



FRESHFIELDS BRUCKHAUS DERINGER

Outlook for infrastructure 2010: a radical new road

Infrastructure delivery amid fiscal crisis



Foreword

June 2010

It is now almost three years since the onset of the global recession, signalled in August 2007 by inter-bank liquidity problems and the Northern Rock and Bear Stearns rescues soon after. Since then, in *Outlook for Infrastructure 2008*, we noted a mood of 'cautious optimism' in the infrastructure market, and in *Outlook for Infrastructure 2009*, we studied the various governmental stimuli initiatives and their prospects of deliverability via project finance. It is clear that global recession has highlighted the importance of the private sector for infrastructure delivery: reduced tax revenues have put greater fiscal pressure on government budgets. As *Outlook 2010* notes, fiscal deficits among the G7 for 2010 will amount to 9.5 per cent of their combined GDP. Levels of government debt – post-bank bailouts, post-quantitative easing, post-government stimuli – are at or above levels prevailing immediately after World War II.

Yet nations still require infrastructure: to deliver economic activity in construction and operation; for energy security; to meet decarbonisation targets; and to provide ease of movement, efficient communications, clean water, education and health, and other economically and socially beneficial objectives.

Accordingly, *Outlook 2010* seeks to challenge governments, infrastructure providers and investors to develop solutions to the central dilemma of how to deliver infrastructure during a period of severe fiscal constraint. It suggests a way forward, a way of meeting the challenge through a combination of:

- prioritisation of long-term infrastructure needs and investment, and the establishment of national infrastructure units;
- public sector asset disposals; and
- governments becoming 'incubators' of major infrastructure projects as opposed to long-term owners, by adopting an 'IBIS' model (incubate, build, intermediate and sell) of infrastructure delivery.

We believe the trends that are illustrated in this report point to the adoption of the IBIS model. We also believe that governments as infrastructure incubators and the private sector as infrastructure owners and operators is a viable solution to infrastructure delivery in an age of austerity.

We hope that you will find this report to be both provocative and informative.



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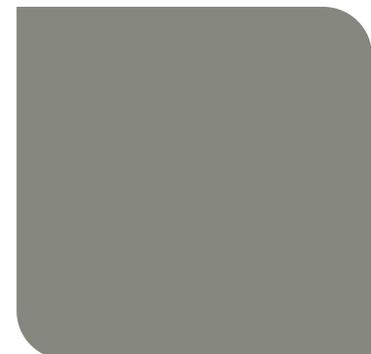
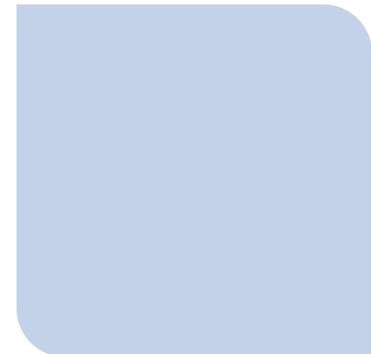
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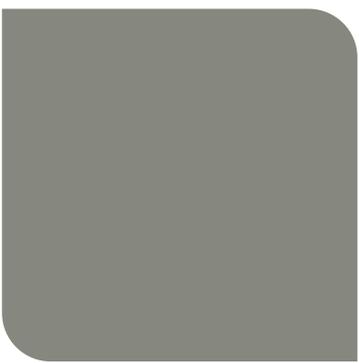
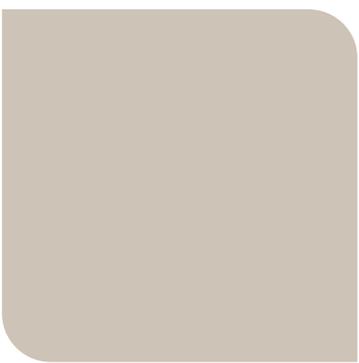




Contents

Foreword	1
Introduction	5
The infrastructure gap	6
The UK's Infrastructure Renewal Bill	7
A brief history of asset sales	8
From assets to asset class	12
Bridging the gap	13
New Zealand: Forward thinking from Down Under	15
Taking a radical new road	16
Office of Fair Trading probe into infrastructure finance	17
Green investment bank	19
From HS1 to HS2	21
Conclusion	22
Notes	23





Introduction

In terms of infrastructure delivery, governments across the globe face two main challenges. The first is well known and has been widely debated – the need to cut the massive fiscal deficits accumulated in part because of the extraordinary measures they took to stabilise the financial system and prevent the Great Recession turning into a new Great Depression. They succeeded, but at some cost – fiscal deficits among the Group of Seven (G7) wealthiest nations this year will amount to 9.5 per cent of their combined gross domestic product (GDP), or more than \$3 trillion. This will take the total volume of government debt to 120 per cent of GDP, exceeding that prevailing in the aftermath of the Second World War.¹

However, the second challenge has received much less attention over the past few years, despite having the potential to cause even more severe problems for all major economies if it is not addressed. This is the need for massive investment in infrastructure over the medium to long term, to ensure that countries grow at a rate needed to deliver gains in health, wealth and wellbeing for the citizens, and also to prevent a collapse of key services and utilities if they are starved of investment.

