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# *Cost and Commercial Viability: Sources of Finance*

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Airports Commission

Sources of Finance  
Report

July 2015

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# ***Important notice***

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# Scope and context

The Airports Commission (AC or the ‘Commission’), an independent commission was established in 2012 by the UK Government to consider how the UK can maintain its status as an international hub for aviation in response to increasing concern over existing and future capacity requirements. Since September 2012, the Commission has considered and evaluated a variety of options for meeting the UK’s international connectivity needs, the results of which were outlined in the Airports Commission’s Interim Report published in December 2013. The Interim Report outlined three firm short listed options (one option for an additional runway at Gatwick and two options relating to an additional runway at Heathrow). In addition, the option for a new airport development located within the Inner Thames Estuary was considered further by the Commission, with a decision in September 2014 not to short list. The AC’s public consultation on its assessment of the three short listed schemes opened in November 2014 and closed in February 2015.

As part of the AC’s public consultation, the Cost and Commercial workstream considered the funding and financing of the proposed schemes. At a high level, it considered the overall cost of the commercial propositions inclusive of financing and funding for the schemes and identified a range of possible financial results across a variety of scenarios and sensitivities to inform its assessment. This range (as opposed to consideration of a single solution) reflects the inherent uncertainty over the underlying cost assumptions, financing structure and financial assumptions for the three schemes which will not become operational until the mid-2020s.

The analysis presented for consultation, and the subsequent consultation responses received, raised a number of questions around market capacity and appetite for investing in the three schemes. This report seeks to further augment the November 2014 evidence base underpinning the Cost and Commercial workstream. It considers the availability and sources of debt and equity financing and presents the findings from further research into and engagement with, the financing markets undertaken as part of this analysis. Market engagement included a roundtable event attended by a number of market participants, one-to-one meetings with each of the Scheme Promoters, the current shareholders at Gatwick and Heathrow, credit rating agencies and other financiers. This report has been prepared to be published with the AC’s Final Report in July 2015.

This report is broken down into the following sections:

- **Section 1:** Introduction;
- **Section 2:** Gatwick Airport Second Runway (LGW 2R);
- **Section 3:** Heathrow Airport Northwest Runway (LHR NWR); and
- **Section 4:** Heathrow Airport Extended Northern Runway (LHR ENR).

Section 1 summarises the classes of equity investor and sources of debt financing commonly seen in the airport and infrastructure sectors, the typical investment characteristics sought by each of these and therefore the likely appetite for each of the three schemes. This section also provides, where available, relevant case studies to demonstrate where there might be precedent for investment of a similar scale and structure to that of the three schemes.

Sections 2, 3 and 4 outline each of the three schemes and the potential financing these schemes might require. These sections also summarise the key risks to which current and potential investors could be exposed and finally, they summarise the potential appetite of financiers for each scheme based on market analysis and interviews held with the market.

The potential financing requirements for the schemes presented in this report and discussed with market participants, have been drawn from the November 2014 evidence base. The financial results have since been updated in light of consultation responses received (see Cost and Commercial Viability: Funding and Financing Update report (“the Funding and Financing Update report”). However, these changes are not considered to impact the results of the analysis presented in this report.

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# *1 Introduction*

## 1.1 Introduction

This section summarises the types of financing commonly seen in the airport and infrastructure sectors, the typical investment characteristics sought by investors and therefore the likely appetite for each of the three schemes.

This report has been written on the assumption that the reader is relatively unfamiliar with the debt and equity markets and consequently provides reasonably high level summaries of different debt and equity sources. In practice there is often a greater degree of complexity.

This section also provides, where available, relevant case studies to demonstrate precedent for investments of a similar scale and structure to that of the three schemes. This information has been researched by PwC and sources are referenced.

## 1.2 Supporting documents

The following supporting documents have been drawn upon as part of this analysis:

- Cost and Commercial Viability: Literature Review Update, July 2015 (“the Literature Review Update report”);
- 13. Cost and Commercial Viability: Financial Modelling Input Costs, November 2014 (“the Financial Modelling Input Costs report”);
- Cost and Commercial Viability: Financial Modelling Input Costs Update, July 2015 (“the Financial Modelling Input Costs Update report”);
- 13. Cost and Commercial Viability: Funding and Financing, November 2014 (“the Funding and Financing report”);
- Cost and Commercial Viability: Funding and Financing Update, July 2015 (“the Funding and Financing Update report”); and
- Cost and Commercial Viability: Additional Sensitivities, July 2015 (“the Additional Sensitivities report”).

## 1.3 Sources of equity

Globally, airports are predominantly owned and funded by the public sector. Privately owned airports such as those in the UK are relatively rare, particularly in developed markets where private sector support is less prevalent.

However, where there are privatised airports in developed and established markets there has historically been strong appetite for investment. Airports have been shown to be relatively resilient to economic downturns and this is especially true for large, established airports.

There is also considerable amount of capital available for investment in infrastructure assets. Globally there is just under \$200bn in funds under management with a further \$160bn currently being raised by infrastructure funds. Furthermore, around \$100bn in cash or highly liquid cash-like assets, is available for investment<sup>1</sup>. The

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<sup>1</sup> Prequin Infrastructure Online, correct as of September 2014.

UK Government's National Infrastructure Plan 2014 identifies a potential equity financing opportunity for infrastructure projects of £33bn to 2020-21<sup>2</sup>.

The following section provides a summary of the equity investor classes typically active in the airport sector, including construction/operating companies, private equity firms, infrastructure funds, institutional investors and sovereign wealth funds. These types of investor are not mutually exclusive. For example, a pension fund may invest through an infrastructure fund or by holding a stake in an asset directly. Examples of investors and investments drawn from recent market activity are also included; however these examples are not intended to be an exhaustive list.

### 1.3.1 Construction/operating companies

Companies whose primary business model is that of construction or operation of airport assets often hold equity stakes to augment their returns. Typically these companies will invest in concessions to build and/or operate an airport and then also act as subcontractor to the concessionaire. This isn't always the case, as demonstrated by Ferrovial's investment in Heathrow Airport, however Ferrovial's investment is likely to benefit other parts of the construction group through work agreements.

The amount of capital available to such companies to invest will vary. While some of the larger construction firms can have considerable cash balances at their disposal, this is typically smaller than those available to institutional investors such as pension funds and insurance companies. Unlike such investors, however, these companies tend not have restrictive requirements on their investments, such as concentration or risk limits, seen with institutional investors. Return requirements tend to be viewed in conjunction with profits made on any subcontract arrangements. The focus between total returns on assets and a running yield (i.e. annual returns) will vary between companies.

Table 1 shows a list of examples of this type of equity investor.

*Table 1: Construction/operating company investors*

Name	Investments
Ferrovial	<p>Purchased Heathrow Airport Holdings Limited from BAA for around £10bn in 2006. Subsequent to this it has sold portions of its investment to other parties and is currently the largest shareholder in Heathrow with 25%.</p> <p>Purchased Aberdeen, Glasgow and Southampton airports from Heathrow Airport as part of a consortium with Macquarie European Infrastructure Fund 4 (MEIF4) in December 2014. Ferrovial holds a 50% stake in this consortium.</p>
Vinci	<p>Purchased ANA-Aeropostos de Portugal in 2013 for around EUR3bn (£2.4bn)<sup>3</sup>. ANA-Aeropostos de Portugal owns and operates a number of airports in Portugal including Lisbon, Porto, Faro, Beja Ponta Delgada, Flores, Horta and Santa Maria.</p> <p>Operates a number of airports in France.</p> <p>Grand Ouest Airport Concession Company, a Vinci subsidiary, was awarded a contract to design, finance, build, operate and maintain the Nantes Grand Ouest Notre-Dame des Landes Airport (expected to open in 2017). Construction costs are estimated to be around EUR450m (£328m).</p> <p>A Vinci subsidiary, Cambodia Airports, holds the concession for the development and management of three international airports in Cambodia.</p>

<sup>2</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/381884/2902895\\_NationalInfrastructurePlan2014\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf)

<sup>3</sup> Figures have been converted into GBP using the midpoint daily rate for the 24-hour period ending 22:00 on 12/06/2015 (Coordinated Universal Time) and these are available from <http://www.oanda.com>. Where only the month of the transaction is known, the exchange rate used is the first day of that month. Where only the year of the transaction is known, the exchange rate used is the first day of that year.

Hochtief Owned stakes in Athens, Budapest, Dusseldorf, Hamburg and Tirana airports through the Hochtief AirPort portfolio (now AviAlliance), which was subsequently sold to PSP Investments in May 2013.

Ferrovial is currently the largest shareholder in Heathrow and so there is already a precedent for a construction firm holding a significant stake in London airport assets. Without a clear operational benefit available, i.e. some project related construction contracts, it is not clear whether there would be scope for investment by additional companies in either Gatwick or Heathrow but the size of equity investment that could be made by these companies could be significant. There are currently no construction/operating company shareholders at Gatwick.

### 1.3.2 Private equity firms

While the precise difference between private equity and infrastructure funds is not necessarily clear cut and is more one of degrees, private equity firms, in general, purchase assets using a high proportion of debt to pay for the acquisition price and any subsequent investment. This high-leverage structure is then serviced by the asset itself. Assets which can be quickly improved, for example by investing in greater capacity or operational efficiency, are attractive to such firms.

The amount of capital available to private equity can vary considerably. The Carlyle Group, one of the largest private equity firms, has assets under management of around \$200bn (£129bn)<sup>4</sup> however many private equity firms are much smaller.

Return requirements very much vary on the underlying asset and the nature of the private equity firm. Firms seeking to improve asset performance typically require annual returns in the region of 15% to 20%, including appreciation of the asset value following improvement or risk reduction in the asset.

A number of private equity firms hold stakes in airport assets, both in the UK and abroad. These assets tend to be regional airports with passenger levels between 2m and 5m per annum and the investment is normally shorter term over a period of 3 to 5 years. High performing and stable assets tend to attract investor classes with a lower return requirement, such as institutional investors. Smaller private equity firms struggle to compete with these investors. That said, some private equity firms such as Kohlberg Kravis Roberts (KKR) have recently set up infrastructure funds that tend to make longer term investments.

Examples of private equity firms that currently hold stakes in airport assets or have shown an active interest in the sector are shown in Table 2.

*Table 2: Private equity investors*

Name	Investments
Carlyle Group	Linked with a bid for Edinburgh Airport which was ultimately unsuccessful. Linked with an unsuccessful bid for TAV Holdings which operates a number of airports in Turkey and Eastern Europe.
Highstar Capital	Owns 25% of London City Airport alongside GIP. Aerostar Airport Holdings (a joint venture between Highstar Capital and Grupo Aeroportuario del Sureste, a Mexican airport management firm) was awarded the 40-year concession to operate and lease San Juan Airport in Puerto Rico in 2012.

Given the size of Gatwick and Heathrow airports (both in terms of the required investments and the number of passengers handled by each airport) it is unlikely that a smaller private equity firm would show significant interest in the airports. However, some of the larger firms may be interested in investment if they are seeking established, infrastructure-like assets.

<sup>4</sup> <http://www.carlyle.com/>

### 1.3.3 Infrastructure funds

Infrastructure Funds are investment vehicles with a mandate to invest in infrastructure assets. They invest the funds of other investors in a variety of assets that meet certain characteristics and therefore enable the ultimate investors to diversify their portfolios. For this reason, the nature of an infrastructure fund depends on the type of investor it is hoping to attract and can include a range of investment characteristics and objectives.

What in general differentiates investors in these funds is their appetite for long-term, relatively stable investments with predictable returns. Infrastructure is therefore a highly attractive sector as it offers those characteristics. Regulated utilities where there is no new construction risk are seen as particularly stable long-term investment vehicles. However, this does not generally preclude infrastructure funds from investing in assets with construction risk.

While there are differences between investors, infrastructure funds can take a degree of construction risk and revenue risk although usually within some regulatory or concession structure where the risk is mitigated or is seen as less volatile over the long term. Because ultimate investors will invest in an infrastructure fund's portfolio, these funds can take riskier positions in individual assets such as those with significant construction or development requirements.

Such funds tend to favour medium-term opportunities with scope for improvement in operations over a period of 10 to 25 years however this can be limited by the tenor of the fund in question. Some funds may have a period over which they can invest and will close out the fund thereafter, making their returns by way of dividends during the fund's life and/or capital appreciation of the sale of fund at its closure.

The capital available to these funds can also vary considerably. Large funds can easily exceed £10bn.

Examples of infrastructure funds that currently hold stakes in airport assets or have shown an active interest in the sector are shown in Table 3.

*Table 3: Infrastructure fund equity investors*

Name	Investments
Alinda Capital Partners	Owens a minority (11%) stake in London Heathrow.
Macquarie Group	Purchased Aberdeen, Glasgow and Southampton airports from Heathrow Airport as part of a consortium with Ferrovial in December 2014. Previously held stakes in airport assets including Copenhagen, Brussels, Birmingham, Bristol, Newcastle and Rome.
GIP	Owens stakes in a number of UK airports including London Gatwick (42%), London City (75%) and Edinburgh (81%).
John Hancock	Bid for Gatwick Airport as part of a consortium.
Infratil	Owens stakes in a number of airports including Wellington Airport in New Zealand. Owned a stake in Glasgow Prestwick International Airport until 2013 when it was sold to the Scottish Government. Owens a stake in Airstralia Development Group which manages a number of Australian airports.
3i	Linked with bids for Gatwick Airport, Edinburgh Airport and Newcastle Airport but these were ultimately not successful.
Ardian (formerly Axa Private Equity)	Owens a 49% stake in London Luton Airport operations concessionaire. The airport itself is owned by Luton Borough Council. Linked with bids for stakes in a number of other airports including Naples, Turin, Milan Malpensa and Linate.
JP Morgan Asset Management	Linked with bids for Edinburgh and London Stansted airports.

Infrastructure funds would be likely to have an appetite to invest in airports; however the ability to invest in assets the size of Gatwick and Heathrow will very much depend on the nature of the fund. As with private equity firms, the smaller infrastructure funds will be unlikely to be competitive in bidding and so investment from large entities is more probable. While the potential to access infrastructure funds is great, even large infrastructure funds may have concentration limits that restrict their ability to take large positions in either airport.

### 1.3.4 Institutional investors

Institutional investors, such as pension and insurance funds, are organisations that pool large sums of money to invest in a variety of assets. Pension funds, for example, are asset pools intended to provide retirement income to individuals who have paid into a pension scheme over their working lives. Institutional investors will often hold indirect stakes in infrastructure assets by investing in infrastructure funds. This section concerns institutional investors which hold direct stakes in airport assets.

Such organisations are typically risk averse and in particular often seek to avoid construction, demand or GDP risk in their investments. Furthermore, they often adopt a strategy of liability matching whereby future cash inflows are matched against expected future expenses (pension liabilities, for example). This means a running cash yield from assets can be important for some institutional investors but should be taken in the context of the wider portfolio.

These funds typically have access to large amounts of capital and a low cost of capital, allowing them to bid very competitively for assets. This can also mean that the required return on their investments is lower than other investors, however this very much depends on the risks associated with the asset in question.

Pension funds have an established track record of direct investment in airport assets, especially those funds based in Canada and Australia. Typically, these assets demonstrate long-term investment opportunities and are well-established, therefore offering lower risk. Furthermore, pension funds have historically liked regulated assets which are viewed as being low risk and cash-generative.

Examples of institutional investors that currently hold stakes in airport assets or have shown an active interest in the sector are shown in Table 4.

*Table 4: Institutional equity investors*

Name	Investments
Caisse de dépôt et placement du Québec (CDPQ)	Owns a 13% stake in London Heathrow.
Ontario Teachers' Pension Plan	Owns stakes in a number of airports including Birmingham (48%), Bristol (49%), Copenhagen (30%) and Brussels (39%). Linked with a bid for London Gatwick Airport.
California Public Employee's Retirement System	Owns a 13% stake in London Gatwick which it purchased from GIP for \$155m (£96m) in 2010.
National Pension Service of Korea	Owns a 12% stake in London Gatwick which it purchased from GIP for around £100m in 2010.
Universities Superannuation Scheme (USS)	Owns a 9% stake in London Heathrow which it purchased from Ferrovial for around £400m in 2013. Linked with a bid for Edinburgh Airport which was ultimately unsuccessful.
IFM	Manchester, London Stanstead and East Midlands airports are all owned by Manchester Airports Group (MAG), which is in turn owned by Greater Manchester Boroughs (64%) and IFM (36%).

PSP Investments                      AviAlliance (formerly the Hochtief AirPort portfolio), which is a subsidiary of PSP Investments, owns stakes in Athens, Budapest, Dusseldorf, Hamburg and Tirana airports.

Both Gatwick and Heathrow are likely to be attractive assets to institutional investors and both airports already have such investors as current shareholders. However, appetite from these investors may be reduced if the airport is exposed to significant construction risk. Careful management of this risk may help to mitigate against reduced demand but some investors may be restricted from investing in this case.

### 1.3.5 Sovereign wealth funds

Sovereign wealth funds are state-owned and typically have a significant amount of capital at their disposal. Their mandate for investment and source of capital can vary depending on the fund and this information is not always publicly available. For example, some are funded from a government surplus and others from a country's commodity reserves. Similarly, the characteristics of such investments (including whether the focus is on total return or a running yield) can also vary considerably. They typically invest in a wide range of assets including equity stakes, debt, commodities and currencies and tend to be long-term investors.

As well as typically having large amounts of capital available to invest, sovereign wealth funds do not necessarily operate under strict investment policy rules. This allows them to look at a wide range of assets and make opportunistic investments where the risk and return is desirable. Some sovereign wealth funds may also take stakes in nationally strategic assets.

There is a significant track record of sovereign wealth funds investing in well-established airports, including both Gatwick and Heathrow.

Examples of sovereign wealth funds that currently hold stakes in airport assets or have shown an active interest in the sector are shown in Table 5.

*Table 5: Sovereign wealth fund equity investors*

Name	Investments
Qatar Investment Authority	Purchased a 20% stake in London Heathrow from Ferrovial, CDPQ and GIC for around £900m in 2012.
Government of Singapore Investment Corporation (GIC)	Owens a 12% stake in London Heathrow and was an original partner in the consortium (led by Ferrovial) that took over BAA in July 2006.
China Investment Corporation	Purchased a 10% stake in London Heathrow for around £450m in 2012. (Note - this was CIC's first exposure to Airports assets.)
Abu Dhabi Investment Authority (ADIA)	Purchased a 16% stake in London Gatwick for £125m in 2010. Linked with an unsuccessful bid for Manchester Airports Group, as part of a consortium with 3i.

Both Gatwick and Heathrow are likely to be attractive assets to sovereign wealth funds and both airports already have such investors as current shareholders. The relative freedom many sovereign wealth funds have in deciding on investments, as well as the considerable capital available to them and their ability to make long term investments, mean that high quality assets such as Gatwick and Heathrow, even with construction risk, are likely to be very desirable.

## 1.4 Sources of debt

As with equity investors, historically there has been strong appetite from debt providers for airport assets, particularly in developed and established markets. The Literature Review Update report highlights that while the majority of airports are publically owned, many of these still access private financing via the debt markets.

The following section provides a summary of the sources of debt typically found in the airport sector, including the UK Sterling and international public bond markets, the private placement bond market, the commercial bank debt markets and multilateral lenders. These types of debt are not mutually exclusive: An airport may make use of all the various sources of debt in its capital structure. Examples of investors and investments drawn from recent market activity are also included; however these examples are not intended to be an exhaustive list. See the Literature Review Update report for further examples of capital investment in airport assets.

### 1.4.1 Public bonds

The public bond markets are primarily used to provide long-term finance for corporate or public sector expenditure. Bonds are issued by the entity wishing to raise financing and are typically taken up by a range of market participants which include: institutional investors (see section 1.3.4); governments; traders; and individuals. Once issued, the bonds can subsequently be traded in the public markets.

Bonds are given a credit rating that reflects the creditworthiness of the issuer. Ratings are published by independent credit rating agencies and provide an indication of the likelihood that the debt will be repaid. While there are multiple levels of rating, ratings can broadly be split into two categories: investment grade or non-investment grade. Investment grade ratings are given to higher quality credits and bonds that fall in this investment category are more attractive to a wider pool of investors and subsequently there is greater demand for and liquidity in these markets. Investment grade bonds also attract a lower rate of interest than non-investment grade bonds because they are considered to be less risky to investors. Both Gatwick and Heathrow airports issue investment grade public bonds.

The public bond market has increasingly been seen as an alternative to traditional bank lending, particularly for large issuers of debt. This is due to the significant liquidity in the bond market and availability of longer term debt, especially since the contraction of the bank market for long term debt following the financial crisis in 2008.

The total value of corporate investment grade bonds issued in the UK, in all currency denominations, in 2012 and 2013 amounted to £48.7bn and £30.8bn respectively. The total bond issuance in the UK in 2012 and 2013, regardless of rating, amounted to £63.2bn and £51.5bn respectively<sup>5</sup>. UK corporates can issue bonds in a range of currencies (with the largest markets being GBP, USD and EUR). Where bonds are not issued in GBP, a UK borrower may choose, or be required under its funding covenants, to make use of a currency swap product to remove the associated currency risk.

Some recent examples of airports issuing debt in the public bond markets are shown in Table 6.

*Table 6: Recent public bond market debt issuances by airports*

Name	Investments
Heathrow Airport	€750m (£585m) of 15 year Euro denominated, 1.5% coupon bonds issued (2015).
Gatwick Airport	£350m of 20 year GBP denominated, 4.625% coupon bonds issued (2014).
Sydney Airport	€700m (£584m) of 10 year Euro denominated, 2.75% coupon bonds issued (2014).

