

Green Investment Bank

Market conditions, challenges and rationale behind GIB

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Series introduction

This series of papers will examine how the UK can secure much needed investment in its social and economic infrastructure in the coming years.

Achieving this is important. Infrastructure has been highlighted as a primary driver for economic growth, as well as a means to deliver the UK's goal of a hi-tech, low carbon and globally competitive economy. However, the UK is acknowledged to have both a shortfall in quantity (estimated by some at £434 billion¹) and quality (the UK was recently ranked 28 for the overall standard of its infrastructure by the World Economic Forum²), hampering efforts to achieve these goals.

The timing of this series is also important in relation to proposed solutions to the UK's infrastructure challenges. At the UK level, the National Infrastructure Plan is moving from its formative stage to delivery. Infrastructure solutions in the Devolved Nations are also taking shape, with examples, such as the formative Welsh Infrastructure Investment Plan being developed.

Developing sustainable models and sources of funding and financing for these proposed solutions, -especially in tough economic times with a restricted public purse- will require new thinking. Helping to identify these new models and sources of funding and financing and removing the blocks and challenges to them is the aim of this ACE investment into infrastructure series.

This series of papers will explore a range of options available to government as it looks to secure investment and raise the UK's standing for infrastructure standards. These include the development of the Green Investment Bank, the potential for pension fund investment, new public-private finance models and alternative methods.

Abstract

This paper is the fifth in ACE's infrastructure investment series and explores in more detail the current market conditions, challenges and rationale behind the Green Investment Bank. It concludes that whilst the Green Investment Bank is a step in the right direction, there are some issues which if left unchecked, could undermine confidence in its ability to facilitate green investment.

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Key findings

The Green Investment Bank is a step in the right direction, but finance conditions continue to raise concerns about scale and speed of implementation

- To date, UK Green Investments (the precursor to the Green Investment Bank) have been limited in the activities and support it provides whilst waiting for state aid approval. It is therefore limited to activity such as only being able to provide loans on the same basis as commercial banks.
- The GIB has a challenging role, in that it has to balance its activities within the grey space between commercial (viable) and uncommercial (unviable) projects. Its role is therefore to facilitate investment whilst not crowding out private financing where it would have otherwise been available.
- The issue of accessing finance, and the failure of finance markets to incentivise and invest on the scale required is becoming an increasingly critical point. This therefore has to be and will continue to be the GIB's greatest challenge in the next 5 years. However, with borrowing powers estimated to be granted in 2015-16 there are concerns about the scale at which GIB can leverage private finance earlier in this period.
- For example, historic annual green investment is estimated as being between £6 billion to £8 billion, whereas forecasts estimate that going forward this would need to at least double before 2015 and quadruple by 2020.
- For equity investment, the GIB should look at innovative ways to 'tap' smaller investors pooling equity to fund projects. These investors may be willing to take lower returns as their alternative investments are likely to be savings accounts, shares etc. and not alternative investment projects. The GIB also has the potential to utilise existing government resource (such as NS&I) to help target small investors.
- The GIB should be more proactive in its approach to supporting projects, to reduce the cost of finance. If loans are provided proactively (prior to projects accessing the private finance markets) it is possible to effectively shift the risk profile. The reduction of risk in areas such as political and planning uncertainty, thus reduces the premium calculated for these risks within the private sector's finance conditions, reducing the overall cost of the finance and project.

The GIB needs to improve transparency and information sharing for investment to take place

- Without adequate information consumers and investors are unable to judge effectively the merits of green investments, such as insulating a property. Once again this is an area where the Green Investment Bank could pull together information from a variety of its investments providing accurate and transparent knowledge to potential investors and projects.
- This sharing of information is also important as it would help to improve the implementation of the positive spill-over effects of investment into the green economy. Currently these are not adequately accounted, both in terms of implementing new technologies from one project into another, and in building the UK's international competitiveness as an innovative green supplier and investor.

Perceptions surrounding the GIB and the subsidisation of green projects needs to evolve if investor confidence is to be gained

- There continue to be views expressed in the media and publically that the green sector is seen as an overly subsidised entity. These views outlines that green projects are not only expensive for the government but also is a key contributor to the raising costs of items such as household electricity bills.
- It is important that such views are based on factual evidence, and evaluated against the actual cost of the technology at its current level of development (as at the point of investment) verses its potential future cost and benefit within the energy.
- Alongside this it is important that all forms of government subsidy are transparent and comparable, to allow for efficient investment decisions. For example, the Guardian¹² recently reported that OECD¹³ figures reveal that in 2010 coal gas and oil prices were subsidised by £3.63bn. This is compared to figures from DECC which show that subsidies amounted to £0.7bn for both onshore and offshore wind combined (£1.4bn for all renewables over the same period).
- The GIB and government's challenge will therefore be to clarify the debate and providing transparency on that actual costs and subsidisation of not only green investment which fall within the GIB's remit but also of wider forms of investment that potentially could impact on the GIB's ability to leverage private financing.