This report seeks to highlight the scale of the challenge, but at the same time to point to an innovative new direction that governments can take to simultaneously tackle the deficit and develop new vehicles to ensure that the needs of infrastructure are met. At the heart of the solution is the sale of government-owned assets and, more importantly, innovative partnerships between the public and private sectors to enable major infrastructure to be built despite the scale of the financial crisis.

The global trend of privatisations and asset sales is usually thought of as belonging to the 1980s and 1990s, but it continued into the past decade and is expected to continue over the coming years. However, there are already signs that the nature and types of sell-offs have changed in three key ways. The first is that the baton of privatisation or – in the case of the US – monetisation of public assets has been passed from the Anglo-Saxon economies to those in continental Europe. The second is that the pace of divestment has slowed. The third is a trend among those governments most active in asset sales towards a greater focus on non-core areas that include everything from parking to film-making and information provision.

This report looks at how governments can marry that last trend with an increasing desire among investors for infrastructure assets that can attract greater investment in key infrastructure areas. At the heart of this is the need for governments to think less about how they can directly invest in and build much-needed new infrastructure, and more about how they can work better with the private sector to encourage companies and investors to get in at the ground floor of the project rather than wait until the final brick has been laid and the last coat of paint has dried. We have coined a new acronym, IBIS (incubate, build, intermediate and sell), to describe the way governments could approach infrastructure delivery. This report explains how this new idea can be made to work. It would be a new road for governments, but one that could end up bridging the infrastructure investment gap.



The infrastructure gap

Any country seeking to compete on the world stage must have a high-quality of national infrastructure. It boosts economic growth, increases competitiveness in the global economy and raises the productivity of the workforce. It also protects against future infrastructure failures that would both undercut economic growth and deliver hardship to households and businesses. As a report for the UK think tank Policy Exchange concluded last year: 'The importance of infrastructure cannot be underestimated.'²

Policy Exchange carried out a detailed analysis of the state of infrastructure in the UK and calculated how much investment would be needed over the current decade. Although it only looked at Britain, the themes of its findings can be applied easily to other leading economies. It concluded that the UK needed a total of £454bn of new investment into transport, energy, water and communications over that period. However, it said the true figure could be nearer to £500bn or £50bn a year over the next ten years. Nor did it include areas such as schools, hospitals and public sector IT, which will need ongoing investment in their physical assets. Even their most conservative estimate implies an increase of 50 per cent on last year's public sector net investment of some £30bn.³

The previous British government also highlighted the need to focus on long-term spending. In a keynote document published alongside the 2010 Budget, the UK Treasury said the demand for investment in economic infrastructure in the UK was expected to be in the range of £40bn-£50bn a year until 2030, 'and possibly beyond'. 'This is significantly above historic levels', it added.⁴

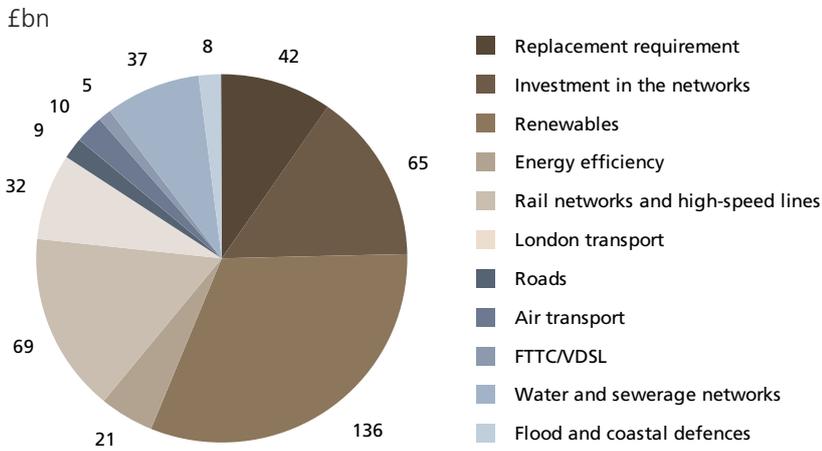
The American Society of Civil Engineers says the US needs \$2.2 trillion of investment over

the next five years to deal with the country's 'crumbling infrastructure'. The list is topped by a bill for \$930bn for upgrading US roads and bridges, followed by \$265bn for transit systems and \$255bn for drinking water and sewerage.⁵