### 1.4.2 Private placement bonds

Private placement bonds are not sold and traded on the public bond markets but instead are sold to a small group of private investors. The transaction costs associated with issuing debt via private placements are typically less than for a public offering but the bonds' liquidity is also reduced as they cannot subsequently be

<sup>5</sup> PwC research database.

traded on the open markets. This tends to lead to a requirement for higher returns, making this type of debt more costly to the borrower. Due to the bespoke nature of the bond terms agreed with investors, it may be possible to access longer term debt financing via a private placement rather than via the public markets. Private placement bonds do not typically require a credit rating, although the issuer itself may have a credit rating. Examples of recent private placements for airport assets are shown in Table 7.

*Table 7: Recent private placements for airport assets*

Name	Investments
Heathrow Airport	£750m of debt raised across 7 private placements (2014).
Brisbane Airport	US\$250m (£156m) issued in US private placement market (November 2014).
Copenhagen Airport	€285m (£234m) Euro private placement and US\$360m (£219m) US private placement (February 2014).
Birmingham Airport	£75m of private placement senior notes issued (December 2013).

### 1.4.3 Commercial bank debt

Commercial banks are actively seeking opportunities to deploy capital to high quality infrastructure assets. Following the financial crisis in 2008, the tenor of loans banks are comfortable providing reduced, they were less likely to bear construction risk and terms have generally been more onerous for borrowers. Current market conditions have improved, however, with commercial banks generally comfortable lending to high quality infrastructure projects, including those with construction risk, provided margins and other covenants are met. Bank loans in the current market are typically shorter term when compared to the bond markets which increases the refinancing risk and requires careful treasury management.

Commercial banks typically have the flexibility to provide a variety of debt products including term loans, revolving credit facilities and overdrafts. Where the facilities required are too large for one bank to provide in their entirety, banks are able to form clubs to meet the total financing requirements.

Examples of recent bank investments in UK airport assets are shown in Table 8.

*Table 8: Recent bank investments in UK airport assets*

Name	Investment	Comments
Heathrow Airport refinancing	GBP2,150m	November 2014 Refinancing of core revolving credit (5 year term) and liquidity facilities. 22 banks participated in a new bank group providing facilities. The number of participants reflects the scale of the facilities required.
Edinburgh Airport refinancing	GBP500m	May 2014 £440m senior term loan (5 year bank tranche provided by 7 banks, 10 year bank tranche provided by 2 banks and 10 year institutional tranche provided by 2 institutional investors) £60m capex and RCF facilities (5 year terms)
Gatwick Airport refinancing	GBP330m	March 2014 7 banks participated in a revolving credit facility (5 year term)

Bank finance is more flexible than bonds because of its ability to be drawn and repaid according to available cash flow rather than a pre-ordained repayment profile. However, the capacity of bank lending is relatively limited in the context of the overall finance requirements of all three schemes and there is a marked difference between the tenors of the investments noted in Table 8, compared to those noted for public bond investments in Table 6, section 1.4.1.

#### 1.4.4 Multilateral lenders

Multilateral lenders are state owned by multiple countries and generally provide financing for projects which meet pre-determined criteria established by the institution. Projects are typically financed by way of long term loans at or below market rates, or through grants.

The potential for involvement by the European Investment Bank (EIB) was raised as part of the response to consultation. The EIB is the European Union's bank and the largest multilateral borrower and lender, and the most likely multilateral lender to invest in UK infrastructure (the UK would not typically meet the criteria for lending by the development banks). Its lending activities are largely focussed on promoting European economic development and furthering EU policy objectives. It primarily raises its capital through bond issuance in the international capital markets with an annual funding programme in 2015 of up to €60bn. The bank's excellent credit rating (due to its ownership by EU member states affording it similar status to sovereign borrowers) allows it to access capital at very attractive rates.

The EIB typically provides debt by way of long term loans but it also offers other products including guarantees, microfinance and equity finance. Provided that airport expansion in the South East of England can be shown to be in line with the EIB's lending objectives and the selected scheme is considered to be economically, financially, technically and environmentally sound, the EIB could be considered as a potential source of debt financing and has lent to airports in the UK in the past.

Examples of EIB investments in UK airport assets are shown in Table 9.

*Table 9: EIB investments in UK airport assets<sup>6</sup>*

Name	Investment	Comments
Heathrow Terminal 5 (2002)	€390m (£239m)	Construction and commissioning of a fifth passenger terminal at London Heathrow Airport
BAA UK Airports Modernisation II (2001)	€109m (£69m)	Upgrading of Gatwick and Stansted airports
BAA UK Airports Modernisation (1998)	€123m (£78m)	Modernisation and extension of passenger facilities at Edinburgh, Heathrow and Gatwick airports
Heathrow Express Rail Link (1997)	€175m (£111m)	Construction of new express rail link between Heathrow airport and Paddington station in London

## 1.5 Case studies

When considering relevant precedents for similar investments in airports or other infrastructure assets, consideration needs to be given to a range of different investment characteristics. These include:

<sup>6</sup> <http://www.eib.org>. Note that where lending was made prior to the introduction of the Euro, the Euro equivalent values are shown.

<b>Investment characteristic</b>	<b>Preferred characteristic</b>
Sector	Airports
Country	UK
Capital expenditure	£10bn - £30bn
Capital structure	Privately financed: corporate debt and equity
Others of relevance	Regulated Greenfield development related to an existing asset Transformational expansion

The size of the three schemes being considered by the AC means there are a limited number of direct precedent transactions of comparable scale. This is particularly true for the Heathrow schemes. There are elements of historical investments that provide precedent for certain characteristics of the 3 proposed schemes, however, it should be noted that there are no precedents which demonstrate all the desired characteristics, and most significantly – none at the scale of investment required. Even if there were clear precedents, historical performance may not be a good indication of future outcomes and it is for these reasons that the AC has chosen to undertake additional market soundings on the financing requirements for the schemes (see sections 2, 3 and 4 of this report).

The following case studies have been selected as they exhibit one or more of the characteristics outlined above.

The case studies selected are not intended to be an exhaustive list but provide an overview of some of the financing structures that have been used to deliver large scale infrastructure investments around the world.

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### *Istanbul New Airport<sup>7</sup>*

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Sector	Airports
Country	Turkey
Summary	<p>The concession to build-transfer-operate a third airport in Istanbul was announced in 2012 and awarded in 2013, with financial close expected in 2015. Initial passenger capacity will be 90m per annum but this is expected to grow to 150m per annum. The first phase of construction is expected to be completed in 2016.</p> <p>The payment structure is availability based and it is expected that traffic guarantees will be provided by the Turkish government, with limited demand and revenue risk on the concessionaire.</p> <p>Note that this deal has not yet reached financial close yet and so the financing details are subject to change.</p>
Capital expenditure	c.EUR5.5bn (c.£4.3bn)
Capital Structure	Debt: EUR4.5bn (£3.5bn) (81%) Equity: EUR1.0bn (£0.8bn) (19%)
Equity	Cengiz (20%) MAPA (20%) Limak (20%) Kolin (20%) Kalyon (20%)
	All of these equity investors are Turkish
Debt	<p>As at 17<sup>th</sup> April 2015, financial close has not been reached on this project. However, the debt is anticipated to come in the form of commercial loans (14 year tenor) from a group of seven Turkish banks:</p> <ul style="list-style-type: none"> <li>• Denizbank</li> <li>• Finansbank</li> <li>• Garanti Bank</li> <li>• Halkbank</li> <li>• Vakif</li> <li>• Yapi Kredi</li> <li>• Ziraat</li> </ul>
Relevance	<ul style="list-style-type: none"> <li>• At the time of writing this deal has not yet reached financial close. However, the proximity of close suggests that the project is financially viable.</li> <li>• The new Istanbul Airport is a greenfield concession with a PPP-like structure. Therefore, it may involve greater transfer of construction/cost risk than a regulated structure. Current financing relates to the first phase of construction, suggesting a modular construction process.</li> <li>• The anticipated gearing level is similar to that seen on other PPP deals and shows an appetite for banks to lend a significant amount in commercial loans to such a deal.</li> <li>• All five equity sponsors are construction companies and demonstrates a precedence for construction firms to invest sums of around EUR300m in equity for greenfield airport projects.</li> </ul>

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<sup>7</sup> <http://centreforaviation.com/profiles/newairports/istanbul-new-airport-istanbul-grand-airport>

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## Heathrow Terminals 2 and 5

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Sector	Airports
Country	UK
Summary	<p>Heathrow airport's expansion has included development of Terminals 2 and 5. As well as increasing capacity, the improved facilities aim to deliver world-class facilities for entry to the UK.</p> <p>The first phase of development at Heathrow's T2 began in 2009 and was completed in 2014. This included demolition of the old terminal building and construction of half of the main terminal building. Phase 2, which will involve the construction of the second half of the terminal building, was originally scheduled to be completed in 2019 but has since been delayed.</p> <p>The construction of Heathrow's T5, which was completed in 2008, represented a significant expansion investment at Heathrow, which more than doubled the existing RAB. T5 at London Heathrow was a large, complex project which involved the building of terminals 5A, 5B and 5C, a new control tower for the whole airport and extensions to the Piccadilly Line, Heathrow Express and M25, as well as the rerouting of two rivers. The terminal was ultimately designed to handle 35m passengers per annum.</p>
Capital expenditure	<p>£2.3bn (T2)</p> <p>£4.3bn (T5)</p>
Capital Structure	<p>Both expansions were financed corporately by Heathrow, primarily through bond issuances as part of Heathrow's wider bond programme.</p> <p>As bonds were issued as part of financing for general operations, the exact financing information for T5 is difficult to breakdown. However, in July 2001 and again in June 2002, bonds of £2bn (Euro MTN programme) and £3bn respectively were issued, which reference T5 in their terms of issuance.</p>
Relevance <sup>8</sup>	<p>Both of these schemes demonstrate investor willingness to accept further construction risk on an existing asset. T2, in particular, is an example of a large scale construction project being delivered on time and without disruption to existing operations.</p> <p>In terms of T5, key learning points included:</p> <ul style="list-style-type: none"> <li>• There are limits on the extent to which cost risk can be transferred to contractors, so that for projects of this scale, some form of target pricing is likely to be more appropriate, with contractors allowed to focus on delivery.</li> <li>• The regulatory framework can be flexed in a way that allows large capital expenditure to be incurred without causing undue financial stress to the company whilst driving efficiencies and handling possible variations in capital cost outturns.</li> <li>• The regulatory structure can allow pre-funding (increase in charges ahead of expenditure) and consequently reduce the finance burden.</li> </ul>

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<sup>8</sup> [http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Heathrow-\(SP\)-Limited-2014-results-presentation.pdf](http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Heathrow-(SP)-Limited-2014-results-presentation.pdf)

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**São Paulo Airport Terminal Expansion<sup>9,10</sup>**

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Sector	Airports
Country	Brazil
Summary	<p>The concession to construct and operate a third terminal at Brazil's São Paulo-Guarulhos International Airport (GRU Airport) was announced in 2011 with operations commencing in May 2014. The new terminal covers an area of 192,000m<sup>2</sup>, and its annual passenger handling capacity of 12 million has increased the airport's overall annual handling capacity to approximately 42 million.</p> <p>Concessionaria Aeroporto Internacional de Guarulhos owns the 20-year concession and won with a bid of BRL16.2bn (£4.0bn).</p>
Capital expenditure <sup>11</sup>	BRL3.7bn (£0.92bn)
Capital Structure	Debt: BRL3.1bn (£0.77bn) (72%) Equity: BRL1.2bn (£0.30bn) (28%)
Equity	Airports Company of South Africa (5.1%) Infraero (49%) Invepar (45.9%)
Debt	Brazilian Development Bank (70%) HSBC, Itaú, Banco do Brasil, Bradesco and CEF (Brazilian banks) (30%)
Relevance	<ul style="list-style-type: none"> <li>• This project was for the expansion of an existing airport asset to increase capacity.</li> <li>• Due to the World Cup in 2014 there was a tight deadline that had to be adhered to, increasing the impact of time overruns and the risk of cost overruns.</li> </ul>

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<sup>9</sup> <http://www.airport-technology.com/projects/so-paulo-guarulhos-international-airport-terminal-3/>

<sup>10</sup> <http://www.infra-deals.com/deals/862723/guarulhos-international-airport.html>

<sup>11</sup> All figures related to capital expenditure and capital structure are estimates as at December 2014.

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## High Speed 1

Sector	Rail
Country	UK
Summary <sup>12</sup>	<p>High Speed 1, also known as Channel Tunnel Rail Link (CTRL), is the UK's first high speed railway. It is 108 km in length and runs between St Pancras station in London and the end of the Channel Tunnel, near Folkestone.</p> <p>The main objectives of the scheme included delivering high speed connectivity between London and Continental Europe and improving the capacity, speed and quality of travel between Kent and London. The programme was split into two key sections with section 1 of the line opening in 2003 and section 2 in 2007.</p>
Capital expenditure <sup>13</sup>	c.£5.8bn
Capital Structure	Debt: £6.1bn Equity: N/A Government grants: £1.7bn
Equity	The project was ultimately financed through Government backed debt. The concessionaire was London and Continental Railways (LCR) whose shareholders comprised Bechtel, Blue Circle, Halcrow, National Express, Virgin and Warburg.
Debt	The project was funded with £6.1bn of debt via the bond market with 30, 40 and 50 year maturities. Government support helped secure deals at under 5% cost of funds and the UK Government recouped a significant proportion of its investment by selling the franchise after completion. The repayment profile of the debt was suited to a rail project's ability to fund debt service through long term access to revenues.
Relevance <sup>14</sup>	<ul style="list-style-type: none"> <li>• The project was structured as a PPP but faced a number of challenges and setbacks in sourcing private finance for the scheme, largely related to the expectation that the private sector would take demand risk.</li> <li>• This ultimately led to the need to restructure the project with the Government stepping in to provide support by guaranteeing the debt.</li> <li>• The project provides a good example of the need to carefully allocate risks to ensure the successful delivery of scheme financing, and that in the absence of appropriate risk allocation, restructuring maybe required, in addition to the Government stepping into provide support.</li> </ul>

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<sup>12</sup> High Speed 1: <http://highspeed1.co.uk/>

<sup>13</sup> <http://www.railway-technology.com/projects/highspeedone/>

<sup>14</sup> <http://www.greengauge21.net/wp-content/uploads/Funding-Report.pdf>

### *HSR Rail Link, Tours to Bordeaux<sup>15</sup>*

Sector	Rail
Country	France
Summary	<p>The 50 year concession to build and maintain a high speed rail line from Tours to Bordeaux, covering 340km of new track and connecting lines. Financial close on the deal, which was won by a Vinci-led consortium, was reached in June 2011.</p> <p>The deal has been heavily supported by the French government with around EUR3bn (£2.6bn) in contributions from the government and local authorities, as well as guarantees for 60% of the raised debt. The French rail network has also made contributions of around EUR1bn (£0.9bn).</p>
Capital expenditure	EUR7.8n (£6.8bn)
Capital Structure	<p>Debt: EUR3bn (£2.6bn) (79%)</p> <p>Equity: EUR0.8bn (£0.7bn) (21%)</p>
Equity	<p>Vinci (33%)</p> <p>Caisse des Depots (26%)</p> <p>SOJAS (22%)</p> <p>Axa Private Equity (19%)</p>
Debt	<p>Commercial bank loans of around EUR1.6bn (£1.4bn) (60% of which is guaranteed by the French government) have been provided by a banking group including BBVA, BNP Paribas, Credit Agricole, Dexia, Mediobanca, Santander, Societe General, SMBC and UniCredit.</p> <p>The EIB has provided a term loan of EUR600m (£526m) (of which EUR400m (£351m) is guaranteed by the French government.</p> <p>Caisse des Depots, the French investment vehicle has provided a term loan of c.EUR800m (c. £702m).</p> <p>Around EUR800m (£702m) has also been provided in equity bridge loans.</p>
Relevance	<ul style="list-style-type: none"> <li>• The Tours to Bordeaux rail link concession is a greenfield infrastructure project with significant capital expenditure requirements and is exposed to significant construction risk.</li> <li>• Partly because of the turmoil in the financial markets while the project was being finalized, significant government support was required. This came in a variety of forms, including commercial loan guarantees, central government lending, central government grants and local government grants.</li> <li>• This level of support required state aid clearance in order to be in accordance with EU law.</li> </ul>

<sup>15</sup> <http://www.railway-technology.com/projects/toursbordeaux-high-speed-rail/>

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### **Indiana Toll Road<sup>16</sup>**

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Sector	Roads
Country	US
Summary	<p>The Indiana Toll Road is around 150 miles long and runs east to west across northern Indiana. The concession for the operation and maintenance of the toll road for 75 years was originally awarded in 2006 by the state of Indiana. The payment mechanism was demand-risk based and allocated toll revenue to the concessionaire, ITRCC.</p> <p>In 2014, ITRCC filed for bankruptcy. In March 2015, IFM announced it had agreed to purchase ITRCC for \$5.7bn (£3.7m). Note that at the time of writing this deal was pending approval and government authorization.</p>
Capital expenditure	N/A (asset already built)
Capital Structure	Debt: \$2.5bn (£1.5bn) (43%) Equity: \$3.2bn (£1.9bn) (57%)
Equity	IFM (100%)
Debt	The banking group includes CBA, NAB, Bank of America, CIBC, Royal Bank of Canada, Siemens, Credit Agricole, Societe Generale, ING, Mitsubishi UFJ and Babson Capital.
Relevance	<ul style="list-style-type: none"> <li>• The Indiana Toll Road asset was completed and operational at the time of purchase by IFM and so, unlike the schemes being considered by the AC, is not exposed to construction risk. However, the purchase does demonstrate the ability and appetite of large infrastructure investors to invest large amounts of equity for the right asset.</li> <li>• The leverage of the purchase (43%) was considerably lower than that being considered as part of the Commission's Cost and Commercial Viability assessment. Furthermore, junior debt was also required making the senior debt leverage only just over 20%, although this should also be taken in the context of the distressed nature of the asset.</li> </ul>

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<sup>16</sup> <http://www.infra-deals.com/deals/1125938/indiana-toll-road-sale-2015.shtml>

## 1.6 Key risks

There are a number of key risks inherent to the financing of any of the three schemes. For the scheme to be considered a viable investment by debt and equity financiers these risks will need to be allocated appropriately between the various stakeholders. Exposure to certain risks may also restrict the availability of capital. For example, some institutional investors may be restricted from investing in projects with greenfield construction risk.

*Table 10: Risks identified as part of the Literature Review Update report*

Risk	Consideration
<i>Project risk</i>	
Cost and integration risk	<ul style="list-style-type: none"> <li>• Construction and operation price of the additional runway may be higher than forecasted</li> <li>• Integration of the various elements of the project together may be difficult as well as the integration of the new infrastructure with the existing operating airport</li> <li>• Risks may remain at the airport company level due to their size and complexity</li> </ul>
Contracting risk	<ul style="list-style-type: none"> <li>• Large elements of the infrastructure may not be contracted on a fixed price basis due to:               <ul style="list-style-type: none"> <li>○ the interdependency of the infrastructure and,</li> <li>○ the size of the investment (too great for the balance sheet of the lead contractor)</li> </ul> </li> <li>• The regulatory regime may not recognise the full cost risk</li> </ul>
Timing risk	<ul style="list-style-type: none"> <li>• Delay will impact the project economics</li> </ul>
Demand risk	<ul style="list-style-type: none"> <li>• Uncertainty around the demand for new capacity; its make-up, type of aircraft, passenger numbers and prospective growth will have a bearing on the growth and degree of uncertainty around future revenues which will directly impact the cost and availability of finance</li> </ul>
Revenue risk	<ul style="list-style-type: none"> <li>• Uncertainty on the demand risk will directly impact the size and build-up of revenue increasing the cost of the debt and the amount of the financing that will have to come from more expensive equity finance, or in extremis the need of some form of public sector support</li> <li>• Increasingly competitive markets will lead to a greater risk of long term revenue to diverge from forecasts</li> <li>• Increasing uncertainty in revenues resulting from new capacity relative to the existing airport due to a less proven incremental demand</li> </ul>
<i>Regulatory risk</i>	
Cost of capital under a RAB based model	<ul style="list-style-type: none"> <li>• Uncertainty on the future regulatory regime</li> <li>• Uncertainty on the determination of a cost of capital to be flexed to incorporate issues such as:               <ul style="list-style-type: none"> <li>○ The sheer scale of investment required (i.e. would this warrant a higher WACC);</li> <li>○ The demand risks referred to above (i.e. would these risks mean that a higher WACC is justified); and</li> <li>○ Whether and if so how the cost of long-term debt should be “embedded” in price control calculations (rather than being revisited during price control reviews).</li> </ul> </li> </ul>
Economic and efficient investment	<ul style="list-style-type: none"> <li>• Under a RAB model<sup>17</sup>, new capital expenditure (including expenditure that is considered beneficial to the quality of service provided) is added to the RAB and</li> </ul>

<sup>17</sup> Since April 2014, GAL has been regulated by the Civil Aviation Authority (CAA) on a license based approach which allows GAL some flexibility in setting airport charges. However, the CAA also requires GAL to undertake a shadow ‘Regulated Asset Base’ (RAB) calculation.