The current plan for granting the Green Investment Bank's borrowing powers should be reinforced further

- In the 2011 Budget, the Chancellor announced that the capitalisation of the GIB would be £3 billion, with borrowing powers estimated to be granted between 2015-16 on the grounds that the target of debt falling as a percentage of GDP has been met.
- However, economic and public sector borrowing data also suggests that there has been an increase in economic pressures. It is therefore important that government view the PSNB and PSND figures as being a proxy for the market's confidence in the GIB, and its future capability and strength of leveraging project finance.
- If economic conditions continue to deteriorate and it becomes clear that this debt target will be missed confidence in the GIB could be compromised.
- As such, government should help to maintain confidence by outlining not only the borrowing rules that the GIB will eventually operate under, but also a set of interim (contingency) and more restrictive borrowing rules that could be applied to the GIB in 2015-16 or a limited period to maintain confidence.
- For example, the GIB borrowing powers could be limited to a multiple of government equity held and upper limits could set to the level of funding that can be achieved for a single project.
- By making these rules limited in terms of timing and scale it sends a clear message to the market that these are temporary, whilst showing government is committed to the GIB and its fiscal target.

The GIB should continue to expand and identify other areas where it could facilitate investment

- The GIB's remit should continue to be expanded to further facilitate its role in the co financing of projects with institutions such as the European Investment Bank. By providing help to businesses, the GIB could help UK projects leverage greater funds from European Sources.
- Government should continue to link more closely the areas of investments the GIB is going to undertake with the National Infrastructure Plan (NIP). This would provide a clear signal to markets as to projected investments, help to bolster the National Infrastructure Plan project pipeline, improve the link and information surrounding the financing of projects in NIP and encourage the further leveraging of private funds.
- Another area of uncertainty, which has been highlighted as part of the PFI review is the issue of certainty with regards to funding and not just financing. Whilst the private sector may be willing to finance a project up front, clarity on the funding and therefore return for the operation of the asset over its lifetime is of vital importance. Providing information on how projects are to be funded over their lifetime as part of the NIP and GIB process would provide certainty to investors, encourage efficient investment decisions, and allow government to be transparent about value for money to the taxpayer.

The Green Investment Bank

One of the initiatives announced by the Government following the election was the establishment of a Green Investment Bank (GIB). This initiative was widely welcomed by industry.

Snapshot of the Green Investment Bank

- Its mission will be to provide financial solutions to accelerate private sector investment in the green economy.
- Initial capitalisation - £3 billion.
- Borrowing powers estimated to be granted in 2015-16.
- Borrowing powers subject to public sector net debt (PSND) falling as a percentage of GDP and further state aid approval being granted.
- GIB will play a vital role in addressing market failures affecting green infrastructure projects.
- The GIB is one of the government's key policies to help it meet its environmental objectives and promote economic growth.
- The Green Investment Bank is envisaged to have a structure that consists of a Shareholder Executive, a GIB Policy Group, GIB Corporate Board, Board Committees and Executive Management. For further details see appendix C.

The establishment of the GIB is to occur over two phases. The first phase, involves the establishment of UK Green Investments (UKGI), with the second establishing the Green Investment Bank (GIB) in the autumn of 2012 following state aid approval.

To date, UK Green Investments (the precursor to the Green Investment Bank) has been limited in the activities and support it provides whilst waiting for state aid approval. It is therefore limited to activity such as only being able to provide loans on the same basis as commercial banks.

Whilst this provides another source of finance, as was discussed in ACE's Performance of PFI report, there have been significant changes in the cost of capital; the cost of government borrowing; the difference between the two; the private sector's ability to raise funds; and attitudes to risk. For example, government can borrow between 2-3% compared to approximately 8% for the private sector.

This is because in the private sector the financing cost will be driven by aspects such as the base rate and or LIBOR, as well as risk margins. The base rate has fallen significantly and remains at historic lows, reducing the cost of capital. Simultaneously, there has been an increase in spreads as risk has increased, raising the cost of borrowing.

The government having to lend on a commercial basis, creates little or no distinction between it and a commercial bank. As such, if a project can borrow at the commercial rate why would it approach government for a loan on the same

terms? This has therefore meant that to date, UK Green Investments has not provided the boost to green investment that was initially anticipated as part of government's policies to generate economic growth.

The GIB should soon have the approval required and so can be more proactive in the support it provides in this area.