There are several key areas where there is a consensus on the requirement for greater investment, including energy, public utilities, transport and telecoms. All sectors are faced with the need both to renew ageing existing infrastructure and to invest to deal with anticipated future pressures deriving from social, demographic and climate changes. To take energy as an example: this includes the generation, distribution and supply of electricity and gas. Earlier this year, Alistair Buchanan, the chief executive of Ofgem, the UK's energy regulator, said the sector required new investment of 'up to £200bn'.⁶ He hinted that there was a danger of the lights going out if radical reform was not undertaken. He told *The Guardian* newspaper: 'To wait a few more years [without doing anything] could cause us trouble. We would get down to historically low levels of margins of plant, to when you are starting to ask if you have enough power stations.'⁷

However, although investment is needed in electricity generation and distribution in the form of new power stations and networks, there is the overarching demand for investment in decarbonising the energy system to tackle the threat from climate change. Policy Exchange estimated that £136bn needed to be invested in renewable energy generation and a further £21bn into energy efficiency by 2020. In its report, the UK Treasury said: 'There needs to be a significant increase in investment in the energy sector and the use of new low carbon technologies.'

The UK's Infrastructure Renewal Bill



Source: Policy Exchange



To give some global context, rough estimates from the OECD suggest that annual investment requirements for telecommunications, road, rail, electricity and water taken together are likely to total around an average of 2.5 per cent of world GDP by 2030 – equivalent to \$1.5 trillion in today's money.⁸

Although the urgency over the need for investment is in no doubt, the scale of the global fiscal crisis means that governments are not going to be able to underwrite as much

infrastructure investment as has happened in the past. This means that more future investment than has historically been the case will need to be undertaken off the balance-sheet of government and financed by the private sector, which will need to take on more infrastructure delivery risk. Although this type of transaction (eg the Private Finance Initiative in the UK) has existed for some time, the current situation means radical thinking is needed to ensure the infrastructure finance gap can be bridged.

'Europe's leading economies are following the US and UK down the road of infrastructure privatisation, the more interesting trend is towards the sale of non-core assets.'

A brief history of asset sales

The past 30 years has seen a massive sell-off of government-owned assets to the private sector, either directly to corporate buyers or indirectly via stock market flotations. Although there have been attempts to reduce state ownership of infrastructure assets since the end of the Second World War, it was during the 1980s under the leadership of Margaret Thatcher in the UK and Ronald Reagan in the US that privatisation became a global phenomenon. Industries such as steel, airlines, phone companies, public utilities and rail were sold off.

Even though much of the low-hanging fruit has been picked, the trend has continued. However, there are signs of an important shift in the way that assets have been sold off. Governments have had to search harder and dig deeper to find assets that they believe would be better off in the private sector. Industries such as steel, oil and mining have long been sold. In many jurisdictions, services such as railways, airlines and the supply of electricity, gas, water and telephone communications have also been divested.

This has reduced both the volume and value of sales. In the UK, the sale of British Energy Group to Electricité de France for \$6.1bn in 2008 was the last sale above \$1bn in the UK since rail privatisation in 1994 (which raised £4.0bn or £5.12bn (\$7.42bn) at present values).⁹

Mixed history in the US and Europe's largest economies

This leads on to the next trend. The UK, which led Europe – and perhaps the world – with privatisations in the 1980s and early 1990s has passed the baton onto the other major European economies, particularly France, Germany and Italy. France, for example, has in the past decade

raised \$3.6bn from the privatisation of France Telecom, sold Caisse Nationale des Caisses d'Epargne, a Paris bank, for \$9.0bn and raised \$2.5bn from the sale of a stake in Alstom. Italy has joined the party, raising \$10.2bn from the public sale of shares in Enel, an electricity supply company, selling Fondo Immobili Pubblici, a real estate investment trust, to a consortium of UK and US banks for \$3.9bn, and raising \$1.5bn from the flotation of Telecom Italia. Perhaps the \$2.6bn sale of a tobacco firm to British American Tobacco shows how deep state ownership lay in Italy. Germany has been less active but, again, the sale of a bank, Frankfurter Sparkasse, by the City of Frankfurt, and a polytechnic indicates that institutions other than central government owned large tranches of productive economic wealth.

In the US, major infrastructure has long been in private ownership, which means the scope for traditional asset sales is more limited. One of the most recent sales, rather than a concession, was the \$720m sale of the office assets of General Services Administration, a federal procurement agency, in 2006.