Risk	Consideration
<i>Financing risk</i>	<p>the entity can earn a return on that additional asset, at a rate that is determined by the regulator. However, this is only the case to the extent that the regulator determines that the assets have been procured economically and efficiently. Therefore there is a risk that the capex may not be allowed into the RAB in which case it will not be possible to pass these costs on to the airport users.</p>
Capacity and ability to raise finance	<ul style="list-style-type: none"> <li>• UK bond market capacity uncertain</li> <li>• Inability to predict the level and price of financing in 5 year time (market perception of cost and revenue risks)</li> <li>• Challenge to maintain strong independent investment grade credit ratings</li> </ul>

Source: Literature Review Update report

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Please see the CAA published document, 'Economic regulation at Gatwick from April 2014: notice of the proposed license, CAP1139' for more information on GAL's regulatory requirements.

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# *2 Gatwick Airport Second Runway*

## 2.1.1 Introduction

The following section outlines the current equity ownership and debt structure of Gatwick Airport and the potential equity and debt financing the LGW 2R scheme might require.

These issues were explored further with market participants, including current shareholders in Gatwick, through a roundtable and one-to-one meetings. The findings from these events are presented on an anonymised basis to give insight on the market view of the LGW 2R scheme and the analysis presented in the Funding and Financing report for the AC's November 2014 public consultation.

## 2.2 Current equity ownership

Global Infrastructure Partners (GIP) purchased Gatwick Airport from BAA for £1.5bn in 2009 after it was put up for sale following a Competition Commission investigation into BAA's control of airports in and around London. The other bidders in the final stages of the competition included Lysander Investment Group (which included Citigroup and Vancouver Airports); and Manchester Airport Group in partnership with Borealis, a Canadian pension fund.

Following GIP's purchase, it managed an equity syndication programme to reduce its shareholding to 42% by selling stakes to Future Fund, Abu Dhabi Investment Authority (ADIA), California Public Employees' Retirement System (CalPERS) and National Pension Service of Korea (NPS).

Table 11: Gatwick's current shareholders

Name	Stake	Investor Type	Assets <sup>18</sup>	Other
Global Infrastructure Partners (GIP)	42%	Infrastructure Fund	c.\$22bn <sup>19</sup> (c.£14bn)	Has investments in a number of other airport assets, including: <ul style="list-style-type: none"> <li>- London City Airport (75%), purchased in 2006.</li> <li>- Edinburgh Airport (80.9%), purchased in 2012 for around £800m.</li> </ul>
Future Fund	17%	Sovereign Wealth Fund	c.AUD\$110bn <sup>20</sup> (c.£55bn)	Purchased a 17% stake in Gatwick from GIP for £145m in 2010 as part of GIP's managed sale of minority stakes.  Mandated to offset future government pension liabilities from 2020 onwards. May therefore exhibit pension fund type characteristics.
Abu Dhabi Investment Authority (ADIA)	16%	Sovereign Wealth Fund	c.\$770bn <sup>21</sup> (c.£497bn)	Purchased a 16% stake in Gatwick from GIP for £125m in 2010 as part of GIP's managed sale of minority stakes.
California Public Employees' Retirement System (CalPERS)	13%	Institutional Investor (Pension Fund)	c.\$300bn <sup>22</sup> (c.£194bn)	Purchased a 13% stake in Gatwick from GIP for \$155m in 2010 as part of GIP's managed sale of minority stakes.

<sup>18</sup> Where not disclosed, this is based on industry estimates.

<sup>19</sup> Global Infrastructure Partners: [www.global-infra.com](http://www.global-infra.com)

<sup>20</sup> Future Fund: [www.futurefund.gov.au](http://www.futurefund.gov.au)

<sup>21</sup> Sovereign Wealth Fund Institute: [www.swfinstitute.org](http://www.swfinstitute.org)

<sup>22</sup> CalPERS Annual Investment Report 2014: [www.calpers.ca.gov/eip-docs/about/pubs/annual-investment-report-2014.pdf](http://www.calpers.ca.gov/eip-docs/about/pubs/annual-investment-report-2014.pdf)

Name	Stake	Investor Type	Assets <sup>18</sup>	Other
National Pension Service of Korea (NPS)	12%	Institutional Investor (Pension Fund)	c.\$400bn <sup>23</sup> (c.£258bn)	Purchased a 12% stake in Gatwick from GIP for £100m in 2010 as part of GIP's managed sale of minority stakes.

In assessing the attractiveness of an investment opportunity, equity investors, and in particular closed funds (e.g. GIP's investment in Gatwick), will include the exit value of their investment within their return calculations and any appreciation in the value of their investment will augment their returns. The recommendation of a scheme for development by government and its progression through various stages of planning processes will likely increase the value of the underlying asset to existing shareholders should investments be subsequently sold.

The GIP fund is a 10 year fund from 2007<sup>24</sup>. After the fund closes down, GIP may exit from being a Gatwick shareholder. The process for closing down GIP's stake in Gatwick will be likely to be managed over time to reduce the potential for market movements and therefore the risk of a reduced return for GIP. One option for GIP would be to transfer the stake to another one of its funds and therefore maintain its investment. Alternatively, if GIP does not wish to continue to hold a stake in Gatwick, market soundings suggest a strong appetite from existing investors to take over GIP's share, without the need to go to external equity. Should the LGW 2R scheme be recommended by the AC, it is likely there will be a significant increase in the value of GIP's stake in Gatwick and therefore the return that could be realised should GIP sell.

## 2.3 Current debt structure

GAL owns 100% of the share capital of Gatwick Funding Limited (GFL). GFL's main purpose is to raise external funding for GAL through the issuance of bonds, the terms of which are then replicated in a 'back-to-back' agreement with GAL. GAL is predominantly financed by long term BBB+ rated corporate bonds (issued by GFL) as opposed to bank loans (commercial debt loans) (See Table 12).

Table 12: GAL financing arrangements<sup>25</sup>

Consolidated debt as of 31 March 2014 (All figures are in £m)	Gatwick Airport Limited
Term facility	-
Capex facility	-
Revolving credit facility	-
Authorised Credit Facility – Revolving Facility	(2.7)
<b>Total commercial debt loans</b>	<b>(2.7)</b>
<b>Total bond financing</b>	<b>1,523</b>
<b>Total non-current borrowing</b>	<b>1,521</b>
% bond financing over total funding requirement	100%

<sup>23</sup> National Pension Service: <http://english.nps.or.kr/jsppage/english/main.jsp>

<sup>24</sup> [https://www.preqin.com/user/inf/gp\\_profile.aspx?FirmID=14944](https://www.preqin.com/user/inf/gp_profile.aspx?FirmID=14944)

<sup>25</sup> [http://www.gatwickairport.com/Documents/business\\_and\\_community/investor\\_relations/Year\\_End\\_2014/Gatwick\\_Airport\\_Limited\\_Financial\\_Statements\\_31March2014.pdf](http://www.gatwickairport.com/Documents/business_and_community/investor_relations/Year_End_2014/Gatwick_Airport_Limited_Financial_Statements_31March2014.pdf)

## 2.4 Potential future equity and debt requirement

As part of the market consultation exercise market participants, including existing shareholders and other financiers were asked to consider whether the scheme, as costed by the AC, would prove financeable or whether the scale and rate of increase in finance required would create challenges.

As set out in the Funding and Financing report, the LGW 2R scheme is assumed to be corporately financed by Gatwick Airport with Gatwick's current senior credit rating of BBB+ maintained. A potential capital structure for maintaining the credit rating is determined by keeping three key financial metrics broadly consistent with their current levels, namely:

- Interest coverage ratio;
- Net Debt to RAB ratio; and
- Funds From Operations (FFO) to debt ratio.

Debt pricing was determined using the implied forward curve for 10 year gilt rates based on market data and this profile is included in the report Cost and Commercial Viability: Additional Sensitivities. A corporate spread was then added to this curve to arrive at indicative pricing for each of the schemes. These spreads are based on recent market data for a range of comparable indices and corporates, including Gatwick's currently trading debt issues. The spreads assumed for the purposes of this report also include a premium for the project risk introduced by each scheme as well as a small buffer to reflect future market uncertainty and the possible cost of currency hedging instruments. For Gatwick, this spread is 200bps.

In estimating the cost of equity for the LGW 2R scheme, consideration was given to a number of factors, including:

- Existing rates of return on equity seen in comparable airports and other utility sectors;
- The size of the proposed investment relative to the existing regulated asset base, recognising any phasing of construction, and therefore the level of cost uncertainty for the company;
- The perceived level of demand risk;
- The level of competition and investor appetite for infrastructure assets; and
- The regulatory environment within which the airports operate.

Based on these factors, the estimated required rate of return for Gatwick's equity is 10%.

See the Funding and Financing report for further information on the methodology and assumptions underpinning the estimates contained in this report.

### 2.4.1 Equity

According to the range of forecasts prepared by the AC in November 2014, the LGW 2R scheme could require additional equity of up to £3.7bn over the assessment period to 2050.

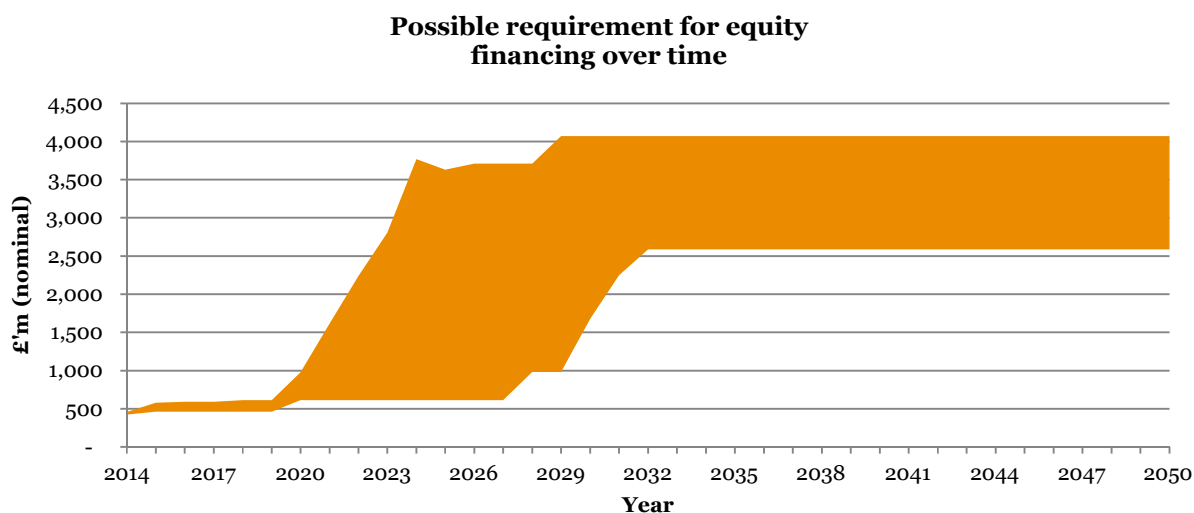
*Table 13: Estimated LGW 2R equity requirements*

	<b>Current position (as at 31<sup>st</sup> March 2014)</b>	<b>Additional requirement</b>	<b>Estimated maximum</b>
Equity	£0.3bn	£2.3bn - £3.7bn	£2.6bn - £4.0bn

*Source: Funding and Financing Update report*

Figure 1 shows the range of possible equity requirements over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

*Figure 1: LGW 2R – Equity range*



It was on this range of equity requirements that the market consultation was performed.

Following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 13 and Figure 1 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the minor changes to the results are not considered to affect the findings of this report.

### 2.4.2 Debt

According to the range of forecasts prepared by the AC in November 2014, the LGW 2R scheme could require additional debt of up to £14.4bn over the assessment period to 2050.

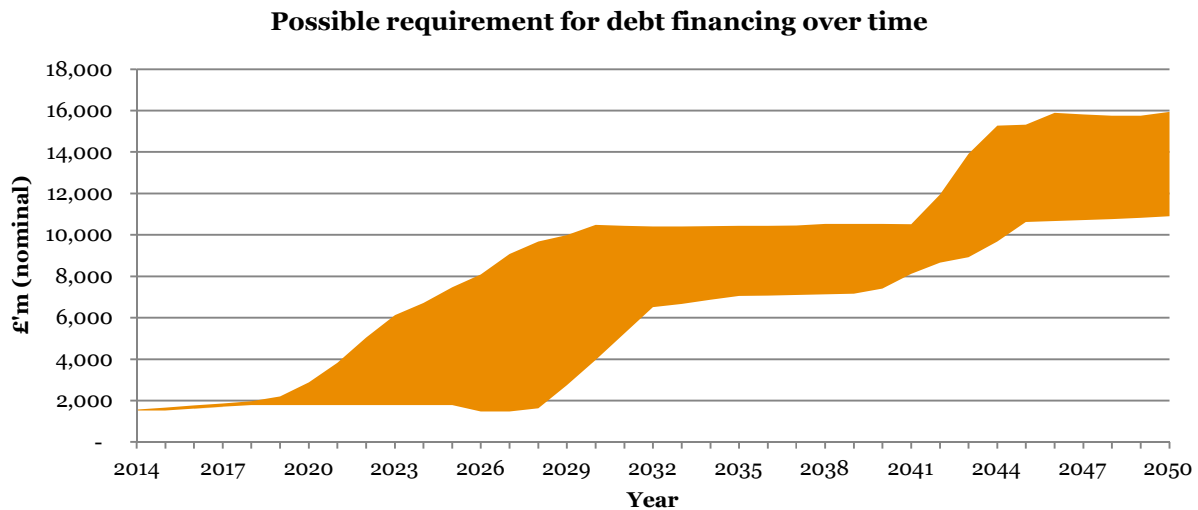
*Table 14: Estimated LGW 2R debt requirements*

	<b>Current position (as at 31<sup>st</sup> March 2014)</b>	<b>Additional requirement</b>	<b>Estimated maximum</b>
Debt	£1.5bn	£9.4bn - £14.4bn	£10.9bn - £15.9bn

Source: *Funding and Financing report*

Figure 2 shows the range of possible debt requirements over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

*Figure 2: LGW 2R – Debt range*



It was on this range of debt requirements that the market consultation was performed.

As with the equity requirements, following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 14 and Figure 2 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the minor changes to the results are not considered to affect the findings of this report.

## 2.5 Financier considerations

In producing this report, a number of meetings were held with current and potential investors in Gatwick as well as other key financial stakeholders. These meetings come under three categories:

- **Financiers** – The views were sought of a cross-section of financiers, including equity investors, debt investors, and bond arrangers. No current equity shareholders of either airport were included in this group of financiers. A number of debt financiers hold debt in one, or both, of the airports and a number of the bond arrangers had previous relationships with one, or both, of the airports. However, these relationships are not considered a threat to their independence in the context of these meetings.
- **Scheme promoter and current shareholders** – One-to-one meetings were held with the LGW 2R scheme promoter and Gatwick’s current shareholders. As current investors in the airport and proponents of the scheme, these views are important but need to be considered in the light of the interests of those giving evidence.
- **Credit rating agencies** – One-to-one meetings were held with S&P and Moody’s credit rating agencies as key market participants for both airports. Fitch were also invited to attend a meeting but

declined. These were held separately to the meetings with independent financiers so as to allow both rating agencies to give views without risk of influencing other market participants.

The points raised by each group come under four themes:

- Availability of finance and the appetite to invest;
- Risk and regulation;
- Government support; and
- The assessment approach adopted by the AC.

As a consequence of discussing the issues with a range of different parties, there may be conflicting opinions across the groups interviewed as well as within the different groups. The views raised at the meetings and documented in this report provide a summary of the key messages coming out of the market consultation.

## 2.5.1 Financiers

### *Availability of finance and appetite to invest*

Views raised	Comments
<i>Debt financing</i>	
<ul style="list-style-type: none"> <li>• Accessing the level of debt that could be required by the LGW 2R scheme feels achievable. Despite being a significant requirement, market capacity for BBB+ rated debt should be sufficiently large to absorb this.</li> <li>• There was a slightly greater concern about the speed at which the debt was required but this was still considered to be manageable. This could be particularly true following the first few issuances and it was possible that ‘fatigue’ would set in towards the end of the debt expansion programme.</li> <li>• Refinancing of the existing Gatwick debt does not present any concerns.</li> <li>• Gatwick does not currently require an extensive treasury management function and this would need to be developed to raise the financing required for the scheme. This does not present any particular concerns but it would be important for this evolution to occur.</li> </ul>	<p>In general, there was little concern about the ability of Gatwick to raise sufficient debt for the LGW 2R scheme, even when considering the upper end of the range considered as part of the AC’s assessment.</p> <p>There is a concern about the potential for debt ‘fatigue’ following a significant period of debt raising. However, this is considered more likely to manifest itself in a premium to the cost of debt rather than limitations on liquidity.</p>
<ul style="list-style-type: none"> <li>• The scheme could exceed the capacity of the Sterling public bond market alone and therefore need to seek alternative funding sources, including private placement markets and foreign currencies. However, such a requirement was considered to be easily digestible by the global markets.</li> </ul>	<p>Regardless of whether Gatwick could source financing solely from Sterling capital markets, it is likely that it would seek funding from a variety of sources and currencies. This would reduce the risk of exhausting credit lines as well as helping achieve the most efficient cost of financing.</p>
<ul style="list-style-type: none"> <li>• The availability of financing is predicated on the assumption that the AC would recommend only one of the three schemes (and that this would be acted on by Government).</li> <li>• Market conditions are also important to the availability of finance. If another financial crisis was to occur then</li> </ul>	<p>Ultimately, the condition of the financial markets at the time of fund raising will determine the ease at which debt financing can be raised.</p> <p>While current market conditions suggest little concern over Gatwick’s ability to raise financing, this could change under different circumstances.</p>

Views raised	Comments
<p>the availability of debt and equity could be significantly reduced.</p>	<p>At one end of the scale, deteriorating market conditions could mean there is still sufficient capacity but a premium might be incurred on the cost of debt. At the other end of the scale, there may not be sufficient liquidity in the market regardless of price. This was generally felt to be unlikely because even in the credit crunch high quality bond issues were still financeable.</p>
<p><i>Equity financing</i></p>	
<ul style="list-style-type: none"> <li>• The potential requirement for additional equity to finance the LGW 2R scheme is significant, especially relative to the existing entity.</li> <li>• While the level of equity investment is not unprecedented, other comparable companies have a more established track record which could give investors greater comfort.</li> <li>• Institutional investors, which will likely constitute a large proportion of any equity financing, will have concentration limits on exposure to single assets. These limits will typically be lower for Gatwick than other, comparable assets. If these limits are in danger of being breached, the process for extending them may be slow to react.</li> </ul>	<p>At the margin, the ability of Gatwick to raise sufficient equity financing for the LGW 2R scheme is more of a concern than its ability to raise debt financing. This is primarily due to the size of the scheme relative to the existing airport, the additional risks the scheme would expose equity to and the ability of equity investors to bear these risks.</p> <p>However, the general view is that there is significant demand in the market for an asset like Gatwick airport and ultimately there was no suggestion that equity financing wouldn't be achievable.</p> <p>Instead, it could be that a restriction on the availability of equity would manifest itself as a premium on the cost of equity rather than a lack of capacity.</p>
<ul style="list-style-type: none"> <li>• Lenders would be likely to require significant equity commitments, ranging from verbal to contractual, prior to making any debt available.</li> <li>• While equity investors may be willing to take a dividend holiday during periods of capital expenditure, senior lenders would prefer to see a running yield to equity as this provides greater loss-absorbing capital.</li> <li>• While regulated assets have been historically viewed as offering steady yields to infrastructure investors, there are some who believe regulation can limit upside potential while still exposing equity to downside risk and therefore regulatory risk will be a greater factor to investors and pricing than before.</li> <li>• Considerable value would be attached to a scheme being recommended by the AC. If the LGW 2R scheme was to be recommended (and taken forward by Government) this would reduce financing uncertainty.</li> </ul>	<p>There are a number of structural aspects to the LGW 2R scheme that will influence Gatwick's ability to raise equity. This includes both internal aspects, such as the terms of the shareholder agreements including requirement for equity commitments or a running yield, and external aspects, such as the regulatory environment and Government support.</p> <p>Again, while these factors are unlikely to reduce the availability of equity financing significantly, they could influence the price at which equity financing could be raised.</p> <p>While senior lenders may prefer to see a running yield to equity, this is unlikely to be an efficient way of using cash flows during periods of capital expenditure. This is an additional aspect to the construction risk lenders might see in the LGW 2R scheme.</p>

*Risks and regulation*

Views raised	Comments
<i>Project risk</i>	
<ul style="list-style-type: none"> <li>Given the transformational nature of the LGW 2R scheme compared to the current airport, the scheme could be viewed as having a 'project finance' type risk profile despite being an extension of the existing airport (both physically and financially).</li> <li>Whether Gatwick will be able to maintain and service its debt will depend on a variety of market conditions. Financiers will need to assess the sensitivity of the corporate to a range of downside scenarios in order to determine their appetite to invest.</li> </ul>	<p>The 'step change' nature of the LGW 2R scheme exposes debt and equity financiers in Gatwick to significant project risk.</p> <p>While this may not manifest itself as a restriction on liquidity, it is likely that such risk would require a premium on the pricing of both debt and equity and/or will be addressed through the capital structure. This is in line with the pricing assumptions included as part of the Funding and Financing report.</p> <p>The modular nature of the LGW 2R scheme does provide flexibility in implementation and mitigates a number of project risks to a certain degree. Such flexibility would be viewed positively by the financial markets.</p>
<i>Demand risk</i>	
<ul style="list-style-type: none"> <li>The sensitivity of demand to changes in the aeronautical charge is the most important factor to financiers.</li> <li>Potential investors and lenders would seek to determine the maximum increase before demand is significantly reduced and this is considered to be a material risk for LGW 2R. Investors highlighted this risk as being of greater concern and focus for any future financing than the market capacity risks associated with the three short listed schemes.</li> <li>An investment which demonstrates utility-like characteristics, such as demand inelasticity, is viewed more favourably by investors and lenders alike.</li> </ul>	<p>One of the biggest risks to the LGW 2R scheme identified by financiers was that of demand and in particular how demand would react to increases to the aeronautical charges. Gatwick is currently used by a large number of low-cost carriers and these are viewed as being relatively more price elastic than other airline types. This is particularly relevant for the London market where there is capacity at other airports used by low-cost carriers e.g. Stansted and Luton.</p> <p>This is considered to be a key area that potential investors and lenders will focus on when appraising an investment decision.</p> <p>Lenders however were not well informed about the likely elasticity of demand at particular aeronautical charges and therefore could not comment on the degree to which charges at the levels identified would affect their funding decisions.</p> <p>The modular nature of the LGW 2R scheme does help mitigate this risk as it allows the capital expenditure programme to be reactive to demand as it materialises.</p>
<ul style="list-style-type: none"> <li>A suggested solution to this would be for the regulator to allow pre-funding through an increased aeronautical charge ahead of any capital expenditure. This would reduce risk the LGW 2R scheme in two ways. First, it would enable Gatwick to build up an equity reserve through retained dividends against which it could raise debt as needed. Second, it would also demonstrate the ability to charge a certain level of tariff before requiring any investment and reduce potential demand risk.</li> <li>Support from airlines with regard to commitments to fly to/from Gatwick, was also viewed as being important, particularly if this came in the form of contractual commitments. However, it was also noted that airlines in general are not viewed as having a strong credit rating and even a contractual agreement</li> </ul>	<p>The level of pre-funding that might be allowed will be determined by the regulator and will need to balance the benefits of pre-funding to support finance raising with the impact on the consumer (airlines and passengers) of paying higher charges sooner, and before the benefits of expansion have been delivered<sup>26</sup>.</p>

<sup>26</sup> See CAA report "Economic regulation of new runway capacity", March 2015.