Given the timeline, it is likely to result in the first projects for the GIB being commissioned in late 2012, early 2013. This is important given the effect of the recession on the level of green investment. Whilst projects have continued with areas of green investment that produce clear efficiency and cost savings this is not necessarily enough on its own to reach the UK emissions reduction targets, and various EU targets going forward.

However, much has changed since the announcement of the GIB. Growth has not performed as well as anticipated, the Eurozone crisis has also deepened and continues to weigh on confidence within the financial sector. Consumer and business confidence remains subdued, as does investment. A recent report by the Financial Times³ reported that companies are sitting on £754bn in currency and deposits. A similar finding is also suggested by a recent survey by Deloitte⁴ which found that in 2011 alone, companies were sitting on £64bn in working capital.

Whilst these conditions should make the case for a GIB stronger, they also raise serious concerns as to whether it will have the scale or strength to influence the capital markets to the extent required.

Within these difficult market conditions GIB has a challenging role, in that it has to balance its activities within the grey space between commercial (viable) and uncommercial (unviable) projects. Its role is therefore to facilitate investment whilst not crowding out private financing where it would have otherwise been available.

This paper therefore looks to explore the GIB and the effect it is likely to have on investment given the following:

- Have there been any significant shifts in market conditions which will provide additional challenges to government when the GIB attempts to address specific externalities in the green investment market. As discussed in their original proposals.
- If there will be any additional challenges it will face given the continuing difficulties in the financial sector.

The challenges the GIB faces with regards to externalities and market failures specifically within the green investment sector remain an issue, changing little since the proposal of the GIB. This is unlike finance and confidence conditions which have continued to be unstable and so may create further challenges for the GIB.

As market failures and the mechanisms to solve them are likely to have an effect on investor confidence the paper will look at these conditions first. However, it should be noted that the scale of the investment challenge, conditions in the finance sector and the need for private finance is such that these market failures are less likely to play a significant role in the tasks GIB may have to undertake

going forward. Instead the main focus for the GIB will be leveraging and accessing financing.

Market failures

The first of the issues identified is the lack of markets accounting for externalities and their inclusion within the current pricing mechanisms. For example the cost of the negative externalities of carbon emissions is not factored into the electricity price.

Accounting for externalities such as carbon emission will remain an issue, and will only be addressed as the UK's cultural outlook on energy usage and its implications continues to evolve. This is because cultural change and the changing of consumer behaviours towards lower carbon living will take time.

For example, there is currently a lack of investment (without incentives) in the retrofitting of housing to improve energy efficiency. Whilst, there can be a clear financial benefit in reducing long term operational costs, consumers attitudes have not shifted significantly enough to consider such measures as essential. This has therefore not yet made them a standard consideration when purchasing a property. This example is one of the areas in which the Green Deal also aims to help improve performance and implement change.

In addition the market does not currently price such aspects adequately into the capital value of properties, thus further reducing the incentive. The GIB could help to leverage and improve investment (as will be discussed in further detail later) in areas such as this, speeding up cultural change as a result.

Another area that relates to this is the area of imperfect information. Without adequate information consumers are unable to judge effectively the merits of green investments, such as insulating a property. Once again this is an area where the Green Investment Bank could pull together information from a variety of its investments providing accurate and transparent knowledge to potential investors and projects.

This sharing of information is also important as it would help to improve the implementation of the positive spill-over effects of investment into the green economy. Currently these are not adequately accounted, both in terms of implementing new technologies from one project into another, and in building the UK's international competitiveness as an innovative green supplier and investor.

Positive spillover effects and positive externalities (such as information sharing) also provide further social and economic benefits, which also are not fully accounted for under a pure market mechanism. Thus without intervention, what would be considered a socially preferential outcome (such as reducing the effect of pollution and climate change) would not occur.

Importantly, the GIB can facilitate investment that would otherwise have not taken place. For example, when looking at the net present value of the measures analysed it was found that:

- “While some of the investments have a positive net present value (materials recovery, facilities for waste, energy efficiency investments), others do not

(offshore wind, direct combustion energy from waste) due to the higher cost of low carbon products (eg renewable electricity generation) compared to more traditional products (eg fossil fuel electricity generation)⁵.

This finding is important because if projects have negative net present value this suggests that an investor or company would reject the investment on the grounds that it would extract value from the company. The project under this scenario has not covered its original investment and has not provided the required rate of return over the time period.

Whilst an investor would typically reject such an investment, the GIB is looking at the investment with a view to removing risk, improving future market conditions, spurring growth and innovation and so could therefore be considered as providing value for money over the longer term to government and society.

