investment we need and best value for tax payers”.

Should greater borrowing powers be made available to the Scottish Government, this would provide a lower cost financing option to deliver additionality. This appraisal assumes this option is not open to Scottish Government and presents an examination of privately financed models to deliver additionality. It focusses on profit sharing schemes and recommends an investment model to add to Scottish Government’s range of infrastructure funding and financing approaches to support the delivery of the National Infrastructure Mission announced in September 2018.

The structure of the options appraisal has been informed by “A Guide to Developing the Programme Business Case (2018)”, the best practice guidance for development of business cases aligned to the HM Treasury Green Book 2018. It has been structured as follows:

- Strategic Case
- Options Appraisal
- Commercial Structure
- Affordability and Financial Risk
- Market Testing

3. Strategic Case

3.1 National Infrastructure Mission

In September 2018, as part of the Scottish Government's Programme for Government, the First Minister set out a National Infrastructure Mission to steadily increase annual infrastructure investment so that it is £1.56 billion per year higher at the end of the next Parliament than in 2019-20. This mission will increase Scottish Government annual investment by 1% of current Scottish GDP which will maintain competitive conditions and deliver a long-term boost to Scotland's economy.

In announcing the Mission, the First Minister noted the need to continue to innovate in models for investment and that in addition to traditional capital and borrowing, noted that "...Scottish Futures Trust will examine new profit sharing finance schemes, such as the Welsh Government's Mutual Investment Model, to help secure both the investment we need and best value for the taxpayer."

The National Infrastructure Mission also forms part of the Economic Action Plan² published in October 2018. This plan reinforced the message that it is the 'right' infrastructure investment that will generate inclusive growth and deliver carbon neutral objectives. The Economic Action Plan noted that Scottish Government would identify the priority infrastructure projects that can unlock the greatest productivity gains advised by a new Infrastructure Commission and through the development of the next Infrastructure Investment Plan. This appraisal is specific to an approach to funding and financing infrastructure, not to the selection of projects or programmes if investment which would be subject to separate investment business cases.

3.2 Economic Rationale

The economic rationale for the delivery of the National Infrastructure Mission was set out in the Office of the Chief Economic Advisor's (OCEA) report, "Exploring the Economic Rationale for Infrastructure Investment", published in December 2018.³

The report describes how infrastructure can boost the economy both directly in the short term through employment and purchasing inputs; and, indirectly in the long term through raising the productive capacity of the economy. OCEA concludes that the analysis of trends in capital investment and the OECD's analysis of UK infrastructure indicates a rationale for additional infrastructure investment in the UK and Scotland.

OCEA's economic modelling considers the potential economic benefit for Scotland of increasing annual infrastructure investment by 1% of GDP in 2017, or £1.56 billion. It notes that the annual increase envisaged could provide a boost to Scotland's real GDP of between

² <https://economicactionplan.mygov.scot/>

³ <https://www2.gov.scot/Publications/2018/12/7040/downloads>

0.5% and 1% in 2025-26 depending on the measure of economy used. It also notes that an investment led stimulus has both a short term demand effect but also a longer term supply effect.

The OCEA report indicates that the extent of economic benefits will be shaped by the efficiency of the individual public investment projects and that ultimately, the balance of investment between different types of activity, sectors and markets will determine the precise level of economic benefits realised from the infrastructure investment package.

3.3 Infrastructure investment approaches

3.3.1 Current investment

The Draft Scottish Budget 2019-20⁴ indicates capital investment in the order of £5.2 billion in 2019-20. Additional infrastructure investment models to supplement the current approaches will be required to support the delivery of the mission to increase annual infrastructure spending by c.£1.5 billion on the current levels of £5.2 billion in 2019-20.

In recent years Scottish Government has used the following broad approaches to deliver infrastructure investment:

Infrastructure Investment approaches	
Capital Grant*	SG receives a capital allocation as part of its block grant from the UK government. Capital funding is distributed by way of an upfront grant to pay for the cost of an asset.
Financial Transactions (FTs)	FTs are also allocated by UK Government. FTs cannot directly finance public infrastructure. They can be used to make equity investments or make loans to entities/individuals outside of the public sector and are to be repaid to HMT.
Scottish Government Borrowing	SG can borrow £450 million per annum up to an aggregate limit of £3 billion. At the end of 2018-19, aggregate borrowing is c.£1.5 billion.
Revenue funding (Private Finance): - NPD / hub DBFM	Using revenue funding, infrastructure investment delivered through NPD or hub DBFM models is based on the private sector designing, building, financing and maintaining the infrastructure asset. The procuring authority pays using revenue budgets over 25-30 years, where the payment covers the delivery of a maintained asset and the associated financing costs.

⁴ <https://www.gov.scot/publications/scottish-budget-2019-20/pages/5/>

	NPD was used on 10 major infrastructure projects in the roads, colleges and health sectors. Revenue funded community infrastructure such as schools and primary care facilities have typically been delivered using hub DBFM.
Revenue funding (Public finance): - Growth Accelerator / Tax Incremental Financing	Under these revenue funded models, PWLB finance is used as a lever for growth and to deliver outcomes. Funding support is provided through an increase in Non-Domestic Rates as a result of growth or can be SG revenue funding linked to specific economic growth measures.
Regulated Asset Base (RAB)	Until recently, this was a form of revenue funding used by Network Rail (NR) where NR borrowed against its asset base to finance infrastructure costs and repaid over the life of the asset using SG revenue funding. Recent classification changes mean that debt will be treated as being public sector debt (rather than private sector) and future costs will be grant funded by central government.

* Local authorities receive a portion of the Scottish Government capital allocation through a small number of specific grants and via the Local Government Finance Settlement. In recent years capital grants to local authorities have represented around 26% of the total Scottish capital allocation. Local authorities also supplement the capital grant using Public Works Loan Board loan finance. This source is not available to central government spending portfolios such as health and transport who cannot borrow.

3.3.2 Funding additional investment

3.3.2.1 Funding assets as they are built

Increasing public capital budgets through a revenue to capital switch to allow more assets to be built, or taxation increases to fund these, are outside the scope of this appraisal.

Increasing or adopting new user charges (or developer charges) is an alternative way of increasing investment to fund assets as they are built. The sums raised from asset-specific user charges, such as tolling, would never be sufficient to pay for the infrastructure on an in-year basis.

Elements of infrastructure required to support private housing and commercial development are paid for by the developers (and ultimately land owners or occupiers) through the planning system (Section 75 agreements). It would be possible to increase these charges to fund additional infrastructure investment. As a specific development is enabled by a specific infrastructure investment this would generally be an in-year effect. The Independent Review of Planning in 2016 suggested an infrastructure levy and this has been considered as an approach to raising additional infrastructure funding.

In the current time horizons, the scale of change to the current markets to create these types of additional funding sources through charges would suggest that it is unlikely they could generate the capital required to meet the scale of the National Infrastructure Mission.

3.3.2.2 Funding assets as they are used

Funding an asset as it is used leads to a lower annual funding requirement but requires funding over many more years through the life of the asset rather than as it is built. Public buildings are normally considered to have a 50-60-year life. The life of an economic asset such as a road can be effectively infinite if it is properly maintained.

The cost of an asset paid for as it is used is always higher as there is an interest cost associated with the financing. Financing is often arranged over a 25-30 year period as this is available in both the public and private markets and generally covers a first significant asset refresh.

Sources of funding as an asset is used are:

a) Future Revenue Budgets: Future revenue budgets can pay for infrastructure assets as they are used, repaying the finance raised to pay for the asset as it is built. This approach prioritises investment in infrastructure assets now over spending on public services in the future. The rationale, as set out in the Strategic Case, is that the economic value generated by investing in infrastructure now, is the potential it brings to increase productivity and also future revenues (through increased tax-take), delivering long-term affordability. This approach is currently used in a number of forms by Scottish Government as set out in the table of investment approaches above.

b) Future User (or Occupier) Charges: Most economic infrastructure (energy, communication, water) is funded over its life by user charges. All except Water is regulated at UK level and policy decisions are taken by the UK Government. Energy efficiency measures can be funded by users in the future out of savings made on energy costs, whether within the public or private sectors. Affordable housing can be funded through occupier charges (rent) and government budgets.

The scope for extending user or occupier funding through incentivisation and regulation (e.g. energy efficiency) could be considered in more detail in the long term but is not likely to deliver the level of investment required to deliver the national ambition in the indicated time scales.

In the short term the use of future revenue budgets to fund infrastructure investment as it is used is likely to be necessary to deliver the level of increase anticipated in the National Infrastructure Mission.

3.3.2.3 Blended funding and leverage

Where there are existing sources of user or occupier funding, but these are not sufficient to fund the entire asset cost, interventions to blend these with public funding and financing can leverage additional investment. Examples include affordable housing where occupier rents provide most of the funding for the homes as they are used but cannot meet the whole cost. A public sector intervention through grant co-funding, subsidised financing or land is required to deliver the asset.

There are further instances where public sector funding of enabling assets or co-funding can unlock private sector investment in development. This is generally the case in regeneration activity. The types of approaches which are currently used are Financial Transactions through the Building Scotland Fund, capital grant for city or regional growth deals, and resource funding for Tax Incremental financing (TIF) and Growth Accelerator (GA) where the Scottish Government funding is linked to outcomes supportive of inclusive economic growth being evidenced.

These approaches are valid but are not appropriate for publicly owned and operated infrastructure such as roads, health, education and justice where user charges are not levied, and the cost remains with the Scottish Government.

3.4 Benefits, risks, constraints and dependencies

The potential economic benefits, from the Scottish Government's National Infrastructure Mission were set out in the OCEA report published in December 2018, referred to at 3.2 Economic Rationale, above.

Limits on Scottish Government capital borrowing, both in any given year and overall, mean the National Infrastructure Mission is unlikely to be funded through capital grant alone unless UK Government capital investment, and the consequentials of that for Scotland, increase significantly.

That means alternative approaches are required which enable additional investment over and above that deliverable through capital grant and capital borrowing. For such investment models to work, they need to keep sufficient ownership and risk in the private sector such that projects are not 'classified' to the public sector and don't appear within the Scottish Government accounting boundary. Should that risk occur, the entire capital cost of the project is charged to the Scottish Government with immediate effect, requiring capital cover within the capital grant or capital borrowing limits available. Achieving classification to the private sector is a pre-requisite for the investment to be additional to Government grant limits. This increase is what is termed 'delivering additionality'.

The Scottish and Welsh Governments are proceeding with this type of investment model where borrowing is constrained, and additionality is a key factor. The UK government which does not have the same constraints on borrowing has decided not to proceed with this type of investment model at present.

The success of the investment model is principally evaluated by two main criteria. Firstly, the need for the structure of the model to be classified as ‘private’ and secondly, the need for the investment model to contribute to delivering additional infrastructure investment in the timeframe of the National Infrastructure Mission i.e. by 2025/26.

Any selected investment model also needs to be able to match to appropriate projects in a timely manner and in such a way that ensures that the market can support the delivery of these projects.

As set out in the Scottish Government’s Scottish Budget: 2019-20, the National Infrastructure Mission will be financed from a combination of approaches, including traditional capital expenditure, Financial Transactions, capital borrowing, revenue funded investment.

The budget document continued “We have also asked Scottish Futures Trust to examine the use of profit sharing revenue finance schemes, such as the Welsh Government’s Mutual Investment Model, to help secure both the investment we need and best value for the taxpayer.” This request recognises the value of an approach to deliver additionality to support the National Infrastructure Mission.

3.5 Research of UK and international privately financed models

Long term investment models using public private partnerships (PPPs) were created in the early 1990s and thereafter have been used under the various versions of the Private Finance Initiatives (PFI) put forward by each subsequent UK and Scottish government. They have all attempted to ensure that capital investment is matched with adequate funding for maintenance over the life of the asset to prevent the escalation of capital expenditure ahead of maintenance budgets.

Other key drivers for the PPP model, which have come to the forefront in Scotland and in Wales, have been to expand the investment capacity of governments beyond capital expenditure and capital borrowing restrictions and create ‘additionality’ as well as to bundle projects together to achieve greater efficiencies and economies of scale and reduce operating costs through innovation in service configuration.

The research for this options appraisal has considered the move from traditional PFI to alternative forms of public private partnership contracting in the UK models since 2008. The UK has one of the most mature PPP markets and other EU countries and the rest of the world look to UK governments, agencies and advisory markets for support in developing their own PPP structures, assurance processes and standard documentation. The concept of additionality, which is key to Scotland, (and was to Wales in developing its Mutual Investment Model) is not typically an issue that other countries focus on, especially where there are much greater borrowing powers.

The consideration of UK, European and International models and how they can inform this appraisal is set out in Annex 1.

3.6 The Case for Change – Innovating structures for investment

As outlined above it is anticipated that a mix of approaches will require to be considered and matched appropriately to individual investments to deliver the National Infrastructure Mission.

SFT is continuing its support across sectors on financing and delivery mechanisms for infrastructure including housing, energy efficiency, digital, growth accelerator and TIF approaches as well as the development of alternative publicly financed, outcomes-based funding approaches. In addition to this work, SFT has been asked to focus on identifying new investment structures that can to be classified to the private sector to count as additional investment over and above the sources and investment models listed above.

The rules for the ‘classification’ of an asset and the delivery vehicles set up to deliver those assets are determined by reference to the European System of National and Regional Accounts (ESA10) which is the newest EU accounting framework introduced during 2014. There are Manuals for Government Deficit and Debt (MGDDs) which are updated periodically to support the application of ESA10 framework. It was ESA10 and specifically the MGDD March 2016 version which clarified that the profit capping element of the Non Profit Distributing (NPD) model, meant that this model would be classified to the public sector.

Consequently, the NPD model can no longer provide additionality and therefore is no longer in use for new projects. The current hub revenue funded delivery route could be considered for some further projects but is restricted to certain procuring authorities to use and particular types of infrastructure (for example it cannot deliver acute healthcare, roads or colleges) and carries some procurement risk.

A new revenue funded structure, with an underlying public private partnership which aligns with a private classification, could provide an additional investment structure to increase infrastructure investment for major infrastructure where other forms of public finance are either exhausted or not available. This includes capital grant, Financial Transactions, and Scottish borrowing powers and where there is no access to alternative borrowing sources such as PWLB.

The First Minister has directed SFT to consider profit sharing schemes to secure the additional investment and to consider best value. The Welsh Mutual Investment Model (MIM) is an example of a profit sharing structure that has been classified by Eurostat to the private sector. These models are explored further in the Options Appraisal section.

4. Options Appraisal

4.1 Introduction

In accordance with the First Minister's request, this section will consider options for 'additional' investment over and above current budgets to respond to the request to "examine new profit sharing finance schemes, such as the Welsh Government's Mutual Investment Model, to help secure both the investment we need and best value for the taxpayer."

The Strategic Case references the global economic rationale that has supported Scottish Government's decision to increase infrastructure investment on current levels by £1.56 billion per annum to boost economic growth. Whilst it is unknown what investment will be available from the current range of investment approaches by the end of the next Parliament and beyond, Scottish Government has indicated that additional infrastructure investment models are needed to help achieve this level of increase.