Views raised	Comments
could allow airlines to exit under a range of circumstances.	
<i>Regulatory environment</i>	
<ul style="list-style-type: none"> <li>Debt providers are likely to be comforted by a well-established and stable regulatory regime. However, this needs to be considered carefully.</li> <li>Lenders and investors in other sectors are sometimes wary of regulation as it is sometimes viewed as preventing upside while not protecting against downside risks.</li> <li>Long term guidance and transparency on the applicable regulation will be required to help mitigate this risk.</li> </ul>	<p>There were a number of contrasting views expressed as to whether or not the regulatory environment in which Gatwick operates is a benefit or hindrance from a financing perspective.</p> <p>Some participants viewed regulation as providing a degree of clarity and certainty on the ability of the asset to generate returns and therefore viewed it favourably.</p> <p>Others, however, were of the opinion that regulation can be detrimental to an investment opportunity if it only prevents upside without offering protection against downsides.</p> <p>There was agreement, however, that any regulatory regime in place for the LGW 2R scheme should be transparent, clear and stable if it is to support a significant finance raising.</p>

*Government support*

Views raised	Comments
<i>Direct support</i>	
<ul style="list-style-type: none"> <li>It is unlikely that a government guarantee or direct public sector investment would be required to make the financing of the LGW 2R scheme viable.</li> </ul>	<p>The general view was that direct government support via a guarantee or public sector funding would not be necessary for LGW 2R.</p>
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Uncertainty as to the regulatory environment which will apply to the LGW 2R scheme will be viewed negatively by the financial markets. A clear government stance on this would be welcome.</li> <li>There will still be at least one political cycle between now and the start of construction. Given this sensitivity to the topic of a new runway, this introduces significant political risk to the scheme. Political support will be key to the success of whichever scheme is recommended.</li> </ul>	<p>While direct support may not be viewed as necessary by the financier group, there was a clear indication that indirect Government support would be important. The Government making a decision, and acting on it, would likely be seen as a demonstration of support.</p> <p>It was noted that the AC's recommendation would need political support if it is to become a reality.</p> <p>Clarity on the regulatory environment (itself a form of guarantee) will help give the financial markets confidence in Gatwick as an investment. Conversely, uncertainty in this area may result in a risk premium being priced into both the cost of debt and equity.</p>

*Assessment approach adopted by the AC*

<b>Views raised</b>	<b>Comments</b>
<i>Methodology</i>	
<ul style="list-style-type: none"> <li>The AC's assumption that the LGW 2R scheme is financed corporately by Gatwick makes sense.</li> </ul>	There is market support for the methodology adopted by the AC in its assessment of the LGW 2R scheme.
<ul style="list-style-type: none"> <li>Building on the existing credit rating and track record of Gatwick (including operating under its new licence based regulation since April 2014) would be likely to allow access to a greater level of financing, as required to deliver the scheme.</li> </ul>	The ability to access cash flows from the wider corporate will be limited by the size of the LGW 2R scheme relative to the existing airport assets.
<ul style="list-style-type: none"> <li>The ability to access cash flows from the wider corporate during the capital expenditure period, during which financiers are exposed to significant risks, would help mitigate risk exposure.</li> </ul>	
<ul style="list-style-type: none"> <li>The current size of Gatwick's financial structure would make a liability management exercise to restructure the entirety of Gatwick's debt feasible, if required.</li> </ul>	The relatively small size of Gatwick's current financial structure provides flexibility in determining the appropriate delivery structure for the LGW 2R scheme and may mean that an approach other than adding additional financing to the existing structure could be adopted. However, for the purposes of this analysis, the incremental corporate financing approach has been maintained.
<ul style="list-style-type: none"> <li>From a financing perspective, the cash impact of the LGW 2R scheme is of ultimate importance. While lenders will often look at non-cash based metrics (e.g. the business plan or form of regulation) in evaluating an investment opportunity, these should be secondary to the cash flow.</li> </ul>	This view supports the AC's cash-based approach in assessing the LGW 2R scheme.
<i>Cost of debt</i>	
<ul style="list-style-type: none"> <li>Using recent market pricing to estimate the underlying reference rate for the future cost of debt is a sensible approach.</li> </ul>	The analysis included in the Funding and Financing report used the implied forward curve for 10 year gilts, as at 25 <sup>th</sup> September 2014, as the benchmark rate for senior debt. As Governments have sought to stimulate economic growth, they have used quantitative easing as a key tool at their disposal. This has resulted in very low current gilt rates.
<ul style="list-style-type: none"> <li>However, the current market could be at the bottom of a cycle and therefore this reference rate could be understated.</li> </ul>	The assumed spread for Gatwick debt was similarly based on recent market pricing by using spreads seen on comparable issues to Gatwick and including a buffer to reflect future uncertainty and potential hedging costs.
<ul style="list-style-type: none"> <li>The Gatwick corporate spread for BBB+ rated debt of 200bps above this underlying rate, inclusive of a buffer for future uncertainty and potential hedging costs, seems sensible.</li> </ul>	While the approach was agreed to be sensible, views were mixed as to whether the results were reasonable or could be understated. There was more concern about the underlying reference rate as compared to the spread assumed.
<ul style="list-style-type: none"> <li>However, given the inherent uncertainty in predicting the cost of debt five or more years from now, this spread could also be at the lower end of expectations.</li> </ul>	There is a significant degree of uncertainty around what market pricing might be at the point of financing the LGW 2R scheme. This is reinforced by the range of views expressed as part of this process.
<ul style="list-style-type: none"> <li>Ultimately it is the all-in cost of debt that is important since corporate spreads and underlying rates have historically compensated for each other to some degree, particularly where investors are targeting a hurdle rate of return that is independent of gilts.</li> </ul>	

Views raised	Comments
<ul style="list-style-type: none"> <li>A suggested alternative approach would be to use a long-term historical average for the underlying rate.</li> </ul>	<p>The impact of a 100bps increase in the all-in cost of debt was included as a sensitivity within the Funding and Financing report.</p> <p>See the Additional Sensitivities report for the financial impact of using an historic average based calculation for the underlying reference rate.</p>
<i>Cost of equity</i>	
<ul style="list-style-type: none"> <li>The assumed equity return of 10% did not feel like a long-term equity IRR requirement. While this is higher than the estimate for Gatwick's cost of equity assumed by the CAA in its Q6 settlement, this rate is based on the current steady state risk of Gatwick as an investment. The impact on required return of a project the size of the LGW 2R scheme was expected to be higher.</li> <li>Recent large-scale infrastructure projects such as Thames Tideway have struggled to generate private sector interest due to the risk allocation and a premium would therefore be required for investment. The assumed rate of 10% felt more appropriate for a regulated asset with a simple structure.</li> <li>This rate would need to fully account for the risks introduced as part of the LGW 2R scheme and price accordingly. This includes the sensitivity of equity returns to demand.</li> </ul>	<p>As with the price of debt, there is a significant degree of uncertainty around what market pricing for equity might be at the point of financing the LGW 2R scheme.</p> <p>In arriving at the assumed cost of equity for the LGW 2R scheme, consideration was given to a number of factors, including:</p> <ul style="list-style-type: none"> <li>Existing rates of return on equity seen in comparable airports and other utility sectors;</li> <li>The size of the proposed investment relative to the existing regulated asset base, recognising any phasing of construction, and therefore the level of cost uncertainty for the company;</li> <li>The perceived level of demand risk;</li> <li>The high level of competition and investor appetite for infrastructure assets; and</li> <li>The regulatory environment within which the airports operate.</li> </ul>
<ul style="list-style-type: none"> <li>A suggested alternative approach would be to look at long-term trends in equity returns to ensure recent pricing is not a historic low.</li> </ul>	<p>The impact of a 100bps increase in the cost of equity was included as a sensitivity within the Funding and Financing report.</p> <p>A further sensitivity has been run to demonstrate the impact of a target equity return of 14% on the basis that this is what could reasonably be expected if the market determined that there were project finance type risks involved.</p> <p>See the Additional Sensitivities report for financial results of additional sensitivities run.</p>

## 2.5.2 Scheme promoter and current shareholders

### *Availability of finance and appetite to invest*

Views raised	Comments
<i>Debt and equity financing</i>	
<ul style="list-style-type: none"> <li>Despite the LGW 2R scheme's potentially large financing requirement there would be sufficient capacity in both debt and equity markets. This includes when using the AC's estimate of potential financing requirements which are higher than those identified by the Scheme Promoter.</li> </ul>	<p>All of Gatwick's shareholders stated their confidence in Gatwick's abilities to secure additional debt financing, even at the levels included in the AC's analysis to date. No issues were raised by any shareholder in this regard.</p>

Views raised	Comments
<ul style="list-style-type: none"> <li>This view remains for both the total amount of debt and equity required and the speed at which the financing might need to be accessed.</li> <li>There is strong investor and lender appetite for a core airport asset like Gatwick. It was noted that the recent £350m bond issue was significantly oversubscribed and this was identified as evidence of the appetite for Gatwick debt.</li> </ul>	
<i>Current shareholder appetite for further investment</i>	
<ul style="list-style-type: none"> <li>Most shareholders stated a desire to maintain their current percentage stakes in Gatwick, inclusive of the potential extra investment needed to deliver the LGW 2R scheme and a number mentioned that if the opportunity arose to increase their stakes they would look to do so.</li> <li>The potential equity investment requirements identified as part of the AC's analysis did not raise concerns with any investors and all considered the portion they would need to invest to maintain their stakes to be well within their capabilities and the funds available to them for investment.</li> <li>No shareholder stated that a running yield would be an absolute requirement and the general view was that reinvestment of cash flows during periods of expenditure would be acceptable where appropriate.</li> <li>Such further investment would be based on the business case at the time and so complete assurances were not given. A number of shareholders stated that further due diligence would be completed by investors if the LGW 2R scheme was selected.</li> </ul>	<p>All shareholders were of the opinion that even the upper end of the range of equity requirements included in the AC's analysis could be financed within / by a combination of the existing shareholder base.</p> <p>This view is in line with the general market view that there is strong appetite for an asset like Gatwick and supported by the stated willingness of shareholders to increase their stakes if the opportunity arose.</p> <p>In general, there is strong support from the current shareholders for the LGW 2R scheme and this is further evidenced by their willingness to reinvest cash flows during periods of capital expenditure if required.</p> <p>However, it is important to note that no commitment would be made by existing shareholders to make a further investment prior to further due diligence and assessment of the business case at the time. While support is currently strong for the scheme this was very much predicated on the basis of the investment being 'right'.</p> <p>A very strong appetite to invest in Gatwick was demonstrated by existing shareholders and there was a clear capacity to do so based on the level of funds described as being available for investment.</p>

### Risks and regulation

Views raised	Comments
<i>Demand risk</i>	
<ul style="list-style-type: none"> <li>Gatwick's demand could be sensitive to price movements. Gatwick's competitive advantage lies in its position as a lower cost airport and therefore maintaining this advantage would be important.</li> <li>The £15 aeronautical charge per passenger level mentioned by the Scheme Promoter as part of its proposal was identified as being an important ceiling in achieving this.</li> </ul>	<p>The elasticity of Gatwick's demand to an increase in aeronautical charges is an issue shareholders will consider closely as they will want to ensure they do not reach levels that materially impact demand.</p> <p>While charges at the levels included in the AC's analysis were not identified as being prohibitive to investment, it is likely that such charges would have a significant impact on the business case assessment that would be undertaken as part of any investment appraisal.</p>

Views raised	Comments
	<p>The LGW 2R Scheme Promoter has submitted a “contracts and commitments” proposal to the AC in response to consultation. Part of this commits to not exceeding an aeronautical charge per passenger level of £15, within certain parameters. The implications of this proposal for the AC’s assessment has been considered in the Commission’s final report and in the Consultation response.</p>
<i>Regulatory environment</i>	
<ul style="list-style-type: none"> <li>A clear and stable regulatory regime is very important for any investment opportunity but its importance was emphasized for Gatwick if the LGW 2R scheme is adopted.</li> <li>Two types of regime were primarily discussed: the licence based structure that Gatwick currently operates under and the ‘contracts and commitments’ structure proposed by the Gatwick scheme promoter as part of its consultation response.</li> <li>Generally, shareholders were comfortable with the current structure. However, a number identified the mismatch between the regulatory framework period of 7 years and the horizon over which long term investors typically seek to make a return. This mismatch was identified as potentially troublesome to investors when making a long term investment decision as a regulatory regime that does not give longer term certainty over the level of returns will reduce the confidence of making returns over a longer period.</li> <li>Some shareholders felt the ‘contracts and commitments’ structure would drive more efficient outcomes (management incentivized to delivery efficiency gains to minimize costs) and provide certainty and confidence in the ability to make returns over a sustained period of time.</li> </ul>	<p>Shareholders also confirmed they are comfortable with the current regulatory environment within which Gatwick operates. However, they highlighted the importance of a clear, transparent and stable regime in the future to encourage investment. In particular, a number mentioned that the current settlement period was too short to encourage long-term investment.</p>

*Government support*

Views raised	Comments
<i>Direct support</i>	
<ul style="list-style-type: none"> <li>It is unlikely that a government guarantee or direct public sector investment would be required to make the financing of the LGW 2R scheme viable.</li> </ul>	<p>The general view was that direct government support via a guarantee or public sector funding would not be necessary for LGW 2R. This includes funding for any surface access costs.</p>
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Certainty around the outcome of the AC’s recommendation and the Government’s willingness to drive and support the scheme would be important.</li> </ul>	<p>While direct support may not be viewed as necessary by the financier group, there was a clear indication that indirect Government support would be important.</p>

Views raised	Comments
	For example, it was noted that the AC's recommendation would need political support over the long term for it to become a reality. Furthermore, adequate support through the planning process was also identified as being critical to the recommended scheme's success.

*Assessment approach adopted by the AC*

Views raised	Comments
<i>Cost assumptions</i>	
<ul style="list-style-type: none"> <li>The optimism bias and risk included in the AC's analysis overstates the costs of the scheme.</li> <li>Shareholders stated that they were confident in the scheme promoters cost figures and had been kept informed throughout the development of the LGW 2R proposal.</li> </ul>	<p>While this view is not surprising, the inclusion of optimism bias is consistent with the AC's appraisal framework to assess the potential impact on consumers and is in line with the Green Book, HM Treasury's guidance on appraisal by public sector bodies.</p> <p>This assessment approach is consistent across all three schemes. However, it is important to acknowledge the impact optimism bias and risk have on the AC's analysis.</p> <p>Financiers' overall views of the financeability of the scheme were not changed in light of the AC figures. They did not feel that the increased finance requirement identified by the AC would change their conclusions on the ability to raise both debt and equity.</p>

*Aeronautical charges per passenger*

<ul style="list-style-type: none"> <li>Aeronautical charges could be overstated in the later stages of the assessment period as the methodology solves for an equity return that needs to be delivered within the AC's evaluation period.</li> </ul>	<p>The analysis in the Funding and Financing report assumed aeronautical charge profiles that escalated during periods of capital expenditure and remained constant in real terms otherwise. This profile was then sized to meet the cash requirements of the airport and scheme as well as achieving a 10% equity return over the assessment period. A consequence of this is that while the return over the entire assessment period is 10%, the actual annual return in 2050 is higher than 10%. The view was that this doesn't match reality as the corporate would not be taking a finite view over the assessment period only.</p> <p>This aspect of the analysis was acknowledged as part of the Funding and Financing report and is fully understood by the Commission and is important to bear in mind when considering the aeronautical charge profiles. For this reason, the analysis focuses on the weighted average charge which helps compensate for this effect.</p>
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### 2.5.3 Credit rating agencies

*Availability of finance and appetite to invest*

Views raised	Comments
<i>Market capacity</i>	
<ul style="list-style-type: none"> <li>There are no apparent constraints on debt or equity for high quality infrastructure assets in developed markets</li> </ul>	<p>In general, both rating agencies were of the view that Gatwick was a high quality infrastructure asset and therefore there</p>

Views raised	Comments
<p>and that it was therefore likely that there would be sufficient market capacity to finance the LGW 2R scheme.</p> <ul style="list-style-type: none"> <li>While capacity is unlikely to be an issue, it was pointed out that to access this capacity debt margins may have to increase slightly due to the high demand for financing.</li> </ul>	<p>would be considerable capacity for both debt and equity financing.</p> <p>Neither raised any concerns about the ability of Gatwick to raise sufficient financing.</p> <p>The impact of a 100bps increase in the all-in cost of debt was included as a sensitivity within Funding and Financing report and can be extrapolated to give a reasonable indication of the impact of an increase in debt margins.</p> <p>Please see the Additional Sensitivities report for further sensitivity results.</p>
<ul style="list-style-type: none"> <li>There are a number of alternative debt funding sources available to Gatwick that aren't currently being used. These include subordinated debt which could be accessed if required, although it was pointed out that the consequential impact on rating and prices would need to be considered carefully.</li> </ul>	<p>While it is likely that the LGW 2R scheme would require Gatwick to source financing beyond the Sterling bond markets, there are a number of liquid markets available to achieve this. In fact, a broad range of debt sources is probably preferable and would result in a more stable debt platform.</p> <p>While the potential for subordinated debt to be introduced into the capital structure was mentioned, it should be noted that this may need to be of investment grade to access sufficient liquidity. As Gatwick's senior debt is currently rated as BBB+, raising investment grade subordinated debt may be challenging.</p>

### *Risks and regulation*

Views raised	Comments
<i>Project risk</i>	
<ul style="list-style-type: none"> <li>The project risk of the LGW 2R scheme is an area that would be watched closely by rating agencies. Primarily, the focus would be on two main types of risk: construction risk and the impact the scheme could have on demand.</li> <li>The capacity of Gatwick to handle overruns and its flexibility to adapt its expenditure plans as required will have a significant impact on its credit rating. It was mentioned that the ability for Gatwick to phase the project, depending on demand, will be an important consideration and is seen to mitigate risk.</li> </ul>	<p>The modular nature of the LGW 2R scheme provides flexibility and potentially allows Gatwick to plan expenditure in reaction to requirements. This aspect of the Gatwick plan is viewed favourably by both rating agencies.</p>
<i>Regulatory environment</i>	
<ul style="list-style-type: none"> <li>Regulatory settlements that bound parties to complete a project in its entirety, even if market conditions were not appropriate, would be viewed negatively.</li> <li>While financial risk was considered to be less significant than project risk to the scheme, it was noted that rating agencies would expect some form of upfront commitment from equity.</li> </ul>	<p>There are a number of aspects to the regulatory regime which will have an impact on the credit rating agency view of a scheme and airport.</p> <p>Contractual commitments to provide the required equity financing will be required to provide comfort to credit rating agencies (and debt providers).</p>

*Government support*

<b>Views raised</b>	<b>Comments</b>
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Political uncertainty was identified as being a potentially big risk to the LGW 2R scheme and one which should be mitigated with strong political support, both in supporting the recommended scheme and ‘shepherding’ the scheme through planning processes.</li> </ul>	<p>While direct support may not be viewed as necessary there was a clear indication that indirect Government support would be important.</p>

*Assessment approach adopted by the AC*

<b>Views raised</b>	<b>Comments</b>
<i>Methodology</i>	
<ul style="list-style-type: none"> <li>The cash flow-based approach used as part of the analysis in the Funding and Financing report was a sensible one and is similar to the approach they would use.</li> <li>While the assumption of an amortising debt structure over the assessment period was a prudent one and helpful in supporting a credit rating, it is unlikely to reflect reality and it is expected that both Gatwick and Heathrow would increase their capital structures in line with their asset bases.</li> </ul>	<p>In general, both rating agencies were supportive of the methodology used as part of the AC’s assessment and in particular the cash-based approach.</p> <p>The amortising debt structure was identified as a prudent assumption consistent with the credit rating objective. In practice it was acknowledged that it was likely the airport would in fact re-gear against future cash flows periodically.</p>
<i>Cost and demand assumptions</i>	
<ul style="list-style-type: none"> <li>The passenger forecasts and cost assumptions used by the AC were considered to be conservative; however both noted the high level of uncertainty in making forecasts for 10 or more years from now. It was noted that rating agencies have the flexibility to use appropriate costings, validated at the time, rather than optimism bias per se as part of their own assessments, and have the option to re-rate the corporate if required.</li> </ul>	<p>The AC has incorporated the potential for cost overruns as part of its assessment through the inclusion of risk and optimism bias. This is consistent with the AC’s appraisal framework and is in line with the Green Book, HM Treasury’s guidance on appraisal by public sector bodies.</p> <p>Similarly, the passenger forecasts have been developed using the DfT’s forecasting tools (see Strategic Fit: Updated Forecasts). However, it is important to note where such assumptions deviate from those estimated by the Scheme Promoter. The forecasts would become more firm as the project progresses.</p>

## 2.6 Summary

The analysis undertaken suggest there is significant appetite for lending debt to, and investing equity in, an asset like Gatwick. There were no suggestions that debt or equity financing might not be achievable and few concerns were raised about either the total amount of financing required, or the speed at which it may need to be accessed. Any concerns over the raising of equity for the GAL scheme were mitigated by the strength of commitment demonstrated by the airport's current shareholders and the depth of funds available to them for further investment. It will be important to achieve firm contractual commitments from equity providers if the GAL scheme is taken forward to provide comfort to potential debt providers and credit rating agencies that the equity finance is in place.

