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MAKING AMERICA'S AIRPORTS GREAT AGAIN:

A review of the current models of US airport development projects

BY VINCENT CASEY, ANDREW SMITH AND KIMBERLEY DE LOOZE

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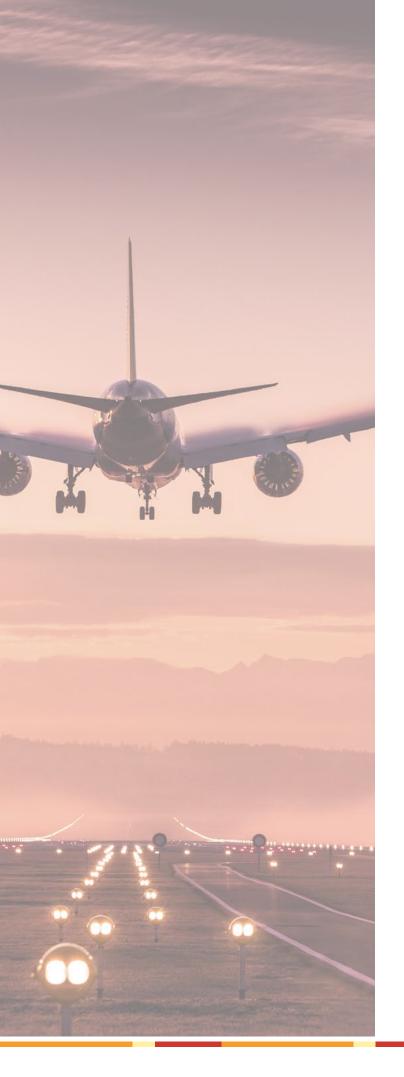
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An overview of this issue

I am delighted to introduce this eleventh issue of **Infra**Read, our biannual publication covering a range of legal and transactional issues relevant to the global transport and infrastructure space.



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US airports lag behind their global peers to the extent that not a single US airport is ranked in Skytrax's current list of the world's top twenty airports. The time is ripe, therefore, for a major investment programme to improve passenger experience at the country's airport hubs. This article summarises the current models being adopted for airport development and improvement projects right across the US, as well as summarising the proposed plans for privatising US air traffic control.

Public Private Partnerships and the New Economy: The changing face of the Saudi infrastructure market p10

The infrastructure market in Saudi Arabia is undergoing significant change. Since 1970, the country's population has grown sixfold, which has had a major impact on the need for all forms of infrastructure: from schools and hospitals to airports and roads. However, the current economic retrenchment taking place in the Kingdom has meant that its government can no longer dip into its sovereign wealth reserves to anything like the same extent that it could previously have done. This article describes the evolution of the Saudi projects market since the oil price crash of 2014, as well as exploring opportunities for the private sector to become involved in the delivery of the infrastructure which the country so desperately needs.

Unlocking the potential of Build to Rent housing: The key to solving the UK's housing crisis? p15

Not so many years ago, institutionally owned, professionally managed purpose-built accommodation barely existed in the UK. Now the "Build to Rent" market, as it is known, is growing rapidly, with tens of thousands of units either under construction or already built. This article explains why Build to Rent has become so popular in the UK, as well as describing the challenges it brings, which can differ significantly from those encountered on traditional housing schemes.

Waste-to-wealth initiatives:Examining policy settings in Asia-Pacific p20

This article, the third in our "Waste-to-wealth" series exploring the global Waste-to-Energy sector, focuses in this issue on the Asia-Pacific region, setting out the environmental and public health policy drivers which will typically apply. The article also takes a detailed look at the environment for developing waste projects in five of the larger and most populous AsiaPac territories: China, India, Indonesia, Malaysia and The Philippines.

Modern Slavery: Corporate accountability in the UK construction and infrastructure sectors p29

With the introduction of the Modern Slavery Act 2015, the UK Government has brought together corporate ethics and transparency in the context of human rights, by requiring certain large organisations to publish an annual slavery and human trafficking statement. This article describes the scope of this requirement, including its extra-territorial effect, by way of a case study, as well as providing pointers for good practice in terms of compliance with the legislation.

A question of balance: UK proposes measures to protect national security in the context of foreign investment p₃₄

In October 2017, the UK Government announced proposals for new rules to protect the UK's national security, particularly in relation to foreign investment. This was followed, in Marcy 2018, by the issue of proposed legislation to reflect these changes. This article summarises both the short-term and long-term measures which the Government is proposing, particularly those which have an impact on the transport, communications and defence sectors.

Treviso Hospital deal: Bringing social impact investing to PPPs p40

The Treviso hospital project is the largest greenfield hospital to have been developed in Italy in recent years. This article examines the use of a "social impact investment vehicle" on the project, and what this may mean for infrastructure deals in the future, both in Italy and abroad.

This publication is not intended to be a comprehensive review of all developments in the law and practice, or to cover all aspects of those referred to. Readers should take legal advice before applying the information contained in this publication to specific issues or transactions. If you have any comments about this edition or suggestions for future editions, please contact us at infraread@ashurst.com. If you would like to contact Ashurst please visit Ashurst.com/contactus and one of our team will be happy to help you.

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t is clear from the current level of design and construction activity at US airports that development and upgrade projects are being taken forward at an unprecedented rate. Given that not one US airport was included in the list of the world's top 10 airports in the 2017 Skytrax World Airport Awards, it is no surprise that significant improvements are seen as necessary by airports. In fact, the first US airport to make Skytrax's list is Cincinnati/Northern Kentucky International Airport at number 26, followed by Denver International at number 28. In total, only 14 US airports qualified for the list's top 100 spots.

Options available to airports desiring to implement improvement projects include:

- the use of contracts, including the use of design-bid-build or design-build procurements, which may also be coupled with long-term operation, maintenance and concession management contracts;
- the use of public-private partnerships (P3);
- airport terminal leases; and
- airport privatization.

In approaching improvement projects, airports must weigh the various advantages and disadvantages of each of these options and consider factors including cost-effectiveness, risk transfer to the private sector and the availability of public and private financing. This article analyzes the features of different models and discusses them in the light of recent airport projects in the US.

This article draws on the experience of Ashurst attorneys who have been involved with and are currently engaged on a

number of airport development and improvement projects in the US. These projects include the Denver Great Hall Project, the Newark Terminal A Redevelopment Project, the Kansas City Airport Project and two projects at Los Angeles International Airport: the construction of an automated people-mover facility and a consolidated rent-a-car center.

Airport infrastructure is also on the national agenda and features as a key area for infrastructure upgrade in the White House's "Legislative Outline for Rebuilding Infrastructure in America" released in February 2018 (the Infrastructure Principles). This article also discusses these principles and considers current proposals to privatize US air traffic control.

Public-private partnership

The popularity of P₃s in all sectors of infrastructure is on the rise in the US. A P₃ is a partnership between a government agency and a private sector entity. The term P₃ means different things to

different people but typically involves the private sector agreeing to design, build and finance a facility and to then operate and maintain the facility for a multi-decade term. P3 projects at airports are typically paid for either by milestone payments and availability payments from the public sector owner throughout the term of the contract, or by permitting the private sector entity to take a share of revenues generated at the airport (such as airline gate rental or retail concession revenues). In some cases a combination of public sector payments and revenue-sharing may be used. In any event, the private sector entity will be expected to finance the initial capital expenditure on the project and to recover this through revenue received during the term of the project.

On the one hand, P3s can be attractive to the public sector because they transfer the design and construction risk to the private sector and therefore – given the incentives for the private sector to finish on time – have a good record of completing on time and on budget. They can also be attractive to the public sector as the initial financing for the project is raised by the private sector and will not require day-one debt issuance by the public sector owner. In addition, a P3 will include an obligation to undertake the long-term operation and maintenance of the facility and therefore incentivizes the private sector developer to ensure that the lifetime cost and operational challenges of a facility are considered (and priced) at the time of design and construction.

On the other hand, a key disadvantage of P3s from the public sector perspective is that the risk transfer to the private sector comes at a cost, in terms of increased contingency costs and increased financing costs, which may not outweigh the benefits of using a P3 model for some projects.

LaGuardia Airport is operated by the Port Authority of New York and New Jersey (Port Authority) and is the third busiest airport serving New York City, and the twentieth busiest in the US. In 2016, work began at LaGuardia Airport on the largest P3 at a US airport to date. LaGuardia Gateway Partners – a consortium company comprising experts in the fields of airport design, construction and operation – will design, build, manage and maintain LaGuardia's new Terminal B under a 35-year lease agreement with the Port Authority under which LaGuardia Gateway Partners will have operational control of the new terminal (including control of airline and concession revenues generated from the terminal). A key reason that the Port Authority decided to use a P3 structure for this project was that the construction work needed to be carried out in a central part of an operating airport, and it was decided that this risk was best handled by the transfer of construction and operations risk to the private sector both during and after the construction period. The new terminal will be a 1,300,000 square foot building with 35 gates and is projected to cost US\$4 billion, with US\$2.4 billion being financed through the issuance of special facilities bonds. Equity funding will also be provided by the private sector sponsors. The consortium will pay the Port Authority an annual rent and revenue share, and debt is expected to be repaid through remaining revenues, passenger facility charges (PFC) and funding from the Airport Improvement Program (AIP), which is administered by the federal government to allow public airports access to funds to undertake development and improvement projects.

Denver International Airport in Colorado is the largest airport in the US by total land area and, as of 2016, the eighteenth busiest

airport in the world and the sixth busiest in the US by passenger traffic. In December 2017, Denver International Airport reached financial close on its renovation project for the Jeppesen Terminal's Great Hall. The US\$650 million renovation is being undertaken through a P3 model and will include the design, construction, financing, operation and maintenance of certain areas within the terminal. It is interesting to note that this project is limited to the consolidation of airline ticket counters, the consolidation and relocation of Transportation Security Administration screening areas, the modification of the baggage handling system and the redesign of the shopping, dining and meeter/greeter areas. The Denver Great Hall Project is particularly interesting because the concession agreement includes both an availability-based payment arrangement and a revenue-share feature. Under the airport's bond ordinance program the availability-based payments are funded from the airport's revenue fund at a junior lien level, which allows for senior debt to be paid out at a higher priority than the availabilitybased payments.

The automated people mover (APM) project at Los Angeles International Airport, which is the largest and busiest airport in the US, is set for financial close this spring. The APM will be a 2½-4-mile system which will carry up to 10,000 passengers per hour and connect the airport terminal to the Metro light-rail system and other transit services. This project will also be the first use of a P3 "design-build-operate-finance-maintain" model to design, construct and operate an APM in the US.

Following on from the APM project, the consolidated rent-acar center (CONRAC) project is the second P3 request for proposals to be released by Los Angeles World Airports (LAWA) as part of its US\$5.5 billion Landside Access Modernization Program at Los Angeles International Airport. CONRAC will house 23 rental car companies in one facility which will be connected to the airport terminals by the APM. The winning bidder will enter into a 29-year contract with LAWA, comprising a four-year design and construction phase followed by a 25-year operational phase. LAWA is expected to make milestone payments to the developer during the design and construction phase, and availability payments during the operations period.

Contract options

While many of the latest airport projects are looking to P3 models, a significant number of airport authorities have chosen instead to use a design-build model, where the private entity is engaged only to design and build the facility, and the airport then relies on its own revenues and public sources of funding to implement improvements. A notable example is Chicago Midway International Airport, following an earlier unsuccessful attempt at privatization (see further below). First announced in 2015, ground broke in January 2018 on a new US\$104 million facility at the airport, which is the second-largest metropolitan airport in Chicago. The project includes an 80,000 square foot security hall, which is expected to be completed in late 2019 or early 2020, and a US\$75 million renovation of the airport's dining options. Additional parking and an improved pedway are also on the airport's agenda. These improvements will be funded entirely by airport operations and federal government grants, and Chicago Midway International Airport will maintain full operational control of the facilities.

Newark Liberty International Airport is operated by the Port Authority and is one of three major airports servicing New York City. In 2015, based on passenger numbers, Newark ranked as the second busiest airport in the New York/New Jersey metropolitan area and the fourteenth busiest in the US. The existing Terminal A is the oldest terminal at Newark (having opened in 1973) and, despite two major upgrades in 1995 and 2004, is approaching the end of its useful service life. The US\$2.3 billion Terminal One Redevelopment Program includes the following elements:

- replacement of Terminal A with a new approximately 1,000,000 square foot, 33-gate common-use domestic terminal building, to be called Terminal One, and the construction of a pedestrian bridge providing direct access from the EWR AirTrain (the monorail service connecting the various airport terminal buildings) and a parking garage;
- a new aeronautical taxi-lane network and apron serving the new terminal;
- new frontage roads and bridges, utilities and site work that will serve the new terminal; and
- a parking garage and associated toll plazas serving the new terminal.

Unlike the redevelopment of Terminal B at LaGuardia, the new Terminal One at Newark will be located on what is essentially an undeveloped site adjacent to the existing Terminal A. Therefore, all of the work for the new terminal can be completed with minimal interference with existing operations and, accordingly, does not present the same challenges and risks as the redevelopment of LaGuardia Terminal B (where the key risk involved managing the interface of the new terminal construction with the continued operation of the existing terminal). After considering all the options, the Port Authority determined that the circumstances at Newark did not warrant the use of a full P3 with its associated risk transfer, and instead decided to procure the new terminal under a design-build contract. It is intended that the parking garage will also be procured as a designbuild, with the other elements of the redevelopment being procured through traditional design-bid-build. The Port Authority is separately procuring an



operation, maintenance and concessions contract for the new Terminal One (including managing gate allocation, security and concessions management). It has appointed an operator and concessions manager to advise on the design of the new terminal, with the expectation that this entity will subsequently be appointed as the long-term operator of the new terminal.

Moving west, in November 2017,
Kansas City voters approved a new US\$1
billion single-terminal design for Kansas
City International Airport to replace three
existing terminals. Kansas City International
Airport, located in Missouri, serviced
11.5 million passengers in 2017. The new
terminal will be built on the site of the
existing terminals over a period of 3-4 years.
Kansas City Council has promised that
the new development will be paid for by

airlines and fees, not tax dollars, and it is expected that debt to finance the project will be raised by the private developer. A memorandum of understanding was finalized with a developer in February 2018 and the parties are now working towards a final contract and design. The Kansas City Aviation Department will be responsible for all operation and maintenance of the new airport following handover of the project on substantial completion.

Terminal leasing

Another option available to airports is to lease an entire terminal to a private sector entity. While it is possible to lease a terminal to any private entity, generally a lease of this nature will be with an airline. The lease will have a multi-decade term and will typically include obligations on the airline to operate, maintain and



perform upgrades and improvements to the terminal in exchange for the airline having the right to receive all rental payments from retail concessions and to sub-lease gates to other airlines. The public owner will receive rental payments for the lease but will forfeit any opportunity to generate other profits from the terminal.

The Port Authority is currently soliciting master-plan proposals for a proposed US\$10 billion revitalization of John F. Kennedy International Airport (JFK) and has announced its intention to pursue an option that involves airline terminal leases. JFK is the primary international airport in the New York City area and was the sixteenth busiest airport in the world based on passenger numbers in 2017. It is likely that the Port Authority has made the choice to upgrade JFK through the use of airline leases on the basis that a number

of terminals at JFK are currently leased by airlines, and the structure is sensible for this airport due to the stand-alone nature of the terminals.

Based on the evidence to date, it does not appear that states, cities or authorities have a favored procurement approach to development projects and they may be willing to pursue a variety of approaches in the right circumstances. For example, following the success of its Great Hall Project, Denver International Airport is proposing to add an additional 39 gates by 2021 in a US\$1.8 billion redevelopment program. However, in contrast to its Great Hall Project, the airport is not looking to achieve this redevelopment through a P3 but is instead proposing to finance the improvements from its large capital budget and to retain operational control. The Port Authority is another example of a public entity selecting

different financing and development options on a case-by-case basis, taking into account the particular characteristics and needs of the airport in question: while it undertook the LaGuardia project as a P3, it undertook the Newark project on a fully contractual design-build basis and is likely to use a terminal leasing model at JFK.

Privatization

Airport privatization refers to the outright sale or long-term lease of an entire airport, and is another option available for implementing airport improvements and increasing airports' profitability and operation levels. The airport privatization process can be effected either under or outside of the Federal Aviation Administration's (FAA) airport privatization pilot program (APPP).

The FAA established the APPP in 1997 as a way of allowing airports access to sources of private capital for airport improvement and development. Under the APPP's present iteration, ten airports may be privatized under the scheme. In certain circumstances (which are described below), privatization under the APPP allows the airport owner to use the proceeds from the sale or lease of airport land for non-airport purposes (such proceeds must otherwise be used solely for airport operating capital) and can also exempt the sponsor from obligations to repay federal grants and return property acquired with federal assistance upon the lease or sale of the airport. However, in order for the public owner to keep the sale or lease proceeds from a privatization, the public owner must obtain consent from 65 per cent of airlines then operating at the airport. Only twelve airports have applied to the APPP in the past twenty years, of which only two have successfully achieved privatization under the program, with one of those being returned to public control after just seven years.