As set out in the Strategic Case, it is likely that a mix of investment models will be required to deliver the National Infrastructure Mission. This options appraisal does not appraise between the range of wider investment approaches Scottish Government has at its disposal. Rather, it appraises the option for privately financed, privately classified, revenue funded models that can be added to the mix of investment approaches for matching to infrastructure investment needs.

The Affordability and Value for Money section will consider the sustainability and affordability of the recommended option.

4.2 Critical Success Factors

Critical success factors have been determined to assess the options against. These factors are based on the requirements to secure investment for the National Infrastructure Mission and best value for tax payers. The critical success factors determined for the appraisal are:

Critical Success Factors	Description
Additionality	Secures additional investment beyond existing approaches (via sufficient risk allocation and ownership in the private sector to meet the "classification test").
Value for Money	Capable of delivering the prescribed VFM features for a privately financed model set out in this appraisal.
Profit Sharing	Provides shared ownership which in turn enables sharing of any operational surpluses.
Affordability	Upfront public risk capital investment and future revenue commitments can be funded from available sources.
Market Deliverability	Market is established, willing to compete and able to deliver under the investment model option.

Financial Risk	Level of public sector risk (linked to shared ownership and public risk capital investment noted above).
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It is anticipated that the National Infrastructure Mission may determine principles which projects procured through this model would require to adhere to. There may also be additional project level value for money requirements for projects delivered through this financing route. These are not seen to be differentiators between the investment models in the options appraisal and should be addressed as additional information becomes available on the investment to be delivered through the National Infrastructure Mission.

Specific linkages will be drawn to the National Performance Framework based on the specific projects to be delivered through the selected investment model. The national outcomes to which the investment model itself relates most are:

- We have a globally competitive, entrepreneurial, inclusive and sustainable economy
- We have thriving and innovative businesses with quality jobs and fair work for everyone
- We are open, connected and make a positive contribution internationally
- We value, enjoy, protect and enhance our environment

4.2.1 Additionality

The investment model must be capable of increasing infrastructure spending by attracting additional investment from the private sector. This must be in a commercial structure that results in a private classification under the current classification rules as set out by Eurostat in its guidance on PPPs published on 29 September 2016 (the “Eurostat Guidance”).⁵ The potential impact of Brexit on the Eurostat rules is referenced in the Affordability and Financial Risk section.

The aim of the Eurostat Guidance as set out in the guide itself is as follows

“The Guide is aimed mainly at public sector PPP stakeholders, and in particular PPP practitioners (i.e. authorities in charge of PPP policy, decision-making and the preparation and procurement of PPP projects). It is intended to improve their understanding of how the Rules should be applied to PPPs. It explains how the features of typical PPP contract provisions (i.e. those that reflect general market practice in the EU jurisdictions) are relevant to the application of the Rules, and therefore whether they influence the statistical treatment of a PPP as on or off the balance sheet of government.”

⁵ https://www.eib.org/attachments/thematic/epec_eurostat_statistical_guide_en.pdf

In contrast to existing Eurostat publications, which look at the statistical treatment of PPPs through a “statistical lens”, the Guide looks at it through a “PPP lens”. It is therefore expected to benefit PPP practitioners in a number of ways:

Practicability: the Guide is organised according to the structure of a typical PPP contract with which PPP practitioners will be familiar;

Comprehensiveness: the Guide explains the application of the Rules to a comprehensive set of PPP contract provisions commonly observed across the EU market;

Clarity: the Guide has been prepared with a view to being as definitive and unambiguous as possible; and

Stability: as the Guide is underpinned by a significant effort to be comprehensive in its coverage of PPP contract provisions across the EU PPP market, further substantive revision of the Rules is not expected in the near future unless it becomes necessary to address new practices that emerge in the market.”

This appraisal assesses the options against the Eurostat Guidance as follows. The Eurostat Guidance contains sixteen themes and significant underlying detail. It is envisaged that the corporate structure and project agreement of investment structures are assessed against these themes in order to determine the classification of the asset. Each theme has an impact on classification and is assessed as one of the following:

- On Balance Sheet;
- Very High;
- High;
- Moderate; and,
- No Effect.

The Eurostat Guidance sets out thresholds where a specific mix of the above factors would be permitted resulting in a strong presumption the project is classified to the private sector, otherwise there would be a strong presumption (or absolute position) that the project would be classified to the public sector. It is therefore proposed to develop a model which falls within the thresholds.

To ensure that a project retains a private classification, the following combination of provisions (thresholds) may be present within a project:

- (i) 1 Very High and 2 Moderate importance provisions;
- (ii) 2 High Importance and 1 Moderate importance provisions;
- (iii) 1 High and 4 Moderate importance provisions; or
- (iv) 7 Moderate importance provisions.

4.2.2 Value for Money

The investment model must be capable of optimising social value in terms of potential costs, benefits and risks. As with any project, notwithstanding the investment model which is being tested in this appraisal, the value for money of delivering individual projects would require to be evaluated with reference to HM Treasury Green Book.

Based on the Strategic Case for additionality of investment, the focus of the economic analysis is the ability to secure value for money under a privately classified investment model.

Noting the development of privately financed models in Scotland in the last ten years, and lessons learned from current NPD and hub programmes, the investment model must be capable of delivering the following VfM features:

- Enhanced stakeholder involvement in the management of projects through board membership of the delivery vehicle (Special Purpose Vehicle “SPV” or Project Co);
- Level of returns to private sector below historic PFI norms;
- External scrutiny and verification of the project specific business case, design, operation and maintenance of the facilities and the underlying financial model to ensure quality, cost efficiency and overall value for money to the public sector;
- An investment model that ensures the asset is maintained during the contract period;
- Appropriate risk transfer to the private sector through a standard form contract;
- Competitive process to attract value for money finance;
- Focus on community benefits, sustainability, quality and wider economic stimulus; and,
- Benefitting from continuous improvement from lessons learned on earlier programmes.

The investment model must be capable of monitoring and allowing for the sustainability of the use of private finance to be assessed.

4.2.3 Profit sharing

This is a subset of overall value for money however this has been highlighted specifically by ministers and is considered as a separate critical success factor for this appraisal. This factor describes the opportunity for the public sector to share in the ownership of the delivery vehicle (or Project Co) for infrastructure investment under the various investment models. The project financing structure of the additional investment models anticipated requires risk capital investment. By definition, sharing in risk capital would provide an opportunity to share in any upside or downside in project delivery.

4.2.4 Affordability

The ‘additional’ investment models under review are revenue funded and will be considered relative to the current affordability parameters established by Scottish Government for sustainable investment.

This success factor does not measure relative affordability against other Scottish Government non privately financed investment approaches, this is explored in the Affordability and Financial Risk section. It assumes for the purposes of the options appraisal that these options have been considered and exhausted and that this investment model is being used to deliver infrastructure which otherwise could not be delivered.

The affordability factor also considers the requirement to provide upfront investment in the form of risk capital for projects where there is an ownership stake.

4.2.5 Market Deliverability

This factor relates to how well the option is likely to be delivered considering both public sector readiness and capacity as well as supplier capability, capacity and interest in the model.

4.2.6 Financial Risk

This factor considers the investor risk associated with the option. For some models, there is no investor risk. For those models with ownership stakes, the risk profile increases. For the purposes of the appraisal, where there is no investor risk through ownership or the risk level has been tested previously (up to a 20% ownership stake), the model is assumed to align with the criteria.

4.3 Long List Options Appraisal

In developing the output of the appraisal, the following structures, outlined in Table 1, have been considered and reviewed. To demonstrate it meets the criteria to be classed as 'additional investment', the chosen profit sharing model would have to comply with the Eurostat Guidance. As outlined previously this is a pass/fail test in the appraisal.

For the purposes of comparing a 'do nothing' scenario a number of investment approaches have been included in the long list which do not pass the classification pass/fail test.

Table 1: Long List Considered

	Investment approach	Description	Taken to short list appraisal
1	Capital	Capital grant used to fund new infrastructure as it is built. Capital will form a substantial part of funding the mission, but it is not projected to be sufficient to support the £1.5 billion additional investment per annum. Public Classification.	No
2	Financial Transactions (FTs)	FTs are provided as equity and loan finance to individuals / entities outside the public sector. These require to be repaid. Annual FTs are a relatively small portion of the overall infrastructure funding envelope. Funds are public and would attract a public classification.	No
3	Public Works Loan Board (PWLB)	PWLB loan finance is a mechanism for local authorities and other specific named bodies to access borrowing. Some outcomes-based funding models have PWLB as a feature for leveraging growth and this investment is counted as additional to Scottish Government sources. Further uses are being explored for outcomes-based finance however this option has been discounted for this appraisal as it cannot be accessed as a means of central government funding for projects where there is no option to access PWLB.	No
4	Non-Profit Distributing (NPD)	The NPD model is a design build finance maintain structure which evolved from PFI to deliver greater transparency, capped returns to the private sector, balanced risk transfer and robust processes for efficiency such as standardised contracts. Under the new classification rules and subsequent Eurostat guidance, profit capping leads to automatic classification to the public sector and the model is no longer used. <i>NB: This model is retained for the short list for comparison purposes.</i>	Yes ('Do nothing') For comparison purposes.
5	Hub DBFM	Hub is a community infrastructure delivery route that can deliver DBFM contracts. Hub is restricted to delivering certain community assets and to the named entities on the original procurement. Throughput has	No

		been significant so there is some procurement risk attached to this route. The option has been excluded as continuing to use excludes major central investment areas such as transport, acute health, colleges, justice.	
6	Evolved PFI	This option is a design build finance maintain structure based on a traditional PFI model where the private sector raises and finances 100% of the debt and equity and any reward (and risk) which flows from the vehicle is for the private sector. This model is used in various forms across Europe and the rest of the world. It is assumed that the revised risk transfer arrangements, that were introduced into the NPD and hub structures, feature in this model with the exception of insurance risk which is assumed to transfer back to the private sector. Enhanced governance through appointment of a public interest director is also a feature of this option.	Yes
7	MIM up to 20%	This option is based on the current Welsh MIM model and is design build finance maintain structure where the private sector raises and finances the majority of the debt and equity and the public sector raises and finances up to 20% of the risk capital. Any reward (and risk) which flows from the vehicle is split accordingly 80:20. It is assumed that the revised risk transfer arrangements that were introduced into the NPD and hub structures feature.	Yes
7a	Variant MIM up to 30%	As for 7, however the public sector share is up to 30%. Private sector: Public sector is 70:30.	Yes
7b	Variant MIM up to 40%	As for 7, however the public sector share is up to 40%. Private sector: Public sector is 60:40. Unlike options 7 and 7a, under this option, insurance risk is transferred to the private sector.	Yes
8	New Infrastructure Finance Institution	This option considers an establishment of a new institution that could function in a similar way to the European Investment Bank, the lending arm of the EU. In the UK, such an institution would be classified within the bounds of the public sector in the same way as the Scottish National Investment Bank.	No

		As this option attracts a public classification under the classification rules and does not provide additionality, it has not been taken forward.	
9	Leasing	Leasing is a common approach taken by the public sector for the use of buildings and vehicles where payments are made out of operating budgets. Leasing is generally applicable to assets where there can be alternative uses and therefore discounted as an option for infrastructure such as roads, hospitals, prisons, schools. The current accounting framework dealing with the recognition of leased assets is also under review.	No

4.4 Short List Options Appraisal

In all options, the assumption is a long-term partnership between the public and private sectors via contracts. The public sector selects a partner through a procurement process to design, build, finance and maintain their new infrastructure asset. The risks associated with construction delay, cost overrun, and maintenance of the asset are transferred to the private sector partner.

The private sector partner establishes a delivery vehicle (or Project Co) to deliver and maintain the asset over a period of 25-30 years. The public sector pays an annual fee (unitary charge) to the private sector for the delivery of a maintained and serviced asset. Payment starts when the asset is ready for use by the Public Sector. The fee 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.

The following colour coding appraisal system has been used to evaluate the options to assess how well the investment model is aligned with the critical success factors set out in this paper:

	Does not align with critical success factor
	May be capable of alignment with critical success factor
	Partially aligns with critical success factor
	Mostly aligns with critical success factor
	Aligns with critical success factor

Where any features of an investment model do not align with a critical success factor, they will be discounted. Where features indicate the investment model partially aligns with the critical success factors, further explanation is provided within the appraisal as to how alignment could be achieved.

4.4.1 Option 4 Non-Profit Distributing

Whilst there has been no specific corporate structure requirement, all transacted NPD projects to date have adopted a structure that involves the creation of a special purpose vehicle that is a company limited by (non-dividend bearing) shares. The shares in the Project Company are held by the private sector investors with the exception of one “golden share” held by the Procuring Authority which increases transparency and accountability and underpins the NPD principle of enhanced stakeholder involvement.

The private sector raises 100% of the senior finance and risk capital. Investors bid a coupon rate of return and the returns to the investors are capped at this level. Any operational surpluses which flow from the project company once the project has repaid its project costs and finance costs, are returned to the public sector.

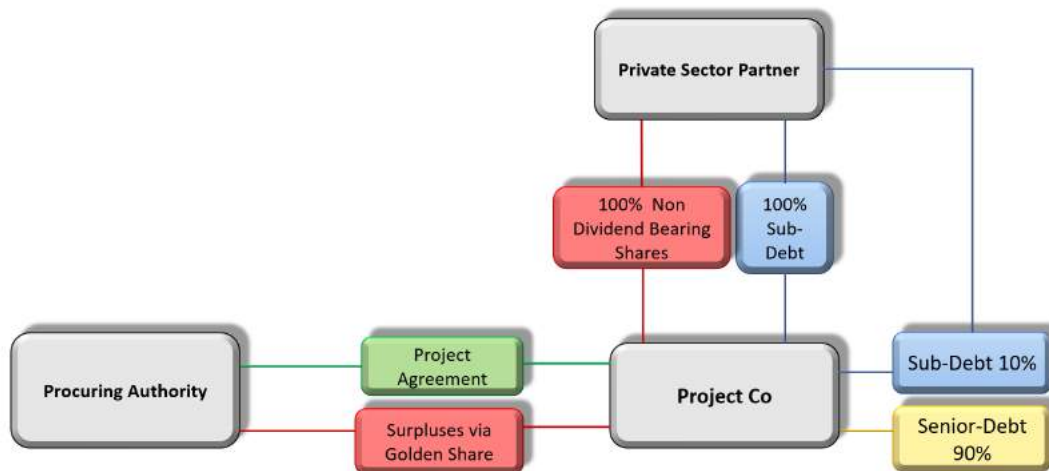


Table 2 sets out a qualitative evaluation of this option based on the critical success factors:

Additionality (Classification test)	Profit capping signals “on balance sheet” in accordance with the 2016 guidance	
Value for Money (Prescribed features)	Delivers a number of benefits over historic PFI structures including public sector roles in the governance, capped returns to the private sector so as to allow a normalised level of return, directing of operational surpluses to the public sector.	
Profit Sharing (Provides ownership opportunity)	Profit capping rather than profit sharing. Noted as green because the structure is designed so that 100% of any surplus to go public sector.	
Affordability (Investment and Revenue Costs)	The structure is on balance sheet, capital budget is required to cover the asset as it is built and financing and maintenance costs are required to be covered by revenue budgets as they are incurred over the life of the project. This option consumes capital budget and attracts a private sector cost of finance and so is rated as red.	
Market deliverability (Market test)	NPD is understood and has been delivered in the market. Marked yellow as the supply chain capacity and appetite for revenue funded contracts has changed since earlier revenue funded programmes as explored in the Commercial Case.	
Financial Risk (Public Sector Investor risk)	There is no public ownership stake in the Project Company. The Public Interest Director role enables independent influence on the delivery company Board.	