Concerns were raised about the risks introduced by the LGW 2R scheme. In particular, a consistent concern was raised about Gatwick's sensitivity to change in aeronautical charges and how this would be an important factor in any lender or investor assessing the airport's credit risk. This risk to financiers is mitigated by a number of levers such as the modular nature of the LGW 2R scheme which allows the scheme to be reactive to demand and can help ensure phases of construction are started at the right time. The general view was that assuming these levers are deployed properly; these risks won't affect the availability of finance but might result in a risk premium attached to the cost of debt and equity.

There will always be a degree of uncertainty around predicting the future cost of finance and it is therefore important to consider the range of sensitivities included as part of the AC's analysis in the Funding and Financing Update report, two of which covered increases to the cost of debt and equity, and the additional sensitivities run and presented in the Additional Sensitivities report.

The Funding and Financing report stated that 'it is likely that sufficient equity and debt would be available' for the LGW 2R scheme. However, the transformational nature of the scheme and the potential introduction of demand risk meant that the market appetite for both debt and equity would need to be tested further to find a path through to a working answer. This analysis has provided further comfort on the ability of Gatwick to raise sufficient financing to deliver the LGW 2R scheme, assuming steps are taken to appropriately mitigate key risks.

Some risk mitigation may be external, in particular setting the right regulatory framework within which the new Gatwick would operate. The availability and cost of capital could be improved under the right environment that provides appropriate protection against risks and allows for sufficient returns. Conversely, if lenders and investors view regulation as not providing the right risk and reward balance then pricing could be prohibitively high or capacity significantly reduced.

Whilst direct government support was not considered a requirement for the financeability of the scheme, indirect support through political commitment and enablement of the planning processes was considered important.

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# **3 *Heathrow Airport Northwest Runway***

### 3.1 Introduction

The following section outlines the current equity ownership and debt structure of Heathrow Airport and the potential equity and debt financing the LHR NWR scheme might require.

These issues were explored further with market participants, including current shareholders in Heathrow, through a roundtable and one-to-one meetings. The findings from these events are presented on an anonymised basis to give insight on the market view of the LHR NWR scheme and the analysis presented in the Funding and Financing report for the AC's November 2014 public consultation.

### 3.2 Current equity ownership

In 2006 a consortium of Ferrovial, Caisse de dépôt et placement du Québec (CDPQ) and Government of Singapore Investment Corporation (GIC) bought BAA for just over £10bn. At the time, BAA was the owner of Heathrow, Gatwick, Stansted, Aberdeen, Southampton, Glasgow and Edinburgh airports.

Following this, Ferrovial reduced its shareholding in the group to 25% as part of an investment diversification scheme with the sale of stakes to Alinda in 2011, Qatar Investment Authority in 2012, China Investment Corporation (CIC) in 2012 and Universities Superannuation Scheme (USS) in 2013.

In addition, GIP purchased Gatwick Airport from BAA for £1.5bn in 2009 and Edinburgh Airport for £800m in 2012.

In December 2014, Heathrow Airport sold its three UK regional gateways (Aberdeen, Glasgow and Southampton) to AGS Airports limited, a 50:50 partnership between Ferrovial, through its subsidiary Ferrovial Aeropuertos, and Macquarie European Infrastructure Fund 4 (MEIF4).

Table 15: Heathrow's current shareholders

Name	Stake	Investor Type	Assets <sup>27</sup>	Other
Ferrovial	25%	Construction/ Operating Company	N/A	Purchased Heathrow from BAA in 2006 as part of a consortium with CDPQ and GIC.  Acquired Aberdeen, Glasgow and Southampton airports from Heathrow Airport alongside Macquarie European Infrastructure Fund 4 in 2014.
Qatar Investment Authority (QIA)	20%	Sovereign Wealth Fund	c.\$250bn <sup>28</sup> (c.£161bn)	Purchased stake in Heathrow in 2012.
Caisse de dépôt et placement du Québec (CDPQ)	13%	Institutional Investor (Pension Fund)	c.CAN\$225bn <sup>29</sup> (c.£118bn)	Purchased Heathrow from BAA in 2006 as part of a consortium with GIC and Ferrovial.
Government of Singapore Investment Corporation (GIC)	12%	Sovereign Wealth Fund	c.\$320bn <sup>30</sup> (c.£207bn)	Purchased Heathrow from BAA in 2006 as part of a consortium with Ferrovial and CDPQ.
Alinda Capital Partners	11%	Infrastructure Fund	c.\$9bn (c.£6bn)	Purchased stake in Heathrow Airport from Ferrovial in 2011.

<sup>27</sup> Where not disclosed, this is based on industry estimates.

<sup>28</sup> Sovereign Wealth Fund Institute: [www.swfinstitute.org](http://www.swfinstitute.org)

<sup>29</sup> CDPQ Annual Report 2014: [www.lacaisse.com](http://www.lacaisse.com)

<sup>30</sup> Sovereign Wealth Fund Institute: [www.swfinstitute.org](http://www.swfinstitute.org)

Name	Stake	Investor Type	Assets <sup>27</sup>	Other
China Investment Corporation (CIC)	10%	Sovereign Wealth Fund	c.\$650bn <sup>31</sup> (c.£420bn)	Purchased stake in Heathrow Airport from Ferrovial in 2012.
Universities Superannuation Scheme (USS)	9%	Institutional Investor (Pension Fund)	c.£40bn <sup>32</sup>	Purchased stake in Heathrow Airport from Ferrovial in 2013 for around £400m.

In assessing the attractiveness of an investment opportunity, equity investors, and in particular closed funds will include the exit value of their investment within their return calculations and any appreciation in the value of their investment will augment their returns. The recommendation of a scheme for development by government and its progression through various stages of planning processes will likely increase the value of the underlying asset to existing shareholders should investments be subsequently sold.

### 3.3 Current debt structure

HAL is the holding company of a group of companies that provide, manage, fund and finance airport facilities in the UK, particularly Heathrow airport. The HAL group is also involved in airport-related property development and operates the Heathrow Express rail link between Heathrow and London Paddington station<sup>33</sup>. HAL is predominately financed through investment grade corporate bonds issued across various currencies, including the Norwegian Krone since consultation (See Table 16).

Table 16: HAL financing arrangements

Consolidated debt as of 31 December 2014 <sup>34</sup> (All figures are in £m)	Heathrow Airport Holdings Ltd (HAL)
<b>Total Heathrow senior bonds</b>	<b>11,402</b>
EIB term loan	176
Term note	100
Revolving credit and working capital facility	1525
<b>Other Heathrow SP Borrowings</b>	<b>1801</b>
<b>Total Heathrow Finance plc debt</b>	<b>924</b>
<b>Total non-current borrowings</b>	<b>14,127</b>

### 3.4 Potential future equity and debt requirement

As part of the market consultation exercise, market participants, including existing shareholders and other financiers were asked to consider whether the scheme, as costed by the AC, would prove financeable or whether the scale and rate of increase in finance required would create challenges.

<sup>31</sup> Sovereign Wealth Fund Institute: [www.swfinstitute.org](http://www.swfinstitute.org)

<sup>32</sup> USS: [www.uss.co.uk](http://www.uss.co.uk)

<sup>33</sup> [http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Debt\\_maturity\\_profile\\_31\\_March\\_2014.pdf](http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Debt_maturity_profile_31_March_2014.pdf)  
[http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/2013-10-25\\_S&P\\_-\\_Heathrow\\_Funding\\_Rating\\_Affirmed.pdf](http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/2013-10-25_S&P_-_Heathrow_Funding_Rating_Affirmed.pdf)

<sup>34</sup> <http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/debt-information-31-december-2014-heathrow-airport-holdings-limited.pdf>

As set out in the Funding and Financing report, the LHR NWR scheme is assumed to be corporately financed by Heathrow Airport with Heathrow’s current senior credit rating of A- maintained. A potential capital structure for maintaining the credit rating is determined by keeping three key financial metrics broadly consistent with their current levels, namely:

- Interest coverage ratio;
- Net Debt to RAB ratio; and
- Funds From Operations (FFO) to debt ratio.

Debt pricing was determined using the implied forward curve for 10 year gilt rates based on market data and this profile is included in the report Cost and Commercial Viability: Additional Sensitivities. A corporate spread was then added to this curve to arrive at indicative pricing for each of the schemes. These spreads are based on recent market data for a range of comparable indices and corporates, including Heathrow’s currently trading debt issues. The spreads assumed for the purposes of this report also include a premium for the project risk introduced by each scheme as well as a small buffer to reflect future market uncertainty and possible costs for currency hedging. For Heathrow, this spread is 175bps.

In estimating the cost of equity for the LHR NWR scheme, consideration was given to a number of factors, including:

- Existing rates of return on equity seen in comparable airports and other utility sectors;
- The size of the proposed investment relative to the existing regulated asset base, recognising any phasing of construction, and therefore the level of cost uncertainty for the company;
- The perceived level of demand risk;
- The level of competition and investor appetite for infrastructure assets; and
- The regulatory environment within which the airports operate.

Based on these factors, the estimated required rate of return for Heathrow’s equity is 9%.

See the Funding and Financing report for further information on the methodology and assumptions underpinning the estimates contained in this report.

### 3.4.1 Equity

According to the range of forecasts prepared by the AC in November 2014, the LHR NWR scheme could require additional equity of up to £8.4bn over the assessment period to 2050.

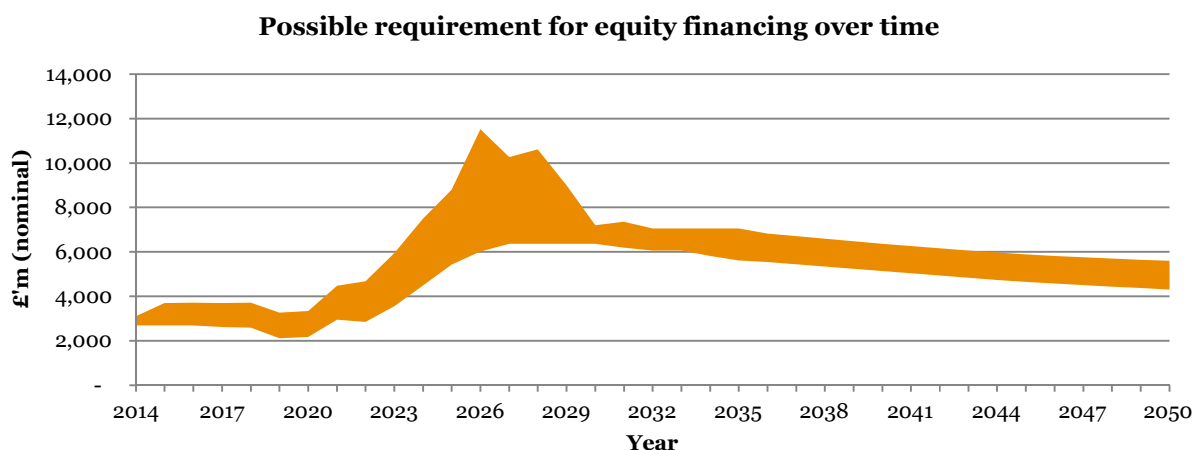
*Table 17: Estimated LHR NWR equity requirements*

	<b>Current position (as at 31<sup>st</sup> December 2013)</b>	<b>Additional requirement</b>	<b>Estimated maximum</b>
Equity	£2.7bn	£3.7bn - £8.4bn	£6.4bn - £11.1bn

*Source: Funding and Financing report*

Figure 3 shows the range of possible equity requirements over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

Figure 3: LHR NWR – equity range



Following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 17 and Figure 3 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the changes to the results are not considered to affect the findings of this report.

### 3.4.2 Debt

According to the range of forecasts prepared by the AC in November 2014, the LHR NWR scheme could require additional debt of up to £29.9bn over the assessment period to 2050.

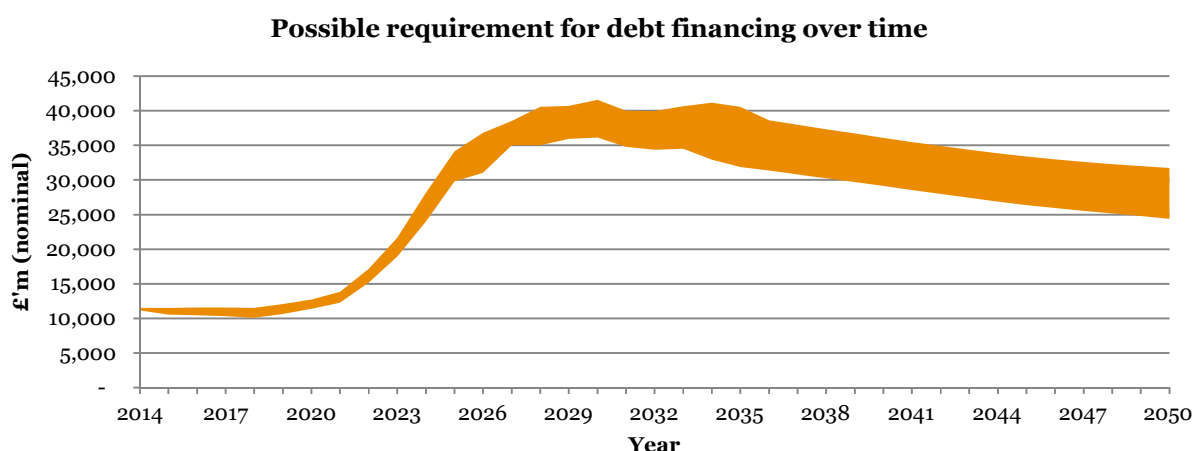
Table 18: Estimated LHR NWR debt requirements

	Current position (as at 31 <sup>st</sup> December 2013)	Additional requirement	Estimated maximum
Debt	£11.7bn	£24.9bn - £29.9bn	£36.6bn - £41.6bn

Source: Funding and Financing report

Figure 4 shows the range of possible debt requirements over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

Figure 4: LHR NWR – debt range



It was on this range of debt requirements that the market consultation was performed.

As with the equity requirements, following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 18 and Figure 4 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the changes to the results are not considered to affect the findings of this report.

### 3.5 *Financier considerations*

In producing this report, a number of meetings were held with current and potential investors in Heathrow as well as other key financial stakeholders. These meetings come under three categories:

- **Financiers** – The views were sought of a cross-section of financiers, including equity investors, debt investors, and bond arrangers. No current equity shareholders of either airport were included in this group of financiers. A number of debt financiers hold debt in one, or both, of the airports and a number of the bond arrangers had previous relationships with one, or both, of the airports. However, these relationships are not considered a threat to their independence in the context of these meetings.
- **Scheme promoter and current shareholders** – One-to-one meetings were held with the LHR NWR scheme promoter and Heathrow’s current shareholders. As current investors in the airport and proponents of the scheme, these views are important but need to be considered in the light of the interests of those giving evidence.
- **Credit rating agencies** – One-to-one meetings were held with S&P and Moody’s credit rating agencies as key market participants for both airports. Fitch were also invited to attend a meeting but declined. These were held separately to the meetings with independent financiers so as to allow both rating agencies to give views without risk of influencing other market participants.

The points raised by each group come under four themes:

- Availability of finance and the appetite to invest;
- Risk and regulation;
- Government support; and
- The assessment approach adopted by the AC.

Please see Appendix 3 for the complete list of points raised as part of these meetings.

As a consequence of discussing the issues with a range of different parties, there may be conflicting opinions across the groups interviewed as well as within the different groups. The views raised at the meetings and documented in this report provide a summary of the key messages coming out of the market consultation.

#### 3.5.1 *Financiers*

##### *Availability of finance and appetite to invest*

Views raised	Comments
<i>Debt financing</i>	
<ul style="list-style-type: none"> <li>• While the total level of debt required for the LHR NWR scheme is very large, this in itself was less of a concern to those interviewed; the greater concern was the speed at which it is accessed. In particular, there is a risk of lending ‘fatigue’ towards the latter stages of the capital</li> </ul>	<p>The amount of debt potentially required to finance the LHR NWR scheme was highlighted as a possible concern, however it was also noted that Heathrow’s strong track record and international investor reach creates significant appetite for its debt. This appetite is demonstrated by the current pricing of Heathrow debt which is lower than what might be expected from other A- rated offerings.</p>

Views raised	Comments
<p>expenditure programme which could result in either a spread premium or exhaustion of a credit line.</p> <ul style="list-style-type: none"> <li>This is further compounded by the requirement to refinance the existing debt, which is considerable.</li> <li>While this might create uncertainty over margins Heathrow's current cost of debt is low enough such that there should be sufficient headroom included within the analysis done by the AC so far to allow for such rises.</li> <li>Furthermore, it was noted that Heathrow had taken a proactive approach in the past to ensure cover ratios and other debt covenants were maintained during difficult times. This was viewed favourably by debt investors and gave comfort with future issuances.</li> </ul>	<p>A bigger concern for the group was the speed at which debt would need to be accessed throughout the capital expenditure period and whether this would create debt 'fatigue' towards the end. If such fatigue could be managed by increased margins then this is likely to not be too problematic – the current levels of Heathrow's debt pricing suggest there is significant headroom for this to increase in the AC's analysis.</p> <p>The requirement to refinance Heathrow's existing debt obligations could further compound this. In order to reduce this risk to acceptable levels, the maturity profile of Heathrow's debt will need to be carefully managed. To date, Heathrow has demonstrated the ability to manage the maturity of its debt appropriately.</p> <p>However, if this fatigue results in exhaustion of credit lines then there is greater risk to the LHR NWR scheme. To help mitigate this risk, Heathrow will need to access as many different sources of debt as possible, in particular internationally, which it has successfully done to date.</p>
<ul style="list-style-type: none"> <li>To help mitigate the risk of a spread premium or credit exhaustion, Heathrow would likely need to access a large number, if not all, of the debt markets available to it. This includes private placements and foreign currencies, as well as using a range of tenors and bond types, and could also require access to commercial bank debt and multilateral lending.</li> <li>Heathrow is currently very active in the debt markets and its existing debt programme is extensive. For example, Heathrow bonds have currently been issued in six different currencies, with plans to expand into additional markets.</li> <li>The regularity and extensiveness of Heathrow issuances also mean that the risk profile of the business is well understood and lenders are comfortable with Heathrow debt.</li> </ul>	<p>It is almost certain that the size of the LHR NWR scheme will require Heathrow to access as many different sources of debt as possible in order to reduce the risk of either credit exhaustion or high pricing.</p> <p>Heathrow currently has a broad debt platform in place with bonds issued in six different currencies and across a range of tenors and types. Such breadth demonstrates not only that Heathrow has current access to a number of debt sources but also that the treasury team has experience in unlocking new debt markets.</p> <p>Further markets may well be needed, however, including commercial loans and multilateral lending. This variety of debt sources will also bring with it associated hedging costs, in particular currency swaps to reduce Heathrow's exposure to currency movements.</p>
<ul style="list-style-type: none"> <li>The availability of financing is predicated on the assumption that the AC would recommend only one of the three schemes (and that this would be acted on by Government).</li> <li>Market conditions are also important to the availability of finance. If another financial crisis was to occur then the availability of debt and equity could be significantly reduced.</li> </ul>	<p>Ultimately, the condition of the financial markets at the time of fund raising will determine the ease at which debt financing can be raised.</p> <p>While current market conditions suggest Heathrow should be able to raise sufficient financing, this could change under different circumstances.</p>
<i>Equity financing</i>	
<ul style="list-style-type: none"> <li>Heathrow is a very high quality asset and there would be very high demand for its equity.</li> <li>The investor community is very comfortable with Heathrow's track record and risk profile.</li> </ul>	<p>Despite there being a potentially large requirement for equity financing to deliver the LHR NWR scheme, the raising of equity was less of a concern to the group than debt.</p> <p>Heathrow is viewed as a very high quality asset and the general view was that there would be very sizeable demand for</p>