However, GIB misses what is becoming an increasingly critical point. This is the issue of access to finance, the raising of finance, and the failure of finance markets to incentivise and invest on the scale required in the green economy. This issue is growing in importance and is beginning to dwarf issues surrounding market failures such as imperfect information in terms of their importance in generating investment. The financing issue therefore has to be and will continue to be the GIB's greatest challenge in the next 5 years.

Financing issues

The reports provided by Vivid economics also explore some of the issues surrounding financing. Below we have highlighted a number of issues that are raised in relation to the raising of equity, debt and bonds. However, the continuing tightness of the financial markets potentially has wider implications for the GIB.

For equity financing it has been found that:

- There is a limit as to the speed at which new equity can be raised, this is due to companies wishing to maintain net earnings and dividends.
- The squeeze in firm's profit levels has reduced the availability of funds for investment.
- Historical data shows there are challenges in the raising of equity in green projects.
- The UK's attractiveness to investors is being hindered by inconsistent regulation.
- Capital injections by institutional investors such as pension funds are rare. Such investments normally occur following the completion of the construction phase and a few years of operation.

The issues around equity financing means, that it may therefore be difficult to obtain as a source of financing, if the GIB is trying to kick start projects to boost short term growth. In addition, as has been discussed in previous papers, equity investors demand higher returns than that of debt financiers thus increasing the cost of a project. This increased cost is an issue as it could have implications for end user prices or value for money measures.

This higher return is traditionally paid due to the risk profile of the equity holder. For example, in PFI projects, equity holders achieve returns once the debt portion of the finance is paid, thus increasing their risk. If the GIB cannot significantly shift or alter the risk profile of equity investors, it is unlikely that the rate of return required to attract their investment is going to decrease significantly.

For equity investment, the GIB should look at innovative ways to 'tap' smaller investors pooling equity to fund projects. These investors may be willing to take lower returns as their alternative investments are likely to be savings accounts, shares etc. and not alternative investment projects. The GIB also has the potential to utilise existing government resource (such as NS&I) to help target small investors.

However, a significant amount of finance for projects (approximately two thirds) has traditionally come from the banking sector in the form of debt.

But the financial crisis and recession continue to create a number of issues with this form of financing:

- The macroeconomic environment is constraining lending.
- The increased economic regulation (as a result of the financial crisis) is likely to make it more difficult for the green sector to attract funds to larger investment projects. This is because these projects generally carry a higher risk profile and so in the future may require banks to hold a number of safe assets to cover as a reserve. In addition, the scale of investment is key, if green project investments are not scalable to the extent that they cover the increased costs of regulation, they are less attractive compared to more traditional areas of investment.
- The degree to which capital can be recycled has been reduced. This is because as all parties involved in the chain have become more risk averse they are less likely to, and able to, purchase and sell assets. This means that the possibilities for banks to sell loans (after the construction phase) to institutional investors is lower. This will constrain the possibility of funding other projects
- Confidence in the finance sector amongst investors, and in the wider market has been hit as a result of the financial crisis and continuing Eurozone debt issues. As such investors, companies and consumers are more likely to be risk averse, which unfortunately makes investments in the more risky innovative green economy less likely. For example, Vestas in 2012⁶ announced it was no longer proceeding with its plans for a wind turbine factory at Sheerness in Kent with a lack of concrete orders being provided as the primary reason for not commencing.
- These conditions come on top of the green market being considered young in terms of economic maturity. This means that the majority of technologies are at experimental or early stages of development. As such, the transaction costs with regards to the process through which due diligence, approval and the release of finance tend to be higher than average. Whilst the GIB will be able to invest in some experimental technologies, it is important to note that the 'double bottom line' which aims to achieve both a significant green impact and financial returns will limit the number of projects it can undertake where technological risks are substantially higher.

- Thus further restricting the number of projects that would qualify as feasible.

The issues surrounding access to finance and confidence are important, and the effect of the recession and financial crisis has had lasting implications.

Another key issue the GIB will need to address is the transaction costs involved within the process of accessing and applying for finance within smaller schemes/projects. As the risk profile of a projects increases, so too does the cost of capital and the cost of due diligence. This therefore reduces the number of projects that are economically viable (withstanding significant technological improvements).

The government has already put in place the funding for lending scheme, which aims to improve the flow of liquidity to businesses. Access to such schemes could also be facilitated by the Green Investment Bank to help improve access to finance and secure a wider variety of funding mechanisms for green projects.

Another method of financing which is used by state back investment vehicles is that of issuing bonds. For example, this type of financing differs little from other sectors and has raised “around £6 billion a year on average in the last 10 years, with over 70 major issuances in the 2009 and 2010 alone.”⁷ So bonds could play a role in raising finance for investments, but could also play a role in the refinancing of projects. The GIB could help to better utilise bond finance.