4.4.2 Option 6 Evolved PFI: 100% private ownership

In this option the investment model minimises the areas which are like to have an impact on the classification. The model below envisages no provisions which are considered on balance sheet, or moderate, high or very high as set out in the thresholds in the Eurostat Guidance. This option would require that the Private Sector Partner raise all debt and equity and is therefore entitled accordingly to the associated risk and reward. In a move from current investment models in the UK, insurance risk is transferred to the private sector.

100% Private Sector Ownership

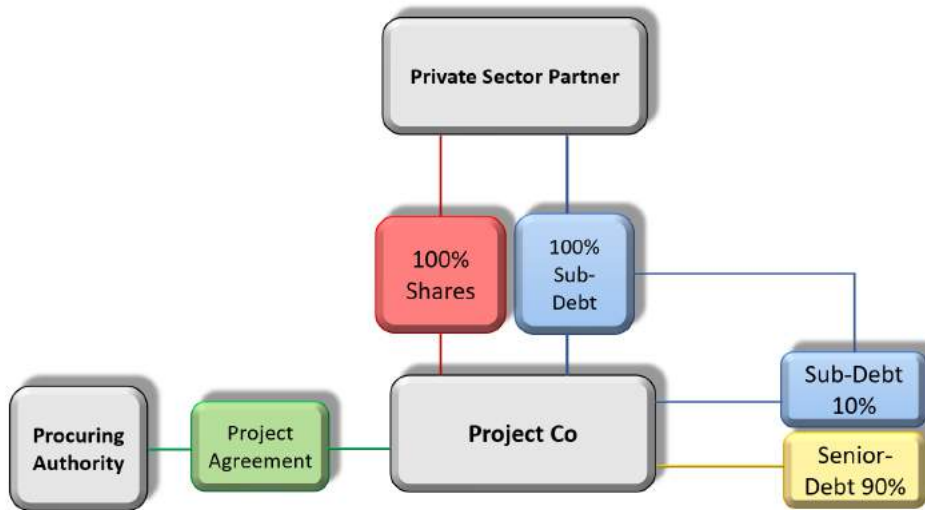


Table 3 sets out a qualitative evaluation of this option based on the critical success factors:

Additionality (Classification test)	Applying the 2016 Eurostat guidance, the contractual provisions which would support this investment model, would not result in On Balance sheet, Very High, High or Moderate. It is anticipated that projects delivered using this structure would be classified to the private sector.	
Value for Money (Prescribed features)	The description of the model as evolved PFI means that some aspects of the improvements to traditional PFI contracts could be incorporated such as a reduced scope of services and some optimisation of risk transfer. Whilst the cost of finance would be competed, 100% of any equity return generated would revert to the private sector. There is no independent director on the Project Co. Insurance risk is passed to the private sector.	
Profit Sharing (Provides ownership opportunity)	100% of any profit goes to the Private Sector.	
Affordability (Investment and Revenue Costs)	Provided clear parameters are set for future revenue commitments, this investment could be made affordable within the parameters. Other options which see potential for sharing in investment income and lower cost insurance approaches would score higher on affordability.	
Market deliverability (Market test)	Understood and tested in the market. Used elsewhere in UK and Europe. Marked yellow as the supply chain capacity and appetite for revenue funded contracts has changed since earlier PFI programmes have been delivered as explored in the Commercial Case.	
Financial Risk (Public Sector Investor risk)	There is no public ownership stake in the Project Company therefore no public sector investor risk	

4.4.3 Option 7 – MIM up to 20% sharing

This option reflects the Welsh Government MIM model. Under this option, the Private Sector Partner is required to subscribe to 80% of the shares in the Project Company, with the Public Sector Investor taking the remaining up to 20% shareholding. The contribution to sub-debt would mirror the shareholding.

80:20 Private/Public Split

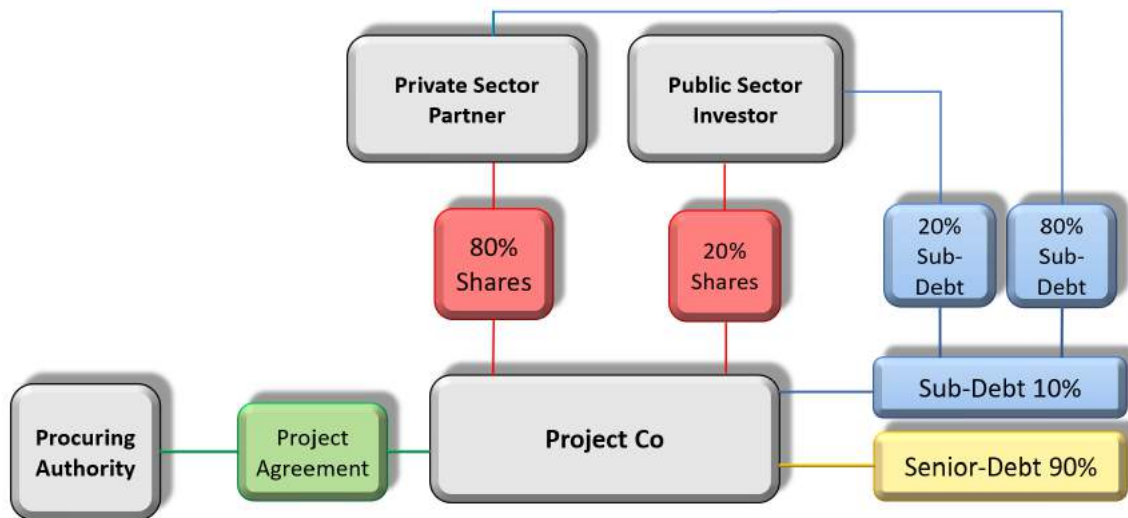


Table 4: Qualitative evaluation of Option 7 MIM up to 20% sharing

Additionality (Classification test)	Application of the Eurostat guidance to this investment model results in 1 High and 2 Moderate issues of importance. These are within the permissive range and indicate a private classification. This replicates the Welsh MIM structure and Eurostat has classified the structure to the private sector. Further detail provided in Annex 2.	
Value for Money (Prescribed features)	Delivers similar benefits over PFI that were introduced with the NPD model. Rather than profit capping under NPD, this model provides a 20% ownership stake which delivers the enhanced governance as well	
Profit Sharing (Provides ownership opportunity)	Under this structure risk and reward is shared 80:20 private to public sector.	
Affordability (Investment and Revenue Costs)	This option allows for sharing in the investment income that the project finance structure delivers through a 20% share in the risk capital financing and sharing in the any operational surpluses arising in the delivery vehicle.	
Market deliverability (Market test)	The first MIM project is out to procurement in Wales which is a positive indicator of achievability. This has been marked yellow as early market testing in Scotland indicates a change to market capacity and appetite for revenue funded contracts.	
Financial Risk (Public Sector Investor risk)	Under this option, the public sector holds a 20% investment stake in the Project Co. This has been assessed as mostly aligning with the critical success factor as it reflects a level of financial risk but also a risk that the public sector has previously undertaken through the 20% public sector ownership stake in the hub DBFM projects.	

Whilst Eurostat has classified the Welsh MIM structure to the private sector on the basis on a set of contractual documents which presume an up to 20% ownership stake, it is noted that the Welsh Government may take a 15% rather than a 20% stake in their initial projects. This is a more prudent approach from a classification perspective. They have also opted for the private sector not to compete up to 49% of the private sector equity based on negative market feedback to this approach.

The Welsh Government does not consider that this impacts on the classification they have received for the model reviewed by Eurostat.

4.4.4 Option 7a MIM variant up to 30% sharing

Under this option, the Private Sector Partner are required to subscribe to 70% of the shares in the Project Company, with the Public Sector Investor taking up to 30% of the remaining shareholding. The contribution to sub-debt would mirror the shareholding.

70:30 Private/Public Split

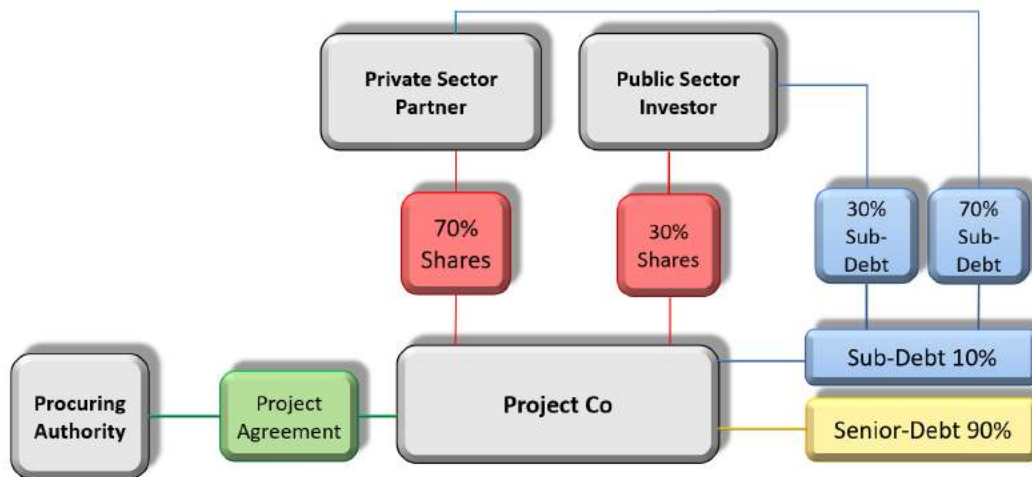


Table 5 sets out a qualitative evaluation of this option based on the critical success factors:

<p>Additionality (Classification test)</p>	<p>Application of the Eurostat guidance to this investment model results in 2 High and 1 Moderate issues of importance. These are within the permissive range and indicate a private classification. There remains risk in this arrangement that ONS may consider the 30% public sector share ownership to signify “control” of the company, even though it does not reach the threshold for public classification in the guidance. This has been evaluated as "may be capable" of alignment with the critical success factor. It is recommended that this should be tested with ONS prior to deployment of this arrangement. See Annex 2 for further detail.</p>	
<p>Value for Money (Prescribed features)</p>	<p>Delivers similar benefits over PFI that were introduced with the NPD model. Rather than profit capping under NPD, this model provides a 30% ownership stake which delivers the enhanced governance as well as profit sharing in any operational surpluses to the public sector.</p>	
<p>Profit Sharing (Provides ownership opportunity)</p>	<p>Under this structure risk and reward is shared 70:30 private to public sector.</p>	
<p>Affordability (Investment and Revenue Costs)</p>	<p>This option allows for sharing in the investment income that the project finance structure delivers through a 30% share in the risk capital financing and sharing in the any operational surpluses arising in the delivery vehicle.</p>	
<p>Market deliverability (Market test)</p>	<p>This is similar to MIM albeit a further 10% ownership is passed to the public sector. The market has accepted the principle of public sector ownership up to 40% in the case of the hub programme. As with other options, market testing more generally indicates a change to capacity and appetite for revenue funded structures.</p>	
<p>Financial Risk (Public Sector Investor risk)</p>	<p>Under this option, the public sector holds a 30% investment stake in the Project Co. This has been assessed as partially aligning with the critical success factor as it reflects a relatively higher level of risk for the public sector although noting there has been some precedent through the hub programme.</p>	

4.4.5 Option 7b MIM variant up to 40% sharing

Under this option, the Private Sector Partner is required to subscribe to 60% of the shares in the Project Company, with the Public Sector Investor taking up to the remaining 40% shareholding. The contribution to sub-debt would mirror the shareholding.

60:40 Private/Public split

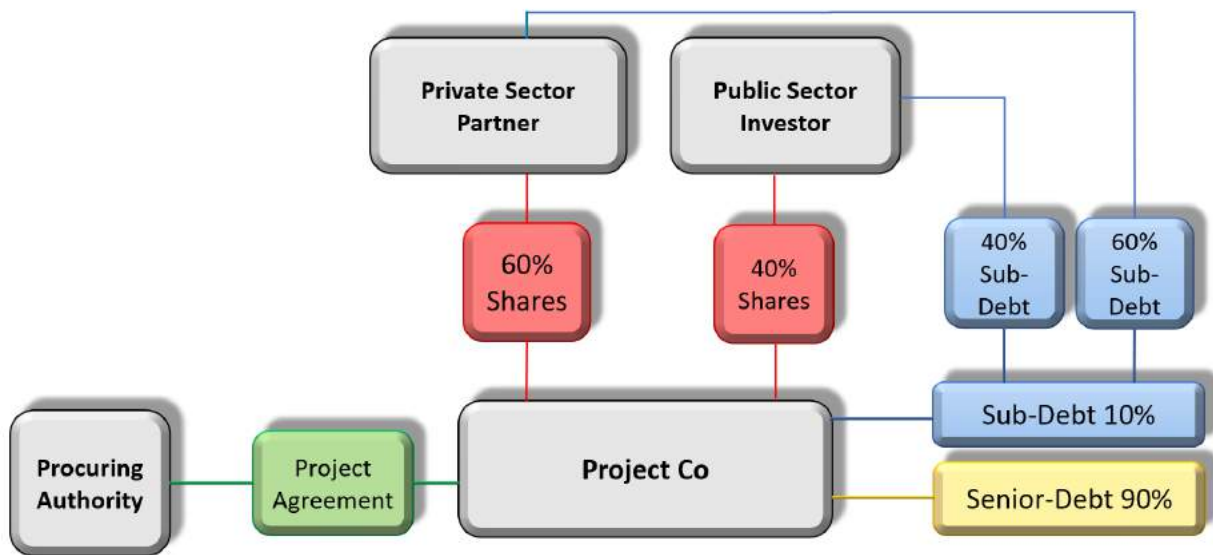








Table 6 sets out a qualitative evaluation of this option based on the critical success factors:

<p>Additionality (Classification test)</p>	<p>Application of the Eurostat Guidance to this investment model results in 1 Very High and 1 Moderate issues of importance. Insurance risk is transferred back to the private sector. This structure is within the permissive range and indicates a private classification. There remains risk in this arrangement that ONS may consider the 40% public sector share ownership to signify “control” of the company. This has been evaluated as "may be capable" of alignment with the critical success factor. It is recommended that this should be tested with ONS prior to deployment. (See Annex 2 for further detail)</p>	
<p>Value for Money (Prescribed features)</p>	<p>Delivers similar benefits over PFI that were introduced with the NPD model. Rather than profit capping under NPD, this model provides a 40% ownership stake which delivers the enhanced governance as well as profit sharing in any operational surpluses to the public sector. Some VFM is eroded with the transfer back o insurance.</p>	
<p>Profit Sharing (Provides ownership opportunity)</p>	<p>Under this structure risk and reward is shared 60:40 private to public sector.</p>	
<p>Affordability (Investment and Revenue Costs)</p>	<p>This option allows for sharing in the investment income that the project finance structure delivers through a 40% share in the risk capital financing and sharing in the any operational surpluses arising in the delivery vehicle.</p>	
<p>Market deliverability (Market test)</p>	<p>This is similar to MIM albeit a further 20% ownership is passed to the public sector. The market has accepted the principle of public sector ownership up to 40% in the case of the hub programme. As with other options, market testing more generally indicates a change to capacity and appetite for revenue funded structures.</p>	
<p>Financial Risk (Public Sector Investor risk)</p>	<p>Under this option, the public sector holds a 40% investment stake in the Project Co. This has been assessed as partially aligning with the critical success factor as it reflects a relatively higher level of risk for the public sector to other options although noting there has been some precedent through the hub programme.</p>	

4.4.6 Summary qualitative appraisal

The following table outlines the summary of the short list appraisal:

Table 7: Summary of the qualitative appraisal

	Option 4 NPD	Option 6 Evolved PFI	Option 7 MIM 20%	Option 7a MIM 30%	Option 7b MIM 40%
Additionality (Classification test)					
Value for Money (Prescribed features)					
Profit Sharing (Provides ownership opportunity)					
Affordability (Investment and Revenue Costs)					
Market deliverability (Market test)					
Financial Risk (Public Sector Investor risk)					

Option 4, NPD which includes profit capping has been ruled out as it is not capable of securing additionality due to classification. It is noted that options 6 and 7 do meet the ‘Additionality’ criteria. It is worth noting that the Welsh MIM model with up to 20% public share has been classified ‘private’ by Eurostat. None of the other models have received a Eurostat classification however many countries across Europe do use versions of PFI.