Views raised	Comments
<ul style="list-style-type: none"> <li>While institutional investors would have concentration limits to their exposure to a single asset, the view was that these limits would be reasonably high.</li> <li>No comments were made to suggest that the equity financing wouldn't be achievable.</li> <li>Considerable value would be attached to a scheme being recommended by the AC. If the LHR NWR scheme was to be recommended this would likely reduce financing uncertainty.</li> </ul>	<p>Heathrow equity. Furthermore, the amount of capital available to the corporates most likely to be in a position to invest in Heathrow, including current shareholders, is significantly large that even the higher end of the AC's estimate do not appear troublesome.</p>
<ul style="list-style-type: none"> <li>Lenders would be likely to require significant equity commitments (ranging from verbal to contractual) prior to making any debt available.</li> <li>While equity investors may be willing to take a dividend holiday during periods of capital expenditure, senior lenders would prefer to see a running yield to equity as this provides greater loss-absorbing capital.</li> <li>While regulated assets have been historically viewed as offering steady yields to infrastructure investors, there are some who believe regulation can limit upside potential while still exposing equity to downside risk and therefore regulatory risk will be a greater factor in investors' minds and pricing than previously.</li> <li>Considerable value would be attached to a scheme being recommended by the AC. If the LHR NWR scheme was to be recommended (and taken forward by Government) this would likely reduce financing uncertainty.</li> </ul>	<p>While there is little concern over Heathrow's ability to raise sufficient equity, this is predicated on the investment opportunity being appealing.</p> <p>There are a number of structural aspects to the LHR NWR scheme that will influence Heathrow's ability to raise equity. This includes both internal aspects, such as the terms of the shareholder agreements including requirement for equity commitments or a running yield, and external aspects, such as the regulatory environment and Government support.</p> <p>While these factors are unlikely to reduce the availability of equity financing significantly, they could influence the price at which equity financing could be raised.</p> <p>While senior lenders may prefer to see a running yield to equity, this is unlikely to be an efficient way of using cash flows during periods of capital expenditure. This is an additional aspect to the construction risk lenders might see in the LHR NWR scheme.</p>

### *Risks and regulation*

Views raised	Comments
<i>Demand risk</i>	
<ul style="list-style-type: none"> <li>The sensitivity of demand to changes in the aeronautical charge is considered to be the most important factor to financiers. Potential investors and lenders would seek to determine the maximum increase before demand is significantly reduced.</li> <li>Demand at Heathrow is viewed as being relatively inelastic to changes in aeronautical charges.</li> <li>The view was that an increase in aeronautical charges well beyond those included as part of the AC's analysis to date could still be absorbed with little impact on demand.</li> </ul>	<p>The general market view is that demand risk is not a significant concern for Heathrow even when assuming increases to aeronautical charges at the upper end of the range estimated by the AC. This supports the analysis in the Funding and Financing Update report.</p> <p>However, demand risk is still a key area that financiers will review when appraising an investment opportunity. While they are likely to be comfortable with changes to pricing this could change if Heathrow's competitive position was to change.</p>

Views raised	Comments
<ul style="list-style-type: none"> <li>An investment which demonstrates utility-like characteristics such as price inelasticity is viewed more favourably by investors and lenders alike.</li> </ul>	
<i>Regulatory environment</i>	
<ul style="list-style-type: none"> <li>Debt providers are likely to be comforted by a well-established and stable regulatory regime. However, this needs to be considered carefully.</li> <li>Lenders and investors in other sectors are sometimes wary of regulation as it is sometimes viewed as preventing upside while not protecting against downside risks.</li> <li>Long term guidance and transparency on the applicable regulation will be required to help mitigate this risk.</li> </ul>	<p>There were a number of contrasting views expressed as to whether or not the regulatory environment in which Heathrow operates is a benefit or hindrance from a financing perspective.</p> <p>Some participants viewed regulation as an enabler to investment due to it providing a degree of clarity and certainty on the ability of the asset to generate returns.</p> <p>Others, however, were of the opinion that regulation can be detrimental to an investment opportunity if it only prevents upside without offering protection against downsides.</p> <p>There was agreement, however, that any regulatory regime in place for the LHR NWR scheme should be transparent, clear and stable if it is to support a significant finance raising.</p>

*Government support*

Views raised	Comments
<i>Direct support</i>	
<ul style="list-style-type: none"> <li>It is unlikely that a government guarantee or direct public sector investment would be required to make the financing of the LHR NWR scheme viable.</li> </ul>	<p>The general view was that direct government support via a guarantee or public sector funding would not be necessary for LHR NWR. This includes funding for any surface access costs.</p>
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Uncertainty as to the regulatory environment which will apply to the LHR NWR scheme will be viewed negatively by the financial markets. A clear government stance on this would be welcome.</li> <li>There will still be at least one political cycle between now and the start of construction. Given this sensitivity to the topic of a new runway, this introduces significant political risk to the scheme. Political support will be key to the success of whichever scheme is recommended.</li> </ul>	<p>While direct support may not be viewed as necessary by the financier group, there was a clear indication that indirect Government support would be important. The Government making a decision, and acting on it, would likely be seen as a demonstration of support.</p> <p>It was noted that the AC's recommendation would need political support if it is to become a reality.</p> <p>Clarity on the regulatory environment (itself a form of guarantee) will help give the financial markets confidence in Heathrow as an investment. Conversely, uncertainty in this area may result in a risk premium being priced into both the cost of debt and equity.</p>

*Assessment approach adopted by the AC*

<b>Views raised</b>	<b>Comments</b>
<i>Methodology</i>	
<ul style="list-style-type: none"> <li>The AC's assumption that the LHR NWR scheme is financed corporately by Heathrow makes sense.</li> </ul>	There is market support for the methodology adopted by the AC in its assessment of the LHR NWR scheme.
<ul style="list-style-type: none"> <li>Building on the existing credit rating and track record of Heathrow would be likely to allow access to a greater level of financing, as required to deliver the scheme.</li> </ul>	
<ul style="list-style-type: none"> <li>The ability to access cash flows from the wider corporate during the capital expenditure period, during which financiers are exposed to significant risks, would help mitigate risk exposure.</li> </ul>	
<ul style="list-style-type: none"> <li>A complete restructuring of Heathrow's financial structure was not considered feasible given its current size.</li> </ul>	Corporate financing of the LHR NWR scheme by Heathrow Airport is generally considered to be the only viable option from a financing perspective due to the scale of Heathrow's existing liabilities and the fact that the proposed scheme would be heavily integrated with the existing operations and assets of the airport.
<ul style="list-style-type: none"> <li>From a financing perspective, the cash impact of the LHR NWR scheme is of ultimate importance. While lenders will often look at non-cash based metrics (e.g. the business plan or form of regulation) in evaluating an investment opportunity, these should be secondary to the cash flow.</li> </ul>	This view supports the AC's cash-based approach in assessing the LHR NWR scheme.
<i>Cost of debt</i>	
<ul style="list-style-type: none"> <li>Using recent market pricing to estimate the underlying reference rate for the future cost of debt is a sensible approach.</li> </ul>	The analysis included in the Funding and Financing report used the implied forward curve for 10 year gilts, as at 25 <sup>th</sup> September 2014, as the benchmark rate for senior debt. As Governments have sought to stimulate economic growth, they have used quantitative easing as a key tool at their disposal. This has resulted in very low current gilt rates.
<ul style="list-style-type: none"> <li>However, the current market could be at the bottom of a cycle and therefore this reference rate could be understated. Quantitative easing by Governments has been a key contributory factor to the low rates seen in the markets.</li> </ul>	The assumed spread for Heathrow debt (175bps) was similarly based on recent market pricing by using spreads seen on comparable issues to Heathrow and including a buffer to reflect future uncertainty and potential hedging costs.
<ul style="list-style-type: none"> <li>The Heathrow corporate spread for A- rated debt of 175bps above this underlying rate, inclusive of a buffer for future uncertainty and potential hedging costs, seems sensible.</li> </ul>	While the approach was agreed to be sensible, views were mixed as to whether the results were reasonable or could be understated. There was more concern about the underlying reference rate as compared to the spread assumed.
<ul style="list-style-type: none"> <li>However, given the inherent uncertainty in predicting the cost of debt five or more years from now, this spread could also be at the lower end of expectations.</li> </ul>	There is a significant degree of uncertainty around what market pricing might be at the point of financing the LHR NWR scheme. This is reinforced by the range of views expressed as part of this process.
<ul style="list-style-type: none"> <li>Ultimately it is the all-in cost of debt that is important since corporate spreads and underlying rates have historically compensated for each other to some degree, particularly where investors are targeting a hurdle rate of return that is independent of gilts.</li> </ul>	
<ul style="list-style-type: none"> <li>A suggested alternative approach would be to use a long-term historical average for the underlying rate.</li> </ul>	The impact of a 100bps increase in the all-in cost of debt was included as a sensitivity within the Funding and Financing report.

Views raised	Comments
	See the Additional Sensitivities report for financial results using an historic average based calculation for the underlying reference rate.
<i>Cost of equity</i>	
<ul style="list-style-type: none"> <li>The assumed equity return of 9% did not feel like a long-term equity IRR requirement. While this is slightly higher than the estimate for Heathrow's cost of equity assumed by the CAA in its Q6 settlement, this rate is based on the current steady state risk of Heathrow as an investment. The impact on required return of a project the size of the LHR NWR scheme was expected to be higher.</li> <li>Recent large-scale infrastructure projects such as Thames Tideway have struggled to generate private sector interest due to the risk allocation and a premium would therefore be required for investment. The assumed rate of 9% felt more appropriate for a regulated asset with a simple structure.</li> <li>This rate would need to fully account for the risks introduced as part of the LHR NWR scheme and price accordingly. This includes the sensitivity of equity returns to demand.</li> </ul>	<p>As with the price of debt, there is a significant degree of uncertainty around what market pricing for equity might be at the point of financing the LHR NWR scheme.</p> <p>In arriving at the assumed cost of equity for the LHR NWR scheme, consideration was given to a number of factors, including:</p> <ul style="list-style-type: none"> <li>Existing rates of return on equity seen in comparable airports and other utility sectors;</li> <li>The size of the proposed investment relative to the existing regulated asset base, recognising any phasing of construction, and therefore the level of cost uncertainty for the company;</li> <li>The perceived level of demand risk;</li> <li>The level of competition and investor appetite for infrastructure assets; and</li> <li>The regulatory environment within which the airports operate.</li> </ul>
<ul style="list-style-type: none"> <li>A suggested alternative approach would be to look at long-term trends in equity returns to ensure recent pricing is not a historic low.</li> </ul>	<p>The impact of a 100bps increase in the cost of equity was included as a sensitivity within the Funding and Financing report.</p> <p>A further sensitivity has been run to demonstrate the impact of a target equity return of 14% on the basis that this is what could reasonably be expected if the market determined that there were project finance type risks involved.</p> <p>See the Additional Sensitivities report for the financial impact of these additional sensitivities.</p>

### 3.5.2 Scheme promoter and current shareholders

#### *Availability of finance and appetite to invest*

Views raised	Comments
<i>Debt and equity financing</i>	
<ul style="list-style-type: none"> <li>Despite the LHR NWR scheme's potentially very large financing requirement, there would be sufficient capacity in both debt and equity markets to meet this. This includes when using the AC's estimate of potential financing requirements which are higher than those identified by the Scheme Promoter.</li> </ul>	<p>All shareholders expressed strong confidence in Heathrow's ability to access sufficient debt and equity financing to deliver the LHR NWR scheme.</p> <p>This confidence was primarily due to the attractiveness of Heathrow both to lenders and investors and what was viewed as a strong treasury team that had already performed very well</p>

Views raised	Comments
<ul style="list-style-type: none"> <li>This applies for both the total level of debt and equity required and the speed at which the financing might need to be accessed.</li> <li>The demand for high quality private infrastructure assets like Heathrow significantly exceeds supply.</li> <li>Strong confidence was expressed in Heathrow's treasury team and the breadth of Heathrow's existing debt platform. The recent T5 and T2 developments were identified as being financed very successfully. Recent bond issuances were also identified as being very successful in accessing global capital markets.</li> <li>In order for this access to capital to remain, the maintenance of Heathrow's current A- credit rating would be critical in preserving access to capital markets.</li> </ul>	<p>in creating a debt platform that already accesses a number of different markets and sources of funding.</p> <p>Heathrow currently has a broad debt platform in place with bonds issued in six different currencies and across a range of tenors and types. Such breadth demonstrates not only that Heathrow has current access to a number of debt sources but also that the treasury team has experience in unlocking new debt markets.</p> <p>Further markets may well be needed, however, including commercial loans and multilateral lending. This variety of debt sources will also bring with it associated hedging costs, in particular currency swaps to reduce Heathrow's exposure to currency movements.</p> <p>Therefore, such experience and breadth is positive but also likely to be necessary to deliver the LHR NWR scheme.</p>

*Current shareholder appetite for further investment*

<ul style="list-style-type: none"> <li>All shareholders stated they have the desire and capacity to maintain their current stakes in Heathrow, inclusive of the potential extra investment needed to deliver the LHR NWR scheme and some mentioned that if the opportunity arose to increase their percentage stakes they would look to do so.</li> <li>Even the most conservative estimates of required equity investment would be well within the current shareholder base's available capital.</li> <li>No shareholder stated that a running yield would be an absolute requirement and the general view was that reinvestment of cash flows during periods of expenditure would be acceptable where appropriate. Some shareholders stated a preference for a running yield where possible.</li> </ul>	<p>All shareholders were of the opinion that even the upper end of the range of equity requirements included in the AC's analysis could be financed by the existing shareholder base.</p> <p>This view is in line with the general market view that there is strong appetite for an asset like Heathrow and supported by the stated willingness of shareholders to increase their stakes if the opportunity arose.</p> <p>While a willingness to reinvest cash flows where necessary was expressed by shareholders, the exact circumstances under which this would be acceptable were not detailed.</p> <p>It is also important to note that no commitment would be made by existing shareholders to make a further investment prior to further due diligence and assessment of the business case at the time. While support is currently strong for the scheme this was very much predicated on the basis of the investment being 'right'.</p>
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*Risks and regulation*

Views raised	Comments
<i>Demand risk</i>	
<ul style="list-style-type: none"> <li>Even the highest levels of aeronautical charges included in the AC's analysis would not cause issues to demand.</li> <li>The waiting list for landing slots at Heathrow meant that even levels well beyond those quoted by the AC would be achievable.</li> </ul>	<p>Very little concern over the risk to demand of increasing aeronautical charges was expressed by shareholders. While future investment will almost certainly reflect any potential demand risk, this is likely to be very small.</p>

*Regulatory environment*

Views raised	Comments
<ul style="list-style-type: none"> <li>The regulatory structure needs to be transparent and support investors' ability to achieve long term return on any significant capital investment.</li> </ul>	<p>The view was that any regulatory regime in place for the LHR NWR scheme should be transparent, clear and stable if it is to support a significant finance-raising.</p>
<ul style="list-style-type: none"> <li>The balance between risk and return would be carefully considered before any investment and the risk of changes to the regulatory regime would impact this.</li> </ul>	<p>A number of shareholders expressed concerns with the current regulatory regime, in particular the WACC allowed by the CAA and the term of each settlement period. However, it is unlikely this would impact the availability of financing.</p>
<ul style="list-style-type: none"> <li>An appropriate regulatory settlement period should cover the construction and ramp up period at a minimum.</li> </ul>	<p>Shareholders also expressed an expectation of an allowed increase in aeronautical charges ahead of capital expenditure. As identified, this would make the increase in charges more gradual and could aid finance-raising by increasing the amount of cash available for investment or ensuring a more stable return to investors over the expenditure period.</p>
<ul style="list-style-type: none"> <li>Shareholders were comfortable with the existing regulatory environment but would anticipate a gradual increase in charges ahead of capital expenditure to minimise the impact on users and to help generate appropriate returns for investors.</li> </ul>	<p>However, it is not clear whether a lack of 'pre-funding' would have a material detrimental impact on Heathrow's ability to raise financing.</p>
<ul style="list-style-type: none"> <li>A number mentioned their disappointment with the recent CAA settlements and in particular the WACC allowed as part of these settlements which has been falling.</li> </ul>	<p>It is likely that consistency with the current regulatory approach would benefit future finance-raising as it is an approach well understood by investors and lenders. Furthermore, Heathrow has demonstrated an ability to raise significant amounts of debt under such an environment.</p>

*Government support*

Views raised	Comments
<i>Direct support</i>	
<ul style="list-style-type: none"> <li>Public sector support for areas of expenditure which had benefits beyond that of the airport, such as surface access, would be appropriate.</li> </ul>	<p>While direct public sector support was not identified as being critical to the scheme, there was an expectation that it should at least be considered, in particular for surface access costs.</p>
<ul style="list-style-type: none"> <li>A number of shareholders also stated that they would have no issue with the entire scheme being privately financed.</li> </ul>	
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Indirect Government support in delivering the scheme, such as help with planning process and the provision of stable and transparent regulatory framework, would be important.</li> </ul>	<p>There was an indication that indirect Government support would be important.</p> <p>This includes political support and support in any relevant planning processes.</p>
<ul style="list-style-type: none"> <li>Additional Government support beyond this was not identified as being a requirement.</li> </ul>	

*Assessment approach adopted by the AC*

Views raised	Comments
<i>Cost assumptions</i>	
<ul style="list-style-type: none"> <li>Shareholders are aware of the higher costs and level of potential financing estimated by the AC.</li> <li>Shareholders expressed confidence in the estimates provided by the LHR NWR Scheme Promoter and it was therefore suggested that the AC's estimates could be too high.</li> <li>The AC's figures are not at a level that gave any concern to shareholders.</li> <li>The scheme promoter provided additional information on the phasing of their scheme</li> </ul>	<p>While this view is not surprising, the inclusion of optimism bias is consistent with the AC's appraisal framework to assess the potential impact on consumers and is in line with the Green Book, HM Treasury's guidance on appraisal by public sector bodies.</p> <p>This assessment approach is also consistent across all three schemes. However, it is important to acknowledge the impact that the underlying cost assumptions have on the AC's analysis.</p>

**3.5.3 Credit rating agencies**

*Availability of finance and appetite to invest*

Views raised	Comments
<i>Market capacity</i>	
<ul style="list-style-type: none"> <li>There are no apparent constraints on debt or equity for high quality infrastructure assets in developed markets and that it was therefore likely that there would be sufficient market capacity to finance the LHR NWR scheme.</li> <li>While capacity is unlikely to be an issue, debt margins may have to increase slightly to access this debt.</li> <li>There was potential for debt 'fatigue' to be a risk, particularly towards the latter stages of the LHR NWR expenditure programme. However, this risk shouldn't be overstated since Heathrow is a good asset operating under a predictable regulatory environment.</li> <li>Capacity could be more of a concern for Heathrow's subordinated debt due to its lower credit rating (BBB-).</li> </ul>	<p>Both rating agencies were of the view that Heathrow is a high quality infrastructure asset and therefore there would be considerable capacity both debt and equity financing.</p> <p>Neither raised any concerns about the ability of Heathrow to raise sufficient financing.</p> <p>The potential liquidity constraint for Heathrow's subordinated debt is important. The AC's analysis assumes that the subordinated debt grows with the rest of the capital structure and therefore could potentially require around £6bn in junior financing.</p> <p>At the borderline investment grade level of BBB- there is less liquidity and so capacity could become an issue. However, if this were to happen then it is likely additional equity would be raised. While this could impact on Heathrow's cost of financing it is unlikely to impact the availability of equity.</p> <p>The impact of a 100bps increase in the all-in cost of debt was included as a sensitivity within Funding and Financing report and can be extrapolated to give a reasonable indication of the impact of an increase in debt margins.        In addition, see the Additional Sensitivities report for the results of additional sensitivities run.</p>

*Risks and regulation*

<b>Views raised</b>	<b>Comments</b>
<i>Project risk</i>	
<ul style="list-style-type: none"> <li>The project risk of the LHR NWR scheme is an area that would be watched closely by rating agencies. This includes two main types of risk: construction risk and the impact the scheme could have on demand.</li> <li>The capacity of Heathrow to handle overruns and its flexibility to adapt its expenditure plans as required will have a significant impact on its credit rating. It was mentioned that the phasing of a project will be an important consideration.</li> </ul>	<p>The LHR NWR scheme requires significant capital expenditure over a short period of time. This could present a risk to Heathrow, however should be considered in the context of demand risk being a small concern.</p>
<i>Regulatory environment</i>	
<ul style="list-style-type: none"> <li>Regulatory settlements that bound parties to complete a project in its entirety, even if market conditions were not appropriate, would be viewed negatively.</li> <li>While financial risk was considered to be less significant than project risk to the scheme, it was noted that rating agencies would expect some form of upfront commitment from equity.</li> </ul>	<p>There are a number of aspects to the regulatory regime which will have an impact on the credit rating agency view of a scheme and airport.</p> <p>In general, such a regime should provide appropriate protection against risks that Heathrow is unable to control and sufficient flexibility to allow Heathrow to manage the risks it is able to control.</p> <p>Contractual commitments to provide the required equity financing will be required to provide comfort to credit rating agencies (and debt providers).</p>

*Government support*

<b>Views raised</b>	<b>Comments</b>
<i>Indirect support</i>	
<ul style="list-style-type: none"> <li>Political uncertainty was identified as being a potentially big risk to the LHR NWR scheme and one which should be mitigate with strong political support, both in supporting the recommended scheme and ‘shepherding’ the scheme through planning processes.</li> </ul>	<p>While direct support may not be viewed as necessary there was a clear indication that indirect Government support would be important.</p>

*Assessment approach adopted by the AC*

<b>Views raised</b>	<b>Comments</b>
<i>Methodology</i>	
<ul style="list-style-type: none"> <li>The cash flow-based approach used as part of the analysis in the Funding and Financing report was a sensible one and is similar to the approach they would use.</li> <li>While the assumption of an amortising debt structure over the assessment period was a prudent one and helpful in supporting a credit rating, it is unlikely to</li> </ul>	<p>In general, both rating agencies were supportive of the methodology used as part of the AC’s assessment and in particular the cash-based approach.</p> <p>The amortising debt structure was identified as a prudent assumption consistent with the credit rating objective. In practice it was acknowledged that it was likely the airport would in fact re-gear against future cash flows periodically.</p>

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Views raised	Comments
reflect reality and it is expected that both Gatwick and Heathrow to increase their capital structures in line with their asset bases.	
<i>Cost and demand assumptions</i>	
<ul style="list-style-type: none"><li>The passenger forecasts and cost assumptions used by the AC were considered to be conservative; however both noted the high level of uncertainty in making forecasts for 10 or more years from now. It was noted that rating agencies have the flexibility to use appropriate costings, validated at the time, rather than optimism bias per se as part of their own assessments, and have the option to re-rate the corporate if required.</li></ul>	<p>The inclusion of optimism bias in the AC's analysis is consistent with the AC's appraisal framework and is in line with the Green Book, HM Treasury's guidance on appraisal by public sector bodies.</p> <p>Similarly, the passenger forecasts have been developed using the DfT's forecasting tools<sup>35</sup>. However, it is important to note the places where such assumptions deviate from those estimated by the Scheme Promoter. The forecasts should become more firm as the project progresses.</p>

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<sup>35</sup> Strategic Fit: Updated Forecasts

### 3.6 Summary

Despite the significant fund-raising requirement presented by the LHR NWR scheme, there was confidence across financiers, shareholders and credit rating agencies as to HAL's ability to raise sufficient financing. Some comments were made around the challenges associated with raising such a large amount of debt and the speed at which it will need to be issued but there was no suggestion that this should not ultimately be achievable. No concerns were raised around the ability to raise the required equity. The view that raising sufficient financing should be achievable is primarily driven by two factors.