A report from the Congressional Research Service¹ suggests that the limited participation in the APPP is due to major stakeholders having different, if not contradictory, objectives and interests. An airport owner's incentive to privatize an airport is often the prospect of using the proceeds of the privatization to fund non-

[&]quot;Airport Privatization: Issues and Options for Congress" (August 2017).



airport purposes and, thus, to effectively monetize its airport asset. However, as noted above, such a reallocation of proceeds would require approval by 65 per cent of the airlines using the airport, and airlines are unlikely to approve an arrangement which is likely to result in an increase in fees (taking into account private sector profit motives) unless these funds are being routed back to pay for airport improvements. Airlines will therefore need to be convinced of other benefits, such as additional investment or improvements to the operation of the airport that would not be possible without a privatization. Such an arrangement may be difficult to justify given that public airports have access to many other sources of funding (e.g. federal grants, tax-exempt bonds and PFCs) which reduces the need to access private forms of capital and financing to undertake improvement projects.

The 2012 "Considering and Evaluating Airport Privatization" report of the Airport Cooperative Research Program points out that the US is distinct from the rest of the world in terms of the substantial input and control in capital investment decisions that airlines have as a function of the prevalence of use and lease agreements between airlines and airports. Such input and control can make it more difficult for private operators to maximize profits at airports. These tensions coupled with the average three-year approval timeline under the APPP may explain the limited success of this type of privatization.

Successful privatizations

There have been only two successfully-closed airport privatizations in the US: the Luis Munoz Marin International Airport in San Juan, Puerto Rico and Stewart International Airport in Newburgh, New York. Of these two, the Luis Munoz Marin International Airport remains the only US airport with a public-private structure under the APPP. The airport privatized operations in 2012 in a 40-year concession and renovation deal, with US\$615 million paid upfront to the airport and an ongoing revenue-sharing arrangement. Although there was significant political and social opposition to

the privatization, the then Governor of Puerto Rico pointed to the immense fiscal pressures being endured by the Commonwealth and noted that there were no funds available for investment in the airport's infrastructure. Privatization was chosen as the right balance to continue airport improvement while preserving the Commonwealth's resources.

Stewart International Airport became the first airport to privatize its operations in 2000, when the New York State Department of Transportation granted a 99-year lease to a private sponsor. In 2007, however, the airport reverted back to public operation after attempts at increasing passenger traffic proved unsuccessful and the Port Authority bought back the remaining term on the lease for US\$78.5 million.

Current active applications

A preliminary application for the privatization of Westchester County Airport in New York was accepted under the APPP in December 2016. In November 2017, Macquarie Infrastructure Corporation was chosen from three bidders to run the airport. If agreed by County legislators, the deal will include a 40-year lease, US\$595 million in payments and US\$550 million in capital funds to improve the airport's infrastructure. However, recent media and industry reports suggest that the deal may be in trouble, with a change in administration and Macquarie's letter of credit backing the concession expiring in early 2018.

The FAA approved a preliminary application under the APPP from St. Louis Lambert International Airport in St. Louis, Missouri, in April 2017. A selection committee announced a winning consultant team in January 2018 that will give a recommendation on whether to pursue privatization.

Hendry County Airglades Airport in Clewiston, Florida received preliminary approval under the APPP in October 2010. In 2014 the FAA approved a management contract, and the County is currently working with the proposed private operator to finalize its APPP application.

Withdrawn applications

The remaining seven airports withdrew their applications at various stages and for various reasons, including lack of public support and the inability to obtain financing or suitable construction bids. In fact, Chicago Midway International Airport made two attempts at privatization under the APPP, neither of which was successful. The airport first received initial approval from the FAA to lease the city-owned airport to private investors, but an initial deal was delayed due to the selected consortium's inability to secure financing in the midst of the financial crisis. The airport later abandoned yet another attempt in 2013, after one of the two groups bidding for the lease withdrew. It has since opted to undertake large-scale renovations without any private sector involvement, as discussed above.

Air traffic control

Privatization of an airport does not include privatization of the airport's air traffic control functions. While airports in the US are generally owned and operated at the state and local level, air traffic control (ATC) is operated and controlled at the federal level. However, changes to the APPP and the ownership of air traffic control may be coming in the near future. The FAA's existing authorization was set to expire on September 30, 2017 but Congress initially extended the reauthorization deadline to March 2018 and has now further extended it to September 2018, avoiding a partial shutdown of the agency.

Part of the reason for delay in passing a long-term reauthorization bill is a debate over whether to privatize the air traffic control system. The House FAA reauthorization bill earlier this year provided for ATC privatization, although this was ultimately dropped for the further short-term extension to September 2018. In contrast, the Senate is opposed to ATC privatization and the Senate bill included a controversial First Officer Qualification rule, which allows for additional avenues for pilots in training to meet the flight hours requirement. The National Association of State Aviation Officials (NASAO) is of the view that, because these stakeholders are pushing different, but equally controversial, changes this decreases the likelihood that Congress will pass a multi-year authorization bill in the immediate future. Failure to pass such a long-term bill is likely to cause airports to be even more wary about beginning the long road to privatization under the APPP.

Infrastructure principles

The White House issued its Infrastructure Principles in February 2018, which offer benefits for airport infrastructure. The Infrastructure Principles outline a framework to remove the current limitation on the number and size of airports that can participate in the APPP, and to decrease the percentage of airlines required to approve privatization from 65 per cent to a majority vote. The White House asserts that taking such action would reduce barriers to alternative project delivery for airports, as well as providing more flexibility for carriers to approve privatization.

Other measures relating to airports which are recommended in the Infrastructure Principles include:

 amending the law (49 U.S.C. 47107) to limit FAA approval and oversight of non-aviation development activity, to create more efficient FAA oversight of critical airfield infrastructure;

- clarifying the authority under the AIP (49 U.S.C. 47110) to permit additional financial incentives, along with profit margin, for contractors to increase work efficiency and reduce project completion times;
- revising statutory requirements for the AIP to shift FAA oversight from grant applications to post-expenditure audits to expedite conveyance of funds to sponsors; and
- amending project eligibility in the Transport Infrastructure
 Finance and Innovation Act to enable the offer of loans and
 other credit assistance to non-federal airport projects (e.g.
 renovated or new passenger terminals, runways and related
 facilities) to incentivize project delivery for airports and to
 accelerate overall improvements in airport infrastructure.
 It remains to be seen whether the Infrastructure Principles

will become law. In addition, the extent to which they will have any significant impact on the rate of improvement, the number of airport development projects or the development delivery models selected remains unclear. However, it is certainly clear that the current administration is prioritizing the development and improvement of airport infrastructure.

Looking to the future

It is clear that US airports need investment and that there are a wide range of tools and models available to airport owners to implement and finance these improvements. Every airport project is different and the best way to implement improvements will likewise differ from project to project, as is demonstrated by the Port Authority examples referred to above. Airports need to find ways of effectively weighing all available options to determine the best fit in each individual case.

Leveraging the private sector to make use of its ability to take on and manage risk and to implement best operational practices to drive growth needs to outweigh the increased financing costs of doing so. Proposed changes to the law may also improve the attractiveness of using P3s or privatization. Ashurst is well placed to guide public and private sector clients through the complex considerations and challenges associated with any airport infrastructure project.



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his article explores the changing nature of the infrastructure market in Saudi Arabia and, in particular, the move towards alternative project delivery structures and the impact of this on private sector investment opportunities.

The infrastructure market in Saudi Arabia is in the throes of a major transition. The government is increasingly seeking to deliver much-needed world class infrastructure to its people, but at the same time to limit its upfront capital expenditure. As a result, the government has been reconsidering its approach to project delivery, actively seeking to involve the private sector in ways which it previously had not been able to do. The buzz in Saudi Arabia (and the GCC region generally) around the anticipated flood of Public Private Partnership ("PPP") projects centres on the efforts of the Saudi government to ensure that it meets the ever-growing needs of its people, while not dipping further into its sovereign wealth reserves – reserves which took a severe battering following the oil price crash in 2014. This article explores in more detail the evolution of the Saudi projects market since the oil price crash of 2014 as well as exploring the various opportunities on a sector-bysector basis.

The need for change

Since 1970 the population of the Kingdom of Saudi Arabia ("KSA" or "Saudi" or the "Kingdom") has grown sixfold – a rate faster than

China. As a result, the overwhelming majority of the Saudi population is young, requiring healthcare, education and employment which, in most cases, the country's infrastructure is incapable of delivering to the required level. This has created a huge challenge for the Saudi government: there is a pressing need to upgrade schools, hospitals, parks, airports, roads and railways precisely at the time when the fiscal squeeze is making this harder to do.

As a result of recent upsurges in their populations, some key themes have risen to the top of the agendas of many of the region's governments, and in particular, that of the Saudi government. These include reform of government institutions and legal frameworks as well as a move towards accessing private sector intellectual and financial capital through partnership programmes. In KSA, for example, this has now manifested itself in government policy. The youthful new leadership in KSA has publically embraced an agenda not just of public sector reform but also of massive infrastructure development. The government acknowledges that a failure to meet these challenges would be disastrous for the Saudi people. But the question remains: how can the government commit to funding and delivering such projects

when traditional sovereign wealth funding for projects is no longer an option?

Opportunities – Vision 2030

It was in response to this challenge that "Vision 2030" was announced in June 2016. In launching Vision 2030, deputy Crown Prince Mohammed Bin Salman (who has taken on a hugely high-profile and important role in Saudi politics in recent years) has effectively set the agenda for a 15-year privatisation of Saudi Arabia's government-driven economy. Vision 2030 includes a key strategic objective of utilising private sector finance to pay for, and to deliver, public services, as well as to use concession-based procurement models, such as PPP contracts, to deliver major infrastructure projects. This enables off-balance-sheet funding for such projects, but it also involves private companies charging Saudis for public services, something which is unfamiliar in a country where the population has historically relied on the state to deliver social benefits without charge. Ultimately, it is hoped that the upside in terms of employment opportunities (especially in light of the overwhelmingly young Saudi population) will counterbalance any cost of living increases and associated negative publicity which such a shift in procurement strategy may bring.

In terms of infrastructure, the plan is to create, among other things, a regional logistics hub within KSA with linked domestic and cross-border infrastructure. As an example, the plan aims to increase the private sector cost contribution for the development and operation of both port projects (increasing from 30 per cent to 70 per cent), and rail projects (increasing from 5 per cent to 50 per cent). As part of this drive, the Saudi government has allocated an additional 5.5 per cent of spending to infrastructure in its 2018 budget, when compared to the previous year's budget.

As part of Vision 2030, the National Transformation
Program (the "NTP") exemplifies KSA's commitment to financial
diversification. Strategic goal number 6 of the NTP aims to expand
the privatisation of governmental services in order to create
an environment in which local and international investors are
attracted to Saudi investment opportunities. This ties in with the
efforts of the National Centre for Privitisation and PPP (the "NCP")
which was established by the Ministry of Economy and Planning.
The aim of this shift in focus is to move investment away from
the public purse and to invite more private sector participation.
It is recognised that such participation will only come if the right
framework is in place, and by demonstrating the government's
commitment to shifting towards a more internationally accepted
risk allocation profile in public sector procurement.

The changing face of Saudi procurement – the National Centre for Privatisation and PPP and the new legislative framework

The NCP was specifically established by the Saudi government to advance the role of privatisation and PPPs in KSA. The royal decree establishing the NCP empowered it to begin developing a PPP framework which will apply across sectors and throughout the Kingdom. While still in its infancy, many consider the establishment of the NCP to be the first step towards developing

a solid institutional framework, with a centralised approach to documentation and risk, which will aid the successful and expeditious delivery of PPP projects across the Kingdom.

A key and immediate challenge for the NCP is the existing regulatory framework for the procurement of "mega-projects" in Saudi Arabia. Having the right regulatory framework in place is essential to providing a sound foundation for regulating a PPP market, ensuring that projects are developed in an appropriate manner and enabling the market to mature in a more structured way. Generally speaking, however, current Saudi procurement laws are outdated and really only appropriate for small-scale procurements. Despite this, at the moment these procurement laws have to be applied to large-scale projects, so that the same law applies to procuring a short-term low value services contract as it does to buying a twenty billion dollar metro system.

In addition, the existing procurement regulatory framework contains a number of obscure risk allocation provisions which the international private sector market sometimes has difficulty accepting, including such matters as private sector limitations on termination rights. This can prove to be a major hurdle for private financing, particularly as industry experts have not yet reached a consensus on how the laws should be applied.

There is now a new focus on addressing this. As PPP is seen as the procurement model of the future, steps are currently being taken to introduce PPP-specific legislation in the Kingdom to enable PPP projects to be delivered outside the existing procurement framework – a vital step if the NCP mandate is to be achieved. It is worth noting that, to date, a number of other GCC markets have been successful in implementing new PPP laws, which has led to a more stable and successful PPP market. For example, Dubai and Kuwait introduced new PPP laws in 2015 and projects are currently in the process of being procured under both of these legal frameworks. These laws create more certainty for the private sector and have instilled greater market confidence than in those GCC markets which have yet to implement such laws.

Is PPP the future of greenfield procurement in Saudi?

With the establishment of the NCP, the Saudi government has sent a clear message to the private sector: it sees the future of its infrastructure development sitting with private sector investors and will readily look to the privatisation of assets and industries. Despite not having a track record in the development of privatisation models, the NTP makes clear that this is the preferred procurement model for the future, especially for large and complex projects. Consideration will be given principally to PPP structuring, but Export Credit Agency-backed financing and capital raising through bond issues are also on the rise and are likely to increase in prominence in the future.

The attractiveness of PPP structures to the Saudi government is straightforward: the initial capex to create the asset is funded by the private sector, thus reducing the fiscal strain on already stretched budgets by keeping the cost of the asset "off the government's books" for accounting purposes. In addition, PPP allows governments to reduce their technical and operational risk exposure by transferring these risks to the private sector, which is generally considered more adept at delivering major infrastructure on time and on budget.

Jonathan Reardon, "Saudi Vision 2030: What Does It Mean for Your Industry?", (September 2016).



However, governments (especially regional governments new to the procurement model) often fail to realise that the PPP model of project delivery is not all "upside". The asset is not "free", and the financing arrangements will require the government to guarantee debt pay-out should the project collapse. Also, given the difference in the cost of funds between the public and private sectors, a government will generally pay more over the life of the asset (on a non-risk-adjusted basis) and may also need to provide financial security to lenders in relation to its capacity to pay when it comes to the operational phase. The eventual realisation that the government will be required to make such payments – usually in the form of an availability or performance fee – has been the stumbling block for many regional PPPs and it remains to be seen how these issues will be addressed in the upcoming Saudi programme.

Getting the detail right in terms of risk allocation and payment streams is vital to attracting market interest. For example, the original Saudi Landbridge project was envisioned as a PPP but its term and revenue risk profile meant that it was not attractive to the market and the project was unable to get off the ground. However, the market has evolved considerably since then and, with the right risk profile, the project could be relaunched as a PPP. The NCP will hopefully take into account the lessons learned from this exercise in the development of its approach to project risks.

Opportunities in the Saudi infrastructure market

It has been reported that the longer-term pipeline of planned projects in the GCC region as a whole totals approximately US\$2.4 trillion, with Saudi Arabia acting as a market leader.² The KSA is estimated to account for between US\$800 billion and US\$1 trillion in pipeline projects, the UAE for US\$600 billion, Qatar for US\$200 billion and Kuwait for US\$175 billion. The opportunities presented by such a pipeline of spending are very significant; the forecast for project awards is strong, and 2018 is likely to be seen as the start of a true recovery from the oil crash.

In terms of PPP projects specifically, it is reported that there is a total of US\$100 billion in planned PPP projects across the GCC, with Saudi Arabia accounting for approximately US\$43 billion of this.³ However, to date, the delivery of PPP projects in the Saudi infrastructure market – other than in ports and airports – has been patchy. It is understood that KSA is likely to rely on PPP to build its major new metro and train projects, including the Makkah Metro and Saudi Landbridge project,⁴ and programmes are also being developed in housing, healthcare and education, as outlined below.

Oscar Rousseau, "GCC construction pipeline worth over \$2tn" (February 2018).

³ Arabian Business, "Total value of PPPs in Saudi Arabia nears \$43bn" (November 2017).

⁴ The NCP is currently procuring professional support services in order to develop a pipeline of rail and transport projects through PPP, projects with a combined value in excess of US\$50 billion.



Forthcoming opportunities – sector-by-sector summary

Housing

With Vision 2030 now well under way, the Saudi government is placing a key focus on improving its housing sector. It aims to increase the level of ownership by Saudi families from 47 per cent to 52 per cent by 2020.⁵ Currently, it is reported that there are over 1.5 million Saudis on the waiting list for affordable housing,⁶ a level which is deemed unacceptable by the Saudi government. One way in which the NTP is seeking to address this is through the involvement of the private sector in the financing of housing projects. Despite the fact that, as yet, the PPP model is still very much in its infancy in the housing sector, in the last few years a number of memoranda of understanding (MoUs) have been entered into with developers from Turkey, South Korea and China, as well as with a number of regional developers,⁷ with a mandate to build privately-funded housing. These MoUs are being used as pathfinders for the private sector delivery of Saudi's pressing housing needs.

In 2017, the Ministry of Housing announced a US\$70 million housing project to be located in the eastern district of Riyadh.⁸ Also in 2017, Saudi Aramco announced plans to develop a housing

Source: Vision 2030, English translation, p28.

- 6 Ministry of Housing, "Housing Ministry plans 462-unit project for Riyadh" (March 2017).
- 7 Jamal Hassan Ghaznawi, "PPP can help solve Saudi housing shortage" (March
- Ministry of Housing, "Housing Ministry plans 462-unit project for Riyadh" (March 2017).