The appraisal concludes that Option 7, a Scottish version of the Welsh Mutual Investment Model with up to a 20% risk capital stake has the closest alignment to the criteria established for the review. As with all of the options, this Option 7 was partially aligned with the “Market Deliverability” criteria. The success of the model will be strongly linked to supply chain capacity and appetite to contract under the investment model.

Sensitivity Testing

Appetite for greater risk

The assessment under Eurostat Guidance indicates that Options 7a and 7b could potentially deliver additionality and greater profit sharing but they carry greater risk in these areas. There remains some risk in this arrangement that ONS/Eurostat may consider the 30% public sector share ownership to signify “control” of the company, even though it does not reach the threshold for public classification within the relevant section of the Eurostat Guidance. These

options would require to be tested through ONS and Eurostat before proceeding which could take 1-2 years or longer.

Appetite for greater resilience

Under the appraisal process the Evolved PFI model is noted as not aligning with profit sharing success factor. It would however provide a more resilient option from a classification perspective as this model does not trigger any of the Very High, High or Moderate factors in the Eurostat Guidance. It is recorded as green for affordability noting that this option could be managed within the parameters set for sustainable investment and yellow for value for money recognising that there would be no independent governance or potential for sharing in any operational surplus.

A further variant for classification resilience would be to invest in the share capital only and the private sector raise all the loan capital. This would remove one of the 'moderate' factors in the Eurostat Guidance. It would also reduce the quantum of Scottish Government risk exposure. It is normal in structures of this nature to have the voting control of the delivery company (share capital) owned by the same parties and in the same proportions as the risk capital (subordinated debt). The additional complexity and potential market unacceptability of having different proportions means that this approach has not been tested in the analysis.

4.5 Illustrative quantitative analysis

Work has been undertaken on a supporting analysis to demonstrate the quantitative impact of profit capping, profit sharing and transfer of insurance risk. These are the main differentiators in the appraisal of the shortlisted investment models and demonstrate how a sharing in risk capital may impact on the overall cost to the public sector.

Under all investment model options, it is anticipated that optimising all elements of the project and financing costs to deliver the lowest unitary charge for the appropriate quality of product is preferable to incentivising a larger operational surplus (or profit) to share in.

Informed by NPD/hub programme construction, financing and operational cost project data, a simplified financial model has been considered for an illustrative £50 million accommodation project delivered under the investment models tested in this appraisal.

The financial model generates a net present value of the cashflows the procuring authority pays to the private sector contractor over a 25-year operational period for the serviced asset. It is important to note that this assumes the performance is delivered in line with the expected modelled performance of the asset and service contract. Should performance not be delivered by the SPV/Project Co, the analysis also demonstrates varying degrees in the risk exposure.

The base case model for comparison is Option 4 NPD which is the form of PPP that Scottish Government has used until the Eurostat rule changes.

The risk capital assumes a stake in both the equity in the project and the subordinated debt.

The net present value of the investment income linked to the public sector risk capital stake has been netted off the NPV in Options 7, 7a and 7b.

The discount rate applied in this analysis is the recommended Green Book nominal discount rate of 6.0875%

Table 8 outlines the illustrative quantitative analysis undertaken:

	NPV of annual charges for 25 years £000	Increase on NPD NPV £000
Option 4 NPD	75,600	
Option 6 Evolved PFI	76,800	+1,200
Option 7 MIM up to 20%	75,900	+300
Option 7a MIM up to 30%	75,500	-100
Option 7b MIM up to 40%	75,300	-300

With the important caveat that the analysis assumes the contract delivers in accordance with profiled financial performance, it shows that the greater the share in ownership, the lower the net cost to the public purse. The difference in cost between the highest and lowest NPVs using the HM Treasury discount rate of 6.0875% is £1.5m or 2%.

In Option 7b the reward from participation in up to 40% of the subordinated debt, which produces an annual stream of payments to the public sector, creates a lower NPV than under NPD. Under NPD, for this illustrative analysis, the return of surpluses is assumed to happen at the end of the contract. In this worked example, the pure equity return under all the options and the surpluses in the NPD option are modelled to be released far out in time in the final year of the contract.

The ownership stake brings a share in the risk of the delivery company performance. A persistent drop in operational performance of the company such that 10% or more of the annual revenue is withheld from the SPV by the procuring authority would see the public sector risk capital, along with the private sector risk capital substantially eroded. Other risks include sub contractor insolvency resulting in a delay, or a one off major event which would see a substantial element of unitary charge. Under the downside scenarios, the NPD and Evolved PFI exposure is capped due to the private sector 100% ownership of the vehicle.

4.6 Conclusion

The appraisal concludes that Option 7, a Scottish version of the Mutual Investment Model with up to a 20% risk capital stake has the closest alignment to the criteria established for the review and has received a Eurostat private classification.

This is the **recommended investment model** for privately financed, privately classified revenue funded infrastructure to add to the infrastructure investment approaches for Scottish Government.

Option 7 carries some commercial risk through sharing in the risk capital. In the same way the Welsh Government has made some modification to its contracts for the procurement stage, for example initially setting the investment share at 15%, rather than the maximum 20%, Scotland should also explore some modifications linked to market feedback and with the caveat that they do not impact on the classification factors outlined for the model.

The success of the model is strongly linked to supply chain capacity and appetite to contract under the investment model. These areas are considered further in the Commercial Structure section.

All models will also be subject to classification risk and guidance from Eurostat on classification is subject to periodic review. The next version of the applicable guidance (the Manual for Government Deficit and Debt) is expected to be published during 2019. Some changes are anticipated in relation to classification of non profit institutions. Whilst the changes anticipated are not expected to impact on the classification of the MIM investment model, Scottish Government and SFT will keep in discussion with Eurostat, ONS, and HM Treasury on anticipated updates and consider potential impacts.

A more resilient option, from a classification perspective, is option 6 Evolved PFI which has 100% financial ownership in the private sector. This option was not recommended as it did not align with the critical success factor for profit sharing.

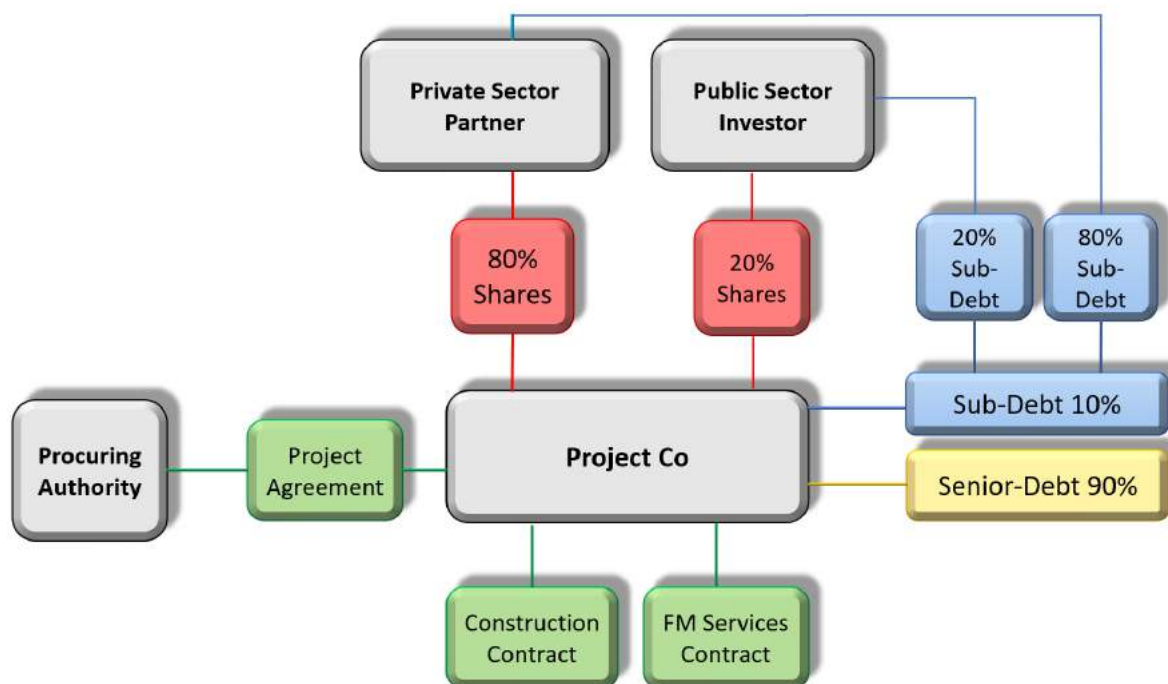
5. Commercial Structure

5.1 Introduction

In this section the commercial and financing structure is explained including the roles of the public sector as an investor, the contractual roles and supporting contractual documentation. The qualitative value for money features of the model are also set out.

5.2 Commercial Structure

The parties to the commercial structure will ultimately be dictated by the chosen procurement route, however, to achieve a private sector classification and to satisfy private sector funder requirements, the typical revenue funded project structure is set out below (based on an up to 80:20 private sector public sector split as proposed under the MIM Model):



Following a procurement, the Project Co is established as a special purpose vehicle (SPV), which in turn subcontracts the design, build and operation of the asset throughout the project duration to a Construction Contractor (Construction Contract) and a FM Services Provider (FM Services Contract).

As construction and operational risk is transferred to the private sector, the Procuring Authority makes no payments during the construction phase and is only obliged to pay for the use of the asset once it has been certified as complete by an Independent Tester. Payment is made to Project Co in the form of the unitary charge or annual service payment throughout the concession period, normally 25-30 years. Where the service is not provided in accordance

with the contract, the Procuring Authority is entitled to make availability and performance related deductions from the annual unitary charge.

The services envisaged to be included under this commercial structure are sector dependent.

5.3 Financing

Under this structure around 90% of the financing is senior loans usually sourced from a bank or institution. On larger transactions, over £150 million, bond finance may also be an option. For larger projects in the NPD programme, EIB financing was secured at attractive rates. This opportunity appears likely to be lost post Brexit, at least in the short-term until any new arrangement is negotiated between the UK and the EU. Senior loan finance can be competed during the procurement stage or once a preferred bidder has been selected. This will be a decision taken by the procuring authority in developing the procurement stage and is dependent on the funding market and the project.

The senior loan finance ranks before the risk capital which forms the remaining c.10% of the financing of a project. The risk capital is typically competed as part of the procurement process. In recent programmes the risk capital is provided via a 'subordinated loan'. Pure risk capital or equity ranks below the subordinated loans.

Under the proposed MIM, the public sector investor has a right to participate in the subordinated debt and hold a proportion of the shares within Project Co. In the above example, the public sector investor participates by subscribing to up to 20% of the subordinated debt requirement, receiving a regular payment, and receives up to 20% of any profit generated by Project Co after it has met its operating costs, senior debt repayments and subordinated loan repayment. This structure requires the public investor to inject pure equity, likely <£1,000 and subordinated loan funds equal to 2% of the overall financing requirement.

5.4 Public Sector investment up to 20% in the MIM

Under the Welsh MIM structure reviewed by Eurostat, the structure anticipated up to a 20% ownership stake. In the current Welsh roads procurement the Welsh Government has opted for a 15% ownership stake. We understand that this is partly linked to International Accounting Standards "IAS 28" which covers Investments in Associates and Joint Ventures. Specifically, if a procuring entity has a holding of 20% or greater it is assumed that the investor has significant influence unless it can be demonstrated that this is not the case.

Whilst a change to the investment stake does not increase or reduce the classification factor of 'moderate' for government participating in the financing, it may be appropriate for Scotland to also consider this lower level of stake within the scope of Scottish MIM model relative to the appropriate balance of influence over the Project Co.

5.5 Public sector risk and reward

SFT's market engagement exercise, detailed in the Market Testing section confirmed that this commercial structure is well understood and that the concept of public investor ownership stake is now accepted. Many market engagement participants did raise the prospect of the risks associated with ownership stakes.

There have been occasions, for example on English PF2 investments where the government owned a stake in projects with Carillion as lead contractor and have lost their risk capital. Prior to investment, the public sector would require to satisfy itself, through a diligence process, of the balance of risk.

In the hub programme, where SFT Investments Limited holds a 10% ownership in DBFM projects, investments are subject to scrutiny through an Investment Committee and an experienced PPP investment practitioner represents the investment interest on each of the SPV boards. It is recommended that appropriate scrutiny processes and experienced individuals are put in place to manage the risks associated with the ownership stake.

5.6 Standard form agreements

The main project contractual documents are:

- a project agreement to govern the design, build, financing and maintenance of the project; and
- a shareholder's agreement to govern the rights and obligations of the parties who have invested in the project company.

In developing and managing the hub and NPD programmes, in order to ensure consistent delivery and value for money across the public sector, SFT have developed and maintained standard form project documents for projects transacted in the health, schools and colleges sectors.

This has resulted in reduced commercial negotiations and associated advisor costs and is viewed positively by all those involved in the project development process. It has also meant that expert project support is available to the procuring authority and the commercial position of the public sector is adequately protected. In addition, the requirement to maintain a private sector classification is secured. This "standard contract" approach has recently been used by the Welsh Government on their MIM procurements in meeting ONS and Eurostat classification requirements.