Emergence of non-core assets

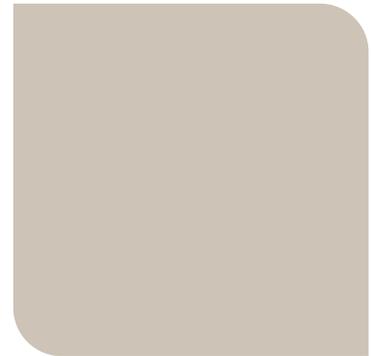
Although the sale of Telecom Italia and Alstom show that Europe's leading economies are following the US and UK down the road of infrastructure privatisation, the more interesting trend is towards the sale of non-core assets. Though there are no internationally accepted definitions, most analyses categorise core infrastructure as comprising the broad areas of transport, public utilities, energy generation and telecoms. However, advanced economies have over time built up an empire of assets in other areas, often built or acquired by cities and regional governments during the

economic reconstruction of the post-war era or taken onto state balance-sheets during previous economic downturns.

Anecdotal evidence shows that governments are increasingly looking to this asset base as a place to raise revenues and to bring in private sector management to deliver greater efficiencies. For example, in the past year, Germany has started the process of selling a Bavarian film-making company and a state-owned insurance company. In France, a regional government is seeking to offload its minority stake in Futuroscope, a theme park, while state-owned Groupe Caisse des Dépôts et Consignations announced this year that it was seeking a buyer for the fast-food chain Quick Restaurant, which was nationalised in 2007. The UK is considering selling the Tote (a betting organisation), the

Met Office (a weather and climate change forecasting organisation) and the Student Loans Corporation, among other assets.

The trend towards the sale, or more accurately, monetisation of public assets is clearest in the US, where infrastructure in areas such as utilities and other public services has been in private hands longer than has typically been the case in Europe. The largest public-private deals in the US in the past decade have involved the construction or operation of new roads and bridges, as well as of non-core assets such as solid waste, waste water and parking (see box). In 2007, the State of Texas awarded a 50-year concession to build, own and operate State Highway 121 and three years earlier the City of Chicago raised \$1.82bn from a 99-year concession to own and operate the Skyway Toll Bridge.



Chicago parking meter privatisation

The 2008 concession by the City of Chicago of a 75-year lease on its parking meter system is seen by many experts as a benchmark deal for the divestment of non-core public assets. The \$1.15bn deal involved a concession and franchise for approximately 35,000 meters and four municipal parking lots. The winning bidder, Chicago Parking Meters LLC (majority-owned by Morgan Stanley Infrastructure Partners), which was advised by Freshfields, retains all the revenues from the meters. The City retained the ability to decide which parking spaces will be metered, the rates for those meters and their hours of operation.

The City used a competitive bidding process with two qualified bidders participating in a final run-off. The winning bid included a commitment to replace traditional coin-fed meters with new pay-and-display machines that accepted cash or credit or debit cards. Two years earlier, the City granted a concession and lease over the Millennium Park Garages in downtown Chicago to another entity sponsored by Morgan Stanley Infrastructure Partners (where again Freshfields acted for the concessionaire) using essentially the same contractual structure. The Chicago deals are now being considered as a model for other city governments. Pittsburgh is expected imminently to choose the successful bidder for a concession of 11 garages, 333 surface lots and some 7,000 on-street spaces. The City of Hartford, Connecticut is looking to monetise its on- and off-street downtown parking. Authorities in Denver, San Francisco and Miami are said to be considering similar deals.¹⁰

Speaking at the time of the Chicago parking meter deal, Kent Rowey, head of Freshfields' US infrastructure practice, said that he expected this type of concession to become popular in the light of municipal budget constraints: 'I think city financial managers see monetisation of non-core assets, such as parking systems, as a ready source of funding to repay debt, meet budget shortfalls and potentially plug holes in underfunded long-term liabilities such as pension plans. In addition, there is a considerable amount of untapped value in public parking systems, both off-street and on-street, that can be realised by raising rates closer to private parking rates, automation and technical innovation, and better enforcement. Private capital is particularly good at implementing these types of improvements, and city governments' resources are then freed up to focus on delivery of core services, such as education. There's a lot of equity on the sidelines looking for places to invest, and infrastructure has historically been a stable, long-term investment.'¹¹

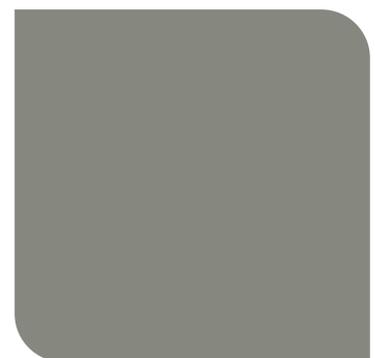
This trend will need to be accentuated to arrest the decline in the volume of asset sales over the past decade. It is also clear that countries such as Germany and Italy, which accelerated their divestiture programme in the early years of the decade, have started to run out of steam – matching the pattern shown by the UK in the previous period. None of France, Germany, Italy or Spain has completed an asset sale worth more than \$1bn in the past three years (the France Telecom deal was the most recent in June 2007).