PPP project for workers on the East-West Corridor programme.⁹ Saudi Arabia has also recently committed itself, alongside a Chinese and South Korean consortium, to developing a US\$100 billion scheme of one million low cost homes over the next few years.¹⁰

Healthcare

In relation to healthcare, it is estimated that Saudi Arabia will require almost 16,000 hospital beds in 2018 (almost half of all beds in the GCC region) as demand continues to increase. To cope with this increased demand, Saudi Arabia's Health Ministry recently announced the launch of the healthcare privatisation programme, which aims to privatise 290 hospitals and 2,300 primary health centres by 2030.¹¹

One recent healthcare PPP project in KSA is the US\$350 million joint venture between Saudi Trans Sadara Company and China International Development and Investment Corporation Limited to build four hospitals in Dammam, Jubail, Riyadh and Jizan.¹² Another PPP has been agreed between King Saud University and InterHealthCanada for the development of a SAR500 million hospital with 120 beds.¹³ The hospital, which will cover all areas of specialisation, will see King Saud University earn a percentage of the hospital's revenues, regardless of whether the hospital is running at a profit or a loss.¹⁴ In addition, there are plans in development for a new hospital, the King Faisal Hospital, with early indications that it will be procured by way of private sector funding.

Education

Private sector involvement in education is another key item on Vision 2030's agenda, most notably through the "Action Programme" launched by the Minister of Education.¹⁵ It is envisaged that this will shift the government's role from one of providing education services to regulating and monitoring those services.¹⁶ Strategic objectives 7 and 8 of the NTP are particularly relevant to private sector participants, namely: "Develop creative financing methods and improve the educational system's financial efficiency" and "Increase Private Sector Participation in the Education Sector".¹⁷

In order to push these objectives forward, in early 2018 Saudi Arabia's Tatweer Buildings Company invited firms to express interest in a contract to design, build, finance, maintain and transfer 60 schools, to be located in Jeddah and Makkah. This request comprises the first wave of KSA's national schools PPP programme, under which it plans to procure a total of 300 schools across the country.¹⁸

Andrew Roscoe, "Saudi Aramco plans housing PPP project" (December 2017).

¹⁰ Katie Paul, Marwa Rashad, "Saudi Arabia says close to major deals in \$100 billion housing scheme" (May 2017).

¹¹ IMTJ "Saudi Arabia launches healthcare privatisation programme" (February 2018).

¹² Gulf Business "Healthcare in Saudi Arabia – where are the opportunities" (May 2017).

¹³ Arabian Business, "Saudi-Canadian PPP to build \$133m hospital" (May 2016).

¹⁴ InterHealth Saudi Arabia, "King Saud University Endowment" (2017).

Mena Herald, "Saudi Minister of Education launches Action Program to strengthen Public-Private Partnership in line with Vision 2030" (January 2017).

¹⁶ Francis Patalong, "Vision 2030 and the Transformation of Education in Saudi Arabia" (August 2016).

¹⁷ http://vision2030.gov.sa/sites/default/files/NTP_En.pdf (pages 60 and 61).

¹⁸ Reuters "Saudi government announces tender to build 60 schools" (January 2017).



Transport

The transport sector in Saudi Arabia is regarded as one of the most significant markets for PPPs in the region. The NCP is currently in the market for advisers to develop a programme of PPP procurements for new metros in each of Jeddah, Makkah, Madinah and Dammam – a multi-billion dollar programme. In addition, the development of the King Hamad Causeway (a new road/rail causeway between Saudi Arabia and Bahrain, to be procured by way of PPP) is currently under way¹⁹ with advisers initially anticipated to be appointed in the first quarter of 2018 and for prequalification requests to be issued in the second quarter of 2018. However, this initial appointment is not yet in the market so we anticipate that these timelines will slip somewhat.²⁰ In addition, it is understood that the previously ill-fated Saudi Landbridge project is likely to make a reappearance, suitably restructured in order to make it more palatable to the market.²¹

Saudi Arabia has also gained traction in the aviation sector and, following the successful US\$1.2 billion Medina Airport PPP project some years ago, the government is aiming to privatise all of its airports by 2020. As a result, the process is currently under way to transfer ownership of these assets from the General Authority of Civil Aviation to the General Aviation Holding Company, which is wholly owned by Saudi's Public Investment Fund, all in an effort to facilitate such privatisation. Turkey's TAV and the local Al-Rajhi Holding Group have been awarded three airport PPP projects at Hail, Qassim and Yanbu.²² Lebanon's CCC, Munich Airport and local contractor Asyad Holding won a fourth PPP bid for Taif International Airport, and local contractor Almabani General Contractors has been awarded the contract for the upgrading of Al-Wajh domestic airport.²³ More opportunities are expected to come to market shortly, with plans to renovate Jouf, Ahsa, Najran, Qaisumah, Turaif

19 Reuters, "Saudi and Bahrain planning new road and rail causeway" (June 2017).

- 22 Michael Fahy, "TAV and Al Rajhi land two Saudi airport deals" (April 2017).
- 23 Jennifer Aguinaldo, "Contractor wins Saudi Arabia airport package" (May 2017).

and Rafha airports, although the latest information is that these will be pure EPC-type ("Engineer, Procure and Construct") procurements rather than any form of PPP. There is also talk of the development of a sixth terminal at King Khalid International Airport. ²⁴ In addition, Saudi Arabia's Royal Commission for Jubail and Yanbu is expected to issue a request for prequalification in 2018 for a new airport PPP project in Jubail, following a feasibility study conducted by KPMG. ²⁵

Renewables

The NTP sets ambitious targets for Saudi Arabia's production of renewable energy: 9.5 GW by 2030 and, in the interim, 3.45 GW by 2020. Renewable energy is expected to require investments of between US\$30 billion and US\$50 billion by 2023. The government is currently tendering a number of projects, including a 400 MW wind power plant in Dumat Al Jandal. This wind plant is part of the first round of the country's renewables programme. It is envisaged that such renewables projects will provide many interesting PPP opportunities for investors in the future.

The Saline Water Conversion Corporation, a state desalination provider, has recently signed a US\$422 million contract with South Korea's Doosan Heavy Industries & Construction for the engineering, procurement and construction of an independent desalination project. This project, one of eight planned in the Kingdom, is required to meet the rising demand for clean water, which needs to be increased by 2.2 million cm/d by 2020.²⁹ The project is to be delivered as a PPP.

The future of infrastructure in Saudi Arabia

The announcement of Vision 2030 was a clear and decisive move by the Saudi government signalling its expectation that private sector participation in the future development of its much-needed "mega" infrastructure projects is set to increase significantly. The renewed focus on PPP as the favoured delivery model for private sector participation undoubtedly increases opportunities for the private sector in the Kingdom. However, in order to make the Saudi market a genuinely attractive one for international investors, the Saudi government will need to ensure that the structures it adopts for PPP projects (in terms of risk allocation, payment streams, etc.) reflect international market norms, so that potential investors are encouraged to focus on the Saudi market rather than on other global opportunities.

- 24 Jennifer Aguinaldo, "Saudi Arabia Announces new airport terminal" (July 2016).
- 25 Jordan Bintcliffe, "King & Spalding advises on Jubail airport expansion PPP" (July 2017).
- 26 Fortune Editors and Reuters, "Saudi Arabia Will Invite Bids for Renewable Energy Projects in April" (February 2017).
- 27 IJ Global, "Dumat Al Jandal Wind Farm (400MW)PPP" (March 2018).
- 28 JD Supra, "Saudi Arabia PPP Update Vision 2030" (April 2017).
- 29 Steel Mills, "S. Korean contractor wins Jeddah desalination EPC contract worth USD422 min" (April 2017).



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²⁰ Reuters, "Saudi and Bahrain planning new road and rail causeway" (June 2017).

²¹ Jennifer Aguinaldo, "Team nears completion of Saudi Landbridge design" (March 2017).



urpose-built, institutionally run rental housing is a major growth sector in the UK. The development pipeline has grown fivefold in just five years, and investment in the sector is estimated to reach £50 billion by 2020. We provide a guide to this growing market.

A few years ago, institutionally owned, professionally managed, purpose-built residential accommodation barely existed in the UK. Now, the "Build to Rent" market, as it has become known, is growing strongly: nearly 20,000 Build to Rent units have been built in the UK, and over 80,000 more are either in planning or under construction. Both local and national government have come out strongly in favour of the development of Build to Rent as a means of increasing the supply of high quality housing in the UK. UK and international investors, as well as a wide range of developers and builders, are seizing the opportunity: UK investors such as Legal & General and M&G have been joined in the market by investors from North America, the Middle East and Australia; and builders and developers such as Telford Homes, Balfour Beatty and Willmott Dixon have been actively promoting Build to Rent schemes.

Build to Rent schemes bring specific challenges and opportunities that are different from those encountered in traditional housing which has been built for sale, or other real estate and infrastructure investments. This article looks at these issues, and how they are being addressed in practice.

What makes Build to Rent different?

Build to Rent accommodation is purpose-built, institutionally owned, professionally managed private rental accommodation. It is distinct from traditional private rental accommodation, which, typically, consists of individual flats and houses that have been designed with owner-occupiers in mind, and which are let by private "buy-to-let" landlords who own at most a handful of properties. Although some of this traditional private rental housing is of very good quality, many units in this sector are poorly managed and ill-suited to the tenants using them, giving the sector a bad name both with renters and policy makers.

The British Property Foundation (BPF) has proposed a definition of Build to Rent, which proposes that developments are:

- newly developed, or converted from other uses, and designed specifically for renting;
- in blocks of at least 50 units (or adjacent blocks providing at least 50 units in aggregate), providing sufficient scale for high quality services to be provided;
- specifically dedicated to private rental for a specific period (typically 15 years);
- owned by a single owner; and

 managed in an integrated way, delivering high standards of management and service including comprehensive maintenance.

Why now?: the housing crisis is the main reason...

Why has Build to Rent suddenly come to prominence, when the UK's house building industry has, for decades, been so dominated by building houses for sale?

Build to Rent accommodation is not a new phenomenon in other global markets. In North America, for example, the so-called "Multifamily" sector is well established, and delivered over 250,000 new units across the key US markets in 2017, and in Germany and the Netherlands, fully 45 per cent of institutionally-held property is residential. However, it is only now that the model is being successfully imported to the UK.

The principal reason for the rise of Build to Rent is the shortage of suitable housing across large parts of the UK. The supply of new houses has been failing to keep up with demand for a number of years, and prices have been rising to an extent that many individuals and families have been priced out of the market. It is estimated that the UK needs over 300,000 new homes per year to satisfy demand, but in 2014 only 112,370 homes were completed: as a result, the average house now costs almost eight times average earnings, an all-time record.

Build to Rent can help with the housing shortage in five ways:

- firstly, Build to Rent can be delivered faster than housing for sale, as it does not have the same issue of market saturation risk. No house builder will bring a 2,000-unit scheme to market in one go, on account of concerns that releasing such a large number of properties at the same time will depress sales value, whereas a rental landlord will often be confident of letting a scheme of that size rapidly;
- secondly, Build to Rent investors will often look to build larger schemes than house builders. As can be seen from the BPF definition of Build to Rent, 50 units is often seen as the minimum size for a Build to Rent scheme, and developers often look for bigger schemes in order to drive economies of scale: for example, Quintain are currently delivering 5,000 units at Wembley Park;
- thirdly, Build to Rent offers an attractive option for those who
 are unable or unwilling to buy their homes allowing people
 to live near the jobs and services they need;
- fourthly, Build to Rent is a way of attracting alternative sources
 of capital into the UK house building market: traditional house
 building with high-risk and short investment cycles does
 not appeal to pension funds seeking long-term income
 whereas Build to Rent is ideally suited to them;
- fifthly, because Build to Rent investors are looking for returns over a period of decades, it is hoped that Build to Rent investment will be less sensitive to economic cycles than house building for sale. Private house buyers are inevitably very sensitive to immediate economic changes, making house building notoriously stop/start, whereas long-term investors who can see a long-term demand for the product may be keen to snap up bargains in a downturn.

...but other factors have come together to help

Historically, the biggest issues with getting Build to Rent schemes built were making the numbers work and persuading investors and policy makers to believe in the product. In the past few years, both local and national government have come to see the potential for Build to Rent, and have given the sector encouragement — although more would be welcome. Certain planning authorities (in particular, the Greater London Authority (GLA)) have adapted their existing planning frameworks to encourage Build to Rent, and both Homes England (the Government's housing agency) and the GLA have given financial support to Build to Rent, through a combination of direct investment, loans and guarantees. The Government has also made traditional private buy-to-let investment less appealing through tax changes, making space for institutional investment in the rental sector — although, as we will see later, Build to Rent has also been penalised by tax changes.

In addition, public authority landlords are promoting Build to Rent schemes on their own land, firstly as a way of meeting their housing targets and secondly as a way of generating a regular income from their land holdings, rather than simply selling them for a capital receipt. This is particularly valuable at a time when central government grants are reducing and local authorities need to find alternative sources of revenue.

And, finally, the investment landscape has been favourable to Build to Rent in that continuing high valuations of other real estate classes – in particular, offices and retail – have encouraged institutional investors to look for alternative sectors to generate returns, and the lack of housing in the UK has persuaded investors that there is a strong demand for Build to Rent.

Funding Build to Rent

Build to Rent caters for a wide range of investment models, both at the development stage and in the lettings phase.

Some developers – Grainger and Quintain, for example – have followed a design, develop and invest model, where the developer both builds the asset and lets and manages it. But this approach is not for everyone, as it requires investors to take on very different types of risk at the various stages of the scheme:

- the planning stage, which can be very time consuming and can be derailed by a number of factors outside the developer's control.
- the construction phase, which is highly capital-intensive for a short period, and notoriously at risk of cost and time overruns;
- the stabilisation period, while the development is let, and teething problems around management, etc., are resolved; and
- the trading period, in which success is down to keeping the operation running smoothly, drawing what is expected to be a steady income stream over a long period.

Ring-fencing the development risk...

As a result, many schemes are planned and built by developers, but forward-funded by investors. This approach, familiar in the commercial environment but new to the residential market, has the advantage, from the investor's perspective, that development risk is ring-fenced. It also allows schemes to be funded efficiently. A typical forward-funding has the following key features:

the investor commits before works start on site to buy the



development site, and separately commits to fund the development as costs are incurred;

- the developer commits to deliver the development for a robust guaranteed maximum price, sometimes backed by a cost overrun guarantee from its parent company;
- the development site is sold to the investor as soon as the foundations have been completed and the building is starting to come out of the ground – a stage known as "Golden Brick"; the investor pays for the land at this point;
- following land sale at Golden Brick, the developer is employed by the investor to complete the development on its behalf.

As well as ring-fencing the development risk by limiting the investor's exposure to an agreed guaranteed maximum price, this structure keeps funding costs below the costs of conventional development finance – which is not only more expensive but will also only fund a proportion of the construction costs, leaving the remainder to be found from other sources.

Forward-funding is also tax efficient, as it minimises both Stamp Duty Land Tax (SDLT) and irrecoverable VAT. A transfer at Golden Brick allows the developer to recover most of the VAT on its construction costs, while also not passing VAT on to the investor (which will not be able to recover that VAT) and, so long as the contract is structured correctly, SDLT will only be payable on the value of the land plus the works carried out up to the date of sale. By contrast, if the site was purchased following completion of the development, SDLT would be payable on the entire value of the finished construction.

... and the lettings risk?

In the same way as many investors are ring-fencing the development risk, some are also passing the lettings risk to third parties by bringing in a tenant/manager which will operate the property at its own risk, and pay a guaranteed, indexed income

strip to the investor by way of headlease rent. This model has not really taken off in mainstream lettings, as investors are tending to back their investments, and are keen to share in the anticipated upside. However, it is finding a niche as an alternative method of funding affordable housing. Cheyne's Social Property Impact Fund is funding new developments which are then leased to local authorities and housing associations, which in turn let them as affordable housing. This provides an alternative source of capital for affordable housing, while allowing an index-linked, secure return for investors.

Even where investors are happy to take trading risk, they may want to share an element of risk with developers during the stabilisation period – either through the developer taking a minority stake in the investment vehicle, or through keeping a retention which is payable against key management milestones.

Difficulties with debt

Although the forward-funding model is starting to work well, the market for debt funding of Build to Rent developments has not yet hit its stride. There are various reasons for this, but they tend to revolve around the fact that Build to Rent is a new product which works in different ways to conventional residential development. Unlike housing for sale, Build to Rent does not have the benefit of a large number of sales on completion of the development, thereby creating a bullet payment that will repay the loan almost immediately; instead it has certain characteristics of infrastructure finance, in its reliance on a long-term income stream. This, combined with a lack of data, makes it hard for funders to price – and means that the debt that is on offer is likely to be expensive. While there has been some lending in the sector, it has mostly either been by the Government, or backed by Government guarantee.

Getting it built

Build to Rent developers can struggle to compete for sites with developers building for sale, for various reasons. Firstly, local authorities have become increasingly dependent on payments received from private developers in order to provide social infrastructure such as affordable housing and schools. But the different financial structure of Build to Rent, with long-term returns rather than a pay-out from sales at completion, makes it hard to deliver such upfront costs. As a result, if planning authorities apply the "normal" expectations to Build to Rent, scheme viability suffers. Secondly, some authorities have been reluctant to grant permission for Build to Rent schemes at all, associating all rental housing with poor management and a transient resident population.