However, the balance of risks has to be well understood, so they are seen as providing a secure return for investors. For example, the European Investment Bank has issued bonds such as its Climate Awareness Bond. The first of these was issued in 2007, with a five-year zero-coupon bond for Euro 600 million. The funds raised were used in EIB renewable energy and energy efficiency projects. A second round of these bonds were issued in 2009, (in Swedish kronor) targeting EIB's Scandinavian investor base.

This demonstrates that financing is going to be an important issue to solve. A number of tools and mechanisms have been suggested to help address the financing issues. For example, these include the GIB facilitating and leverage investment by:

- Providing risk mitigation products (for example insurance, covering construction risk) which shift the risk profile of a project to a position where there is a wider base of interest amongst investors.
- Providing new and innovative finance mechanisms, reducing transaction costs, risks and improving returns.
- Provide capital via either equity or debt

In addition to the above, ACE in its Public Private Finance Models report has looked at a number of models and mechanisms which could be utilised by an institution, such as the Green Investment Bank to help facilitate investment.

To facilitate investment effectively the GIB must gain investor and market confidence, and as such the design of its structure must be done in a way that provides certainty and confidence. The Government has helped to provide some certainty by providing a number of detailed publications on the design and

roadmap of GIB (appendix B and C), the rationale behind GIB, and the policy and economic implications of GIB.

However, whilst there have been indications of how GIB will operate, there are still some concerns as to how effective it is going to be at facilitating investment depending on the stage at which it becomes involved.

For example, if the GIB provides additional support to a project after it has secured the bulk of its finance the following has already taken place. The project has already approached financiers in the private market and their pricing is based on the risk and need to secure complete financing from the project. As such, the cost of this finance has been set according to the profile of the project pre-government intervention. Whilst ensuring the project commences, this has not necessarily extracted the best value for the taxpayer because it has not leveraged the benefit of government involvement.

This is because, if the loan had been provided proactively prior to projects accessing the private finance markets it could have been possible to effectively shift the risk profile. If the government is involved early it can reduce areas of risk such as political and planning uncertainty, thus reducing the premium calculated for these risks within the private sector's finance conditions, reducing the overall cost of the finance and project.

The lack of a proactive influence on finance demonstrates some of the concerns as to whether the GIB will have the scale or strength to influence the capital markets to the extent required, to significantly increase the flow of finance to green projects.

However, whilst a proactive stance could produce preferential rates it is also important that the GIB does not undertake projects under a proactive stance that could have been delivered by the private sector. That is to say that the private market must not view GIB as a mechanism for all projects to purely access cheaper finance, and improve profit. Such actions would reduce the efficiency of investments and providing poor value for money for the taxpayer.

So whilst there is no doubt the GIB is a significant step in the right direction its emphasis may need to shift towards one of being much more proactive in the market than originally anticipated. This is especially given the challenges and scale of investment required.

For example, historic annual green investment is estimated as being between £6 billion to £8 billion, whereas forecasts estimate⁹ that going forward this would need to at least double before 2015 and quadruple by 2020.

Supporting investment in green projects

The GIB, as discussed previously, will have a role to play in facilitating finance within green projects. Within this the institution needs public support, and so has to reinforce the need for investments based on the cost of finance, the cost of operation and funding and their wider economic impact.

The importance of this debate occurring in a transparent and accountable manner via the GIB is because some of the green investments undertaken are likely

to occur based on them receiving future funding commitments via user pays regulatory regimes.

There continue to be views expressed in the media and publically that the green sector is seen as an overly subsidised entity. These views outlines that green projects are not only expensive for the government but also is a key contributor to the raising costs of items such as household electricity bills.

For example, in May 2012 the Telegraph reported that Household electricity bills will rise by as much as a quarter to pay for wind farms and other forms of renewable energy⁹. These media reports are based on analysis done by a number of parties including government, lobbying groups, think tanks etc. For example a number of reports have been published which show how policies including subsidies may feed through into consumer bills.

- In 2010 DECC produced a report which found that the increase in electricity price due to policies by 2020 was estimated to be 27%¹⁰.
- In June 2012 the NAO and DECC¹¹ estimated that “the impact on bills under different fossil fuel price assumptions range from a 6 per cent to 20 per cent reduction for households and an 18 per cent to 41 per cent increase for medium-sized businesses compared to what their bills would have been in the absence of policies.” However, the reduction in household bills is based on energy efficiency measures being undertaken. The report finds that 65% of households are unlikely to take such measures and so will be worse off.

It should be noted that such forecasts and estimates rely on a number of uncertain factors, such as the price of fossil fuels going forward. As such, the range of estimates on the impact of policies on consumer bills can vary significantly.