To a greater or lesser extent, cash-strapped governments increasingly see asset sales as a key ingredient to meet the urgent need to raise revenues in the wake of the financial

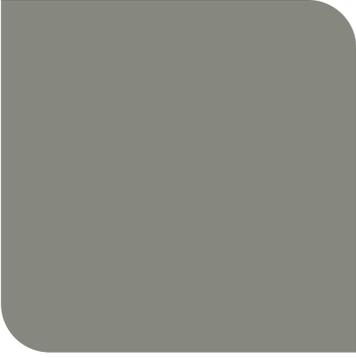
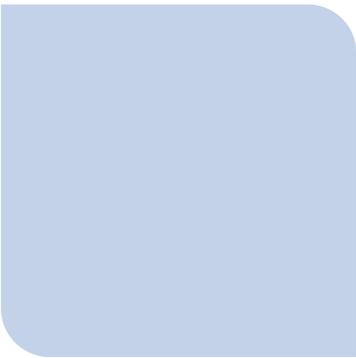
crisis. The evidence points to the sale or part-privatisation of non-core assets as well as the continued divestment of core areas such as transport and utilities. Public-private partnerships (PPPs) will be key to this agenda, as the Chicago parking meter example shows. In the US, other major monetisation deals include the 75-year lease of the Indiana Toll Road for \$3.8bn and the \$700m concession on Port of Oakland's Outer Harbor Terminal. Such deals also enable governments to get more bang for their buck both by gaining up-front revenues while also benefiting from long-term efficiency gains thanks to private sector involvement in former state-owned operations.



'Private capital is particularly good at implementing these types of improvements, and city governments' resources are then freed up.'



From assets to asset class



Governments' desire to raise money by offloading assets to the private sector is matched by a growing hunger among investors for assets that are both relatively low risk and can be held over the long term. Infrastructure assets score highly on both counts. Because they are long-lived, real assets that are costly and time-consuming to replace, they typically generate relatively stable cash flows that increase with inflation. As they are often linked to basic social needs, their financial performance should not be as sensitive to the economic cycle as many other asset classes.

At the same time, the longevity of these assets means they are well suited to investors such as pension funds, which need to hold assets that will deliver returns to cover their beneficiaries' increasing retirement spans. Many investment banks now see infrastructure assets as a separate class in which they believe their clients should invest. In an explanatory document for clients, UBS Asset Management says that although only a 'small fraction' of infrastructure assets globally are in private ownership, it predicts that this could change: 'Infrastructure has been attracting greater attention in the investment community and around the world.'¹²

Bridging the gap

The impact of the financial crisis and the shortfall in infrastructure spending over the recent past has created a powerful momentum for a radical re-appraisal of the way that governments address the need for major, long-term investment. Governments are keen to start infrastructure projects that can stimulate economic growth and create jobs. Yet the significant costs of these programmes – against a background of historically high deficits – will see governments appealing to private capital to play a much greater role and at a much earlier stage.

Traditionally, private investors have been wary of major ‘greenfield’ investments because of the size of the financial commitment involved, the planning and regulatory hurdles and the amount of the risk they must undertake. The construction of the Channel Tunnel and the high-speed rail link from the English end of the tunnel to London (High Speed 1 or HS1) are examples of difficult greenfield projects. Private firms greatly prefer involvement with brownfield regeneration projects or renewal of existing infrastructure.

However, as the Policy Exchange paper made clear, the UK – and, by extension, the other leading economies – will require hundreds of billions of dollars of investment over the next generation. Clearly a new model is needed. During the 1980s, pure privatisation was the dominant model but in the two subsequent decades, PPPs – and particularly the Private Finance Initiative in the UK – became the pre-eminent methods of delivering infrastructure investment, particularly for relatively contained projects such as schools and hospitals. However, there has been concern that PFI has been used as a way for governments to move debts

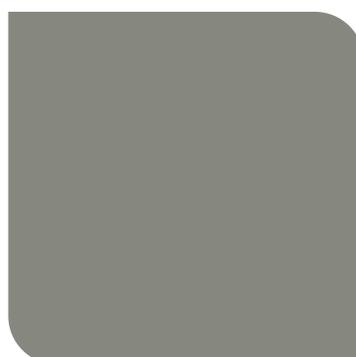
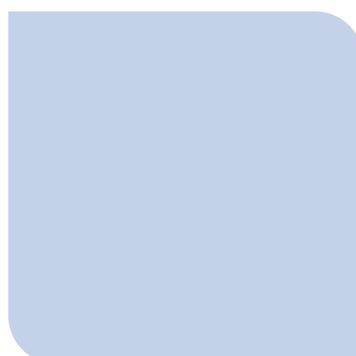
off balance-sheet while retaining the long-term liability to make payments under those contracts. Any model will need to be transparent so that all parties can see that the contract in question delivers value for money to the government and the taxpayers who take on the long-term risk and who will benefit from the project.