At least in theory, national government is keen to help the sector, but in practice its track record is more mixed. The Government issued a Housing White Paper in February 2016 (cautiously welcomed by the sector), which proposed expressly encouraging local authorities to consider Build to Rent in their plans and decisions as well as consulting on various specific measures to promote Build to Rent. But over a year later there has been no action from the Government to follow up on this. At the same time, the Government continues to penalise Build to Rent through the taxation system: on the one hand, it charges SDLT at a higher rate than for private residential sales; but on the other hand the VAT treatment is less favourable than for commercial properties. As discussed above, it is possible to mitigate the effects of this tax treatment, but not to eliminate the disadvantages completely.

At local government level, planning departments' attitudes to Build to Rent range from highly supportive to the complete opposite. In London, for example, a recent report¹ by Nexus Planning identified that, across London's 33 local authorities, planning policy in relation to Build to Rent was positive in 30 per cent of local authorities, neutral in 24 per cent and negative in 46 per cent. As more Build to Rent schemes complete and move into the operation phase, some authorities have come to realise that such schemes are well managed and can help to build communities, whereas others remain sceptical.

The GLA has published guidance for London authorities which is intended to support Build to Rent developments, not least by encouraging consistent practice across London. It proposes a specific planning "pathway" for schemes which fall within the GLA's definition of Build to Rent (which is broadly the same as the BPF's, but specifies that the owners will covenant to keep the development as Build to Rent for at least 15 years, and also requires owners to offer tenants leases of at least three years). Under this regime:

- developers are permitted to provide affordable housing by way
 of flats which are managed directly by the Build to Rent owner,
 rather than separately managed by a housing association. This
 allows more efficient management of the development, as a
 single manager is responsible for everything; and
- authorities are expected to "recognise the distinct economics of the Build to Rent sector and undertake viability assessments that are specifically designed to deal with this model".

However, politics seems to be getting in the way of allowing Build



to Rent schemes to provide a smaller proportion of affordable units than schemes for sale. The GLA's Executive Director of Housing and Land recently commented that, in an increasingly politicised environment, the Build to Rent sector cannot give the message that it will deliver less affordable housing than conventional house building.

But there are cards in Build to Rent's favour, both in relation to acquiring land and obtaining planning permission. As noted above, many public authorities are keen for their land to be used for Build to Rent. Both traditional house builders and planning departments are attracted by the ability of Build to Rent to fill a scheme, and create a community, quickly: for a house builder, a couple of Build to Rent blocks in a regeneration scheme can ensure that the scheme is lively, which helps private sales on the development. And Build to Rent developers are increasingly emphasising the ability of Build to Rent schemes to help create a sense of community. At a time when loneliness is increasingly regarded as a national policy issue – the Government recently appointed a Minister for Loneliness – Build to Rent schemes are specifically designed to encourage residents to make connections, so that they put down roots in the development.

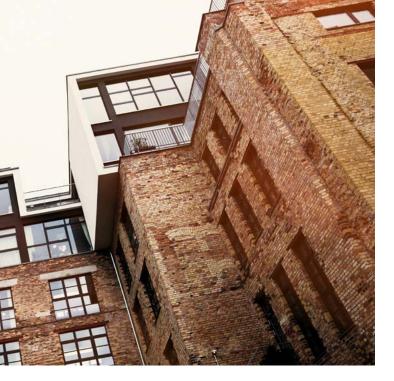
What does Build to Rent look like in practice?

The Build to Rent market is still in its early stages – there are four times as many Build to Rent units in development as have been completed – but clear trends are emerging as to what Build to Rent looks like in practice.

There is no single model for Build to Rent. Attention is often focused on large, high-rise, high-end schemes with extensive resident amenities – this is the "glamour" end of the market. And there are plenty of large, glamorous schemes: Moda Living's Angel Gardens scheme in Manchester, for example, will have nearly 500 units, and includes a cinema room, gym, four restaurants and a multi-functional roof terrace with gardens, terraces, games and BBQ stations.

It is easy to see why many developers are targeting the young, affluent market with these extra amenities. Research suggests that 51 per cent of renters are under 35 years old, and 54 per cent are without children. Higher anticipated rents enable developers to pay

^{1 &}quot;Planning for London's Build to Rent future"; Nexus Planning; March 2018.



higher sums to obtain land. But that still leaves a large proportion of the rental market which comprises older renters and those with families; and, in any event, many under-35s cannot afford premium rents. Equally, although Build to Rent schemes are often in inner city locations, and are built as blocks of flats, there is also demand for more suburban schemes consisting of terraced or semi-detached houses. Amid the glitz of the high-end US Multifamily products it is easy to forget that roughly 70 per cent of the US Multifamily sector is low rise, suburban, and focused on families. Besides, extensive amenities are only really affordable on schemes of at least 500 units – and according to some developers they are only really economic on schemes of over 2,000 units.

Developers are therefore creating a variety of schemes, e.g. Dolphin Living, which is committed to providing rental homes in high-value areas that are affordable to those on modest incomes; Grainger, which is aiming to deliver 5,000 new flats across the UK targeted at the mid-market; and the PRS REIT, which is building and operating low rise flats and houses across the UK Midlands and North.

Driving efficiency and customer loyalty

What all of these schemes have in common is a need to run efficient, well-managed buildings that residents want to stay in. Build to Rent schemes will only make a profit if the difference between gross rental income and the investor's income after costs – the "gross-net income leakage" – is kept under control; and if the scheme is as close as possible to fully let. So there is a keen focus on developments that are built to last, with letting use in mind, and also on keeping tenants happy – so that they stay and (even better) recommend the development to their friends.

Running costs for traditional buy-to-let properties are high.
Research by Standard Life Aberdeen, which has a large residential portfolio in Continental Europe, has shown that gross-net income leakage is about 15 per cent for modern properties in Germany, 20 per cent in the Netherlands, but 27 per cent for buy-to-let properties in the UK – and the buy-to-let market does not provide any amenities beyond basic repair. Gross-net income leakage on many of the initial Build to Rent schemes in the UK is reportedly well above

27 per cent. But schemes are becoming more efficient: developers are using the practical experience of completed schemes to optimise "second generation" schemes, finding valuable efficiencies even in mundane matters such as how bins are emptied. In addition, they are increasingly using standardised modular components – and even whole buildings – constructed off site, in order to increase build quality and reduce the need for repairs.

Equally, developers are learning from experience which amenities tenants really value, raising resident satisfaction in often inexpensive ways. A scheme's target market may point to amenities which will be popular, but relatively inexpensive – for example, in a scheme focused on families, a key amenity might be a central area offering community events and play spaces. In smaller, less high-end schemes, residents may not expect any physical amenities beyond the basics of a post room, security, etc., provided the scheme is well run and, crucially, the residents enjoy living there.

And in all schemes, developers are realising the importance of the personal touch in making residents feel like developments are their home and not just a staging point. There is an increased focus on employees who deliver a great tenant experience, rather than simply providing the basic service. Also, residents' feedback shows that they really value developments where there is a sense of community – and that makes them more likely to stay in a development and recommend it to friends. Therefore, increasingly, designs include facilities which encourage residents to meet informally. In the end, buildings that reflect how people want to live will keep attracting people.

What next?

The story of Build to Rent over the last few years is one of increasing understanding and acceptance of the sector by policy makers, investors and developers, combined with an increasingly detailed focus on the practical business of making developments work. There is every reason to assume that this process will continue, as what was once a fringe sector becomes increasingly mainstream.

There are potential clouds on the horizon, though. As noted above, housing is a politically sensitive subject at the moment and, if schemes become targets for political opposition, they may well never get off the ground – here effective community engagement is key. Equally, some commentators are concerned that a Corbyn government could introduce rent controls, damaging business models.

Political changes may well place obstacles on the road – and we live in politically turbulent times. But, going back to the point made at the start of this article: the housing crisis continues unabated and, while that remains the case, it is hard to see any government putting an end to a sector that is currently delivering 100,000 new homes, and that is capable of producing millions more.



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he development of waste-to-energy (WtE) and other waste projects is usually dependent on a combination of environmental and public health policies and (sometimes) energy policies. Without the right policies being in place it is challenging to develop long-term waste projects. Local circumstances can greatly affect policy development – but increasingly a policy in one jurisdiction can affect other jurisdictions and wider markets.

In this article, we outline some frequently used policy levers in the Asia-Pacific region and consider specific jurisdictions. For each jurisdiction, we consider the key policy levers used, landfill regulation and diversion, the environment for developing waste projects and, in some cases, the use of WtE projects to achieve environmental and public health outcomes.

Our next article will consider material recovery facilities (MRFs), mechanical biological treatment (MBT) facilities, organic recovery facilities (ORF) and food and organics (FOGO) projects, including the responses to recent structural market changes affecting them. Our fifth article will outline the more frequently used policy levers in Europe, the Americas (Argentina, Brazil, Canada, Mexico, Peru, and the USA) and Africa.

1 This article continues the "Waste-to-Wealth" series: previous articles appear in issue 9 and issue 10 of InfraRead (go to Ashurst.com and search "Wasteto-Wealth").

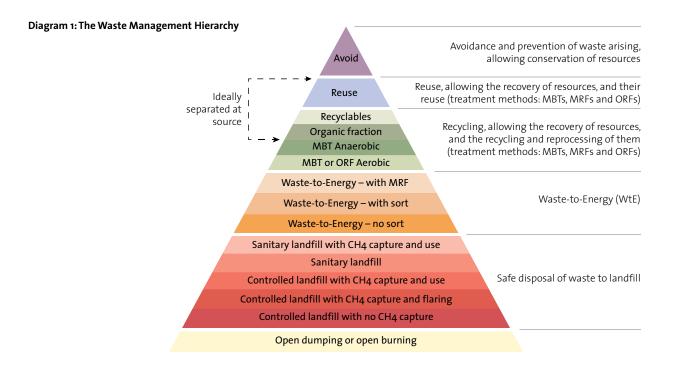
Policy is important but it can and will change

Policy is ever-present: The People's Republic of China (PRC) has recently changed its policy on the importation of recyclables.³ This policy change has affected waste projects which relied on exporting recyclables to the PRC, with the recycling industries in many jurisdictions now needing to consider how to respond to the structural change resulting from this policy change. In Australia, for example, container deposit schemes are being introduced in some states for the first time, with the policy objective of increasing levels of recycling, thereby diverting recyclables from landfill.⁴ In Europe and America, there is renewed focus on how best to combat the

With so much activity taking place across Asia-Pacific, we will cover Europe and the Americas (which we had also planned to discuss) in a later article.

³ In July 2017, the PRC notified the World Trade Organisation that it would ban the importation of 24 categories of recyclable and solid waste ("foreign garbage") by the end of 2017. The ban has affected the recycling industries in a number of jurisdictions.

⁴ Container deposit schemes (CDS) aim to achieve the avoidance, reuse and recycling of waste: the outcomes at the pinnacle of the Waste Management Hierarchy – see Diagram 1. South Australia's Environment Protection Authority has reported that its CDS has promoted an overall return rate of 79.9 per cent.



presence of plastics in our oceans and rivers.⁵ There is increasing recognition of the need for countries to work together to address the issue of plastics in our oceans.⁶ Thus, local and international policy underpins the waste sector in many ways.

Policy does not stand still: These recent "headline" policy developments illustrate that policies can and do change, and that a policy in one jurisdiction can have a significant impact on commercial interests in other jurisdictions. In our first and second Waste-to-Wealth articles, we noted the importance of change in law provisions in waste projects. The recent policy change in the PRC has resulted in owners and operators of waste projects (and MBTs and MRFs in particular) looking closely at the change in law provisions in their contracts. Why? The economics of many projects rely heavily upon the ability to sell recyclables into the PRC. Given the nature of the PRC policy change, structural change has arisen in some jurisdictions, forcing policy makers to consider again the importance of markets for recyclables.

As noted in our previous articles, the Waste Management Hierarchy (see Diagram 1) is the touchstone for environmental and public health policy initiatives around the world.⁷

The Norwegian container recycling scheme requires consumers to pay an additional charge per bottle, which is then refunded when the bottle is deposited in a recycling machine. If Norway's recycling rates are any indication, the scheme is highly successful, with 97 per cent of plastic bottles being recycled. In March 2018, the UK government announced that, subject to a consultation later in 2018, it will be introducing a deposit return scheme in England for single use drinks containers (whether plastic, glass or metal). In our first Waste-to-Wealth article, we noted that legislative initiatives have sometimes underpinned the development of waste projects to achieve outcomes reflective of the Waste Management Hierarchy. The most significant of these is EC Council Directive 26 April 1999 (Directive 1999/31/EC). This was the catalyst in the European Union for government sponsored initiatives and regulatory policy settings aimed at diverting waste from landfill and facilitating investment in waste sorting, processing and treatment alternatives. In some form or another, the principles represented in the Waste Management Hierarchy have influenced the policy levers in each of the specific jurisdictions covered below.

In this article we consider the policies of the larger and more populous and still urbanising jurisdictions in Asia (the PRC, India, Indonesia, and the Philippines) and, as a point of different emphasis, Malaysia, which has high urbanisation levels, but still needs to respond to environmental and public health issues arising from waste.

Revisiting policy levers in projects

Core policy drivers: Outlined in the table below are the key policy levers which are combined to allow WtE and other waste projects to be developed and to be economically sustainable. These include environmental and public health policy levers as well as energy policy levers which enable WtE projects to derive revenue (being Core Policy Drivers). In considering specific jurisdictions, we look at what we regard as the current dynamics in those jurisdictions, including, as appropriate, key policy levers used in these jurisdictions. Implementation: The right mix of municipality powers and enforcement must exist to support and sustain the Core Policy Drivers. It is also important to recognise that policy implements change over time, not overnight, and that landfill still has a role to play.

⁶ For example, the Commonwealth Heads of Government meeting in London in April 2018 will include a discussion on how to protect our oceans.

For example, the Solid Waste Management Rules, 2016, applicable in India, define waste hierarchy as the priority in which the solid waste is to be (or should be) managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention (i.e. avoid) being the most preferred option and disposal to landfill being the least preferred.

Core Policy Drivers: Environmental and public health levers

Environmental prohibitions prohibiting or reducing ocean dumping, prohibiting open dumping and prohibiting landfilling of specified waste streams. Regulation of this kind is prevalent across Asia-Pacific.

Co-ordinated approval and licensing process to allow timely and effective development. This is recognised as important, and has been introduced in the PRC, Indonesia and Malaysia.

Disposal of Hazardous Waste, Medical Waste and e-waste to divert from landfill to specialist disposal to provide additional feedstock. As might be imagined, this is regulated across Asia-Pacific.

Environmental standards for landfill to address contamination, leeching into the water table and methane emissions. Regulation of this kind is typical across Asia-Pacific.

Licensing for expansion of project over time to take advantage of increased waste arising in specific areas. This is permitted in most jurisdictions, but is a project-by-project issue.

Specification of residue to regulate how and where residue may be disposed. This is increasingly regulated across Asia-Pacific.

Environmental standards on emissions to limit emissions, contamination and residue disposal for waste projects. Regulation of emissions to air is increasingly prevalent across Asia-Pacific.

Classification of waste to regulate how and where waste may be disposed of and to license receipt of waste. Classification of waste has become typical across Asia-Pacific.

Enforcement of approvals and regulation as noted above, many of the key policies to achieve beneficial environmental and public health outcomes are in place, but in some jurisdictions achieving those outcomes is dependent on enforcement.

CONSISTENCY OF REGULATION AND ENFORCEMENT: Unless regulations are consistent and enforced across a jurisdiction, market forces will find a way to dispose of waste at the least cost and for the greatest profit, even in jurisdictions with developed waste collection systems.

Core Policy Drivers: Energy drivers creating revenue opportunities

Revenue from renewable energy generation under power purchase agreements, into market, under contracts for differences or the feed-in tariff (FiT) regime (or other regimes). While there are FiT (and other) regimes in place across Asia-Pacific, not all of them apply to WtE projects.

Sale of power and heat to co-located **businesses** within development zones to promote smaller refining and paper businesses or to provide district heating. This is favoured in some jurisdictions, but is not widely used across Asia-Pacific.

Allowing broader revenue opportunities including the development of land to enable sponsors to cross-subsidise WtE projects and other revenue streams. This is not used to any great extent across Asia-Pacific.

Non-Core Policy Drivers

Revenue from particular waste generators such as C&IW8 and C&DW9 and particular waste streams, such as from shopping centres or malls. As yet this is not used across Asia-Pacific.

Revenue from landfills to manage available landfill capacity over time, e.g. requiring a WtE project to take landfilled waste at a higher Gate Fee¹⁰ and methane off-take. In some Asia-Pacific jurisdictions methane is being captured.

Revenue from government-sourced waste where municipalities are able and willing to pay, which may result in higher Gate Fees. As yet this is not used.

Large power users pay more for WtE energy Government pays higher price for WtE energy Revenue from reusable and recycled to close revenue gap, but preventing material to close revenue gap, but preventing material products where there exists a increase in power prices for all users. As yet increase in power prices for all users. As yet this sophisticated separation at source or prethis is not used on a regulated basis across is not used on a regulated basis in Asia-Pacific sort regime. This is a key policy outcome Asia-Pacific. jurisdictions other than where a government across Asia-Pacific. chooses to contract for energy supply.

Levelling the playing field

Waste and landfill levies to incentivise more environmentally beneficial waste projects on a consistent basis across jurisdictions. In the Asia-Pacific region this policy lever is not prevalent.