However, it is important that such views are balanced against the actual cost of the technology at its current level of development (as at the point of investment) verses its potential future cost and benefit within the energy mix as technologies improve.

Additionally, it is important that the debate surrounding subsidies for differing types of technologies (such as green projects) is balanced, and based on factual evidence, and evaluated alongside the support that other forms of investment receive.

For example, the Guardian¹² recently reported that OECD¹³ figures reveal that in 2010 coal gas and oil prices were subsidised by £3.63bn. This is compared to figures from DECC which show that subsidies amounted to £0.7bn for both onshore and offshore wind combined (£1.4bn for all renewables over the same period). The current spending envelope for renewables subsidies from DECC¹⁴ reveals that this figure is expected to be approximately £2.1bn in 2011/12 and rises to £3.8bn in 2014/15.

This demonstrates how the current view on the subsidisation of such projects being only in the green sector is incorrect. As a result this skewed focus has an impact on the GIB's ability to build investor confidence and the leveraging of private finance into the green energy sector.

Without the conditions, true costs and alternative subsidies provided by government being fully understood, investors are likely to price at a higher risk

than is actually undertaken. This therefore increases the cost of projects, and impacts on the GIB's ability to leverage private financing for a greater number of projects given the level of government finance/borrowing the GIB undertakes.

The GIB and government's challenge will therefore be to clarify the debate and provide transparency on actual costs and subsidisation of, not only green investment which fall within the GIB's remit, but all forms of energy.

The funding of GIB and finance conditions

In the 2011 Budget the Chancellor announced that the capitalisation of the GIB would be £3 billion, with the GIB eventually being granted borrowing powers which would allow GIB to enhance its ability to leverage projects within the market.

But the condition for these borrowing powers were that they would be put in place when the target for debt to be falling as a percentage of GDP has been met. This was estimated at being between 2015-16.

However, market conditions surrounding growth and borrowing raise growing concerns about the 'once the target for debt to be falling as a percentage of GDP' aspect of this rule and the constraint it could place on the GIB being able to borrow by 2015.

For example, whilst the Office for Budget Responsibility (OBR) independent fiscal forecasts (as reported in the 2012 Budget) are a slight improvement on the Autumn Statement in 2011, they have generally still deteriorated from the 2011 Budget.

Overview of OBR central fiscal forecast - as stated in Budget documents

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Budget 2011								
Public sector net borrowing	11.1	9.9	7.9	6.2	4.1	2.5	1.5	-
Public sector net debt	52.7	60.3	66.1	69.7	70.9	70.5	69.1	-
Autumn Statement 2011								
Public sector net borrowing	11.2	9.3	8.4	7.6	6	4.5	2.9	1.2
Public sector net debt	52.9	60.5	67.5	73.3	76.6	78	77.7	75.8
Budget 2012								
Public sector net borrowing	-	9.3	8.3	5.8	5.9	4.3	2.8	1.1
Public sector net debt	-	60.5	67.3	71.9	75	76.3	76	74.3

In addition to the forecasts above, recent data from the Office of National Statistics¹⁵ on public sector finances also suggests that the current fiscal year might prove more challenging than originally anticipated for government in terms of hitting its targets.

In addition, as can be seen from the previous table, the Autumn Statement and 2012 budget also sees borrowing forecast further into 2016-17. This could therefore place pressure on the deficit and PSND.

The latest OBR Fiscal stability report¹⁶ which provides an analysis of the sustainability of the public finances provides an updated forecast for Public Sector Net Borrowing (PSNB) and Public Sector Net Debt (PSND).

- “The medium-term outlook for PSND and PSNW has deteriorated since last year’s FSR. The expected peak in PSND has risen by 5.8 per cent of GDP to 76.3 per cent of GDP in 2014-15, while the expected trough in PSNW has fallen by 12.3 per cent of GDP to -21.1 per cent of GDP in 2014-15. The deterioration in PSNW is larger because of a difference in the way that liabilities are valued.”

Whilst, more recent forecasts have been for the PSND to peak in 2014-15, in the March 2011 Economic and fiscal outlook (EFO)¹⁷ originally forecast:

- “Public sector net debt (PSND), the measure used in the Government’s supplementary fiscal target, is forecast to peak at 70.9 per cent of GDP in 2013-14 and then decline to 69.1 per cent of GDP in 2015-16.”

As can be seen from the above, given the pressures from economic growth (the latest Q2 GDP figure reported is -0.7, which is the third consecutive negative quarter of Quarter on Quarter growth) and downward pressures on current tax receipts this could put pressure on meeting the government’s target of a peak in PSND by 2015-16.