First, Heathrow is viewed as an attractive opportunity to both lenders and investors. Not only is Heathrow viewed as having a strong market position and excellent business prospects but it has a track record of delivering investment projects and maintaining its strong credit position. This is demonstrated by the low pricing of Heathrow debt currently in the market.

Second, the treasury team at Heathrow is highly regarded and the development of HAL's capital structure to cover a wide breadth of financing sources is viewed as demonstrating the experience and ability to access further markets, providing a strong base from which to raise investment for the LHR NWR scheme.

A few concerns were also raised about the speed at which debt financing in particular would need to be raised by Heathrow. While this may mean debt fatigue would appear towards the latter stages of the LHR NWR expenditure programme, this would be less likely to reduce liquidity and more likely to require an increase in margin.

There will always be a degree of uncertainty to predicting the future cost of finance and it is therefore important to consider the range of sensitivities included as part of the AC's analysis in the Funding and Financing Update report (two of which covered increases to the cost of debt and equity) and the AC's Additional Sensitivities report.

Beyond financing risks, few concerns were raised about the project risks introduced by the LHR NWR scheme. In particular, demand at Heathrow is considered to be relatively inelastic to price changes and there is strong confidence in the airport's ability to pass on even significant increases to aeronautical charges (as highlighted in the AC's analysis presented for consultation on November 2014).

Some further risk mitigation may be external, in particular setting the right regulatory framework within which the new Heathrow would operate. The availability and cost of capital could be improved under the right environment that provides appropriate protection against risks and allows for sufficient returns. Conversely, if lenders and investors view regulation as not providing the right risk and reward balance then pricing could be prohibitively high or capacity significantly reduced.

The Funding and Financing report states that the level of financing required 'puts the LHR NWR scheme at the highest end of the range of financing for infrastructure projects and is unprecedented for privately financed airports. Achieving such levels of financing would likely be challenging...' While this remains the most significant risk to the financing of the LHR NWR scheme, the market engagement exercise has shown that despite there not being direct precedents for such finance-raising - there is less concern about whether it would be achievable.

Whilst direct government support was not considered a requirement for the financeability of the scheme, indirect support through political commitment and enablement of the planning processes was considered important.

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# *4 Heathrow Airport Extended Northern Runway*

## 4.1 Introduction

It is assumed that the LHR ENR scheme, if recommended, would be adopted by Heathrow for delivery. Given this assumption, and the approach taken to assessing the Cost and Commercial Viability of all schemes, the LHR ENR scheme has comparable considerations to the LHR NWR scheme and a smaller requirement for financing. For this reason, where considerations match those outlined in Section 3, they have not been repeated in this section.

The following section outlines the current equity ownership and debt structure of Heathrow Airport and the potential equity and debt financing the LHR ENR scheme might require. These issues were explored further with market participants, including current shareholders in Heathrow, through a roundtable and one-to-one meetings.

## 4.2 Current equity ownership

See section 3.2 for details of HAL's current equity ownership.

## 4.3 Current debt structure

See section 3.3 for details of HAL's current debt structure.

## 4.4 Potential future equity and debt requirement

As part of the market consultation exercise, market participants, including the scheme promoter and other financiers were asked to consider whether the scheme, as costed by the AC, would prove financeable or whether the scale of demand and rate of increase in finance required would create challenges.

As set out in the Funding and Financing report, the LHR ENR scheme is assumed to be corporately financed by Heathrow Airport with Heathrow's current senior credit rating of A- maintained.

See Section 3.4 for further details on the assumptions made around corporate financing at Heathrow.

### 4.4.1 Equity

According to the range of forecasts prepared by the AC in November 2014, the LHR ENR scheme could require additional equity of up to £8.4bn over the assessment period to 2050.

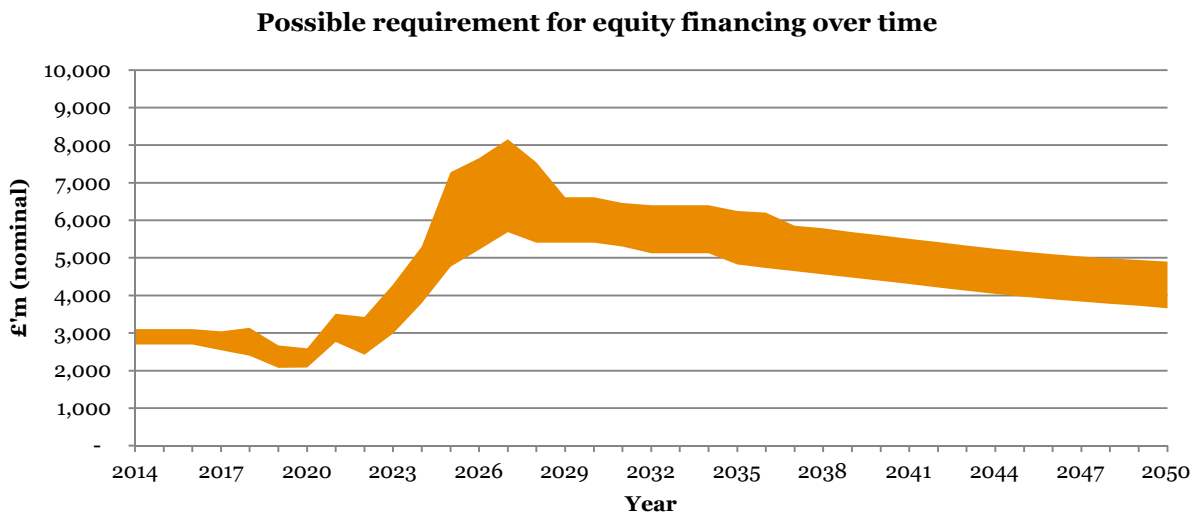
*Table 19: Estimated LHR ENR equity requirements*

	<b>Current position (as at 31<sup>st</sup> December 2013)</b>	<b>Additional requirement</b>	<b>Estimated maximum</b>
Equity	£2.7bn	£3.0bn - £5.1bn	£5.7bn - £8.8bn

*Source: Funding and Financing report*

Figure 5 shows the possible requirement for equity financing over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

Figure 5: LHR ENR – Equity range



It was on this range of equity requirements that the market consultation was performed.

Following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 19 and Figure 5 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the minor changes to the results are not considered to affect the findings of this report.

#### 4.4.2 Debt

According to the range of forecasts prepared by the AC in November 2014 the LHR ENR scheme could require additional debt of up to £26.4bn over the assessment period to 2050.

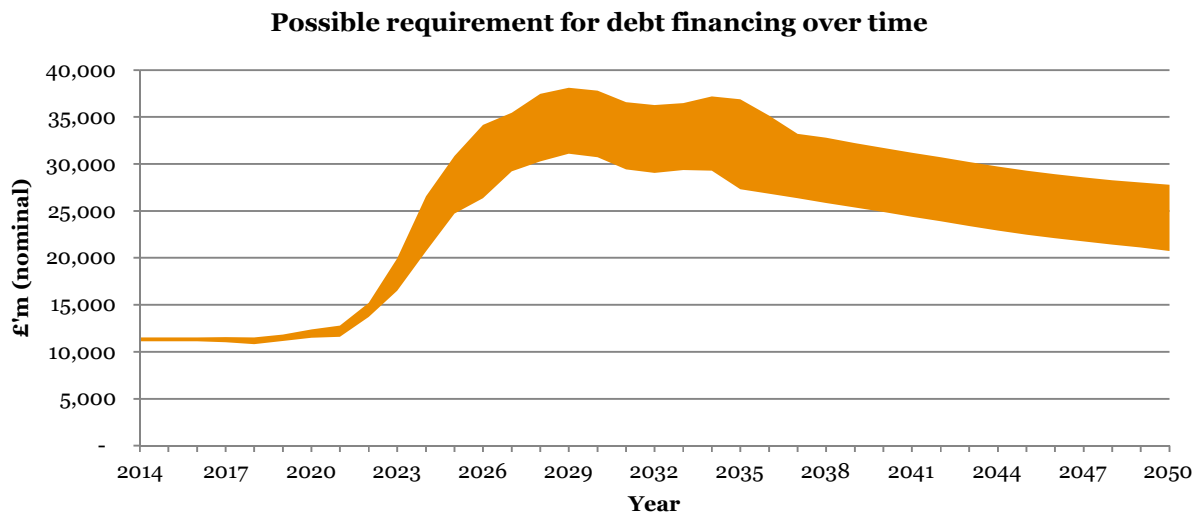
Table 20: Estimated LHR ENR debt requirements

	Current position (as at 31 <sup>st</sup> December 2013)	Additional requirement	Estimated maximum
Debt	£11.7bn	£19.4bn - £26.4bn	£31.1bn - £38.1bn

Source: Funding and Financing report

Figure 6 shows the possible requirement for equity financing over time for all scenarios and sensitivities presented in the November 2014 Funding and Financing report.

Figure 6: LHR ENR – Debt range



It was on this range of debt requirements that the market consultation was performed.

As with the equity requirements, following the close of consultation in February 2015, the analysis presented in the Funding and Financing Update report (as shown in Table 20 and Figure 6 of this report) has been refreshed. While this updated analysis has not been discussed with market participants due to the timing of its development relative to the market engagement, the changes to the results are not considered to affect the findings of this report.

## 4.5 *Financier considerations*

In producing this report, a number of meetings were held with current and potential investors in Heathrow as well as other key financial stakeholders. These meetings come under three categories:

- **Financiers** – The views were sought of a cross-section of financiers, including equity investors, debt investors, and bond arrangers. No current equity shareholders of either airport were included in this group of financiers. A number of debt financiers hold debt in one, or both, of the airports and a number of the bond arrangers had previous relationships with one, or both, of the airports. However, these relationships are not considered a threat to their independence in the context of these meetings.
- **Scheme promoter and current shareholders** – One-to-one meetings were held with the LHR ENR scheme promoter and Heathrow’s current shareholders. As current investors in the airport and proponents of the scheme, these views are important but need to be considered in the light of the interests of those giving evidence.
- **Credit rating agencies** – One-to-one meetings were held with S&P and Moody’s credit rating agencies as key market participants for both airports. Fitch were also invited to attend a meeting but declined. These were held separately to the meetings with independent financiers so as to allow both companies to give views without risk of influencing the market.

The points raised by each group come under four themes:

- Availability of finance and the appetite to invest;
- Risk and regulation;
- Government support; and

- The assessment approach adopted by the AC.

The views expressed by market participants and Heathrow's current shareholders are considered to be applicable to both Heathrow schemes as the differences between financing requirements and the impact on aeronautical charges for the LHR NWR and LHR ENR schemes were not viewed as being significant enough to change the opinions of interviewees. It should be noted that the level of financing required for the LHR ENR scheme is lower than that required for the LHR NWR scheme, so any challenges associated with the scale of financing required may be slightly reduced for the LHR ENR scheme. While Heathrow's shareholders were more familiar with the LHR NWR scheme, it was noted that the important issue was that Heathrow should expand and no specific concerns were raised with financing the LHR ENR scheme. For these reasons please refer to the information presented in section 3.5 regarding financier considerations for the Heathrow schemes.

#### *4.5.1 Financiers*

See section 3.5.1 for details of financier considerations for developing a new runway at Heathrow.

#### *4.5.2 Scheme promoter and current shareholders*

See section 3.5.2 for details of scheme promoter and current shareholders considerations for developing a new runway at Heathrow.

#### *4.5.3 Credit rating agencies*

See section 3.5.3 for details of scheme promoter and current shareholders considerations for developing a new runway at Heathrow.

## 4.6 Summary

As set out in the Funding and Financing Update report, the LHR ENR scheme, if recommended, is assumed to be corporately financed by Heathrow Airport. Where market participants expressed views on financing by HAL as a corporate entity, these are therefore assumed to be applicable to both Heathrow schemes. Furthermore, the differences between financing requirements and the impact on aeronautical charges for the LHR NWR and LHR ENR schemes were not viewed as being large enough to change the opinions of interviewees. Since the overall financing requirement is smaller for the LHR ENR scheme (as compared to the LHR NWR scheme), any risks related to availability of finance should be slightly lower for this scheme. As a result, this summary is very similar to that provided for the LHR NWR scheme.

Despite the significant fund-raising requirement presented by the LHR ENR scheme, there was confidence across financiers, shareholders and credit rating agencies as to HAL's ability to raise sufficient financing. Some comments were made around the challenges associated with raising such a large amount of debt and the speed at which it will need to be issued but there was no suggestion that this should not ultimately be achievable. No concerns were raised around the ability to raise the required equity. The view that raising sufficient financing should be achievable is primarily driven by two factors.

First, Heathrow is viewed as an attractive opportunity to both lenders and investors. Not only is Heathrow viewed as having a strong market position and excellent business prospects but it has a track record of delivering investment projects and maintaining its strong credit position. This is demonstrated by the low pricing of Heathrow debt currently in the market.

Second, the treasury team at Heathrow is highly regarded and the development of HAL's capital structure to cover a wide breadth of financing sources is viewed as demonstrating the experience and ability to access further markets, providing a strong base from which to raise investment for the LHR ENR scheme.

A few concerns were also raised about the speed at which debt financing in particular would need to be raised by Heathrow. While this may mean debt fatigue would appear towards the latter stages of the LHR ENR expenditure programme, this would be less likely to reduce liquidity and more likely to require an increase in margin.

There will always be a degree of uncertainty to predicting the future cost of finance and it is therefore important to consider the range of sensitivities included as part of the AC's analysis in the Funding and Financing Update report (two of which covered increases to the cost of debt and equity) and the AC's Additional Sensitivities report.

Beyond financing risks, few concerns were raised about the project risks introduced by the LHR ENR scheme. In particular, demand at Heathrow is considered to be relatively inelastic to price changes and there is strong confidence in the airport's ability to pass on even significant increases to aeronautical charges (as highlighted in the AC's analysis presented for consultation on November 2014).

Some further risk mitigation may be external, in particular setting the right regulatory framework within which the new Heathrow would operate. The availability and cost of capital could be improved under the right environment that provides appropriate protection against risks and allows for sufficient returns. Conversely, if lenders and investors view regulation as not providing the right risk and reward balance then pricing could be prohibitively high or capacity significantly reduced.

The Funding and Financing report states that the level of financing required 'puts the LHR ENR scheme at the highest end of the range of financing for infrastructure projects and is unprecedented for privately financed airports. Achieving such levels of financing would likely be challenging...' While this remains the most significant risk to the financing of the LHR ENR scheme, the market engagement exercise has shown that despite there not being direct precedents for such finance-raising - there is less concern about whether it would be achievable.

## Airports Commission

Whilst direct government support was not considered a requirement for the financeability of the scheme, indirect support through political commitment and enablement of the planning processes was considered important.

# *Appendices*

## Appendix 1 - References

Footnote reference	Reference	Link
2	National Infrastructure Plan 2014	<a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf</a>
4	The Carlyle Group	<a href="http://www.carlyle.com/">http://www.carlyle.com/</a>
6	The European Investment Bank	<a href="http://www.eib.org/">http://www.eib.org/</a>
7	CAPA – Centre for Aviation	<a href="http://centreforaviation.com/profiles/newairports/istanbul-new-airport-istanbul-grand-airport">http://centreforaviation.com/profiles/newairports/istanbul-new-airport-istanbul-grand-airport</a>
8	Airport Technology	<a href="http://www.airport-technology.com/projects/so-paulo-guarulhos-international-airport-terminal-3/">http://www.airport-technology.com/projects/so-paulo-guarulhos-international-airport-terminal-3/</a>
9	Heathrow 2014 Results Presentation	<a href="http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Heathrow-(SP)-Limited-2014-results-presentation.pdf">http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Heathrow-(SP)-Limited-2014-results-presentation.pdf</a>
10	InfraDeals	<a href="http://www.infra-deals.com/deals/862723/guarulhos-international-airport.shtml">http://www.infra-deals.com/deals/862723/guarulhos-international-airport.shtml</a>
12	High Speed 1	<a href="http://highspeed1.co.uk/">http://highspeed1.co.uk/</a>
13	Railway Technology	<a href="http://www.railway-technology.com/projects/highspeedone/">http://www.railway-technology.com/projects/highspeedone/</a>
14	“Fast Forward – Funding Report Delivery of High Speed Rail in Britain” February 2010	<a href="http://www.greengauge21.net/wp-content/uploads/Funding-Report.pdf">http://www.greengauge21.net/wp-content/uploads/Funding-Report.pdf</a>
15	Railway Technology	<a href="http://www.railway-technology.com/projects/toursbordeaux-high-speed-rail/">http://www.railway-technology.com/projects/toursbordeaux-high-speed-rail/</a>
16	InfraDeals	<a href="http://www.infra-deals.com/deals/1125938/indiana-toll-road-sale-2015.shtml">http://www.infra-deals.com/deals/1125938/indiana-toll-road-sale-2015.shtml</a>
19	Global Infrastructure Partners:	<a href="http://www.global-infra.com">www.global-infra.com</a>
20	Future Fund	<a href="http://www.futurefund.gov.au">www.futurefund.gov.au</a>
21, 28, 30, 31	Sovereign Wealth Fund Institute	<a href="http://www.swfinstitute.org">www.swfinstitute.org</a>
22	CalPERS Annual Investment Report 2014	<a href="http://www.calpers.ca.gov/eip-docs/about/pubs/annual-investment-report-2014.pdf">www.calpers.ca.gov/eip-docs/about/pubs/annual-investment-report-2014.pdf</a>
23	National Pension Service	<a href="http://english.nps.or.kr/jsppage/english/main.jsp">http://english.nps.or.kr/jsppage/english/main.jsp</a>
24	Preqin	<a href="https://www.preqin.com/user/inf/gp_profile.aspx?FirmID=14944">https://www.preqin.com/user/inf/gp_profile.aspx?FirmID=14944</a>
25	Gatwick Annual Report and Financial Statements for the year ended 31 March 2014	<a href="http://www.gatwickairport.com/Documents/business_and_community/investor_relations/Year_End_2014/Gatwick_Airport_Limited_Financial_Statements_31March2014.pdf">http://www.gatwickairport.com/Documents/business_and_community/investor_relations/Year_End_2014/Gatwick_Airport_Limited_Financial_Statements_31March2014.pdf</a>
29	CDPQ Annual Report 2014	<a href="http://www.lacaisse.com">www.lacaisse.com</a>
32	USS	<a href="http://www.uss.co.uk">www.uss.co.uk</a>
33	Heathrow Debt Maturity Profile at 31 March 2014	<a href="http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Debt_maturity_profile_31_March_2014.pdf">http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/Debt_maturity_profile_31_March_2014.pdf</a>
34	Heathrow Consolidated Debt and Cost of Debt at 31 December 2014	<a href="http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/debt-information-31-december-2014-heathrow-airport-holdings-limited.pdf">http://www.heathrowairport.com/static/HeathrowAboutUs/Downloads/PDF/debt-information-31-december-2014-heathrow-airport-holdings-limited.pdf</a>

## *Appendix 2 - Approach to market engagement*

PwC hosted a series of meetings with market participants to discuss the financing of the 3 short listed scheme proposals, between 20 March 2015 and 09 April 2015.

Representatives from PwC and the Commission were present at all meetings.

The meetings held included:

- A roundtable event involving a number of different debt and equity market participants:
  - Allianz
  - HSBC
  - IFM
  - JP Morgan
  - Lloyds
  - MetLife
  - RBC
  - RBS

This was a very successful event with good levels of engagement stimulating a thoughtful and insightful discussion. Attendees were provided with a briefing note in advance of the meeting (see Appendix 3).

- One to one meetings with independent financiers unable to attend roundtable:
  - MetLife<sup>36</sup>

The possibility of holding further meetings was discussed and the decision was taken that due to the success of the roundtable and one to one meetings (with high levels of engagement from participants) that further meetings were likely to yield diminishing marginal returns and would be unlikely to change the findings of the analysis.