Gap funding including government grants and subsidies to achieve environmentally beneficial outcomes using WtE projects. There are examples of gap funding, but it is not a policy lever that is prevalent across Asia-Pacific.

Revenue from MSW processing and **treatment**¹¹ including Gate Fees because municipalities choose WtE over landfill. This remains a policy decision to be taken at a micro-level, but as yet Gate Fees alone are not at a level to sustain WtE projects.

C&IW or C&I waste is commercial and industrial waste from commercial and industrial premises.

C&DW or C&D waste is construction and demolition waste from construction and demolition sites.

¹⁰ A Gate Fee being an amount paid by a municipality for acceptance and processing of waste at a landfill or waste project.

¹¹ MSW is municipal solid waste (as distinct from sewage or waste water).



As we consider specific jurisdictions in the Asia-Pacific region, it is important to recognise that policy — and therefore law — is not fixed, nor should it be. Policy and law may need to change to respond to the needs of the specific jurisdiction over time. While it is important for each jurisdiction to be aware of private sector concerns in relation to investing in waste projects, it is as important for governments to review continuously and to put in place policies that respond to the particular circumstances of and within each jurisdiction, including recognising that implementing policies may take longer than anticipated. In this context, private sector participants who understand how to respond to changing circumstances will have a greater ability to respond to changing policies (including through contractual change in law provisions) over time.

As such, the risk of change in law is important to the private sector investing in waste projects. If a project is to be project financed, debt and equity financiers will want to contract on the basis of economics that are sustainable for the term of the debt and which will allow equity its required return. For these purposes, debt and equity will want to understand the likely regulatory and enforcement prospects, in order to satisfy themselves that underlying costs and revenue remain relatively predictable.

Policy levers – background and context

No one size fits all: Each jurisdiction in Asia-Pacific is unique. While we may identify common policy levers, if one looks closely, they are in fact different, in both form and substance. Each policy must be understood in the context of the specific jurisdiction as it has been developed to be responsive to, and to be implemented in, that particular jurisdiction.

Policy must recognise what is achievable: Adapting a truism from the world of business management ("Culture eats strategy for breakfast") so it is with policy: culture eats policy for breakfast. If a policy is not cognisant of the culture in which it is intended to work (in the sense of being achievable within a particular jurisdiction) then it will not work.

Scale of Asia-Pacific: The Asia-Pacific region matters. At least one-third (and, by some estimates, up to 40 per cent) of the world's waste will be produced within the Asia-Pacific region by 2050, with the PRC, India and Indonesia likely to produce close to, if not more than, 70 per cent of the region's waste. The way in which these jurisdictions respond will be critical to the environmental outcomes and the health outcomes of their populations, as well as for the region and the world generally.

Space does not permit us to cover each jurisdiction within the Asia-Pacific region, but we are currently preparing a "ready reckoner" of policy across the region, including for Bangladesh, Pakistan, Sri Lanka and Vietnam, as well as for Japan and South Korea. This will be available on the Ashurst website later this year.

Policy leavers by jurisdiction

PRC

The PRC continues to experience rapid urbanisation, ¹² with a resulting increase in municipal solid waste (MSW): an estimated 180 to 200 million tonnes of MSW is collected annually, and there is also an informal waste collection industry collecting what is likely to be material quantities of MSW. The concentration of urbanisation in the PRC provides opportunities for more effective and efficient waste management and disposal, with the possibility of planning over the medium- and long-term for optimal waste collection and disposal.

The PRC has been developing policy levers to respond to the production of increasing quantities of solid waste (including MSW) for some time. One of the reasons for the change in policy on the importation of recyclables is the desire to manage the waste arising within the PRC more effectively, and to allow effective waste recycling policies to be developed and to mature. As the population of the PRC urbanises and the standard of living continue to increase, so too does the volume of MSW (in both absolute and per capita terms) along with the pressure to dispose of that MSW.

Landfill continues to be the predominant means of disposing of waste. While landfill may not be considered to be a viable option over the medium to long term, it is nevertheless an important part of the current waste disposal industry in the PRC. This will continue into the medium term. That said, landfill is increasingly regulated. In this context WtE projects are seen as the key alternative to landfill, with an ever-increasing number of WtE facilities being developed.

With the development of WtE facilities has come a recognition that emissions from WtE facilities need to be controlled, and for this purpose emissions need to be regulated and the "right" WtE technology needs to be used. The two go hand-in-hand, with emissions (and the control of them) being a function of the pre-treatment of feedstock, efficient combustion and the control of flue gases, all of which are dependent on the WtE technology chosen.

Emissions and their control is a solid waste issue, not just an MSW one. MSW is one of four major solid wastes produced in the PRC, the

¹² It is now estimated that 60 per cent of the population of the PRC lives in urban areas (including a material percentage of the population travelling to the urban environment to work, and in that urban environment produce waste). This figure is expected to exceed 70 per cent by 2030. There are over 100 cities in the PRC with populations of more than 1 million people, and 15 municipal areas of more than 10 million people.

others being industrial solid waste (which may be regarded a subcategory of commercial and industrial waste), hazardous waste and agricultural waste. While all solid wastes give rise to environmental and health concerns, industrial solid waste is responsible for the greatest level of environmental degradation as its emissions degrade air quality. A challenge for the continued development of the WtE industry in the PRC is to distinguish itself from the production and treatment of industrial solid waste and its associated emissions. This will be possible through the use of thermal technologies that achieve more efficient combustion and that control flue gases and emissions generally. A particular challenge in this area arises because many municipalities prefer a direct procurement methodology for WtE technologies, and there are instances in which a lower (or the lowest) capital cost option has been preferred over more efficient and cleaner (principally, lower emission) technologies.

More broadly still, waste disposal and waste management needs to be considered in the context of the targets for major pollutant emissions reductions (principally NOx and SOx)¹³ as part of the 13th Five Year Plan and the recently introduced Carbon Trading Scheme. This illustrates our general point that each policy needs to be considered and understood in the broader context.

The challenge for the PRC is balancing its continued economic growth while at the same time ensuring the sustainability of that growth by avoiding or mitigating adverse environmental and health impacts of growth. This is a challenge for many jurisdictions across the Asia-Pacific region, but one that the PRC is particularly well placed to manage.

The PRC is an excellent example of a jurisdiction that has recognised that there is no "one size fits all" approach and which does not have a "set and forget" set of policy solutions. The portfolio of policy levers being used by the PRC will continue to develop, including at provincial and municipal levels, in response to particular circumstances and needs.

India

India continues to experience strong economic growth, and, as a result, the volume of waste produced by the Indian population is increasing. As yet, the levels of urbanisation in India have not reached the levels in the PRC, but over time it is reasonable to expect that they will. India has recognised that the urban environment and urbanisation itself results in the production of solid waste, ¹⁴ and that there is therefore a need to regulate those who generate waste.

It is also clear that the continued growth of urban populations is contributing to the ever-increasing levels of MSW production in India. It is difficult to estimate the quantity of waste that is produced in the urban environment: estimates of MSW range from 62 to 80 million tonnes per year, of which approximately 50 to 55 million tonnes comes from the urban environment. It is estimated that up to 90 per cent of waste is open dumped or burned, rather than being disposed of in regulated (i.e. approved engineered/sanitary) landfill.

(In passing, we consider that the estimates of waste arising in India are likely to underestimate materially the actual waste arising.)

Key legislation in India (critically, the Solid Waste Management Rules, 2016) recognises that, in the urban environment, a key policy objective is to allow the development of a system to promote the effective collection and recovery of reusable and recyclable solid waste from multiple sources of solid waste within that urban environment. This policy is intended to increase the quantity of solid waste that is collected (and, as a result, to reduce the quantity of solid waste not collected and which may give rise to environmental and health degradation). This policy recognises the existing interests of all participants in the urban environment including, importantly, the waste pickers. The policy thus recognises that the private sector in India has developed a sophisticated, but labour intensive, system for recovering reusable and recyclable materials from waste, and that it makes sense to make use of this system.¹⁵

Given the composition of MSW (18 to 25 per cent (by mass) comprises waste capable of being recovered), making use of the waste pickers can only be part of the solution. The balance of waste comprises approximately 40 to 45 per cent organic fraction and 35 to 40 per cent inert fraction. The relatively high levels of organic and inert fractions, and the high recovery rates achieved by waste pickers, means that the calorific value of the MSW available for WtE projects in Indian cities is at the lower end of the calorific values required for efficient combustion using thermal WtE technologies. This is one of the reasons for the relatively low number of WtE projects in India. There are, of course, other reasons, the key one being that waste management systems in India are continuing to develop. If it were possible to implement source separation of the organic fraction having higher levels of moisture and the inert fraction, it could be possible to develop WtE projects on a consistent basis in India.

In addition, and just as importantly, the key legislation recognises that implementation of waste management policy is a municipal and local issue within a national framework, thereby allowing appropriate responses to local conditions. The development of waste management systems in India is currently at a critical juncture. Given the estimated levels of unregulated disposal of MSW, engineered/sanitary landfill capacity needs to developed in the short- to medium-term, possibly with other solutions which divert waste from landfill, including WtE projects.

Indonesia

As the third most populous country in the Asia-Pacific region, with increasing urbanisation (much of it on Java, the most populous island in the world) the way in which Indonesia responds to the environmental and health consequences of increasing levels of MSW may provide a blueprint for other jurisdictions around the world.

As noted in our first Waste-to-Wealth article, it is estimated that Indonesia produces between 64 and 66 million tonnes of MSW a year. If all this MSW were collected it would provide the feedstock for 115 50MW WtE facilities, equivalent to one sixth of Indonesia's planned 35GW expansion of installed capacity by 2019. In response

¹³ NOx is the generic term for the Nitrogen Oxides which are most relevant to air pollution; SOx is the equivalent term for Sulphur Oxides.

The Solid Waste Management Rules, 2016 define solid waste as including "solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from surface drains, horticultural waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radioactive waste..."

It is our understanding that waste pickers are able to recover a very high percentage of reusable and recyclable material from municipal solid waste. Again our understanding is that approximately 80,000 people are engaged as waste pickers for every 3 million tonnes of reusable and recyclable material recovered.

to this opportunity, the Ministry of Energy and Mineral Resources (MEMR) has developed a Waste-to-energy Guidebook (MEMR Guidebook). The MEMR Guidebook provides an overview of both the waste industry in Indonesia and the prospective range of projects as well as providing a lot of useful information for any municipality wishing to develop a WtE project. In addition, the MEMR Guidebook is realistic in that it recognises that landfill remains an important part of Indonesia's waste management industry.

In the context of the PRC, India and Indonesia the challenge is to manage the calorific value of the MSW (or other feedstock) which is delivered to WtE projects: as referred to above in relation to India, the calorific value of the feedstock is a key consideration in the design of all WtE technologies. In each of the PRC, India and Indonesia the level of moisture in the MSW is critical: because of the nature of the organic fraction in the waste stream and because reusables and recyclables may have been removed (as is the case in India), the moisture level of the MSW is likely to be higher (i.e. it is wetter) and the MSW will have a lower calorific value.

In Indonesia (as well as in the PRC and India) there is a need to balance the use of MSW that is wetter with the interests of existing stakeholders who remove some of the higher calorific materials from the waste stream. Although this may result in the use of less thermally efficient WtE technologies it is not helpful to be dogmatic. It needs to be recognised that WtE projects are just a part of the broader waste management solution in Indonesia: as the MEMR Guidebook states, the most appropriate technology should be preferred, which is not necessarily the most thermally efficient. As a general statement and as a starting point, moving grate thermal technology is generally considered to be the most appropriate option, providing as it does a reasonably high level of flexibility to deal with variations in the composition of the MSW, a reasonably high level of efficiency, a proven track record, lower levels of emissions to air (flue gases) compared to some other thermal technologies, as well as reasonable capital and operating costs.

The key elements for any WtE project in Indonesia are the off-take agreement for power which is entered into with the Indonesian State-owned power utility PLN (the Power Purchase Agreement or PPA) and the supply of waste from the applicable municipality's sanitation agency or department. It is likely that the PPA will provide all (or most of) the revenue stream for the project company to develop the WtE project. It is less likely that the municipality's sanitation agency or department will pay the project company a Gate Fee for taking waste delivered by it, but the municipality may take an interest in the WtE facility.

Under MEMR Regulation No. 50 of 2017 on the Utilisation of Renewable Energy Resources for Electricity Production (MEMR Regulation 50/2017), the feed-in tariffs (FiT) payable by PLN are based on Biaya Pokok Penyediaan Pembangkitan (BPP) (Basic Costs of Production), being PLN's costs in supplying electricity, excluding costs for electricity transmission and distribution. In this respect, PLN must refer to the BPP as the calculation threshold in purchasing renewable electricity. The BPP comprises: (i) Local BPP based on the location of the relevant power plant (Local BPP); and (ii) National BPP based on the average of all Local BPP (National BPP). The Local and National BPPs applicable from 1 April 2018 until 31 March 2019 are set out in MEMR Decree No. 1772 K/20/MEM/2018.

For power plants powered by waste (PLTS), the FiT payable by PLN is either:

- if Local BPP is greater than National BPP: 100 per cent of Local BPP; or
- if Local BPP is equal to or less than National BPP: the tariff agreed by PLN.

On 8 January 2016, the President enacted Presidential Decree No. 3 of 2016 on the Acceleration of National Strategic Projects (PD 3/2016). PD 3/2016 listed WtE projects located in Semarang (Central Java Province), Makassar (South Sulawesi Province) and Tangerang (Banten Province) as National Strategic Projects.

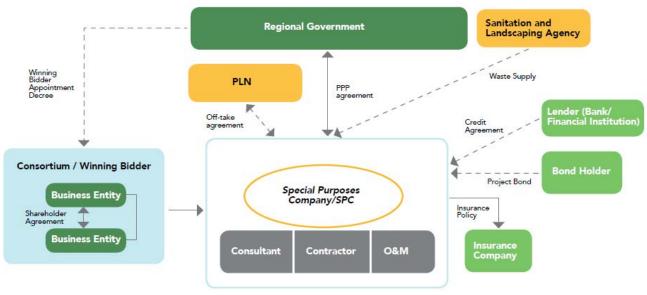


Diagram 2: The contractual framework for WtE under a PPP¹⁶

¹⁶ This is a facsimile of Figure 8.2 of the MEMR Guidebook, p129, which is reproduced with kind permission of the MEMR.



These WtE projects enjoy certain benefits, including:

- expedited/simplified processes for the licences required for projects, namely a Location Permit, an Environmental Licence, a Forestry Land Use Licence (if the location of the project is located in a forestry area) and a building construction permit, in addition to other fiscal and non-fiscal incentives (e.g. exemption from import duty);
- government support for any spatial layout adjustments required for project development;
- the land acquisition law for public interest development may be used, providing timing and cost certainty for the acquisition of land.
- possible government guarantees; and
- support from government for WtE development.

On 15 June 2017, the President enacted Presidential Decree No. 58 of 2017 (through an Amendment to Presidential Decree No. 3 of 2016) for the Acceleration of National Strategic Projects (PD 58/2017). Under PD 58/2017, the government added five new WtE projects to the list of National Strategic Projects. These five additional projects are located in Jakarta (DKI Jakarta Province), Bandung (West Java Province), Surakarta (Central Java Province), Surabaya (East Java Province) and Denpasar (Bali Province).

Pursuant to MEMR Reg 50/2017, PLN is obliged to purchase the electricity generated by PLTS.

Indonesian law recognises that projects may be delivered in

a variety of ways, including traditional BOO ¹⁷ and BOOT ¹⁸ delivery models. Critically important to the development of WtE projects as a sustainable industry across Indonesia is the ability of the government at every level to be assured that each WtE project is economically sustainable. The MEMR Guidebook emphasises this.

Based on a study undertaken by the MEMR's Directorate of Bioenergy, the challenges for WtE in Indonesia are as follows: 19

- no uniformity in the payment of, or the amount of, any Gate Fee:
- a need for increased awareness by regional governments of the use of MSW as a feedstock for WtE projects;
- a perception by regional governments that the sale of electricity to PLN means that the regional government does not need to manage waste through Gate Fees: a deeper
- Build Own Operate (BOO) means that the project sponsor builds, owns and operates the WtE project, and the municipality (or government agency, authority or corporation) contracts with the WtE project for the provision of services using the WtE project (i.e. the provision of waste acceptance, treatment and processing).
- 18 Build Own Operate Transfer (BOOT) means that the project sponsor builds, owns and operates the WtE project for the term of the BOOT contract, providing services to the municipality (or government agency, authority or corporation) and then transfers the WtE to the municipality (or government agency, authority or corporation) at the end of the term of the BOOT contract, usually at the option of the municipality, and typically for a nominal purchase price on the basis that the municipality has effectively paid for the WtE project through the payment of service charges.
- 19 Extracted from a Presentation entitled "Policy on Waste to Energy Development in Indonesia" dated 18 December 2017, prepared by the MEMR's Directorate of Bioenergy.



understanding of the basis on which PLN purchases electricity is required;

- limited funding is allocated for managing waste; and
- regional governments do not have the necessary "know-how" to prepare procurement documents and there is no uniform mechanism for procurements.

As well as an increasing interest in developing WtE projects in Indonesia, other initiatives which are already in place are helping the country to address environmental and public health issues, and are improving the urban environment. For example, Indonesia's second largest city by population, Surabaya, has a population of approximately 3 million within the city itself, and a population of 6.5 million in its larger urban area. It is estimated that nearly 1,800 tonnes of waste is produced each day. The municipality itself collects nearly 1,550 tonnes of waste per day, and it is estimated that close to 250 tonnes is recovered by the private sector.