Any further revision is therefore more likely to show that Public Sector Net Debt not falling as a percentage of GDP by 2015-16. This would mean that the GIB would not be granted borrowing powers. Therefore without the support of additional government funds this could leave the GIB without any further financing in 2015-2017. This has the potential to undermine a key plank of the Governments’ investment strategy in the green sector and wider infrastructure areas.

Whilst it is important to set ground rules for institutions such as the Green Investment Bank (for example it could be restricted to only borrowing ten times its level of equity) the uncertainty around the sovereign debt crisis has meant that rules such as the above which link GIB to fiscal timescales are therefore also uncertain.

As such, if government wishes to gain investor certainty and spur growth in the green economy it would be beneficial to set a clear date for GIB borrowing powers to be granted. Alongside this a clear and concrete sustainable fiscal mandate should be put in place.

For example:

- The green investment bank’s borrowing powers could be limited to a multiple of government equity held.
- Fiscal spending could be outlined in 5, 10 and 25 year plans, with provision for mitigating any loss making investments.
- An upper limit could set to the level of funding that can be achieved for a single project. For example, no more than 50%, thus providing certainty as to the maximum level of commitment they can provide.

- Returns from investments are to be invested into additional projects.

The variation in the public sector finance forecasts over time, show that while public sector borrowing projections vary (both positively and negatively), currently it is expected that government will meet its target.

However, economic and public sector borrowing data also suggest that there has been an increase in economic pressures. As the GIB's ability to borrow will be determined by the PSND falling as a percentage of GDP. It is therefore important that government view the PSNB and PSND figures as being a proxy for the markets confidence in the GIB, and its future capability and strength of leveraging project finance.

If economic conditions deteriorate and it becomes clear that this target would be missed, confidence in the GIB could be compromised.

As such, government could help to maintain confidence by outlining not only the borrowing rules that the GIB will eventually operate under, but also a set of interim (contingency) and more restrictive borrowing rules that could be applied to any borrowing undertaken by GIB in 2015-16 or for a limited period to maintain confidence.

By making these rules limited in terms of timing and scale it sends a clear message to the market that these are temporary, whilst showing government is committed to the GIB and its fiscal target.

Moving forward

In addition to providing certainty to the GIB's ability to raise finance, there are a number of areas where perhaps a broader approach from the GIB could facilitate further investment.

Identifying other areas where the GIB could facilitate investment

The GIB's remit should continue to be expanded to further facilitate its role in the co financing of projects with institutions such as the European Investment Bank. By providing help to businesses, the GIB could help UK projects leverage greater funds from European Sources.

By providing help to businesses the GIB could help UK projects leverage greater funds from European Sources. This would not only limit the need for the GIB to borrow but would also allow for the two institutions to work together to provide finance for a greater proportion of projects thus further reducing risk, and encouraging investment.

In addition, such interaction also helps to ensure that both bodies share knowledge on financing, procurement and project delivery. This should therefore help to ensure that their processes are improved in the future to minimise cost and increase efficiency to all parties involved.

Another area of improvement would be to more closely link the areas of investments the GIB is going to undertake to the National Infrastructure Plan (NIP). For example, there are a variety of offshore wind projects listed in NIP, identifying those that are perhaps further out and so would be viable for assistance would provide certainty and confidence to investors.

This would have a number of benefits such as:

- Providing a clear signal to markets as to projected investments. Such as the extent to which strategic grid and renewables project investment can be facilitated, and the subsequent investment that the market is willing to undertake knowing key parts of the system are to be put in place.
- Provide key information on projects within the National Infrastructure Plan project pipeline to the GIB, using cross departmental resources to research, collate and attach investment potential to projects already in NIP. This helps to ensure the efficient use of government resources, and to provide a holistic view to government activities.
- Improve the NIP by beginning the process of linking financing, the delivery to the projects, and future funding streams. Currently the NIP does state if the source of financing is public or private but the mechanisms through which financing and funding can be raised are not detailed. For example, some of the projects whilst being financed privately are ultimately funded through user regulated user charges. Not having a clear link between the costs is likely to lead to enquiries about value for money for the taxpayer and what are considered as acceptable returns.
- Improve detail on future investment timescales, with clearly outlined stages for the raising of finance, planning, consultation etc, therefore providing certainty to potential investors.

- Encourage the leveraging of funds for projects by providing transparent information on governments investment requirements

Another area of uncertainty, which has been highlighted as part of the PFI review is the issue of certainty with regards to funding and not just financing. Whilst the private sector may be willing to finance a project up front, clarity on the funding and therefore return for the operation of the asset over its lifetime is of vital importance.

Providing information on how projects are to be funded over their lifetime as part of the NIP and GIB process would provide certainty to investors, encourage efficient investment decisions, and allow government to be transparent about value for money to the taxpayer.