A similar contract has been developed by Transport Scotland for the two major NPD roads procurements. It would therefore be proposed that the standard form approach adopted on hub and NPD is replicated to MIM procurements taking into account the market feedback. A template project agreement and shareholder agreement would be produced and included as part of the procurement documents.

SFT has taken preliminary external legal advice on establishing a standard accommodation contract to deliver the preferred option. Further development will be required once the sectors in which the investment model is to be deployed are known with bespoke contract development required for new sectors.

A strong working relationship is already established with Welsh Government colleagues. A collaborative approach will assist in the ongoing development phase.

5.7 Risk allocation

Under the recommended investment model, the risk allocation remains consistent with previous forms of hub and NPD contracts.

In accordance with these contracts, design risk sits with Project Co. Construction and development risk for the new build also sits with Project Co although a small number of delay and compensation events could entitle Project Co to compensation if the events materialise, such as no access to the site and incomplete enabling works which impact upon the site.

Transition and implementation risk prior to the handover of the asset sit with the Project Co. After the asset has been handed over transition and implementation risk will sit with the procuring authority in line with any agreed protocol. Availability and performance risk sit with Project Co and are governed by a Payment Mechanism.

Operating risk is a shared risk, subject to the procuring authority and Project Co's responsibility under the project agreement. For example, in an accommodation project, Project Co will be responsible for 'hard' facilities maintenance and the procuring authority will be responsible for services such as cleaning and catering.

Variability of revenue risk is a Project Co risk. Procuring authorities are responsible for pass through utility costs such as energy usage and direct costs such as insurance and business rates where applicable, all of which are subject to different factors such as indexation.

Termination risk is a shared risk under the project agreement, with both parties being subject to events of default that can trigger termination.

As with all Design Build Finance Maintain (DBFM) type contracts, in the MIM structure there is significant element of risk which occurs in the upfront construction period with the reward to shareholders spread over the life of the contract. The contracts are expensive to break – with the private sector likely to sustain substantial losses if the contract is terminated for their poor service leading to a default, and the public sector likely to face substantial costs if it terminates voluntarily to recompense investors for their lost return.

Residual value risks sit with Project Co until the end of the contract and will sit with procuring authority thereafter. In relation to the handback of the asset by Project Co at the end of the

25-year contract, Project Co must ensure that the facility meet certain key standards or shall be required to pay to rectify the asset in order that it meets these standards.

Following the market engagement exercise, some further work will be undertaken to consider options to simplify the payment mechanism in the current standard form contract. There may also be some scope to consider the risk allocation of low probability, high impact risks where the market has highlighted specific issues although this will always have to be within the context of retaining private classification.

5.8 Value for money features of the recommended model

In securing a commercial structure that will deliver value for money for additionality, the model must be both attractive to the market to enable competition and deliver the benefits of the hub and NPD contract structures, as well as the appropriate revisions which have been incorporated in the MIM model. Clear line of sight and management of project pipeline is required to maximise market interest and capacity.

Features of the MIM will include:

- Standard form contracts, assurance processes and robust conditions for funding learning from previous revenue funded programme experience;
- Competitive processes to attract value for money project finance;
- Strong project and programme governance and resourcing in place to deliver;
- Focus on wider community benefits and economic stimulus;
- Project diligence and scrutiny on the design and maintenance of the asset;
- A Project Co that ensures the asset is maintained during the contract period;
- Whole life costing approach and programme approaches to benchmark project costs;
- Access to SFT as a centre of expertise during the project development, procurement, construction and operational phases of projects; and
- A focus on delivering high quality, low carbon and digital enabled assets in all programmes and projects within the National Infrastructure Mission.

A public interest director will be maintained in the new model and the public sector will also have an equity stake and share in the risk capital of the project, which shares the profits distributed based on the initial shareholding.

5.9 Community Benefits

Projects delivered through this model will bring significant opportunities to deliver benefits for local communities, and ultimately the Scottish economy. The commercial structure will allow for development of the processes and contractual clauses developed under NPD and hub to ensure that bidders deliver community benefits as part of the project.

5.10 Quality

A renewed focus on asset quality will be a feature of all projects delivered using this model. A standard form MIM contract will include enhanced mechanisms for construction oversight, and a robust approach to certification of completion of the asset by a third party. A service specification and payment mechanism will ensure that the asset is maintained to a high-quality standard through its life.

5.11 Conclusion

The commercial structure for MIM will ultimately be dictated by the procurement route, however the basic commercial and financing structure is developed and the risk allocation understood by the contracting market. The preferred model includes an up to 20% public sector investment stake which will require to be carefully managed. It is proposed that standard form roads and standard form accommodation project agreements are developed to support the development of the preferred option.

The value for money features associated with previous hub and NPD models are capable of being delivered through this model and there is scope to link to wider principles for the National Infrastructure Mission and National Performance Framework as appropriate prior to completing standard form contracts and procurement documentation for any projects to be procured through this route.

6. Affordability and Financial Risk

6.1 Introduction

This section explores affordability parameters for the recommended option by reference to the Scottish Budget: 2019-20 published in December 2018.

Without information on the projects this model could apply to, this section considers the potential impact of the preferred investment model on the estimated revenue commitments and the relative sustainability of the model as financing or economic conditions change. The modelling has been informed by the data collected and published across the contracted Non Profit Distributing (NPD) and hub programme of projects. It also considers the cost of the recommended option when compared to traditional routes of capital budget and public borrowing.

The revenue commitments are not the only costs associated with delivering the type of major infrastructure envisaged to be funded through this model. This section sets out the wider cost categories to be considered with the recommended investment model and the levers and assurance processes available to support the management of sustainable investment.

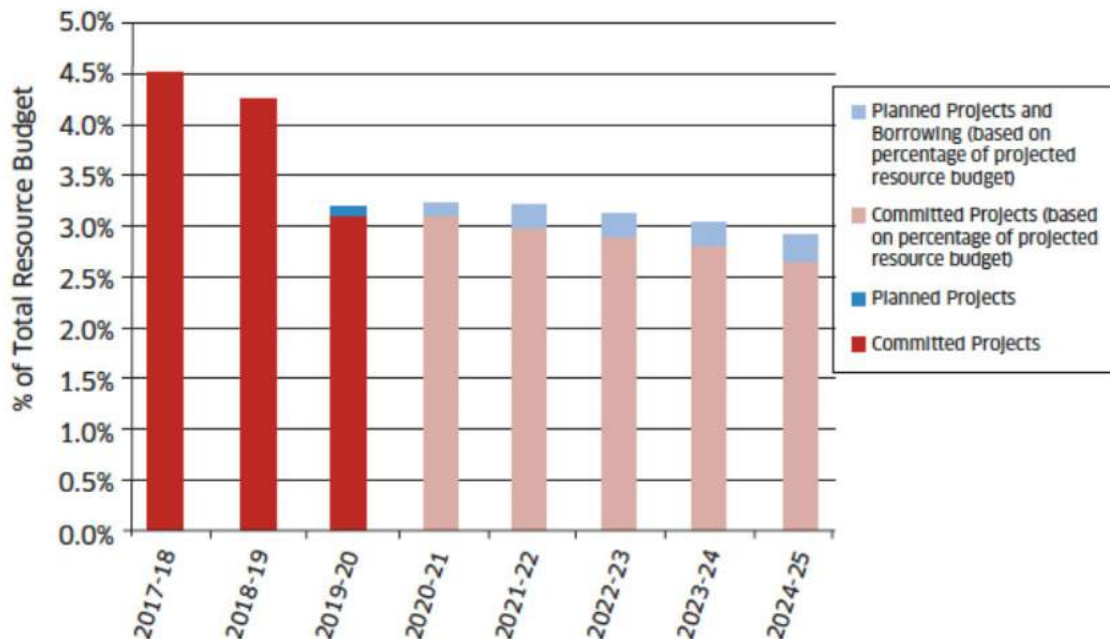
6.2 The 5% cap

The Scottish Budget: 2019-20 noted:

“We are committed to the sustainable use of revenue financed investment methods to ensure we do not overly constrain our choices in future years. Prior to this budget the Scottish Government had a self-imposed revenue finance investment limit of 5 per cent of the total Scottish Government Budget. To ensure our National Infrastructure Mission will be delivered in a fiscally prudent way, we are tightening this self-imposed limit to 5 per cent of the Scottish Government resource budget (excluding social security).”⁶

The graph below sets out Scottish Government’s share of the estimated long term investment commitments as a proportion of the total project resource budget extracted from the published document:

⁶ <https://www.gov.scot/publications/scottish-budget-2019-20/pages/5/>



These commitments include payments linked to historic Public Private Partnerships, Project Finance Initiative, the Non-Profit Distributing and hub DBFM projects as well as repaying Scottish borrowing.

The graph indicates headroom in the 5% over the term of the next Parliament within the sustainable use parameters to contract for future revenue funded commitments although this would need to be remodelled to reflect the change to SG resource budget as the new denominator rather than SG total budget. It is noted that Scottish Government does not have resource allocations beyond 2019-20 and therefore the estimated annual revenue commitments would require to be managed each year as part of the budgeting process.

6.3 Categories of cost

Whilst sector dependent, the broad categories of cost associated with projects delivered through a MIM are noted below. With the exception of the recurring annual unitary charge, many of these costs are more generally infrastructure investment related rather than specific investment model related.

6.3.1 Recurring revenue costs

The public sector is committed to the payment of annual unitary charge once a DBFM contract is signed. The annual charge is set in competition and is linked to the performance in the contract. The charge covers the following elements of cost:

Table 9 Cost Elements and descriptions

Cost Element	Description
Construction costs (capital expenditure)	Final tendered value for construction costs.
Special Purpose Vehicle (SPV or Project company) costs in construction*	Delivery company costs in construction and mobilisation period.
Financing costs	Interest associated with subordinated debt borrowing and other finance costs.
Special Purpose Vehicle (SPV or Project company) costs in operation*	Administering, insuring and running costs of the SPV including debt monitoring fees.
Facilities Management costs (Hard FM) *	Cost of maintaining the asset including costs of setting up the FM service.
Lifecycle maintenance costs *	Replacement cost of major repairs e.g. replacing boilers, during life of the project.
Other	Including tax and interest.

* - these costs are indexing – they increase with inflation over the life of the contract.

There may be other operational costs associated with the project if it is a new asset such as staffing costs, or indeed a replacement or alternative asset could generate lower operational costs. These are areas to be considered in the individual project business cases.

6.3.2 Non recurring revenue costs

The costs associated with establishing a project team and securing professional advice from architects, technical, commercial or specialist professions as required over the period of the business case development, procurement and construction period can be significant (2-3%) of the capital investment. This investment model is necessarily complex and thorough to cover all aspects of the design, development and procurement phases as well as the public/private partner contractual relationship for 25 years and sub contracting arrangements between the delivery company established and its construction, services contractor and investors.

6.3.3 Capital costs

Capital budget is typically required for costs outside of the revenue funded contract. In preparation of the procurement, the procuring authority is strongly recommended to have acquired its site, completed statutory planning processes, cleared it and prepared the site for handover to the contract partner. Investigation and preparation around utilities work may also require capital expenditure. There may be a capital requirement for equipment such as in a new hospital once the project is in construction.

Often referred to as ‘enabling costs’, these can be significant costs for individual procuring authorities and can prevent a project proceeding if the authority cannot secure the budget for upfront capital works, utilities or for equipment associated with the contract. However, these enabling costs can de risk the project, making it more attractive to the market and support a more deliverable affordable project overall. The affordability of individual projects will require to be tested in the individual project business cases for each project delivered using this investment model.

6.4 Affordability of the investment model or the project?

The focus of this appraisal is the affordability or sustainability of the investment model and must be separated from affordability and value for money at a project level.

The testing for affordability at a project level may indicate that the construction cost has increased due to a change in scope or regulations or a significant increase in construction indices requiring a procuring authority to revisit its business case. These are not linked to the affordability of the investment model but to the project itself. Accordingly, any revisions to the project business case should be scrutinised by the governance process for that project. It is important that the governance process for the projects selected to be delivered using this form of investment model are aligned with the governance for the investment model itself.

6.5 Scottish Government investment and funding support for MIM model

Noting the extent of the costs, in addition to the annual unitary charges, incurred in the overall infrastructure investment, procuring authorities will seek clarity on responsibility for funding the individual cost components of a project funded through this model.

In the previous Non-Profit Distributing model funding arrangements, the following broad allocation was used noting some exceptions. Depending on whether the procuring authority received a wider revenue budget allocation, the funding support for Facilities Management and Lifecycle maintenance varied.

SFT led on the development of pre-procurement and pre-contract signature approvals for Scottish Government and sponsoring bodies for the NPD programme of projects which included preparing guidelines and calculation methods for estimated revenue support for procuring authorities and clarified the funding support mechanisms.

Table 10: Funding support for NPD programme of projects

	SG Funded	Authority Funded
Authority project development & advisory		✓
Authority capital & revenue enabling costs		✓
Construction	✓	
Private sector project development	✓	
Private sector financing costs	✓	
Project company running costs	✓	
<i>Lifecycle maintenance</i>	✓	✓

<i>Hard facilities management</i>	✓	✓
Soft facilities management		✓ (and delivered by the authority)
Utilities		✓
Equipment		✓

6.6 Investment in subordinated debt

Under the preferred investment model, the public sector would require to invest up to 20% of the risk capital during the construction phase of the project. Under previous co-investment models such as the hub DBFM programme, the public sector investment has typically been made using Financial Transactions budget.

The risk capital is typically 10% of the total finance required and therefore the public investment commitment would be 2% of the total financing in the project. For each £1 billion of capital investment through this model, the financing could be in the region of £1.1-1.2 billion (higher than the capital cost due to rolled up interest) such that Scottish Government would require to invest £22-24 million. This could be in the form of Financial Transactions.

6.7 Affordability

The Strategic Case set out that the National Infrastructure Mission is expected to be delivered using a variety of funding approaches including profit sharing finance schemes.

This investment model will be one of a number of tools available to the Scottish Government to deliver capital investment. It will be important that the most cost-effective tools are maximised initially, for example use of Scottish Government capital grant, and that the investment model is subsequently used to deliver the additionality needed to achieve the Scottish Government’s overarching mission.

Analysis has been undertaken to examine potential future revenue commitments relative to the construction costs for projects procured under the recommended option and compares these with traditional routes of capital budget and public loans financing.

Two ratios have been established informed by contracted NPD/hub and schools programme data. The ratio ranges take into account sensitivity analysis on movements in inflation and the cost of private finance noting that the previous revenue funded programmes were contracted at a time of historically low underlying interest rates. Other factors which could influence the ranges are a change in risk appetite from risk capital holders in terms of the return they are seeking on their investment.

The first “Cost Multiplier ratio” considers the revenue commitments for the 25 year life of a community campus asset with a construction cost of c.£50 million procured using capital, public finance and private finance. (Supporting analysis is attached at Annex 3a and b).