Governments have traditionally played the role of ‘promoter’ of major infrastructure projects, taking on much of the risk associated with project delivery by placing contracts for project construction before taking ownership of the completed project. Such a delivery method means that the asset sits on the state’s balance-sheet for decades, if not generations, before it might finally be sold off. Royal Mail, the British postal service that will be part-privatised under plans announced by the new Conservative-Liberal Democrat coalition government, was established as a Crown entity in 1516 by Henry VIII.

One innovation to come out of the PFI experiment was the design, build, finance and operate (DBFO) model that was used in the UK for the construction of 12 roads. These contracts were typically for 30 years and were designed to allow the concessionaire time to apply whole-life costing to the project road and allow repayment of debt over a similar timeframe. However, DBFO was applied to relatively small schemes and to ones where ownership ultimately reverted to the government because of the intrinsically important nature of major trunk roads.

The issue for governments, banks, infrastructure funds and their financial and legal advisers is how to find a model that will encourage private finance and business to take





a much earlier – and larger – role in the major infrastructure investment projects that will be needed over the coming decades, and to take on more of the associated financial and project delivery risk.

The first step is for governments to set out clear priorities for long-term investment spending. Government departments compete with each other for available public finance, defending their fiefdoms against rival demands on scarce resources. It is essential that governments centralise the strategic planning function to enable investors and contractors to plan for the long term.

There are signs that this intellectual argument has been won:

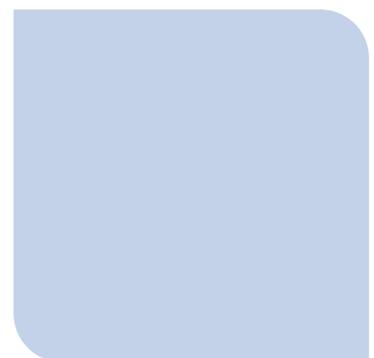
- Infrastructure UK was established in 2010 to advise the UK government on long-term infrastructure needs and provide commercial expertise to support major projects and programmes. It looks at all infrastructure networks and both the public and private sectors to identify and address cross-cutting issues;
- New Zealand has set up a National Infrastructure Unit that will publish national infrastructure plans every three years (see box);
- Infrastructure Australia was established in 2008 to take a new approach to national infrastructure planning, funding and implementation and has developed a blueprint setting out national infrastructure priorities;
- in France, a cross-departmental agency for territorial development develops and co-ordinates territorial strategies with local government in consultation with civil society and the private sector;
- Infrastructure Canada was established within the Department for Transport, Infrastructure and Communities in 2002 to act as a focal point for the Canadian government on infrastructure issues and programmes; and
- Mexico launched a major new National Infrastructure Plan in July 2007. Under the plan the government will invest additional revenue generated by fiscal reforms in developing the country's ports, airports, roads and railways, as well as water supply and treatment, irrigation systems and oil and gas generation.

New Zealand: forward thinking from Down Under

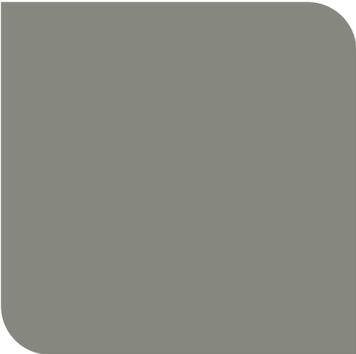
The New Zealand government last year established the National Infrastructure Unit to take an overview of the country's infrastructure priorities and provide cross-government co-ordination, planning and expertise. In particular, it does not duplicate or take over the role of other infrastructure-related government agencies.

In March 2010, it published the first national infrastructure plan. Although it found that the country's infrastructure was generally sound and that there were no 'obvious looming crises' in the near term, it identified five immediate infrastructure priorities: broadband, electricity transmission, regulatory reform, roads of national significance and the Rugby World Cup 2011. Identifying New Zealand's needs 10-20 years ahead will be a major focus of the next plan.

In a foreword to the document, Infrastructure Minister Bill English said: 'We expect that future versions [of the plan] will offer an increasingly comprehensive picture of significant infrastructure investments and policies at all levels of government and within the private sector, greater specificity about the infrastructure investment plans of government agencies, and updates on how the government is progressing towards its infrastructure goals.'



Taking a radical new road



Establishing a coherent long-term strategy is an essential but not the only condition for enabling long-term private involvement in major infrastructure projects. To achieve this, such strategy must combine the need for investment, the need to raise revenues and the appetite among investors by creating new models that allow governments to incubate projects by taking on early risk but divesting themselves more quickly than in the past.