The system of waste management in Surabaya (including a long-standing arrangement in which the private sector plays an important part through waste banks to which recyclables are delivered) has made a material contribution to improving the environmental and public health outcomes in Surabaya over the past 15 years or so. For those visiting Surabaya over the years, the change has been clear to see.

Malaysia

Malaysia has a population of approximately 31 million people, producing approximately 9,125,000 to 10,950,000 tonnes of MSW a year (equivalent to 25,000 to 30,000 tonnes of waste per day). While the volume of MSW production is not at the levels of the PRC, India or Indonesia, the Malaysian government's waste management policies encourage the collection of waste and it is estimated that more than 70 per cent of MSW generated in Malaysia is collected from kerbside or from collection centres. As such, Malaysia has the necessary systems in place to collect MSW as feedstock for WtE facilities. The issue for Malaysia is how to develop WtE projects in an economically efficient way as part of its ever-developing waste management system, while at the same time developing state of the art engineered/sanitary landfill facilities (some with annual capacity in excess of 1 million tonnes a year) and methane collection systems.

In the Malaysian context, neither the rate of population growth (historically fast, but slowing), nor the rate of urbanisation (close to 75 per cent) are going to drive the development of a large WtE energy industry. Rather the development of WtE projects will tend to be more strategic as part of the Malaysian federal government's policy objective of reducing the quantity of waste landfill and greenhouse gas emissions from landfill, and generating energy from solid waste.

The policy settings in Malaysia have long responded to the fact that a high proportion of the landfill sites in Peninsula Malaysia have limited remaining air/void space. The majority of existing landfill sites are open landfills, as opposed to engineered/sanitary, and as such there are environmental and health implications arising from existing landfill sites. Landfill will remain a requirement of Malaysia's waste management industry, but the challenge is how best to extend the life of some landfill sites and manage the closure of others.

One of the distinguishing features of the Malaysian waste management industry (compared to the PRC, India and Indonesia) is the opportunity for separation at source of reusable and recyclable materials. There is an opportunity in Malaysia to encourage higher rates of recycling, and this may be an area that will be considered in the medium term. We say the medium term because, at present, the issue with increased recovery of recyclables is finding a market for them (as has been shown by the response of exporting nations to the PRC's prohibition on importing foreign recyclables). Notwithstanding the policy of reducing MSW sent to landfill and the reduction in greenhouse gas emissions from landfill, in the absence of a market for increased volumes of recyclables recovered, what is the best means of disposing of them? It may be that, in the medium term, one solution is the increased use of recyclables as feedstock for WtE facilities, even though in the longer term, there is a desire to move to an outcome higher up the Waste Management Hierarchy, including reuse.

Philippines

The Philippines has a population of approximately 107 million people, producing approximately 12,775,000 to 14,600,000 tonnes of MSW a year (or 35,000 to 41,000 tonnes a day). The most recent estimates place production at a little under 41,000 tonnes a day, with over 70 per cent of this waste comprising household waste. (As with the estimates of MSW produced in India, it is likely that more MSW than this is actually produced.) Depending on the source of forward estimates, by 2025 the Philippines may be

producing between 16,425,000 and 18,250,000 tonnes of MSW a year (or 45,000 to 50,000 tonnes of waste a day). There are estimates from 2012 which predict up to 28,100,500 tonnes a year, i.e. a doubling of some other forward estimates. What this illustrates is that, as the population of the Philippines continues to urbanise, the assumption is that more waste will be produced. As urbanisation increases, so too does the need for effective management of increased levels of MSW.

The Philippines recognised the need to address the management of MSW relatively early, and put in place a policy framework intended to address the environmental and public health issues arising from the ineffective management of MSW, including closure of landfill and a prohibition on incineration as the natural alternative. Under the laws of the Philippines, each municipality (in the Philippines, referred to as a local government unit (LGU)) is obliged to establish a waste management system to manage MSW within its geographical area. In addition, the law has placed an emphasis on the avoidance, reduction and recycling of MSW, including by requiring separation at source, so as to divert MSW from landfill: the law requires that not less than 25 per cent of MSW must be diverted or recovered.

While there have been and remain challenges (including, in particular, enforcement) many municipalities working with the private sector have achieved relatively high levels of separation at source and recycling (with close to 10,000 MRFs in operation across the Philippines) achieving diversion rates of up to 48 per cent in Metro Manila. A key challenge remains the relatively low collection rates for MSW in some areas. The contrast between areas can be stark: one of the real successes has been the level of collection of MSW in some urban areas – for example, it is estimated that the collection rate in Metro Manila is in the 85-87 per cent range – but in other areas 40 per cent rates are said to exist. The level of collection has a direct impact on the effectiveness of the management of MSW.

Notwithstanding the use of policy levers, some key policies remain to be implemented (and enforced). Open dumping remains the predominant practice: even though municipalities were obliged to close their then-existing open dumping landfill sites some years ago, many of these landfill sites remain in use. Furthermore, while engineered/sanitary landfills have been developed, these have not been developed at the rate projected by government policy, and the environmental and public health objectives sought to be achieved have therefore not been achieved at the projected rates.

This is an illustration of the practicalities of waste management "bumping up" against the cost of implementing policy, and the time taken to do so. To address the costs issue, the government is suggesting to municipalities that they work together to share the costs of the development of engineered/sanitary landfills. This is an approach which has been used successfully in other jurisdictions, although in each jurisdiction it is important to confirm that a municipality is permitted to work with other municipalities, and the extent to which it may do so.

As with other jurisdictions, the development of long-term solid waste management plans by municipalities to outline the way in which waste is to be managed within their geographical areas is key. In this context, there are clearly opportunities for municipalities to plan co-ordinated waste management with other municipalities.

We understand that the level of submission of 10-year plans by municipalities for approval by the Department of Environment and Natural Resources' (DENR) Environmental Management Bureau continues to increase. That said, many municipalities are still to establish solid waste management boards, submit plans, and move to engineered/sanitary landfills.

Over the past two to three years, the private sector has proposed (on an unsolicited basis) the development of WtE projects in the Philippines, and from statements from the DENR there is a clear recognition that the prohibition on incineration does not apply to all WtE projects: the critical issue for the DENR is the following of appropriate guidelines in relation to emissions to air.

This acceptance of the possible development of WtE projects reflects a recognition that other policy levers need to be applied to satisfy the environmental objectives of the Philippines (including the management of greenhouse gas emissions from landfill) provided public health concerns (emissions to air) are appropriately managed. Given the collection rates of MSW in Metro Manila, the development of a WtE facility (announced in 2016) at Quezon City (within the area of greater Manila) may be regarded as a natural private sector response to assured levels of necessary feedstock to enable the development of WtE facilities. (Other WtE facilities are planned and will follow.) In the Philippines, as in all jurisdictions, the choice of technology will be key, particularly in response to the higher level of the organic fraction in the waste stream.

Conclusion

Policy levers are critical to the effective implementation of waste management systems. The variety of responses described above illustrates that the policies in place in individual jurisdictions must recognise the needs of, while at the same time recognising what is achievable in, that particular jurisdiction.

In our next article we will consider MBT, MRF, ORF and FOGO projects, and the key commercial and legal issues relevant to each, as well as the trend towards facilities that are able to process all forms of waste using mechanical and biological treatment.



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his article looks at the application of the transparency provisions of the Modern Slavery Act 2015 to the construction and infrastructure sectors. It considers the limitations of the legislation as well as emphasising that the onus on large organisations to carry out their business activities ethically and responsibly in the context of modern slavery extends beyond the "letter of the law" requirements of the Act.

Responsible and ethical business practice in today's corporate world comprises many elements such as the promotion of diversity, inclusion, equality, environmental sustainability and philanthropy. Transparency and traceability are also widely considered to be key to sustainable business practice. With the introduction of section 54 of the Modern Slavery Act 2015 (the Act), the UK Government has brought corporate ethics and transparency together in the context of human rights by requiring certain large organisations to publish an annual slavery and human trafficking statement.

On its introduction, the obligation on large businesses to comply with section 54 of the Act was labelled as "world-leading" by the then Home Secretary, Theresa May. Since then the UK Government has reinforced its commitment to tackling the eradication of modern slavery and human trafficking and last year promised to double its aid spending in this area. Nevertheless, the Act has remained under scrutiny for failing to go far enough and a current Private Member's Bill in the House of Lords seeks to tighten the legislation and extend accountability. For labour-intensive sectors

such as construction, which accounts for around 7 per cent of the global workforce, modern slavery and human trafficking are particular areas of concern. In this article, we look at section 54 of the Act, its extraterritorial effect for the construction sector, perceived shortcomings of the legislation and the outlook for the future.

What is modern slavery?

Despite recent legislative efforts in the UK and in other jurisdictions, the scale and manifestations of modern slavery are sobering. While it is incredibly challenging to accurately quantify the problem, the philanthropist-founded NGO, Walk Free, has attempted to do so via its Global Slavery Index. The latest Index estimated that some 45.8 million people are the victims of modern slavery. The countries identified as the worst perpetrators by proportion of their population are North Korea, Uzbekistan, Cambodia, India and Qatar. Based on sheer numbers, the majority of those living in slavery are in five countries – India, China, Pakistan, Bangladesh and Uzbekistan – but the problem

is widespread: the Index identified victims in 167 countries, including the UK.

Modern slavery is a general term that applies to situations involving exploitation, often under duress. This could be through slavery, human trafficking, domestic or non-domestic servitude, sexual exploitation, forced marriage, organ harvesting and, of course, forced labour. Abuses more specifically linked to forced labour – and therefore relevant to construction and infrastructure – are debt bondage, control of freedom of movement, abusive and involuntary living conditions, excessive overtime and unethical recruitment. Migrant workers are, unsurprisingly, the most common victims of modern slavery by way of forced labour, which underlines the global nature of the issue and makes the construction industry – with its often multi-tiered levels of sub-contracting and seemingly endless supply chains – particularly susceptible to abuse. Indeed, the International Labour Organisation, in conjunction with Walk Free, estimates that, after domestic workers (24 per cent), construction workers constitute the largest share of adults in forced labour (18 per cent).

The Act: who and what?

The Act was the first piece of legislation introduced in the UK specifically for the purpose of policing modern slavery and human trafficking. While section 54 sets out the requirement for large organisations to publish an annual statement, the majority of the Act is concerned with protecting victims and punishing perpetrators within the UK. The commitment of the Government to eradicating modern slavery and human trafficking has been acknowledged by the Global Slavery Index, which recognises the UK as one of the governments showing the strongest response alongside the Netherlands, the US, Sweden, Australia, Portugal, Croatia, Spain, Belgium and Norway.

The transparency provisions of the Act are set out in section 54 and aim to make organisations which carry on a business, or part of a business, in the UK, and which are over a certain size, publicly accountable for the steps they have taken (or not taken, as the case may be) to ensure that they are not complicit in modern slavery and human trafficking.

If an organisation:

- (a) is a commercial organisation;
- (b) supplies goods or services;
- (c) carries on a business or part of its business in the UK; and
- (d) has a total turnover of at least £36 million,

then it is required under the Act to produce an annual statement setting out:

- the steps taken during the past financial year to ensure that slavery and human trafficking is not taking place:
 - in any of its supply chains; and
 - in any part of its business,
- or, in the event no steps have been taken, a statement declaring that to be the case.

It is important to note the following:

- (a) If any organisation in any part of a group structure meets the above requirements, then it is required to produce an annual statement
- (b) Where a parent or one or more subsidiaries in the same group is required to produce a statement, the parent may produce

- one statement that subsidiaries can also use. The statement will, however, have to fully cover the steps that each of the organisations required to produce a statement has taken.
- (c) The jurisdiction in which a company is incorporated is irrelevant. The test is whether an organisation is carrying on business or part of its business in the UK.
- (d) While section 54 only applies to commercial organisations turning over more than £36 million, the Home Office has highlighted that smaller organisations may also find it helpful to publish section 54 statements on a voluntary basis. Of course, SMEs may also find themselves making statements or complying with policies if they are suppliers to an organisation that is bound by the Act.

The limitations of section 54

Section 54 has broad application, but it also has limitations. The content of the statement is not prescribed although section 54(5) sets out details of what a statement "may" contain, such as:

- details of the organisation's structure, its business and supply chains; and
- details of the parts of its business or supply chains located in areas where there is a risk of modern slavery and human trafficking, and the steps taken to manage that risk.

The lack of "bite" in section 54 is evidenced by a number of factors:

- the particulars in section 54(5) are only suggestions and not requirements;
- a section 54 statement does not need to be of any particular length or detail;
- companies are not required to guarantee that abuse is not taking place, only to demonstrate the steps which have been taken to seek to ensure modern slavery and human trafficking are not taking place; and
- the only sanction under section 54 is the ability of the Home Secretary to bring civil proceedings in the High Court for an injunction compelling the organisation to report (similar powers apply in Scotland). Only if the organisation fails to comply with the injunction would it be liable to pay a fine, which would be for contempt of court, not for failure to comply with the Act

Case study – the problem with supply chains and visibility

With approximately US\$150 billion profit annually resulting from forced economic exploitation, the incentive for the unscrupulous to exploit the vulnerable is very real. The consequence for multinational developers and contractors with long and opaque supply chains is the potential for unwitting involvement in modern slavery. While the legal bite of section 54 is limited, it has helped to set expectations in terms of acceptable standards of corporate accountability in the context of modern slavery. As the following case study demonstrates, in the current legislative and political climate, compliance with section 54 will not necessarily assist an organisation in avoiding significant ramifications if modern slavery does occur within its supply chain.

 X Group is a large infrastructure developer specialising in the design, construction and operation of light railway networks and is responsible for many inter-city light railway systems



within and outside the EU. X Group was originally founded in the UK in the 1970s as Company X, but is now a multinational organisation with a presence in 80 countries. Company A is a direct subsidiary of Company X. It is specifically responsible for the development of projects in Southeast Asia but carries out some of its work from London. It has various subsidiary entities, incorporated in several jurisdictions, which are responsible for implementation of projects in the region.

- Company A's parent company, Company X, sits at the top of the
 group structure and has in place what it considers to be a
 robust set of modern slavery and human trafficking guidelines
 across various areas, including a policy on fair employment
 which applies to its projects within and outside the UK.
 Company X's policy is a group policy designed to be followed
 by all entities within the large group structure, as well as all
 members of its supply chains.
- X Group companies are generally well perceived in the media and are listed on stock exchanges around the world.
- What issues might arise in relation to modern slavery? The following fact scenario demonstrates what can go wrong:
 - Three years ago, Company A wins a competitive bid to develop an extensive light railway system in Southeast Asia. The first of its kind in the country in question, this is a major infrastructure project requiring a substantial workforce which cannot be sourced solely from nationals of the country in question.

- A main contractor is appointed and, at the height of construction, more than 80 sub-contractors are employed, who in turn engage many sub-sub-contractors, and so on down the supply chain. A total of 15,000 workers are involved in the project.
- Under Company X's modern slavery policy, which Company A has also adopted, Company A's contractors and its entire supply chain are contractually obliged to comply with Company X's policy.
- Over time, and without Company A's knowledge (or that of any other of the UK entities of the X Group), exclusions are applied down the supply chain.
- The main driver is financial. Unscrupulous members of the supply chain find that they can increase their profits if they pay their workers little or no wage and force them to live in squalid accommodation.
- The existence of this labour exploitation eventually makes its way into the Western media and is promulgated through an exposing documentary on UK television. In response, X Group commissions its own independent investigation which notes that X Group's modern slavery policy is "robust" and "clear" and that Company X had published a "comprehensive" section 54 statement on behalf of itself and those of its subsidiaries who are bound by the Act, including Company A. Reports from international human rights organisations find that, while X Group had a clear

- policy and had complied with the Act to the extent that it detailed the steps taken and the procedures it has in place, it should have done more. It did not have full visibility of the actions of subsidiaries' supply chains.
- Treatment of workers has since improved but the reputation of X Group has suffered potentially irreparable damage. The confidence of shareholders, customers and investors has been dented and X Group has won fewer tenders than before the labour exploitation taking place in its supply chain was exposed.

Good practice

As can be seen from the case study, in the current political and cultural climate, producing an adequate statement may not be enough to demonstrate corporate responsibility. Due diligence is, of course, key and the Act provides that, in producing a statement pursuant to section 54, a company may include information regarding its due diligence processes. Indeed, Home Office guidance, issued in October 2017, goes further and suggests that a statement "should" contain information about a company's due diligence procedures, as well as addressing the other five areas set out in section 54(5).

Home Office guidance also states that human rights due diligence is "a key concept in the UN Guiding Principles on Business and Human Rights (UNGPs)". The UNGPs have been developed into sector-specific guidance by the Organisation for Economic Co-operation and Development (OECD) and suggest operational principles which should be adopted by business enterprises.

The UNGPs stress the importance of a clear policy that is embedded in the fabric of the organisation and supported by those at the top. Businesses are responsible for identifying, preventing, mitigating and accounting for how they address adverse human rights impacts. The due diligence required to achieve this should include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses and communicating how impacts are addressed.