Table 11: Cost Multiplier Ratio

Funding source	Cost Multiplier ratio	Example Whole Life Asset Cost
Capital Grant	1.5x	£75m
Public Borrowing	1.9x - 2.6x	£95 - 130m
Private Borrowing (MIM)	2.6x - 3.3x	£130m - £165m

It is estimated that using private finance under the recommended option to fund a new building such as a community asset will be in the range of 2.6 to 3.3 times the construction cost over the 25 year life of the asset. This compares with 1.9 to 2.6 times the construction cost if financed using public borrowing from the Public Works Loan Board. An asset funded using capital grant, and importantly maintained to the same standard over 25 years, is estimated to be 1.5 times the construction cost.

For acute health, college and roads facilities these ratios will be greater across all funding sources reflecting relative maintenance costs, and differing VAT positions. In addition, for roads there is a longer construction period and an average contract length of 30 years in these NPD projects. Drawing on project information published by Scottish Government for the current privately financed contracted programme⁷, the current multipliers are as follows.

Table 12 Cost Multiplier Ratio per NPD/hub sector

	Cost Multiplier Ratio 1 (Funding commitments/ Construction cost)
Schools	2.6x
Colleges	3.1x
hub health	2.6x
Roads	3.7x
NPD health	2.7x
Average across the programme	2.9x

⁷ <https://www.gov.scot/publications/pipeline-npdhub-projects-unitary-payment-charges/>

The modelling analysis on a community asset at a cost of capital reflective of current market conditions set out in Table 11 is 2.6x. This is comparable with the contracted data on the current NPD/hub programme for revenue funded schools which shows an average of 2.6X.

Monitoring the movement in economic and financial conditions

To monitor the movement in cost of the privately financed investment model a further ratio has been developed. The ratio measures the revenue commitments in the first full year of a project as a percentage of the construction cost.

Using the same example of community campus asset with a construction cost of c.£50 million procured using capital, public finance and private finance, the revenue commitments ratio can be calculated as follows:

Revenue commitments ratio:

$$\frac{\text{First year revenue commitments}}{\text{Construction cost}} = X\%$$

Table 13 Cost Multiplier and Revenue Commitments Ratios

Funding source	Cost Multiplier - Ratio 1 (Total funding commitments / Construction cost) 'x' times	Example Whole Life Asset Cost	Revenue Commitments - Ratio 2 (First year revenue commitments / Construction cost) %
Capital Grant	1.5x	£75m	n/a
Public Borrowing (PWL B)	1.9x - 2.6x	£95 - 130m	7-10%
Private Borrowing (MIM)	2.6x - 3.3x	£130m - £165m	9-12%

For the same building asset above, the analysis indicates revenue commitments will be in the range of 9-12% of the construction cost from the point at which the asset is complete and handed over.

Extrapolating from the example above, each £1 billion of construction cost delivered (if it were in the schools sector) is anticipated to cost between £90-120m per annum in revenue commitments.

Analysis of the current NPD/hub programme of contracted projects data indicates that the ratios are higher for the Colleges, Acute Health and Roads sectors:

Table 14 Revenue Commitments Ratio per NPD/hub sector

	Revenue Commitments - Ratio 2 (First year revenue commitments/ Construction cost)
Schools	9.5%
Colleges	11.6%
hub health	9.7%
Roads	11.7%
NPD health	10.2%

It is important to note that this analysis considers the whole revenue commitments cost of the model to the public sector rather than attributing a portion to central Scottish Government allocation and a portion to the procuring body.

Factors which will cause the ratios to increase:

Cost of Finance: The ratio will increase as the cost of finance increases. This could be through the movement in underlying market rate, project finance margins, fees, risk capital rates or the types of terms offered in the debt package such as the cover ratios.

Operating costs: The ratio when inclusive of operating costs will vary in accordance with the relative movements in the operating costs. These costs are sensitive to wage costs and inflation. An area for further investigation and relevant to the setting of the ratios will be the decision on an appropriate index to be used in projects, for example a move to the use of CPI inflation rather than RPI inflation.

Whilst construction price has a significant impact on the absolute revenue commitments associated with any project, given the ratio includes construction both in the numerator and denominator, the ratio is not specifically sensitive to construction price movements in isolation.

6.8 Assessing the potential impact against the 5% cap

Assuming an RDEL value of £29,222 million*, the estimated revenue commitments associated with each £1 billion of capital investment using the 9% analysis in would be an additional 0.3%

contribution to the annual 5% cap. It is estimated this would increase to 0.4% per £1 billion if the revenue commitments ratio was at 12%.

** The RDEL value is taken from the Scotland's Fiscal Outlook: the Scottish Government's 5-year Financial Strategy⁸ as part of the central scenario (net of social security) for the Medium Term Financial Strategy.*

A large portion of the unitary charges funded by Scottish Government are fixed for the operational period, therefore provided the RDEL indexes in line with wider inflation indices then the annual contribution to revenue commitments, as a %, would reduce over time.

6.9 Monitoring value for money using the revenue commitments ratio

The revenue commitments ratio can be used as a tool to test a movement in the affordability impact of the overall investment model as economic and financial conditions move in the market.

An increase in the ratio indicates additional whole-life revenue cost to deliver a fixed amount of capital additionality. The following project and programme level approach is proposed to deliver a sustainable investment approach:

Programme Level

- Set a range of Revenue Commitments Ratios for the sectors selected for investment. The starting point is to use Revenue Commitments Ratios information from hub/NPD data. Where investment is deployed in a new sector, use an informed estimate to create the ratio in the new sector.
- Model the estimated revenue commitments for the sector and re-confirm fit in overall NIM programme 5% cap.
- Model a range of sensitivities on the Revenue Commitments Ratios and re-confirm fit in the overall NIM programme 5% cap.
- Use this data to allocate Revenue Commitments Ratio to individual investment programme or individual projects where appropriate based on sector.
- Should a project or programme exceed a pre-determined tolerance level; re-model and re-assess the MIM programme-level case within the overall NIM additionality model.
- Bi-annual refresh and reporting of revenue affordability to reflect the available current project data and to run sensitivities on the projected revenue commitments ratios.

⁸ <https://www.gov.scot/publications/scotlands-fiscal-outlook-scottish-governments-five-year-financial-strategy/>

Illustrative example

£50m community campus asset used to inform affordability modelling

- *Run sensitivities for MIM and NIM modelling on a Revenue Commitments Ratio range of 9-12% to establish affordability parameters for this type of asset/sector (Table 13)*
- *Allocate an anticipated project or investment programme Revenue Commitments Ratio of 9.5% (Based on contracted schools data Table 14)*
- *Set tolerance at which the project would require to be reviewed*
 - *The Revenue Commitments range 9-12% is representative of a c.3% increase in the cost of the senior finance for the project or approximately £35m in cost over the life of the project. It is suggested that a tolerance/review point occurs when the project Revenue Commitments Ratio increases by 1.5%*
- *If Revenue Commitments Ratio >11%, re-model and reassess as part of the wider programme*

Project Level

- Project level assessment as project develops. The established ratio would be tested at a project level at key points in the project development such as the Strategic Outline Case, Outline Business Case and Final Business Case stages, in tandem with other assurance checks
- Detailed assessment at Full Business Case – if revenue commitment is beyond the tolerance, project cannot go ahead before a re-referral to programme level assessment
- Assessment of revenue cost optimisation including:
 - Market testing through competitive procurement
 - Financial Advisor opinion on efficiency of financial model and funding solution to optimise the whole-life cost;
 - Technical advisor opinion on optimisation of operating / maintenance / life cycle costs.

6.10 Accounting and VAT Treatment

This options appraisal considers the investment model at a Scottish Government national accounts level, however there are further considerations for Scottish Government and procuring authorities when using this model which may have budgeting implications.

An example is in the College sector where VAT recovery is not possible on the annual unitary charge payments. Scottish Government funding support and revenue commitments have been typically inclusive of irrecoverable VAT on previous College NPD projects.

The nature of NHS Health Board accounting under International Financial Reporting Standards requires procuring bodies to test against the IFRS and account for these accordingly in their financial statements where the assets are typically recorded on the balance sheet of the procuring authority

It is anticipated that these detailed financial points are considered with the procuring authority and their advisors at a project and portfolio level.

6.11 Financial Risks associated with the investment model

The public sector faces risks both as a “customer” and as an “investor” under MIM contracting arrangements. following tables sets out the financial risks associated with the investment model at a programme level:

Table 15: Risks associated with the preferred investment model

Risk Description	Mitigation
Customer Risks	
<p>Affordability risk: Programme affordability exceeds financial parameters for example:</p> <ul style="list-style-type: none"> - Cost of finance (underlying interest rates) - Cost of finance (market pricing) - Inflation 	<p>At a programme level, affordability is monitored by reference to the revenue commitments associated with the programme. Processes are put in place to monitor affordability at the programme and project level.</p>
<p>Classification risk: Eurostat and MGDD guidance updates require amendments to MIM contracts or mean that revenue funded programme approaches cannot progress without capital budget.</p>	<p>Proactive engagement with Eurostat, ONS and HM Treasury and other similar bodies to understand and discuss at the earliest opportunity proposed or issued guidance noting that guidance is applicable as soon as it is published.</p>
<p>Private finance risk: Private sector consortia are unable to secure project finance to deliver the project.</p>	<p>There is currently available finance in the market however the conditions to lend will depend on the project and the security package on offer from the bidding contractors to deliver. The mitigation will be dependent on sector but will be strongly linked to structuring appropriate risk transfer in the contracts, preparing robust and deliverable projects.</p>
<p>SPV performance risk: ProjectCo does not perform duties and fails to deliver the contracted asset for the agreed price requiring additional budget allocation to meet the infrastructure requirement</p>	<p>Given the layers of mitigants within the MIM structure this would be quite an extreme case but has been experienced in England for PPP hospital projects. Mitigation would be on a case by case basis depending on the causal factor.</p>
Investor Risks	

<p>Credit risk: Public sector investor exposure to credit risk through the loans and investments in SPVs.</p>	<p>Appropriate diligence process at the point of investment. Appropriately skilled public interest director appointed to represent public sector investment.</p>
<p>SPV performance risk: ProjectCo does not perform duties to deliver anticipated revenue streams such that public sector investment is not realised or a dispute occurs between the SPV and its public partner.</p>	<p>Public Sector director appointed to the SPV Board to perform director role. Ethical wall put in place in the event of any dispute. Public investor should be separate from the procuring body.</p>

6.12 Conclusion

Projects delivered using the recommended option will have affordability implications for the procuring authority both in the project development and the procurement phases as well as the long term revenue commitments associated with a privately financed option. Scottish Government has published its parameters for the sustainable use of revenue funded investment using the 5% self-imposed cap on future revenue budgets.

The relative costs of using private borrowing rather than public borrowing or traditional capital are explored. A set of ratios is proposed to measure the anticipated cost of MIM at a point in time and to provide an ongoing monitoring tool to inform ongoing decision making on the use of the model as financial and economic conditions change.

The financial risks associated with MIM have been explored including the risk of sharing in the ownership of a vehicle.

7. Market Testing

7.1 Market Engagement

SFT undertook a market engagement exercise with the aim of:

- Raising awareness in the private sector of National Infrastructure Mission and the potential for future privately financed infrastructure investment;
- Listening to market feedback on the generic interest in sectors or project characteristics;
- Testing appetite for privately financed structures such as the Welsh 'MIM' structure, PF2 and recent experience of / lessons learned from Scottish hub / Non-profit distributing structures; and
- Developing insight into current Scottish construction market issues and opportunities.

SFT engaged across the private and a number of Non-profit distributing procuring bodies, developers, senior loans providers, equity providers, construction contractors (both buildings and civils), facilities management (FM) service providers, and a range of legal, technical and financial advisors. SFT has engaged with almost 50 UK based organisations and small number of international contractors. Most consultees are or have been active in the Scottish market.

7.2 General Findings

There was a general awareness of the National Infrastructure Mission and the potential for future privately financed infrastructure investment. Consultees recognised the importance of private sector involvement in delivering the mission with many recognising that the provision of public sector infrastructure was a key component of their business. Consultees had a particular interest in how the mission will be delivered, what will be delivered and importantly noted that to participate the balance of risk and reward had to be appropriate. The market noted that alternative competing private sector opportunities exist to deliver similar or increased levels of returns with in some cases significantly reduced and less costly procurement processes.

All consultees had experience of delivering privately financed contracts and understood the project structures included in NPD and hub DBFM. The market understood the inability to continue with NPD, had an interest in the future of hub DBFM and appreciated the interest in alternative privately financed structures.

7.3 Welsh MIM Contract

Market feedback was generally accepting of the Welsh Government MIM contract. Many felt it was essentially a rework of the Scottish NPD model with aspects of hub and the priority schools building programme included. There were three areas of specific comment:

1. Public Sector Investment and Equity Director: public sector investment seen as market norm, ability of public sector director to manage conflict of interest is seen as a challenge that public sector should enter into understanding how this can be managed.
2. Clauses to promote more robust Construction, FM and Lifecycle Reviews: welcomed although the scope is still to be determined.
3. Third Party Equity: market does not want to see a third-party equity competition. Primarily, this is due to disadvantages of the cost of running the competition for the existing equity holders in the structure who would be releasing equity interest to a further investor which has been removed from the initial project bidding process.

The third-party equity feature of the MIM contract, whereby the government reserved the right to compete up to 49% of the equity in competition, developed for the English PF2 model, has not been taken forward by the Welsh government in their planning for the A465 road (in procurement), the Velindre Cancer centre (in development) and Welsh Education Partnership (WEP) strategic partner procurement (PIN issued).

7.4 Considerations for procurement strategy development

The market engagement participants noted a number of factors which impact on their bidding decisions and should be taken into consideration when developing procurement routes for any new privately financed investment model. Many points are sector dependent and reflect the feedback from the UK contracting market where there is currently financial risk associated with many of the UK based contractors.

- **Pipeline** – Certainty and stability of pipeline was deemed essential. Tenderers face comparatively high bid costs when participating in competitions for this type of contract due to the complexity and number of parties involved. Organisations are significantly more likely to invest in tendering if they see a pipeline of several opportunities where they see (for example) 4 potential opportunities with a 25% probability of success in each rather than a single 25% probability project;
- **Quality and Cost** – The balance between evaluating quality and cost in both revenue and capially funded Scottish procurement processes was considered to be more heavily weighted to cost than is the current market norm and expectation. A modified approach would avoid what was termed by market participants as a ‘race to the bottom culture’;
- **Design Development** – procuring authorities progressing several detailed designs with multiple bidders was perceived as wasteful, many preferred the approach of early partner selection;
- **Bid Costs** – these types of contracts are considered too expensive to bid which could prohibit interest. The public sector should consider earlier partner selection or if there is a desire to take a number of bidders forward, early down selection, and potentially supporting bid costs;

- **Facilities Management Engagement** – FM service providers who will ultimately operate and maintain buildings need to be engaged earlier in the project development process. Whilst this was a common point, a number of bidders felt the strain on bid costs meant this didn't happen;
- **Readiness to enter into contract** – specifically on large complex contracts, bidders felt that greater scrutiny on all parties' readiness to sign contracts was required. In some instances, such as acute hospitals, projects benefitted more where design development was significantly progressed pre contract signature;
- **Procuring authority approach** – establishing strong partnering approaches between the procuring authority and the private sector partner was a common indicator on successful projects;
- **Quality control** – feedback noted a requirement to improve the quality regime in all aspects (considered an industry issue);
- **Programme** – ensuring the 'right' amount of time is allocated for construction, commissioning and handover with greater challenge required from both the public and private sectors on what the appropriate construction programme for a facility is;
- **Handover** – 'soft landings' were suggested to move from a building site one day (contractor led) to an operating facility (Facilities Management service provider led) filled with many 'users' the next; and
- **Change** – better change management change processes were needed.