The challenges of the current international fiscal situation demand a radical rethink of the way that major infrastructure projects are financed and organised. This covers two areas: finance and ownership. National governments will still play key roles in the development of infrastructure. Aside from the strategic planning described above, they are also able to underwrite financial risk, provide initial stage finance and design the regulatory regime. But do governments have to be involved with the whole of the project for the entirety of the construction period? Traditionally, that has been the case. However, the current pressure they are under to

reduce their fiscal deficits means that the ability of governments to deliver projects on the 'traditional' basis is becoming increasingly constrained.

The scale of current fiscal deficits means the financial burden will fall squarely on the shoulders of the private sector. There is clearly demand from the investment community for these types of assets; the issue is whether the market is structured to enable and encourage companies to take on asset-delivery risk. The fiscal crisis has only made this sort of innovation more important. The long-term nature of infrastructure investment means that companies will look to the capital markets to bridge the gap between the upfront sunk costs and the generation of revenues. The capital markets are still thawing after the freeze of 2007-2009. Policymakers are now engaged in a global review of financial regulation via the G20 group of politicians and the Financial Stability Board of regulators and central bankers. It is essential that regulators do not impose burdens that would have unintended negative consequences for project finance.

Office of Fair Trading probe into infrastructure finance

In May 2010, the UK's competition authority, the Office of Fair Trading (OFT), announced a 'stock-take' of the ownership of infrastructure assets. In particular, it was interested in looking at 'highly leveraged structures' and whether different forms of ownership – such as infrastructure funds and private equity – affected economic incentives to provide 'a good deal for UK consumers'.

The OFT will publish initial findings in the autumn of 2010. This study could clearly have significant implications for both majority and minority interest holders in UK infrastructure assets, particularly if the findings of this probe are used as a springboard to launch more targeted regulatory reviews and/or develop the OFT's approach to merger control. Until then, this announcement, which was not trailed, will raise a question mark in the eyes of investors over the state's regulatory approach when they are considering infrastructure investments.



The radical alternative proposed in this report is that the role of government in delivering major infrastructure assets would be as the 'incubator' of major infrastructure projects rather than the primary owner, and that governments become the intermediary with the private sector rather than simply the ultimate client. Rather than funding, building and eventually selling the asset or employing a mid-length DBFO contract, governments should look to incubate, build, intermediate and sell – to which this report gives a new acronym of IBIS.

Under this model, government plays a vital role in underwriting the

initial stages of financial risk in the project. In its report, Policy Exchange argues for governments facilitating and leveraging private sector capital investment in priority infrastructure projects and providing the scale of support required. It says that the state can legitimately take a low-risk role in providing guaranteed senior debt funding as a 'top slice' of the risk, with subordinated debt or equity taking the real risk. 'If the government takes the top slice of properly structured senior debt, while true equity or mezzanine capital takes the real risk of the project, this is a very low-risk proposition that can reduce the overall cost of capital meaningfully', it says.¹³

Green investment bank

One example of this idea of 'pump-priming' infrastructure projects comes from the UK. One of the last acts of the Labour government was to unveil plans for a green investment bank (GIB), which has been endorsed by the new coalition government. Although it is not clear what form the bank will take (in fact it is described as a fund rather than a bank), the former administration proposed injecting up to £1bn from the sale of infrastructure-related assets and aimed to match this with at least £1bn of private sector investment, creating a fund of approximately £2bn.¹⁴ 'It is expected that this will catalyse further investment to accelerate the rate of deployment of further projects. It is likely that the GIB will focus initially on offshore wind electricity generation', the Treasury said.

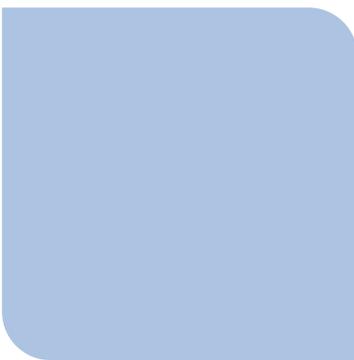
It envisaged that the GIB would provide co-investment alongside utilities and other infrastructure sponsors to 'augment the capital that they are able to invest within the constraints they face'. It would use that capital to leverage further investment by attracting a substantial amount of private sector investment from sovereign wealth funds and domestic and international pension funds and insurance companies.

The second element of the radical reform that needs to be undertaken is a shift away from the traditional concept of state ownership of new infrastructure projects. A year ago, Freshfields examined the state of finance for infrastructure.¹⁵ Its report, *Outlook for infrastructure: 2009 and beyond*, identified a log jam in the project finance system with the vast majority of projects languishing at pre-approval stage (the stage at which infrastructure projects are announced, but are estimated to be between three and 10 years away from the start of construction). It concluded that governments needed to look at changing the distribution of risk between the private and public sector, and should examine PPP models that included the permanent transfer of assets to the private sector.