Appendix A: The UK's Climate change commitments

- The Climate Change Act requires the UK to reduce its greenhouse gas emissions by 80% by 2050, with an interim target of a 34% reduction by 2020, when compared to 1990.
- Compliance with EU air quality standards
- Compliance with EU waste targets, which calls for 50% of household waste to be recycled by 2020, and a 35% reduction in biodegradable municipal waste landfill by 2020 when compared with 1995.
- The Water Framework Directive contains two objectives of no deterioration and achieving 'good' status in water bodies by 2015.
- The UK's current greenhouse gas emissions have to be reduced by (relative to 1990 levels), 22% in 2012, 28% in 2017, 34% in 2022 and 50% in 2027

Appendix B: The GIB roadmap

The plan is to establish the GIB in the following phases¹⁸:

- “Phase I – Incubation: April 2012 to achievement of state aid approval. The Government will make direct financial investments prior to the establishment of the GIB to accelerate investment in the green economy.”
- “Phase II – Establishment: Following state aid approval, the GIB will be established as a standalone institution in line with the proposals in this document.”
- “Phase III – Full borrowing GIB: From April 2015 the GIB will be given powers to borrow (subject to public sector net debt falling as a percentage of GDP). This will enable the upscaling of the GIB’s activity.”

Appendix C: The structure of the GIB

In terms of the structure it is envisaged that the GIB will have the following structure:

- Shareholder Executive – shareholder - Department for Business, Innovation and Skills
- A GIB Policy Group through which ministers will be consulted about priorities
- The GIB Corporate Board,
- The Board Committees
- The Executive Management

The Shareholder executive will work with a number of shareholder departments in consultation with the GIB Policy Group, approve the founding articles of the GIB, the GIB charter and the strategic priorities.

The GIB Policy Group will be a forum to co-ordinate departmental priorities, agreeing the GIB's strategic priorities. These strategic priorities will reflect ministers' policy and require ministerial sign off.

The GIB Corporate Board and its committees will operate in line with best practice for private sector corporate governance guidelines. Their main task will be to set strategic priorities and ensure the GIB is operating in line with the principles and mission of the organisation.

Finally Executive Management will be responsible for the day-to-day operation of the GIB.

This structure is designed to have a degree of political accountability and strategic direction, whilst allowing the running of day to day operations to be separated from the political process.

End notes

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ACE economic and policy papers

This paper forms part of a growing portfolio of research by ACE into the effects of infrastructure on the wider economy. The papers below outline the case for funding, a variety of funding methods including traditional and new forms of infrastructure spending stimuli, and more detailed sector specific issues such as retrofitting and microgeneration.

Pensions and infrastructure

This paper is the fourth in ACE's infrastructure investment series and explores in more detail the current conditions within the market, and the implications they have on pension funds' investment potential into infrastructure.

Procurement in PPFM

This paper is the third in ACE's infrastructure series and examines how to improve procurement in Public Private Finance Models (PPFM)

Public Private Finance Models

This is the second in ACE's infrastructure series and explores in more detail the rationale, performance and conditions that surround Public Private Finance Models (PPFM)

Performance of PFI

This paper is the first in ACE's latest infrastructure series and reviews the performance of historical PFI data to learn lessons for the development of new financing models

The 2012 budget

ACE's analysis - A comprehensive analysis of the 2012 budget, the economic and fiscal outlook from the Office for Budget Responsibility and the Infrastructure Delivery Update

Budget submission 2012

Budget submission to HM Treasury for 2012

ACE reports on detail of Autumn Statement

A full analysis of the Chancellor of the Exchequer's Autumn Statement, the updated National Infrastructure Plan and the Office of Budgetary Responsibility report on the economy.

Barriers to Investment

Explores a wide variety of aspects that act as barriers, or significantly change the risk profile of an investment project. These processes are important within the investment cycle and should be understood by all parties involved

Infrastructure: A case for funding

This report reviews and analyse a range of material that is openly available to ascertain what effect infrastructure investment has on the economy.

The Infrastructure Investment Trust

ACE proposes a supplementary model to PFI initiatives, to read the executive summary please click here

Retrofitting the UK's housing stock

This paper is intended as a conversation starter on how retrofitting might be taken forward in the residential sector

Department for Infrastructure

ACE makes the case for a new department to support government and infrastructure

Spending efficiency

This paper makes the case for a balanced scorecard approach to achieving efficiency

Infrastructure funding

a range of options in its latest policy paper: Infrastructure Funding

Infrastructure bank

ACE sets out the case for an infrastructure bank

Infrastructure assessment

ACEs proposal for an audit of the UKs existing infrastructure

Further information

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