7.5 Linking the investment model to a pipeline of projects

Initial market feedback has confirmed that for the investment model to have the best chance of success it needs to be linked to a pipeline of projects. The teams of contractors, equity, architects and engineers who bid for accommodation projects are different to the teams who bid for civil engineering projects. The market has indicated it is unlikely to bid for a small number of individual accommodation projects unless these are part of a larger pipeline. The UK contracting market is unlikely to bid for the >£300m projects typical of the large civils sector due to the level of risk associated with fixed price contracts. International contractors indicated that their preference was to bid for large complex projects.

During 2019/20 the Scottish Government will be undertaking a refresh of the Infrastructure Investment Plan (IIP) which will outline the Scottish Government's capital investment priorities.

During the same period the Infrastructure Commission for Scotland will provide independent, informed advice on the nation's vision, ambition and priorities to create a 30-year infrastructure strategy to meet the country's future economic growth and societal needs.

The IIP will be used, along with an assessment of the most-effective funding approaches and a crosscheck with the typical characteristics of an investment model project, to determine a pipeline of projects to be delivered using the investment model.

The pipeline of projects will then inform the consideration of the most appropriate procurement approach for the programme.

7.5.1 Typical Characteristics of a project suitable for MIM

The typical characteristics of a project which could be delivered using the investment model are:

- Project requirements can be specified up front and are unlikely to change significantly over the 25-year contract period.
- Project values ranging from £30m to >£500m range. This range is large enough to sustain transacting project finance costs and attract private finance.

NB: There are few individual projects over £500m in Scotland.

For those reasons roads and accommodation projects lend themselves well to the investment model. Roads, hospitals, community health facilities, schools and colleges have all previously been delivered using similar investment models. Other social infrastructure assets such as prisons, blue light, administration and cultural buildings could also be delivered. The investment model is less suitable in sectors where technology or legislation changes quickly or there is complex service delivery.

There are a number of other factors worth considering when linking the investment model to a project:

- It will take longer to bring projects to market in new sectors, that have not previously used a similar type of investment model, as procuring authorities would have to adapt to the new approach, understand the details of the contracts and potentially require bespoke procurement approaches. Financing, construction and operations markets will need to be suitably interested in bidding and operating in these new sectors.
- There is a need to consider the interaction between service delivery and asset maintenance, for example, this might be particularly challenging in prisons projects. It could be anticipated that project development would face more challenges in this sector than in other sectors.
- Large projects which comprise several phases may be more difficult. There may be benefit in utilising private finance for part of the project and public funding for other parts to ensure smooth integration between phases.

7.5.2 Establishing market interest in MIM delivered projects

During the preparation of this appraisal, SFT undertook a market testing exercise to establish market interest in the investment model more generally and also the specific appetite of bidders to bid for specific types of project.

At a macro level the market interest can be split into type (Accommodation and Civils) and size (Small and Large). The table below outlines a high level commentary:

Table 16 Macro level market split

	Accommodation Projects	Civils Projects
Small (£30 - £100m)	<p>Scottish or wider UK contractor interest as part of a sustained visible pipeline.</p> <p>Less likely to attract international contractors interest.</p>	<p>N/a</p> <p>Contract structure not suited to small civils due to the relatively small maintenance package but some form of bundling may be attractive.</p>
Large (100m +)	<p>Limited pool of interest: Some Scottish or wider UK contractors for non-complex accommodation.</p> <p>Potential interest from international contractors if sufficiently large and complex.</p>	<p>Unlikely that UK contractors can lead development due to financial risk.</p> <p>More likely to attract international contractors.</p>

The majority of feedback received through the engagement period did not relate to the underlying contracting model but rather to the overall approach to the programme of investment and procurement approach. Feedback confirmed that the market conditions have significantly changed since the launch of earlier revenue funded programmes, such as NPD and hub DBFM programmes, and that contractors would expect procurement approaches to be updated to fit current market circumstances.

7.6 Market delivery risk and mitigation

The key risks associated with the market is the risk of insufficient bidders to invest in projects delivered using this investment model. Specifically, an insufficiently attractive procurement process or pipeline of projects to attract bidders means that infrastructure investment is not secured to support the delivery of NIM and the intended economic stimulus.

The proposed mitigation is that Scottish Government portfolios, working with SFT, develop and announce a pipeline of projects at least 18 months in advance of anticipated procurement start dates to ensure project development preparation time for procuring authorities and to enable lead time to allow potential bid teams to form.

For example, a pipeline announcement at the end of 2020, to provide a lead time to market for bid team development and to the procuring authority for project preparation, could result in construction starting in 2024/25 depending on the complexity of the project.

During the project preparation and development stages, the procuring authorities, SFT, and SG procurement should seek to develop appropriate procurement approaches to suit the pipeline.

7.7 Procurement Approaches

The following section considers the type of procurement approaches that could be used once a pipeline is established.

7.7.1 Existing Arrangements

There are a number of pre-existing frameworks for the delivery of construction projects available for public sector use, however the majority are structured in such a way that only permit capital funded projects. The risk profile associated with a revenue funded procurement model is markedly different from the risk position under these contracts, and as such it is likely that an attempt to use such a framework would be open to challenge under procurement regulations.

7.7.2 Standalone Project Procurement

In the absence of a pre-existing route to market it is likely that a standalone procurement via OJEU procedure will require to be followed. Due to the complexity of the works and the legal and financial make-up of the investment model, it is likely that the Competitive Dialogue procedure will require to be followed.

7.7.3 Lots

Part of Scottish Government Procurement Policy requires contracting authorities to consider the appropriateness of awarding contracts as separate lots, in order to increase SME participation.

To establish a revenue funded structure, a SPV (or Project Co) responsible for the entire project delivery would be created, and as such would be inconsistent with delivering a project in lots. Furthermore, it is likely that lender covenant and performance guarantee requirements would preclude SMEs entering into the main contract with either the Authority or the SPV. It is not proposed to lot contracts on the basis that it would make the execution of the contract excessively technically difficult or expensive. The types of project suitable for delivery under MIM arrangements are not generally suitable for delivery by SMEs, though consideration of SME engagement in supply chains will remain important.

It is proposed that a Community Benefits Strategy would be included as an integral part of the evaluation process to increase opportunities for the participation of SMEs within a project and as part of the commitment to ensuring Fair Working Practices are delivered.

7.7.4 Framework Agreements / Call Off Contracts

It is possible to establish a framework arrangement with multiple bidders, who are then invited to compete for projects on a project by project basis by means of a mini competition. Such a procurement approach is common within the construction industry however is generally used to deliver capital projects. A framework could be used for revenue funded projects, providing the scope to run mini-competitions between framework participants on a project by project basis. This route may be attractive to the market to manage bidding costs but requires a pipeline of similar projects to be delivered through the framework arrangement.

7.7.5 Community Benefits and Fair Work Practices

In developing procurement approaches for a pipeline of investment model projects, it is proposed to incorporate the Scottish Procurement Policy to maximise community benefits and ensure fair work practices are delivered. Other key policy requirements (such as sustainable procurement) would also be included where appropriate.

It is also intended to incorporate the recommendations and outputs of the Construction Procurement Review and other initiatives.

Annex 1 – Research of UK and international Public Private Partnership models

1. PPP and PFI models in the UK

Long term investment models using public private partnerships were created in the early 1990s and thereafter under the various versions of the Private Finance Initiatives put forward by each subsequent UK and Scottish government. They have all attempted to ensure that capital investment is matched with adequate funding for maintenance over the life of the asset to prevent the escalation of capital expenditure ahead of maintenance budgets.

Other key drivers for PPP model which have come to the forefront in Scotland and in Wales have been to expand the spending power of governments beyond capital expenditure restrictions, create ‘additionality’ as well as to bundle projects in order to achieve greater efficiencies and economies of scale and to reduce operating costs through innovation in service configuration.

In a challenging economy and ever-increasing pressure on public sector resources, these models have provided governments with an opportunity to reverse the legacy of under investment.

2. UK move away from traditional forms of PFI

As data became available, analysis of historic PFI and PPP programmes supported the perception that the costs of finance (particularly cost of equity) were disproportionately high for the risk transfer achieved and was not reflective of the long term variations in the risk profile of projects from design and construction of assets to full operations.

Public authorities also experienced significant refinancing gains flowing to the private sector equity holders early on in projects following the construction phase. The procurement processes were lengthy and knowledge sharing/lessons learned could be greatly improved. Public bodies also reported experienced difficulties in obtaining competitive pricing for subsequent service variations.

An alternative procurement route that would replace PFI was developed in Scotland to address the areas identified for improvement: firstly the Non-Profit Distributing Organisation (NPDO) structure, and later the Non-Profit Distributing (NPD) programme.

The NPD structure was not a “not for profit” model. Contractors and lenders are expected to earn a normal market rate of return as in any other form of privately-financed PPP deal. Rather, the model aims to eliminate uncapped equity returns associated with the traditional PFI model and limit these returns to a reasonable rate set in competition. The NPD model retained the benefits of traditional PFI structures, and it is recommended these would be a minimum ask of any future model for Scotland.

The NPD model was in use until the Eurostat 2010 rules were revised in 2014 and the subsequent Manuals for Government Deficit and Debt (MGDD) and Eurostat guidance published between 2014 and 2016 made it clear that profit capping was inconsistent with a private classification.

The rest of the UK and Ireland revised elements of their traditional forms of PFI during this period, specifically a reduced scope of services in the contract and a rebalance of the risk transfer similar to the NPD contract but did not introduce profit capping, reinvestment of surpluses or enhanced governance roles.

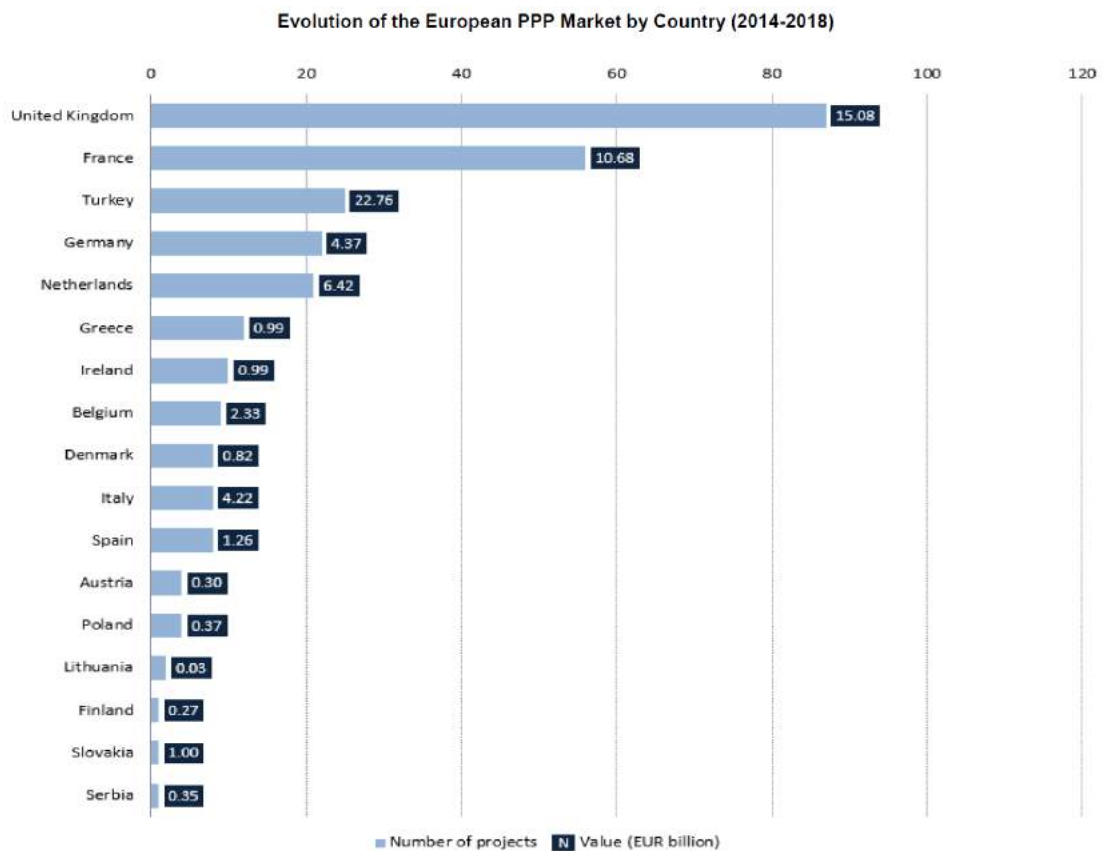
The English model was “PF2” which subsequently evolved to include a minority public sector ownership stake (10-15%), and the Irish PFI model remained 100% owned by the private sector. The Welsh Government was in the process of developing an NPD contract for Wales when the new Eurostat guidance emerged and has since developed the Mutual Investment Model is a design, build, finance maintain contract (very similar to NPD) and which sees the Welsh Government taking up to 20% in the delivery vehicle and sharing up to 20% of risk and reward.

3. Learning from European PPP models

The UK has one of the most mature PPP markets and other EU countries look to UK governments, agencies and advisory markets for support in developing their own PPP structures, assurance processes and standard documentation. The concept of additionality which is key to Scotland, (and was to Wales in developing its Mutual Investment Model) is not typically an issue that other European countries focus on. This is in part due to their ability to access other sources of funding such as borrowing powers where Wales and Scotland cannot beyond their capped borrowing limits.

As part of our market testing exercise, SFT spoke to the French PPP government team, FININFRA who noted that PPPs are used for their biggest most complex projects where the private sector can bring expertise and service innovation.

In the recently published Review of the European PPP Market in 2018 published by the European PPP Expertise Centre (EPEC), the graphic below shows that UK has had the largest number of deals and value (EUR 15.08 bn) of PPP over the last 4 years. With the cancellation of PF2, the DBFM pipeline having reduced and NPD no longer in use, the number of new projects in the UK projects has steeply declined in 2018. According to the EPEC data, the UK reported 8 transacted projects with a value of EUR 0.5bn in 2018.



The EPEC analysis notes that only 50% of the 2018 deals are availability based contracts where the government pays which are the type of investment structure Scotland is seeking for additionality. Other common structures included in this analysis are user pay type schemes such as road tolling.