- One to one meetings with each of GAL's current shareholders:
  - ADIA
  - CALPERS
  - Future Fund
  - GIP<sup>37</sup>
  - NPS
- One to one meetings with each of HAL's current shareholders:
  - Alinda
  - CDPQ
  - CIC
  - Ferrovial
  - GIC
  - Qatar
  - USS
- One to one meetings with each of the 3 short listed scheme promoters:

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<sup>36</sup> MetLife were able to send a more junior team member to the roundtable and a separate meeting was held to garner senior level input.

<sup>37</sup> Meeting with GIP took place at the same time as the GAL scheme promoter meeting due to the significant role GIP took developing the GAL financing proposals.

## Airports Commission

- GAL
  - HAL
  - HHL
- One to one meetings with credit rating agencies<sup>38</sup>:
    - Moody's
    - S&P

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<sup>38</sup> Fitch were also invited to attend a meeting but declined.

## Appendix 3 – Roundtable briefing note

### The Airports Commission

#### Project Briefing for Funding Roundtable – March 2015

##### Project overview

The Airports Commission (AC), an independent commission, was established in 2012 by the UK Government to consider how the UK can maintain its status as an international hub for aviation in response to increasing concern over existing and future capacity requirements. Since September 2012, the AC has considered and evaluated a variety of options for meeting the UK's international connectivity needs, the results of which were outlined in the AC's Interim Report published in December 2013. The Interim Report outlined three firm short-listed options:

- **The Gatwick Airport Second Runway** scheme, proposed by Gatwick Airport Limited (GAL), is made up of a second runway to the south of the existing runway at Gatwick Airport with a separation of 1,045m which allows independent mixed mode operations (i.e. one could be used for arrivals and the other for departures at the same time). The LGW 2R scheme also includes works to increase passenger terminal space, infrastructure to accommodate heightened airport traffic (e.g. taxiways, aprons and transit systems), the acquisition and preparation of land for the new airport infrastructure and various other items to support a new second runway.
- **The Heathrow Airport Northwest Runway** scheme, proposed by Heathrow Airport Limited (HAL), is made up of a new 3,500m runway constructed further to the west of the existing airport, linking to the west of the current north runway. The new runway would be Heathrow Airport's third runway and would have the ability to be operated independently from the existing runways. The LHR NWR scheme also includes the expansion of existing terminals plus a new Terminal 6 to the west of Terminal 5. The scheme also sets out plans for a satellite building to the north of T5 and T6.
- **The Heathrow Airport Extended Northern Runway** scheme, proposed by Runway Innovations Limited and Heathrow Hub Limited (HH), is made up of an extension of Heathrow's northern runway to the west, to a combined length of at least 6,500m enabling the northern runway to operate as two in-line runways. This scheme also considers other major infrastructure construction such as additional works for new terminal building, satellites and associated airfield ancillary infrastructure which will be required to add capacity to the airport and accommodate the extended runway operations.

On 11<sup>th</sup> November 2014, the AC published for consultation its assessment of the three proposals. The consultation period closed on 3<sup>rd</sup> February 2015. The AC is due to publish its final report in the summer of 2015.

##### Purpose of the roundtable

For all three short-listed options the finance requirement is large and will require injections of debt and equity over sustained periods. In the analysis contained in the Airports Commission's consultation papers, a number of assumptions have been made as to how each option might be financed. But the Airports Commission recognises that there is inherent uncertainty in any indicative finance plan, both because that finance will be required several years in the future and that the scale of the investment is relatively unprecedented. Furthermore, responses received through the consultation process may be used to augment the Airports Commission's analysis.

The purpose of the roundtable is therefore to get some market perspectives on the assumptions contained in the analysis, their realism and the range of uncertainty that surrounds them. The Commission wants to ensure that

its conclusions have been made having properly consulted and that they reflect those inherent uncertainties and market views in any recommendations that it makes.

Areas that could be discussed might include:

- The size and scale of the investment challenge - sources of debt and equity
- Should the airports be financed corporately?
- Should the airports maintain existing credit ratings?
- Likely pricing range of debt and equity
- Key risks (political, project, regulatory, market etc.)
- Possible approaches to mitigate key risks

The discussions will be summarised on a non-attributable basis and be included in the Commission's final report as part of the augmented evidence base from the consultation process to assist the Commissioners in making their final recommendations.

### **Further reading**

The '13. Cost and Commercial Viability: Funding and Financing' report, as published in November 2014, is attached.

Further background on information on the schemes can be found on the DfT website. (<https://www.gov.uk/government/consultations/increasing-the-uks-long-term-aviation-capacity>)

### **Initial indication of the financing requirement**

As part of the consultation, the AC published its estimate of the additional debt and equity financing that may be required to fund each scheme. This analysis assumes each scheme is funded corporately by each airport and that the capital structures of each company remain broadly consistent with their current structures. The LHR ENR scheme is assumed to be delivered by Heathrow Airport. It also assumes that Heathrow and Gatwick will maintain their current senior credit ratings of A- and BBB+, respectively, throughout the assessment period (2014 to 2050).

The ranges of estimated debt and equity requirements for each proposed scheme is summarised in the following three pages. These ranges reflect the various scenarios and sensitivities included in the AC's analysis published in November 2014 and may be updated as part of the ongoing analysis process.

**The Gatwick Airport Second Runway scheme**

The LGW 2R scheme is estimated to require additional debt and equity of up to £14.4bn and £3.7bn, respectively, spread over the assessment period.

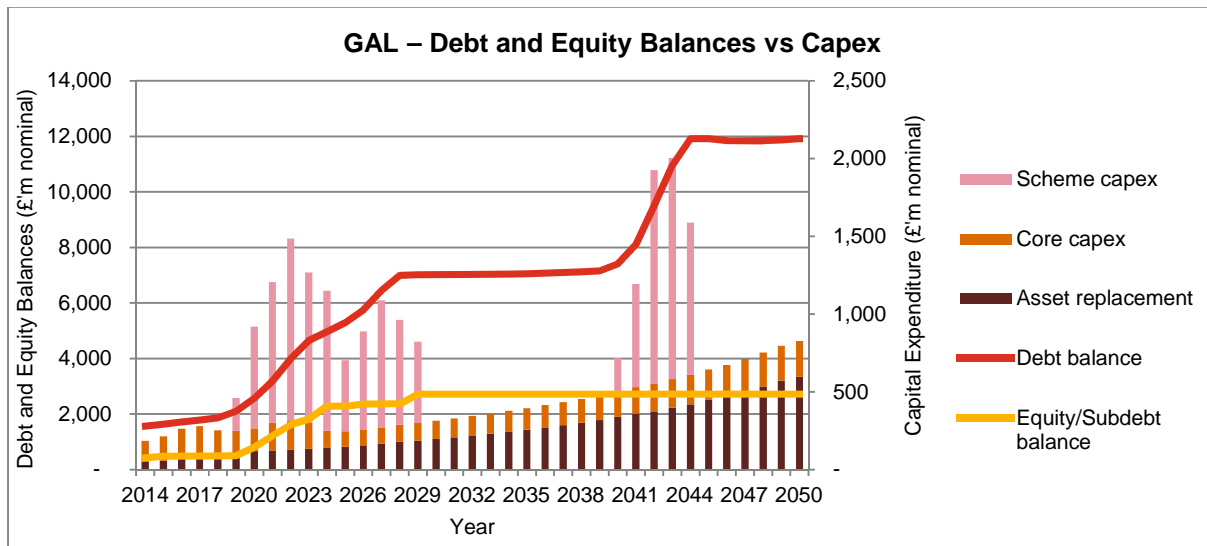
*Table 21: Estimated LGW 2R debt and equity requirements*

	Current position (as at 31 <sup>st</sup> March 2014)	Additional requirement	Estimated maximum
Debt	£1.6bn	£10.4bn - £14.4bn	£12.0bn - £16.0bn
Equity	£0.3bn	£2.3bn - £3.7bn	£2.6bn - £4.0bn

Source: '13. Cost and Commercial Viability: Funding and Financing' report

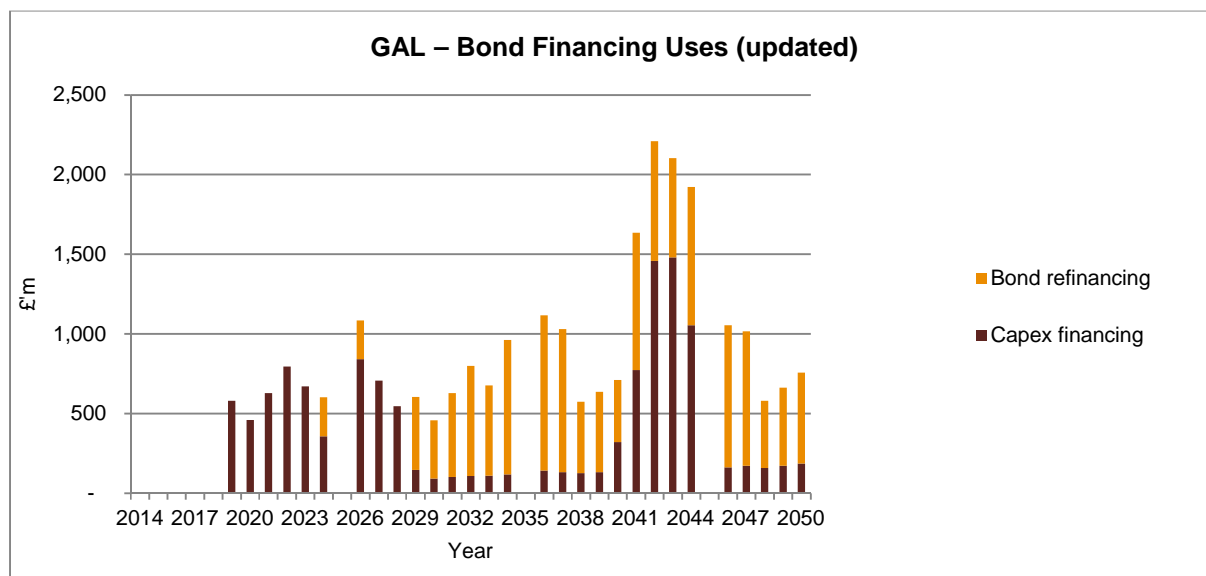
A possible profile of equity and debt over the assessment period is shown in Figure 7. Figure 8 shows the possible requirement for bond financing under the same scenario.

*Figure 7: GAL – Debt and Equity Balances vs Capex*



Source: '13. Cost and Commercial Viability: Funding and Financing' report

Figure 8: GAL – Bond Financing Uses (updated)



Source: '13. Cost and Commercial Viability: Funding and Financing' report

### The Heathrow Airport Northwest Runway scheme

The LHR NWR scheme is estimated to require additional debt and equity of up to £29.9bn and £8.4bn, respectively, spread over the assessment period.

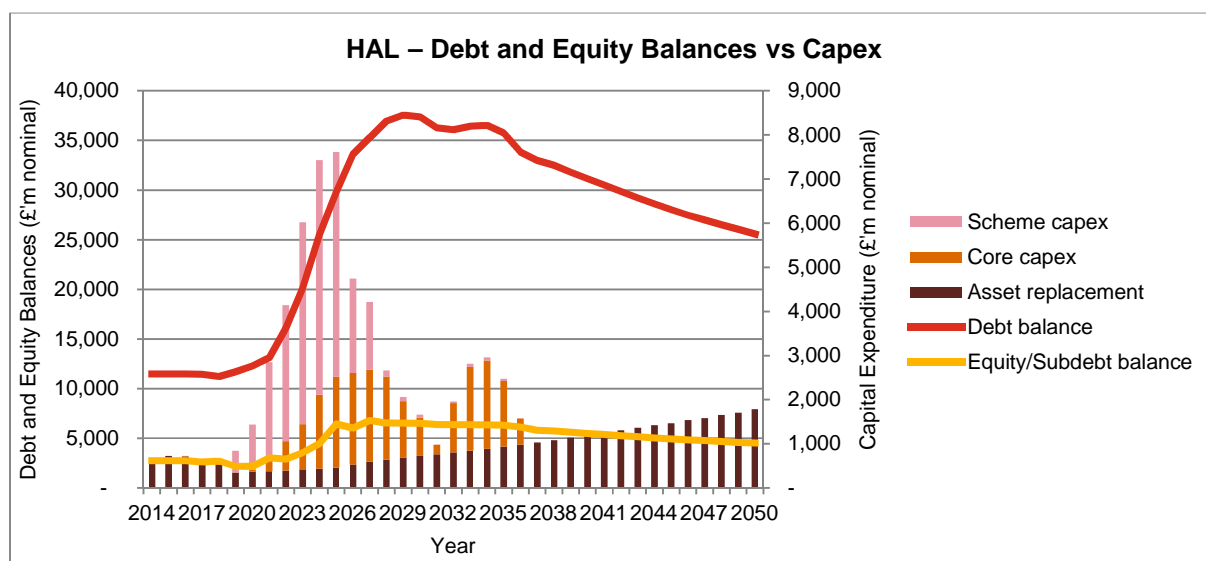
Table 22: Estimated LHR NWR debt and equity requirements

	Current position (as at 31 <sup>st</sup> December 2013)	Additional requirement	Estimated maximum
Debt	£11.7bn	£24.9bn - £29.9bn	£36.6bn - £41.6bn
Equity	£2.7bn	£3.7bn - £8.4bn	£6.4bn - £11.1bn

Source: '13. Cost and Commercial Viability: Funding and Financing' report

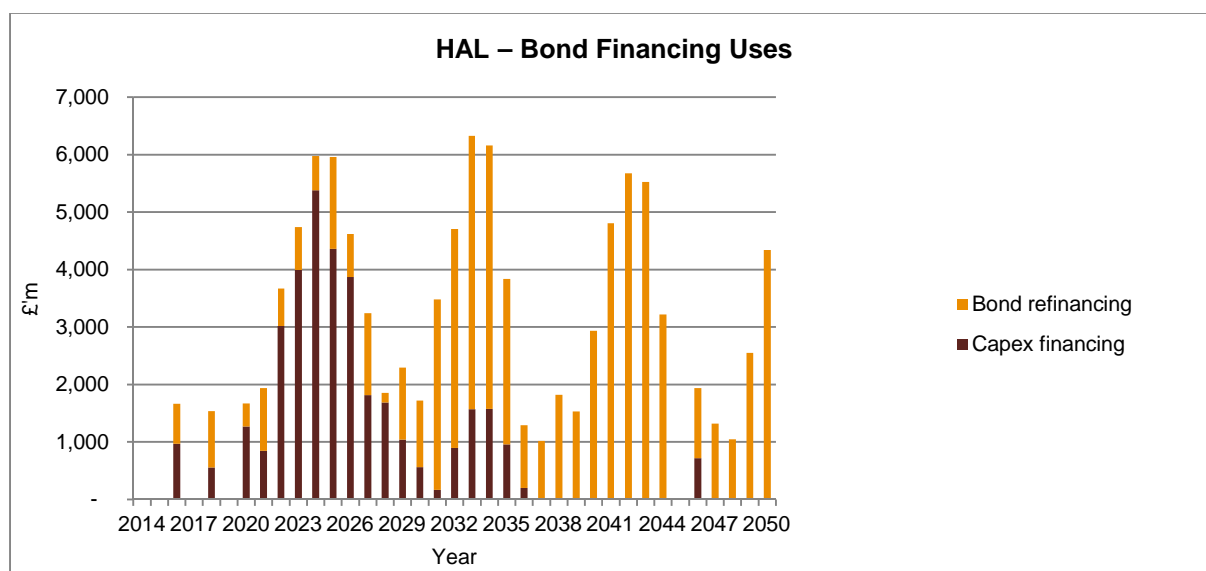
A possible profile of equity and debt over the assessment period is shown in Figure 9. Figure 10 shows the possible requirement for bond financing under the same scenario.

Figure 9: HAL – Debt and Equity Balances vs Capex



Source: '13. Cost and Commercial Viability: Funding and Financing' report

Figure 10: HAL – Bond Financing Uses



Source: '13. Cost and Commercial Viability: Funding and Financing' report

**The Heathrow Airport Extended Northern Runway scheme**

The LHR ENR scheme is estimated to require additional debt and equity of up to £26.4bn and £5.1bn, respectively, spread over the assessment period.

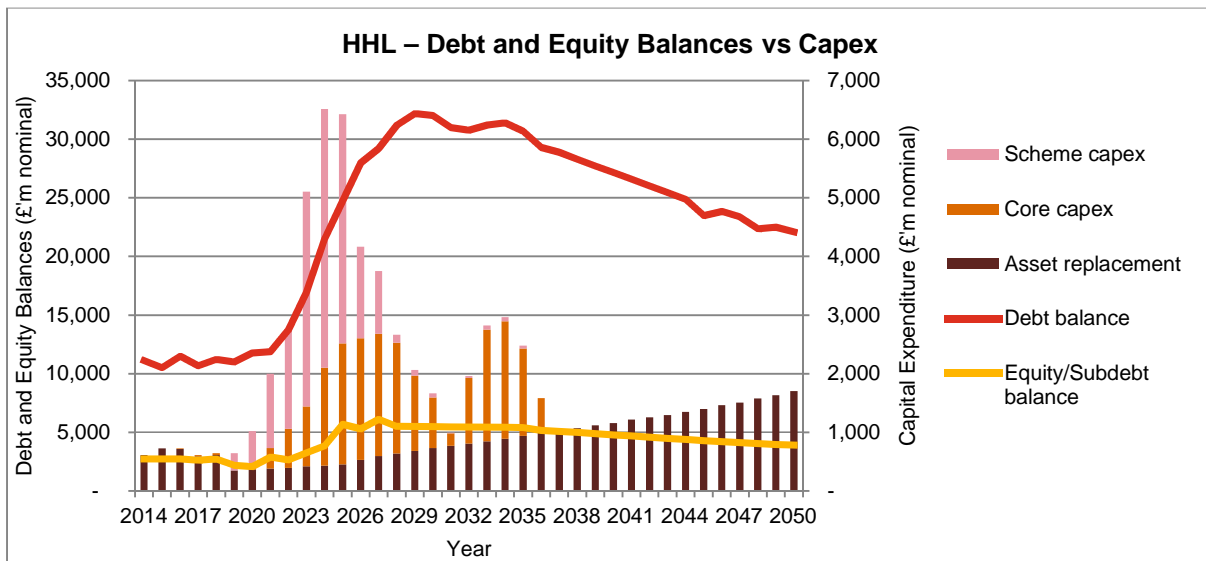
Table 23: Estimated LHR ENR debt and equity requirements

	Current position (as at 31 <sup>st</sup> December 2013)	Additional requirement	Estimated maximum
Debt	£11.7bn	£19.4bn - £26.4bn	£31.1bn - £38.1bn
Equity	£2.7bn	£3.0bn - £5.1bn	£5.7bn - £7.8bn

Source: '13. Cost and Commercial Viability: Funding and Financing' report

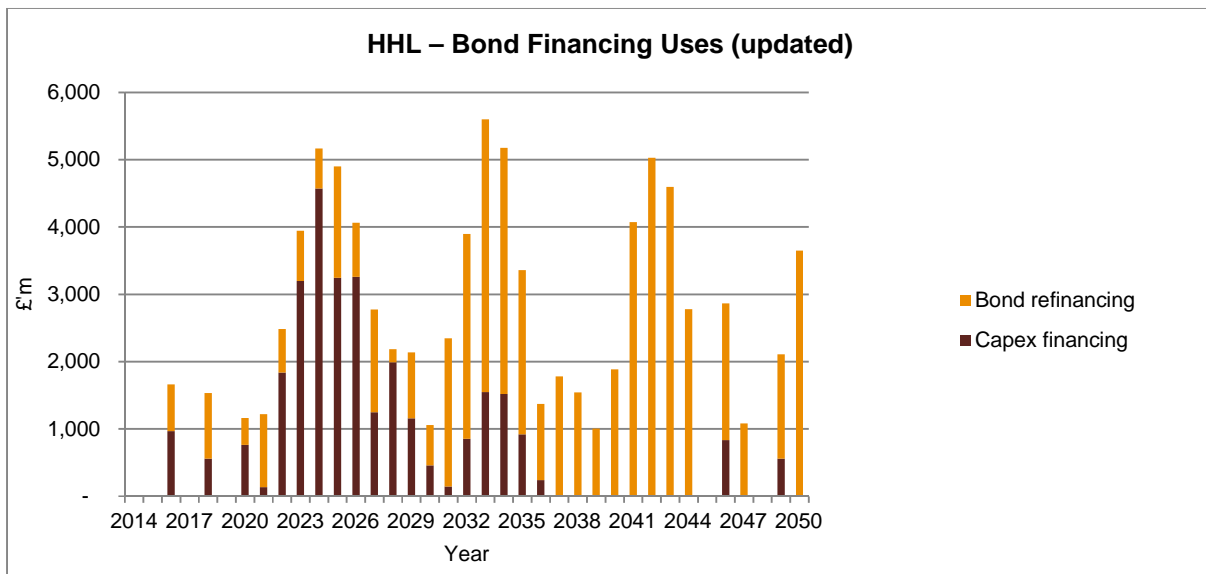
A possible profile of equity and debt over the assessment period is shown in Figure 11. Figure 12 shows the possible requirement for bond financing under the same scenario.

Figure 11: HHL – Debt and Equity Balances vs Capex



Source: '13. Cost and Commercial Viability: Funding and Financing' report

Figure 12: HHL – Bond Financing Uses (updated)



Source: '13. Cost and Commercial Viability: Funding and Financing' report





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