An obvious example of such permanent transfer is privatisation, but in this case the sale occurs long after the public sector has built and operated the infrastructure. There are two options for adapting the new IBIS model into new-build projects. The first is a build, operate and own (BOO) model whereby the

government grants permission for the construction of a new power station, for example, and the private sector builds, owns and operates a facility, and sells the electricity to its customers.

However, where the scale of investment needed is greater than any private company or consortium can bear on its own, the IBIS model would allow the state to 'incubate' the project, first by providing early finance as discussed above and second by allowing ownership to pass immediately after construction is complete, tranche by tranche. One way of achieving this would be to allow major projects to be split into units, allowing the government to act as incubator for the whole investment but to exit from the project in stages. This might be relevant to the construction of a new network of power stations or a major new railway, such as (in the case of the UK) HS2. Inherent in this concept is the implication that the private sector takes on more of the financial and project risk in exchange for being able to take ownership of the asset at an earlier stage.



From HS1 to HS2

The rail link from St Pancras International to the Channel Tunnel was built by a private consortium, HS1. It took nine years to build 109km of new high-speed railway, the world's longest-span concrete high-speed rail bridge, 47km of cutting-edge tunnels and a refurbished station at St Pancras International. It opened in November 2007.

The key to the deal was an agreement in 1998 by the government to step in and underwrite nearly £4bn of new loans, the first time a British government agreed to give its backing to borrowing by a private company for a specific project. The financial support meant the Office for National Statistics eventually decided that London and Continental Railways (LCR), the parent company which is also a partner in the Eurostar train service, must sit on the government's balance-sheet. The UK government is about to start the sale process to divest itself of HS1. Plans for HS2, unveiled by the previous government in March 2010, are for a link from London to Birmingham, Manchester, the East Midlands, Sheffield and Leeds, with high-speed trains running from the outset through to Liverpool, Newcastle, Glasgow and Edinburgh. The 540km, Y-shaped network would have branches north of Birmingham running either side of the Pennines, would be capable of carrying trains at up to 400km/h and could be extended to other cities and to Scotland.¹⁶ If approved, construction would begin in 2017 with the first trains running by 2025, although the new coalition government may amend or cancel the proposals.

Rob Holden, former chief executive of LCR and now CEO of Crossrail, the cross-capital underground rail project, has said that the lesson of the HS1 is to proceed in stages, with the track from Birmingham to London being built first as a discrete project.¹⁷ The plan of the route would allow each section to be built as an independent project that could then be sold on individually.

Conclusion



Governments across the advanced economies face a twin challenge of meeting the needs for major infrastructure investment over the next generation while simultaneously reducing record deficits. Neither issue can be ignored for fear of endangering sustainable economic growth over the coming decades.

As with all crises, this situation creates an opportunity for innovative thinking. As this report shows, governments have embraced the idea of privatisation and asset sales to varying degrees over the recent past. Although future divestments – of which there are many in the pipeline – will only go a small way towards paying off the deficits, they point the way towards a radical new road for governments to travel when embarking on the next phase of infrastructure investment.

Despite the fiscal crisis, the current environment is fertile ground for encouraging the private sector to take a greater role in infrastructure investment. Financial investors such as pension funds are keen to acquire long-term assets to match their liabilities, and the experience of privatisation and DBFO projects has given the private sector experience in managing key national assets. The challenge is to harness this capability and encourage the private sector to take on more of the greenfield risk.

The next generation of investment will be of massive proportions – \$2.2 trillion in the US and £500bn in the UK alone. This is a greater quantity of financial risk than the private sector will be prepared to take on. This report has made clear that although governments have a vital role in supporting infrastructure, the nature of that role must change in three key areas:

- **strategic planning:** governments need to set out priorities for medium- to long-term infrastructure programmes. This strategy is best put together by a central unit that can oversee all areas of potential investment and avoid any competition for resources between individual governments. This will ensure that investors and contractors can plan ahead;
- **financial pump-priming:** governments can provide initial funding or underwrite financial risk. This could take the form of the state taking on the senior level of debt with the private sector taking on the riskier elements. Alternatively, governments could commit a small level of funding so as to leverage lending from the private sector; and
- **staged privatisations:** the IBIS (incubate, build, intermediate and sell) model proposed in this report sees governments dividing projects into units or tranches. This would allow them to exit from ownership and financial commitment on major infrastructure projects as they are built rather than selling the asset several years after completion, as has traditionally been the pattern.

Western economies are travelling through uncharted territory, faced with the need to restore order to the public finances while at the same time building the infrastructure that is vital to ensuring long-term sustainable growth. This report has set out a radical new road for governments to take to meet these twin challenges, and for the private sector to take so that it participates in financing and risk management at an earlier stage of infrastructure development and to a greater extent than in the past. The time to make that change in direction is now.



Notes

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- 13 See 2 above.
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