For government pay schemes, public sector ownership or the concept of ‘profit sharing’ in Europe does not appear to be typically a matter of policy although some bespoke deals have included public ownership stakes. Belgium (Flanders) had public sector equity in their first schools bundles around 2014 but reverted 100% private structures on subsequent deals.

Public sector ownership stakes and potential for profit sharing has been a development of the investment model that has been focussed around Scotland, England and Wales. Ireland has kept to 100% private structures.

4. Learning from models in the rest of the world

Canada, and to a lesser extent the US is also a relatively mature market for PPP (“P3”) type investment structures relevant to this appraisal. The North American P3 government pay

structures for design, build, finance, maintain are typically 100% owned by the private sector with a change in financing at the end of the construction phase.

The concept of additionality is not typically a driver for the model due to access to wider government borrowing sources. The Canadian schemes typically look to the private sector to design, build and finance during the construction risk phase of the project. At the point of project completion, the government refinances using cheaper government borrowing sources. The private sector contractor delivers the maintenance over the contract life.

This model is not open to Scottish Government given the limited access to borrowing powers.

Annex 2 – Option Appraisal: Testing Provisions against the Eurostat Guidance

Option 7 MIM up to 20% ownership stake

Profit Sharing - Moderate Importance

Eurostat Guidance permits the public authority to share in between 10% to 20% of the partner's profit, and where this entitlement was present, it would be assessed as an issue of moderate importance. Typically, this would be secured through the holding of share capital within the project company (or project holding company). Were the shareholding to be reduced to 10% or less, then there is no classification impact.

Providing that the structure and project agreement are developed in line with the Eurostat Guidance, this approach would result in 1 item of High Importance and 2 items of Moderate Importance therefore enabling this structure to be utilised as a method for delivering additional investment without the requirement for capital support. The High and Moderate Importance items are explained below.

It should be noted that in line with Eurostat Guidance, there is no cap on private sector return in the form of equity, albeit the public sector will be entitled to up to 20% share of any equity return generated, depending on the financial modelling.

It is possible through the process of challenge and review of the project business case, together with strong competition and a diligent and robust review of the financial model to minimise the potential for the project to generate a significant level of equity return. Procurement processes should incentivise lower unitary charges to the public sector over generation of equity to be shared.

Sub Debt - Moderate Importance

Under the Eurostat Guidance, participating in the financing of the project company up to and including one tenth of the capital value would be an issue of moderate importance. Furthermore, the multiplier effect set out in the Eurostat Guidance would need to be considered.

An example of how this would operate within the proposed model and impact on the classification of the project is set out below.

Example

The funding requirement for a project has been identified as £100m. Following the model, Project Co would borrow 90% of this sum from the Senior Lender (£90m) with the remaining 10% borrowed through sub debt (£10m). Under the proposed structure, the Public Sector

Investor would be entitled to invest in 20% of the sub debt requirement (£10m), giving a total public sector investment within the project of £2m.

For classification purposes only, as fully subordinated debt, the £2m figure would thereafter be adjusted by the multiplier (2.5), giving a figure of £5m. As this falls within the range of up to 10% of the overall capital expenditure value in the project, this would be of moderate importance for classification purposes.

Providing that the structure and project agreement are developed in line with the Eurostat Guidance, this approach would result in 1 item of High Importance and 2 items of Moderate Importance, therefore enabling this structure to be utilised as a method for delivering additional investment without the requirement for capital budget support. If reducing the overall shareholding to 10%, this would result in 1 item of Moderate Importance being removed, however given the practice of parity between debt and equity percentages, the overall public sector investment would also be reduced.

It should be noted that in line with Eurostat Guidance, there is no cap on private sector return in the form of equity, albeit the public sector will be entitled to a 20% share of any equity return generated under this option.

Insurance - High Importance

Within this model, it is proposed to continue with the current UK PPP standard insurance provisions, whereby the Authority retain the benefit of any changes to insurance costs within the lifetime of the project.

On the basis that insurance costs continue to be treated as a “pass through” cost to the Authority, then this would be of high importance for classification purposes.

This commercial structure is comparable to the Welsh Mutual Investment Model, which has been opined on by Eurostat and classified to the private sector.

Option 7a MIM variant up to 30% ownership stake

Profit Sharing - High Importance

Eurostat Guidance permits the public authority to share in between 20% to 33% of the partners' profit, and where this entitlement was present, it would be assessed as an issue of high importance. Typically, this would be secured through the holding of share capital within the project company (or project holding company).

Providing that the structure and project agreement are developed in line with the Eurostat Guidance, this approach would result in 2 items of High Importance and 1 item of Moderate Importance, therefore enabling this structure to be utilised as a method for delivering additional investment without the requirement for capital budget support.

It should be noted that in line with Eurostat Guidance, there is no cap on private sector return in the form of equity, albeit the public sector will be entitled to between a 20% to 33% share of any equity return generated, depending on the financial modelling. It is possible through the process of challenge and review of the project business case, together with strong competition and a diligent and robust review of the financial model to minimise the potential for the project to generate a significant level of equity return.

Sub Debt - Moderate Importance

Under the Eurostat Guidance, participating in the financing of the project company up to and including one tenth of the capital value would be an issue of moderate importance. Furthermore, the multiplier effect set out in the Eurostat Guidance would need to be considered.

An example of how this would operate within the proposed model and impact on the classification of the project is set out below.

Example

The funding requirement for a project has been identified as £100m. Following the model, Project Co would borrow 90% of this sum from the Senior Lender (£90m) with the remaining 10% borrowed through sub debt (£10m). Under the proposed structure, the Public Sector Investor would be entitled to invest in 30% of the sub debt requirement (£10m), giving a total public sector investment within the project of £3m.

For classification purposes only, as fully subordinated debt, the £3m figure would thereafter be adjusted by the multiplier (2.5), giving a figure of £7.5m. As this falls within the range of up to 10% of the overall capital expenditure value in the project, this would be of moderate importance for classification purposes.

Providing that the structure and project agreement are developed in line with the Eurostat Guidance, this approach would result in 2 items of High Importance and 1 item of Moderate Importance, therefore enabling this structure to be utilised as a method for delivering additional investment without the requirement for capital support.

It should be noted that in line with Eurostat Guidance, there is no cap on private sector return in the form of equity, albeit the public sector will be entitled to a 30% share of any equity return generated under this option.

Insurance - High Importance

Within this model, it is proposed to continue with the current UK PPP standard insurance provisions, whereby the Authority retain the benefit of any changes to insurance costs within the lifetime of the project.

Should insurance costs continue to be treated as a “pass through” cost to the Authority, then this would be of high importance for classification purposes.

There remains some risk in this arrangement that ONS may consider the 30% public sector share ownership to signify “control” of the company, even though it does not reach the threshold for public classification within the relevant section of the Eurostat Guidance.

Given the risk of a public sector classification, it would be prudent to obtain an opinion from ONS on the classification position.

Further optionality:

It may be prudent in this example to split the public sector debt/equity ownership into two tranches to avoid exceeding company law thresholds which would attract veto rights in respect of project co decisions. If this were done, 15% of the share capital and debt could be taken by another public sector investor, which is a position currently undertaken on hub DBFM projects.

Option 7b MIM variant up to 40% ownership stake

Profit Sharing - Very High Importance

Eurostat Guidance permits the public authority to share in between 33% to 49% of the partners' profit, and where this entitlement was present, it would be assessed as an issue of very high importance. Typically, this would be secured through the holding of share capital within the project company (or project holding company). This cannot be increased beyond 49%, as this would result in inclusion as on balance sheet.

Whilst the Eurostat Guide is indicative of classification treatment, public sector control must also be assessed. For example, under UK company law. A shareholding of 25% or above gives that shareholder the ability to veto special resolutions. Due to the nature of business that requires a special resolution (such as changes to the corporate governance structure), this right to veto may be viewed as a strong indicator of control within the corporate structure. Treatment under IFRS 28 may also be indicative of control.

Sub Debt - Moderate Importance

Under the Eurostat Guidance, participating in the financing of the project company up to and including one tenth of the capital value would be an issue of moderate importance. Furthermore, the multiplier effect set out in the Eurostat Guidance would need to be considered.

An example of how this would operate within the proposed model and impact on the classification of the project is set out below.

Example

The funding requirement for a project has been identified as £100m. Following the model, Project Co would borrow 90% of this sum from the Senior Lender (£90m) with the remaining 10% borrowed through sub debt (£10m). Under the proposed structure, the Public Sector Investor would each be entitled to invest in 40% of the sub debt requirement (£10m), giving a total public sector investment within the project of £4m.

For classification purposes only, as fully subordinated debt, the £4m figure would thereafter be adjusted by the multiplier (2.5), giving a figure of £10m. As this amounts to 10% of the overall capital expenditure value in the project, this would be of moderate importance for classification purposes.

Providing that the structure and project agreement are developed in line with the Eurostat Guidance, this approach would result in 1 item of Very High Importance and 1 item of Moderate Importance, therefore enabling this structure to be utilised as a method for delivering additional investment without the requirement for capital support.

It should be noted that in line with Eurostat Guidance, there is no cap on private sector return in the form of equity, albeit the public sector will be entitled to a 40% share of any equity return generated under this option.

Insurance - High Importance - Removed

Within this model, it would not be possible for insurance premium to be treated as a pass-through cost with the Authority taking the risk and benefit of insurance market movements. This is currently retained as an Authority risk on value for money grounds as market movement is not manageable by the private partner, so it is a risk which will be priced.

Insurance premium risk sharing is considered to be of High importance for classification, and with one Very-high already scored this would lead to a strong presumption that the project would be classified to the public sector.

A revised position which would not affect classification but would manage the value for money implication would be for the Authority to take the risk of excessive market movement greater than +100% or -50% price movement. As the cost of insurance is a relatively low element of the overall unitary charge (in the order of 1%), this would not significantly decrease the value for money benefit of this option overall.

It may be prudent in this example to split the public sector debt/equity ownership into two tranches to avoid exceeding company law thresholds which would attract veto rights in respect of project co decisions. If this were done, 20% of the share capital and debt could be taken by another public sector investor.

Annex 3 – Testing cost ranges for public and private finance

Annex 3b Public Borrowing including interest buffer of 6.5% (Upper end of the cost multiplier range)

Newbuild community campus		Assumptions	Notes
Construction cost		49,880,000	
Development cost	3%	1,490,400	SFT Programme data assumption
All in asset delivery cost		51,170,400	
Gross Internal Floor Area (GIFA) m ²		18,000	Schools Programme data - Large secondary school
Cost per sq m		2,760	Schools Programme data uplifted to C2 2020 BCIS
FM cost / m ² / year		17	SFT Programme data - Assuming 2019 prices
LC cost / m ² / year		19	SFT Programme data - Assuming 2019 prices
SPV costs		30,000	Reduced management cost estimate
FM		306,000	
Lifecycle costs		342,000	
Insurance (public)		-	Schools Programme data estimate- Community campus
Insurance (private)	20%	-	Estimated private sector premium
Initial		2.5%	
Years of operation		25	
Senior loan repayments		24	Assumption - loan tail 22 months
Senior debt		7.5%	SFT Programme Data - Avg NPD/hub Senior plus 3.5% buffer
Subordinated debt		11.0%	SFT Programme Data - Avg NPD/hub Sub (rounded)
All in public financing		6.5%	DMO PWLB Avg over 24.5 years 1 Jan 2014-31 Dec 2016* plus 0.5% buffer (representative - period when 50% of deals contracted)
Treasury discount rate		6.0875%	HMT Greenbook

Financing costs					1	2	3	4	5	6	7	8	9	10
	90%	senior	private	46,053,360	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162
	10%	sub	public	5,117,040	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599
	100.0%			51,170,400	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025

Construction period (months)	24
FC	01-Apr-19
Operations	01-Apr-21

Total financing cost

Year	31-Mar-19	31-Mar-20	31-Mar-21	31-Mar-22	31-Mar-23	31-Mar-24	31-Mar-25	31-Mar-26	31-Mar-27	31-Mar-28	31-Mar-29
Inflation Factor	-2	-1	0	1	2	3	4	5	6	7	8
	1.000	1.025	1.050	1.075	1.100	1.125	1.150	1.175	1.200	1.225	1.250
Construction spend		25,985,200	25,985,200								
Senior Investment		25,985,200	25,985,200								
Sub Investment + pln equity											
Equity											
Senior debt service	-	104,875,629		4,195,025	4,195,025	4,195,025	4,195,025	4,195,025	4,195,025	4,195,025	4,195,025
Sub debt service	-										
FM	-	10,518,750		329,950	336,600	344,250	351,900	359,550	367,200	374,850	382,500
Lifecycle	-	11,756,250		367,850	376,200	384,750	393,300	401,850	410,400	418,950	427,500
Running costs	-	1,031,250		32,250	33,000	33,750	34,500	35,250	36,000	36,750	37,500
Insurance	-										
Annual service payment	-	128,181,679		4,923,875	4,940,825	4,957,775	4,974,725	4,991,675	5,008,625	5,025,575	5,042,525
NPV to public	-	60,647,855									
Revenue Commitments ratio											
SG funded schools accomm ratio											

Sensitivity (NPD/hub programme historic) - Public Borrowing rate of 3%		
Lower end of the cost multiplier range		
All in public rate		2.6%
Senior debt service	-	73,465,178
Sub debt service	-	
FM	-	10,518,750
Lifecycle	-	11,756,250
Running costs	-	1,031,250
Insurance	-	
Annual service payment	-	96,771,428
NPV to public	-	45,639,063
Revenue Commitments ratio		-7%
SG funded schools accomm ratio		-6%

11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162	-£4,193,162
-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599	-£607,599
-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025	-£4,195,025

31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1.275	1.300	1.325	1.350	1.375	1.400	1.425	1.450	1.475	1.500	1.525	1.550	1.575	1.600	1.625	1.650	1.675
- 4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -	4,195,025 -
- 390,150 -	397,800 -	405,450 -	413,100 -	420,750 -	428,400 -	436,050 -	443,700 -	451,350 -	459,000 -	466,650 -	474,300 -	481,950 -	489,600 -	497,250 -	504,900 -	512,550 -
- 436,050 -	444,600 -	453,150 -	461,700 -	470,250 -	478,800 -	487,350 -	495,900 -	504,450 -	513,000 -	521,550 -	530,100 -	538,650 -	547,200 -	555,750 -	564,300 -	572,850 -
- 38,250 -	39,000 -	39,750 -	40,500 -	41,250 -	42,000 -	42,750 -	43,500 -	44,250 -	45,000 -	45,750 -	46,500 -	47,250 -	48,000 -	48,750 -	49,500 -	50,250 -
- 5,059,475 -	5,076,425 -	5,093,375 -	5,110,325 -	5,127,275 -	5,144,225 -	5,161,175 -	5,178,125 -	5,195,075 -	5,212,025 -	5,228,975 -	5,245,925 -	5,262,875 -	5,279,825 -	5,296,775 -	5,313,725 -	5,330,675 -