The UNGPs recognise that due diligence will vary in complexity depending on the size of a business and the risks it faces, as well as the nature and context of its operations. To take the above case study: in order to fully assess the extent of modern slavery on its light railway project, Company X – as a large multinational corporate enterprise – should have been assessing the actual and potential impacts and fully tracking all responses. The UN acknowledges that where business enterprises have large numbers of entities involved, with consequential difficulties in conducting due diligence across all entities, then general areas should be identified where the risk is seen as most significant. This could be due to the operating context or the particular operations involved. Due diligence should then be focused and prioritised accordingly. The UN emphasises that human rights situations are dynamic and that assessments should be undertaken at regular intervals; prior to a new activity; prior to making major decisions; in response to or in anticipation of changes, as well as periodically throughout the life of an activity. Liaising with key stakeholders is also recommended, as is engaging credible and independent expert resources.

Home Office guidance refers to other ways in which companies can address human rights risk. Examples include:



- (a) Sharing risks with trusted partners such as representative bodies, industry associations and working groups to deepen understanding of macro issues and support improved government legislation, which may also help sectors to prevent modern slavery and human trafficking. A good example of this type of initiative in practice is the "Construction Protocol" produced by the Gangmasters and Labour Abuse Authority (GLAA), which was launched in October 2017. The Construction Protocol is a joint agreement between the GLAA, contractors (including Sir Robert McAlpine and Willmott Dixon) and industry bodies such as the Chartered Institute of Building (CIOB). It was produced to facilitate a dialogue between the GLAA and the construction sector by committing signatories to work in partnership through the sharing of information, the raising of awareness within the supply chain, and maintaining momentum through regular communication in order to help stop or prevent exploitative work.
- (b) The use of carefully designed performance indicators. This could help businesses to demonstrate very clearly whether they are making progress over time in preventing modern slavery and human trafficking, as results could be tracked and reported on. Section 54 of the Act is about transparency, i.e. a business has to demonstrate what steps it is taking, but the statement is not a guarantee that supply chains are slavery-free. Indeed, the Act gives businesses the option of reporting that they have taken no steps to ensure that slavery and human trafficking is not taking place. Thus, while demonstrating adequate due diligence procedures is likely to form an important part of the statement, there is actually no penalty under section 54 for a failure to show



that any such procedures are in place. Nonetheless, as the case study demonstrates, it is good business practice and good risk management to do so. That said, there will inevitably be limits to such procedures which need to be proportionate to the identified risk of modern slavery. As an example, business may have greater knowledge about its first-tier suppliers and, at this level, its stakeholders will expect greater efforts.

What next – more stringency in the future?

As can be seen from the case study, a business bound by the Act can comply with its requirements but still be seen as culpable in the eyes of the public for human rights abuses. The question is therefore whether the Act goes far enough? Should the legal ramifications for the existence of modern slavery and human trafficking in an organisation's subsidiaries or supply chain be more onerous? Critics of the Act argue that relying on the disincentive of reputational damage is not enough.

In any event, the potential reputational damage for non-compliance with section 54 is hampered by the fact that there is currently no formal or prescribed way of tracking whether companies are actually producing the statements which they are legally required to make. "Naming and shaming" is therefore not as easy as it might otherwise be. The absence of a central database also makes it difficult to measure the impact of section 54. Nevertheless, there are organisations that are taking on the task, notably the Modern Slavery Registry, which is easily accessible online and which has, at the time of writing, collated details of section 54 statements from over 5,000 companies. The Modern Slavery Registry is sponsored by charities such as UNICEF and Anti-Slavery International and its stated aim is to

analyse whether statements are in compliance with the legislation and the quality of the reporting.

These criticisms have been addressed in the Modern Slavery (Transparency in Supply Chains) Bill, which was introduced in the House of Lords last summer by Baroness Young of Hornsey and which has had its first reading. The new bill proposes that a list be published of all those required to make a transparency statement in a place and format that is easily accessible and which is categorised according to sector. The bill also proposes: (a) extending the requirements to public authorities; (b) requiring organisations that publish statements indicating that they have taken no steps to eradicate human trafficking and slavery to provide reasons for their failure to do so; (c) adding more detail on what must be included in a statement; and (d) amending the Public Contracts Regulations 2015 (SI 2015/102) so that businesses that are required to prepare a section 54 statement, and have failed to do so, are excluded from public procurement procedures.

While the transparency requirements may be strengthened in the foreseeable future, other developments indicate that, for the UK construction sector, modern slavery is increasingly on the agenda. In addition to the Construction Protocol (mentioned above), various industry initiatives have been launched including BRE's "Ethical Labour Sourcing Standard", and "Stronger Together" (a multi-stakeholder initiative to reduce modern slavery). The GLAA, mentioned above, has also begun targeting the construction sector. Although historically tasked with protecting vulnerable and exploited workers in the fresh produce and horticulture industries, because of similarities in the provision and use of labour in the construction industry, and extended powers pursuant to the Immigration Act 2016, the GLAA is increasingly involved in policing abuses in the construction sector, including offences under the Act.

Final thoughts

It is recognised that individual companies can only do so much, particularly where supply chains are very long. Nevertheless, despite both the practical limitations of policing modern slavery and the limitations of the Act, it is highly unlikely that the topic will cease to be of significant concern to big business. Future legislative changes are only likely to increase the obligations on organisations to participate in the eradication of modern slavery and human trafficking. Meanwhile, in the current climate of outspokenness on matters of fairness and justice, those in the construction and infrastructure sectors who do not demonstrate their commitment to ethical business practices will be held accountable in other ways.



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n 17 October 2017, the UK Government announced proposals to introduce new rules to protect the UK's national security, in particular in the context of foreign investment. This was followed on 15 March 2018 by proposed legislation to bring some of these changes into effect.

Key points

The 17 October proposals were contained in a Green Paper¹ entitled "National Security and Infrastructure Investment Review". The proposals were split into two categories:

- "Short-term" proposals: proposed amendments to the UK merger control regime lowering the jurisdictional thresholds for review of mergers in the military and dual-use sector, and parts of the advanced technology sector; and
- "Long-term" proposals: wider reforms intended to allow for better scrutiny of transactions that may raise national
- See https://www.gov.uk/government/
 consultations/national-security-andinfrastructure-investment-review for a copy of
 the Green Paper. A Green Paper is a term used
 in the UK to denote a Government consultation
 seeking views on proposals the Government
 is considering where those proposals are at a
 formative stage. Green Papers are often followed
 by White Papers, which set out more developed
 proposals, often including draft legislation.

security concerns. This may include a wider "call-in" power to allow the Government to scrutinise a broader range of transactions on national security grounds and/or a mandatory notification regime for foreign investment in certain parts of the economy considered critical for national security. This would include parts of the defence, civil nuclear, energy, communications and transport sectors.

On 15 March 2018, the Government confirmed that it intended to proceed with the short-term proposals and published draft legislation to bring into effect some of the proposed changes. At the same time, it published its response to the consultation (Consultation Response) and draft guidance (BEIS Draft Guidance) explaining the changes. Alongside the BEIS Draft Guidance, the Competition and Markets Authority (CMA) published its own

draft guidance (CMA Draft Guidance) on its approach to competition assessments under the proposed new rules.

It remains to be seen how the Government will take the long-term proposals forward, with a White Paper expected later this year. Changes are likely, although it is unlikely that the long-term proposals will be brought into effect before 2019.

Overview

The Green Paper emphasised that the Government wants the UK to remain among the economies most open to foreign investment, and suggested that any steps taken would be restricted to what was necessary and proportionate. It stated that no part of the economy should be automatically "off limits" to foreign investment. The Government is clearly mindful of the importance of not

discouraging foreign investment at a time when the UK is expected to leave the European Union by the end of 2020 at the latest (including the transitional period).

Nevertheless, the Government considers that a better balance needs to be struck to ensure appropriate scrutiny of the potential national security impact of transactions, especially those involving investment from abroad. In this regard, the Government would be bringing the UK more into line with other developed economies which have established regimes for assessing foreign investment, such as the Committee on Foreign Investment in the US (CFIUS), the Foreign Investment Review Board (FIRB) in Australia and the Investment Canada Act.

Particular areas of concern identified in the Green Paper were the risks that the ownership or control of critical businesses or infrastructure could provide opportunities to undertake espionage or sabotage, or to exert inappropriate leverage.

If implemented, the long-term proposals would significantly increase the scope for intervention by the Government in UK infrastructure transactions. From an investor perspective, key issues will include: whether any new regime is proportionate and does not discourage foreign investment; whether it is clear (both as to its scope and the circumstances in which concerns may arise); whether it is transparent; and whether it is applied consistently and efficiently. The Government states in the Consultation Response that it has committed to implementing a transparent and proportionate regime which is wholly focused on national security.

The proposals come at a time when national security and controls over foreign investment have become an issue of greater prominence internationally. For example, on 12 March 2018, Singapore-based Broadcom's proposed acquisition of Qualcomm was blocked by President Trump on national security grounds. And in January, the sale of money transfer firm Moneygram to China's Ant Financial, the digital payments arm of Alibaba, was abandoned following failure to obtain CFIUS consent.

In the EU, the European Commission set out proposals in September 2017 for an EU-wide foreign investment screening mechanism. A key aspect of these proposals was their acceptance that national security should remain a matter of Member State competence and therefore that the Commission would not be able to impose its views on national governments (although the European Parliament has since suggested that the Commission's powers should be strengthened).

Short-term proposals

The Government is concerned that there is an unacceptable risk that transactions falling outside the scope of the existing merger control regime under the Enterprise Act 2002 (EAo2) could give rise to significant national security concerns. (Further information on the existing merger control regime under the EAo₂ is provided in the Merger Control under the Enterprise Act 2002 box below.) The Government has highlighted that "advances in technology now mean that there are ubiquitous goods with the potential to be directed remotely should a hostile actor obtain access or control" and that this could undermine the UK's national security. Furthermore, the Government's view is that such advances have often been driven by small niche businesses, with the result that mergers involving such businesses run a real risk of raising national security concerns. The Government also notes in the BEIS Draft Guidance that computers are exponentially more powerful than in 2002 (when the EAo2 was enacted) and that the UK faces greater and more complex threats than it has done historically, including cyber operations to compromise critical national infrastructure and attempts to covertly influence Government policy.

As a short-term measure, the Government therefore intends lowering the existing jurisdictional thresholds under the EAo2² in two sectors:

- the military and dual-use sector covering the design and production of military items and "dual-use" items;³
 and
- companies whose business involves certain activities relating to computer processing units (CPUs) or quantum-

based technology including quantum computing and quantum communications techniques. Among other things, it is understood that the provisions relating to CPUs are intended to deal with concerns that non-detectable "back doors" might be incorporated into them.

In these two sectors, the Secretary of State would be able to intervene (and potentially prohibit the merger) on national security grounds if any of the following apply:

- the UK turnover of the target exceeds £1 million (reduced from the standard £70 million); or
- the merged entity will create or enhance a UK share of supply of 25 per cent or more (i.e. the existing "share of supply test"); or
- the target has an existing UK share of supply of 25 per cent or more (this would remove the need for an increase in market share).

The draft legislation published on 15 March 2018 provides significantly greater clarity than the Green Paper as to the scope of activities to be covered by the expanded provisions, although some uncertainties remain. The scope of activities comprises:

- businesses which develop or produce "restricted goods", or hold certain types of information relating to such restricted goods. Restricted goods are goods, software or information the export or transfer of which is controlled under specified export control legislation, namely schedules 2 and 3 to the Export Control Order 2008, the schedule to the Export of Radioactive Sources (Control) Order 2006 and annex I to EU Council Regulation No. 428/2009 (which relates to dual-use items). These provisions are intended to cover both military and dual-use items;
- owning, creating or supplying intellectual property relating to computer processing units and certain related items, as well as designing, maintaining or providing support for the secure provisioning or management of "roots of trust" for CPUs and computer code which provides low level control for CPUs. Roots of trust are defined to mean hardware, firmware or software components which are inherently

See the "Merger Control under the Enterprise Act 2002" box for further information on jurisdictional thresholds.

^{3 &}quot;Dual-use" refers to products which have both military and civilian uses.

Merger Control under the Enterprise Act 2002

Among other things, the EAO2 sets out the UK merger control regime. This provides for the CMA to review mergers and acquisitions which meet certain criteria to assess whether they may substantially lessen competition and, if so, to only allow them to proceed subject to conditions (e.g. divestment of certain businesses) or to prohibit them altogether.

The EAO2 provides for a so-called "voluntary" system of merger control under which the parties may notify a qualifying transaction for approval, but are not obliged to do so. However, if they choose not to, the CMA may intervene up to four months after completion and potentially require a completed transaction to be unravelled. Most systems of merger control (e.g. the EU Merger Regulation (EUMR)) are "mandatory": in other words, the parties must obtain approval for a qualifying transaction before proceeding with it.

Currently, if a merger or acquisition gives rise to a certain minimum level of control or influence, it

can be reviewed under the EAo2 if either of two jurisdictional thresholds is met:

- the "UK turnover test", which is met where the target's UK turnover exceeds £70 million; or
- the "share of supply test", which is met, broadly speaking, where the effect of the transaction is to create or enhance a market share of at least 25 per cent in the UK or a substantial part of the UK. This threshold cannot be met if there is no overlap in the parties' activities as it requires an increase in market share.

Prior to the EAo2, decisions on mergers were made by a Government minister, advised by the predecessor to the CMA (the Office of Fair Trading (OFT)). The EAo2 sought to "take the politics out of merger control" by authorising the OFT (now the CMA) to take independent decisions on whether transactions raised competition concerns. However, the EAo2 does allow for Government ministers to intervene

- trusted to perform critical security functions, and include cryptographic key material that can identify a device or verify a digital signature; and
- research into, developing or producing anything designed for use in, or supplying services employing, various forms of quantum technology, specifically quantum computing or simulation, quantum imaging, sensing, timing or navigation, quantum communications and quantum resistant cryptography. The BEIS Draft Guidance notes that quantum technology has the potential to break currently secure computer and telecommunications systems and could give military vehicles and weapons substantial additional abilities.

The BEIS Draft Guidance suggests that businesses (and those considering buying them) ought generally to be aware of whether they fall within the scope of the extended powers. However, it also indicates that they may approach the Government for (non-binding) guidance if

they are unclear on whether they, in fact, do so.

If the Secretary of State were to intervene under the expanded powers, the existing public interest process under the EAO2 would be followed. Thus, he or she would become the final decision-maker on whether the deal should be cleared or prohibited, provided he or she continued to believe that the public interest consideration remained relevant (although the Secretary of State must accept the advice of the CMA on competition issues, and the European Commission remains the decision-maker on competition issues in EUMR cases).

An impact assessment published as part of the Consultation Response contains a Government estimate that between 5 and 29 new transactions per year would be brought within the scope of UK merger control by the intended changes. Of these, the Government estimates that it would issue an intervention notice on national security grounds in one to six cases per year. Given that the Government has only

intervened on national security grounds in seven transactions in the last fifteen years (equating to 0.5 interventions per year) under the existing EAo2 provisions, this is perhaps a surprisingly large number.

The Government also highlights research produced on its behalf by Economic Insight, which has found that clear and predictable national security regimes with transparent and objective criteria are not seen as significant barriers to foreign investment. The Government has therefore concluded that the potential impact of the proposed changes on foreign investment into the UK will be very limited.

The way in which the Government has chosen to implement the changes means that the new regime would technically allow the Secretary of State to intervene on any of the specified public interest grounds in any deal where the target is active in the specified sectors and the new, lower thresholds are met. However, the Government makes the reasonable point that it cannot foresee any circumstances in which transactions involving firms in the

on public interest grounds in certain circumstances. Such an intervention right generally only exists where either the EUMR applies (in which case the UK assessment is limited to public interest issues) or if one of the above jurisdictional thresholds is met. Where that is the case, the Secretary of State may intervene if he or she has reasonable grounds for suspecting that one of the following public interest considerations is relevant:

- national security;
- media plurality; or
- the stability of the financial system.

The Government also has power to introduce new grounds for intervention, although this requires subsequent Parliamentary approval.

In addition, there are "special public interest" provisions which allow the Secretary of State to intervene even if neither of the above jurisdictional

thresholds has been met. The key category for present purposes relates to acquisitions of government defence contractors which hold classified information, but there are also provisions which apply where one of the parties has a 25 per cent share of supply of newspapers or provision of broadcasting.

If the Secretary of State intervenes, in broad terms, he/she becomes the decision-maker (rather than the CMA) assuming he/she continues to believe that the specified public interest consideration remains relevant (albeit the Secretary of State must accept the CMA's conclusions on the competition assessment). In other words, public interest considerations as determined by the Secretary of State may trump the competition analysis undertaken by the CMA.

In the fifteen years the EAO2 has been in force, the Government has only intervened on national security grounds on seven occasions, the most recent being the Hytera/Sepura transaction in 2017.

specified sectors would give rise to media plurality or financial stability concerns. National security should, therefore, be the only potentially relevant consideration.

Of perhaps more relevance in practice is the fact that the reduced thresholds also apply to the CMA's powers to conduct competition assessments. However, the CMA Draft Guidance published on 15 March 2018 states that it does not expect the changes to bring about a material change in its approach. In this regard, the CMA notes that mergers between competitors which might raise competition concerns would typically already qualify for assessment under the existing "share of supply" test (which does not require the target to be of any particular size). The CMA recognises that the new rules could broaden the circumstances in which it has power to intervene where the parties are not competitors, but are active in related markets. Currently, such transactions would only be caught where the target has UK turnover exceeding £70 million. Under the new rules, in the specified sectors, such

deals could be reviewed where the target had turnover exceeding £1 million (and potentially even less). The CMA states that most mergers between non-competitors are benign from a competition perspective and that it is not aware of any such cases that it would have wanted to examine historically but did not have the power to do so. Therefore, it does not envisage a material change in its approach. Of course, this does not rule out the possibility of additional deals being subject to detailed competition assessments where they would not have been caught by the existing rules.

Pending any wider reforms under the long-term proposals (see below), the existing merger control regime will continue to apply in all other sectors (for further details refer to the Merger Control under the Enterprise Act 2002 box above).

It should be noted that the intended expanded regime is not premised on there being any foreign investment element: the powers would apply equally to UK acquirers and to non-UK ones. However, the BEIS Draft Guidance states that

foreign investment is more likely to raise national security concerns than domestic investment since foreign investors may be controlled or influenced by hostile state actors (albeit the Government reiterates that the vast majority of foreign investment poses no national security concerns).

What will be the impact for merging parties?

While notification will remain voluntary if the new thresholds are met (pending any introduction of a mandatory regime – see below), the Secretary of State (and, indeed, the CMA) could choose to review the transaction if it was not notified, and therefore parties to transactions caught by the new provisions will need to carry out an assessment of whether national security (or competition) concerns may arise, and may consider notifying in order to maintain greater control over the review timetable.

What happens next?

As noted above, on 15 March 2018 the Government published its response to the Green Paper consultation, alongside draft legislation and draft guidance. The draft legislation which has been introduced to Parliament covers changes to the "share of supply" test and the definitions of the relevant sectors caught by the expanded regime. A separate draft statutory instrument relating to the revised turnover test is expected to be introduced shortly. Assuming Parliamentary approval is granted, all the changes will be introduced at the same time. The Government has stated that the new rules will not have retrospective application and this is clear from the draft legislation.

Long-term proposals: wider reforms to foreign investment control

The Green Paper also put forward a range of longer-term proposals which are intended to make more substantive changes to the way in which the national security implications of foreign investment are scrutinised. It is possible that only some of the proposals will ultimately be implemented.

Expanded voluntary regime with greater "call-in" powers

The Green Paper proposed an expanded "call-in" power modelled on that contained in the EAo2 which would allow it to scrutinise a broader range of transactions for national security concerns, while maintaining a voluntary notification regime. As with the short-term proposals considered above, this regime would in principle apply to both foreign and domestic investors.

Under the proposals, the Secretary of State would be able to make a special "national security intervention" at any time within a three-month "call-in" window following completion, where he/she reasonably believed that national security risks were raised by the acquisition of "significant influence or control" over any UK business entity by any investor. The Green Paper proposes that significant influence or control would cover:

- an acquisition of more than 25 per cent of a company's shares or votes; or
- "any other transaction that gives (directly or indirectly) significant influence or control".

The Government has indicated that it will provide guidance as to what this second threshold might mean, suggesting it may draw on the guidance on the meaning of "significant influence or control" in the context of the Register of People with Significant Control under the Companies Act 2006. Among other things, the Government has said that it wants to make sure it can assess transactions where an investor would obtain unrestricted access to sensitive sites or data.

The Government is also considering whether any such expanded call-in power should be extended to cover the following (neither of which is caught by the existing EAo2 regime):

- new projects, in particular where these are expected to develop into businesses whose activities may have significant national security implications, such as a new nuclear power station; and/or
- sales of bare assets, such as machinery or intellectual property.
 If a transaction were to be called in under this expanded power,



the Secretary of State's review process would be separate from any competition review process.

Mandatory notification regime for certain foreign investment

The Government is also considering a mandatory notification regime for foreign investment into the provision of "essential functions". The Green Paper does not discuss how "foreignness" would be determined, and this will need to be addressed at the next stage of the consultation process. It is notable that many infrastructure investor groups with significant UK investments are not UK-based.

Such a mandatory notification regime could potentially be extended to cover:

- new projects;
- specific businesses or assets (the Government envisages publishing a list of affected businesses and assets, except when this would give rise to clear national security threats); and/or
- land in proximity to national security sensitive sites; for example, where there is a risk of espionage or sabotage.

The Government proposes that a mandatory regime would only cover companies:

- which undertake "essential functions" that the Government views as being critical to ensuring the UK's national security; or
- where existing licensing or regulatory regimes are insufficient to protect national security.

The Green Paper suggests including certain specific activities within the following sectors: civil nuclear, defence, energy, communications and transport, as well as businesses involved in the manufacture of military and dual-use items and advanced technology (as per the short-term proposals outlined above), and possibly the government and emergency services sectors.

Annex C to the Green Paper sets out the proposed "essential functions". The identified activities are quite broad in both the energy and communications sectors, for example, and appear to include (among others) all energy network companies (including interconnectors as well as transmission and distribution companies), large-scale power generation, large energy suppliers, providers of



infrastructure for voice and data networks with more than one million end users and any operator of a submarine cable. Proposed coverage in the transport sector would be narrower, comprising statutory harbour authorities with a 5 per cent share of UK traffic, airports classified as dominant (i.e. Heathrow and Gatwick) and the provision of en route air traffic control services. In some cases, the scope of precisely what would be covered is also unclear.

The same threshold of "significant influence or control" would apply as in the potential wider call-in power considered above. Clarity on how this threshold would be applied would be essential in a mandatory regime.

Failure to comply with any new mandatory notification regime would be punishable by sanctions, which could potentially include criminal offences, financial penalties and/or director disqualification. Any package of wider reforms would also be accompanied by additional powers to request information from companies.

If the Government decides to introduce a mandatory notification regime, it seems likely that it also envisages a wider call-in power operating alongside it, which would not be limited to the specified "essential functions".

It is proposed that the Secretary of State would have the same powers as under the existing public interest mergers regime, namely: (1) to clear the deal unconditionally; (2) to impose conditions; or (3) to prohibit the deal altogether. In cases where a deal had completed prior to the national security assessment (in the context of a voluntary notification regime), the Secretary of State could potentially "unwind" a deal if this were considered necessary to protect national security.

The Government envisages a "clear, short time frame" for review, but no further detail is provided. The envisaged decision-making process, including which bodies/government departments would be involved, is not discussed in the Green Paper, although the Government's current intention seems to be that final decisions would reside with a Secretary of State rather than any specialist body.

Affected parties would be able to seek judicial review of the Secretary of State's decision.

How is this different from the existing regime?

Particularly if a mandatory regime is introduced, this would involve a significant change. As noted above, under EAo2, the Government has only intervened on national security grounds in seven transactions in fifteen years. The Green Paper estimates that a mandatory regime covering the identified essential functions would involve "fewer than 100" transactions per year.

As noted above, investments in new projects are not covered by the current merger control regime, nor are transfers of "bare assets", specific businesses, or land.

What would be the impact for merging parties?

The Green Paper recognises that an expanded call-in power would increase uncertainty for businesses. However, it emphasises that the Government would only intend using the new powers in a small number of cases, and that it could provide informal advice to businesses about whether it had national security concerns about particular proposed investments.

Any mandatory notification regime would clearly impose an increased burden on foreign investors into affected businesses, and would be likely to catch a significant number of transactions which do not, in practice, raise any national security concerns. However, a mandatory regime might provide greater certainty of application, at least in the short term. Although the Government has indicated that it would seek to grant rapid approval in "no issues" cases, a mandatory regime would inevitably have an impact on deal timetables and create additional work for the parties. However, in some cases at least, particularly at the outset while investors adjust to the new regime, the same is likely to be true of a "call-in" regime. Some infrastructure investors are known to prefer a mandatory regime with clear notification criteria to the uncertainty of a call-in regime.

The increased involvement of politicians in merger control (whether under an expanded call-in power or a mandatory notification regime) is also likely to increase uncertainty and, depending on how the system works, could also give rise to transparency concerns. However, the Green Paper (and the Consultation Response and BEIS Draft Guidance relating to the short-term proposals) certainly suggests that the Government wishes to have a regime that is as transparent and certain as practicable, so as not to risk discouraging foreign investment.

What happens next?

The consultation on the wider reforms closed on 9 January 2018. The Government is expected to issue a more detailed White Paper on its long-term proposals during 2018, and it is unlikely that these proposals will be brought into effect before 2019.



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"social impact investment vehicle" was used on the Treviso hospital PPP project, which closed in July 2017, and on which Ashurst advised. This innovative feature may be suitable for replication in other infrastructure deals in Italy and elsewhere.

The Treviso hospital project financing charts new territory for social infrastructure PPP projects by adopting a financing structure under which a portion of the savings derived from the financing arrangements (and, in particular, the European Investment Bank (EIB) lending) is reinvested in social activities in the local community. As acknowledged by the European Commission and the European Parliament, this approach, which is entirely voluntary, i.e. not required by law, could act as a role model for other infrastructure projects, whether social or not, both in Italy and elsewhere. It could also be a "plus factor" for bidders in any future public tenders.\footnote{1}

The Treviso hospital project is the largest greenfield hospital to be developed in Italy in recent years following a wave of increased interest from infrastructure funds, banks and debt funds/institutional investors in the M&A and project bond/project financing of Italian hospitals, as set out in Table 1 overleaf.

Treviso is a small wealthy town in the Veneto Region (in north-east Italy, near Venice) and an industrial hub for both a range of niche enterprises as well as international brands such as Benetton, Riello and Geox, many of which are leaders in their sectors, exporting a large proportion of their output to a global market. Investment in Treviso's social infrastructure is key to maintaining its competitive advantage internationally. The hospital serves the entire community in the province of Treviso, which has a population approaching one million. The existing hospital was no longer fit for purpose and a large part of it needed to be rebuilt; also, both routine and intensive healthcare services, including day surgery, needed to be upgraded.

To renew and upgrade the hospital, known as the "Cittadella della Salute" (Hospital City), the Treviso Health Authority issued a tender for a 21-year PPP concession contract for a €250m 1,000-bed hospital, with the aim of creating a model hospital serving the healthcare needs of the entire region. The concession is a classic Build-Operate-Transfer (BOT) structure, whereby the private sector party builds, operates and – at the end of the concession – transfers the hospital back to the authority. The financing sources are a mix of public grants during the construction phase, in addition to availability payments (canone di disponibilità) and payments for the provision of non-medical services during the operation phase. The balance of the financing is provided by the private sector party through a mix of equity and project finance debt.

European Parliament, Directorate-General for Internal Policies, Policy Department B: Structural and Cohesion Policies (2017); European Commission, Vision and Trends of Social Innovation for Europe (Filippo Addarii & Fiorenza Lipparini) (2017).

Table 1: Italy's main healthcare PPP deals over the past two years

Date	Type of transaction	Hospital	Parties
August 2017	M&A	Integrated Centre of Novara (Piedmont region)	Equitix (buyer) and Pessina Costruzioni (seller)
August 2017	M&A	Mestre (Veneto region)	Astaldi (buyer) and Mantovani (seller)
February 2017	M&A	Milan San Giuseppe (Lombardy region)	Multimedica (buyer) and Ente Morale Provincia Lombardo Veneta dei Fatebenefratelli (seller)
February 2017	M&A	Three hospitals of Foggia, Potenza and Bisceglie (Puglia/Basilicata regions)	Universo Salute (buyer) and Congregazione Ancelle Divina Provvidenza (seller)
February 2017	M&A	Legnano (Lombardy region)	Ardian (buyer) and HISI (seller)
March 2016	Project finance	Verona – Borgo Roma and Borgo Trento (Veneto region)	Unicredit/MPS
February 2016	M&A	Garbagnate Milanese (Lombardy region)	Equitix (buyer) and Pessina Costruzioni (seller)
January 2016	Project finance/ Project bond	Udine – Santa Maria della Misericordia Hospital (Friuli- Venezia Giulia region)	Natixis, BNP Paribas
December 2015	Project finance	Empoli (Tuscany region)	MPS
August 2015	Project bond/Project finance	Garbagnate Milanese (Lombardy region)	Natixis
July 2015	M&A	Castelfranco Veneto and Montebelluna (Veneto region)	Equitix (buyer) and Guerrato S.p.A. (seller)

As is standard for projects of this type, and as required by law, medical services are provided by the authority itself and not by the private sector party.

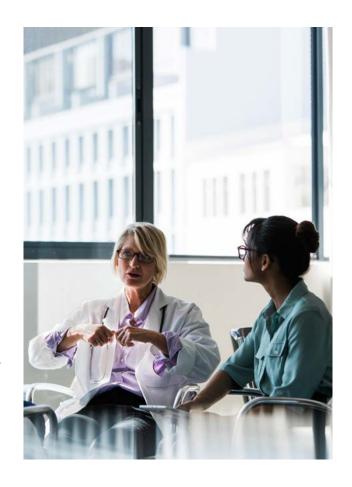
In December 2015, the concession contract was awarded to Ospedal Grando S.p.A., a special purpose vehicle (SPV) led by Lendlease – a leading Australian infrastructure developer – alongside other financial and industrial partners. This is the first time in Italy that the leader and majority shareholder of a concessionaire has been a "pure" developer and investor, rather than a construction company.

The construction contract has been awarded to a joint venture of two of the SPV shareholders, Carron (65 per cent) and Bilfinger (35 per cent).

The contracts for the services to be provided during the operation phase have been awarded to a number of the SPV shareholders and other entities, and include:

- soft facilities management, i.e. cleaning (Manutencoop), laundry (Servizi Italia), catering (Serenissima) and hospitality (i.e. all commercial activities within the hospital premises such as bar, restaurant, shopping and car park);
- hard facilities management, i.e. waste and energy (Bilfinger); and
- supplies and upgrade of medical equipment (Tecnologie Sanitarie). Diagram 1 summarises the PPP structure for the project.

² The SPV is 80 per cent owned by Finanza e Progetti, which is a vehicle 50 per cent owned by Lendlease and 50 per cent owned by Servizi Italia. The other 20 per cent ownership of the SPV is held by several industrial partners: SIRAM (10 per cent); Carron Italy (2.5 per cent); Bilfinger SE (2.5 per cent); Tecnologie Sanitarie (2.5 per cent) and Lendlease Construction (2.5 per cent).



Following various upgrades to the design as a result of certain changes in law (e.g. compliance with new anti-earthquake legislation), works began in June 2017 with the construction of the emergency unit and helicopter pad. The main building is expected to be completed within four years, and the other facilities three years later.

The hospital will include 160,000 m² of floor space dedicated to healthcare provision, of which 105,000 m² will be new-build and 55,000 m² will comprise upgrades to existing facilities, and will contain 200 day care surgeries. As tangible evidence of the upgrade, and most unusually for Italian hospitals, there will be a maximum of two beds per room, as opposed to the four – or eight – beds per ward which existed previously.

In July 2017, the SPV entered into a project finance loan agreement and related finance documents with the EIB as well as UniCredit, Intesa Sanpaolo (with Banca Prossima) as commercial lenders and Banca IMI. The debt package includes a term loan facility and a VAT facility (provided by commercial lenders) as well as a €29 million loan from the EIB, which was granted under the framework of the European Commission's Investment Plan for

Europe – known as the "Juncker Plan" – at a lower interest rate than that provided by the commercial lenders. In a novel arrangement, 100 per cent of those interest savings are being committed, not – as would normally be the case – as a dividend to the SPV's shareholders, but to capitalise a new social impact vehicle entitled "Ospedal Grando Impact Investing", which has been established to invest in social entrepreneurial initiatives relating to public health in the Treviso area and the Veneto Region, such as new e-health services. The thinking behind this arrangement is that this investment will start a virtuous cycle of further investments in the social impact vehicle, which in turn will trigger better services for the community and further commitment from community stakeholders. In addition, it provides an opportunity for the SPV and its sponsors to test a new model for social infrastructure projects and to increase the attractiveness of their offering in a highly competitive infrastructure market.

On the one hand, this structure is similar to other local impact investment vehicles established elsewhere in Europe such as the Liverpool City Region Impact Fund and the Portugal Social Innovation Programme. On the other hand, this structure is a "market first" because it was conceived by the private sector and implemented through corporate venture capital. The EIB has acknowledged that the Treviso project is the first to be funded by the EIB where there has been an explicit commitment to use the financial benefits derived from the EIB funding for social impact investing.

A number of legal structures were considered in order to implement these arrangements. Initially, the social impact vehicle was intended to be a subsidiary of the SPV. However, this would not have allowed full separation of the social impact vehicle and the SPV and would have raised a risk of failure to comply with the concession requirements. In the end, the social impact vehicle was structured as a sister company to the SPV, owned by the main shareholder of the SPV (Finanza e Progetti), under which the SPV's savings derived from the EIB lending are transferred to the social impact vehicle as equity by means of a delegation by Finanza e Progetti (in its capacity as shareholder of both the SPV and the social impact vehicle) of the payment of special distributions deriving from the abovementioned savings. Under the financing

Diagram 1: PPP structure for Treviso hospital project

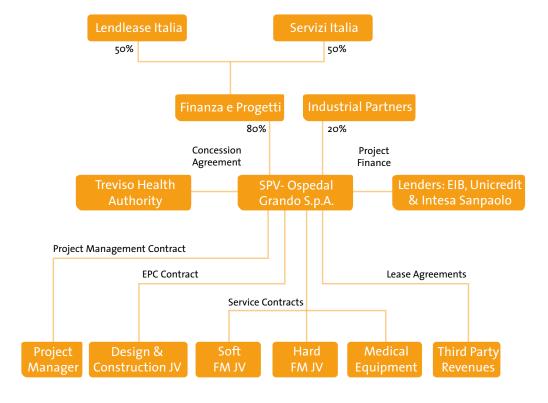
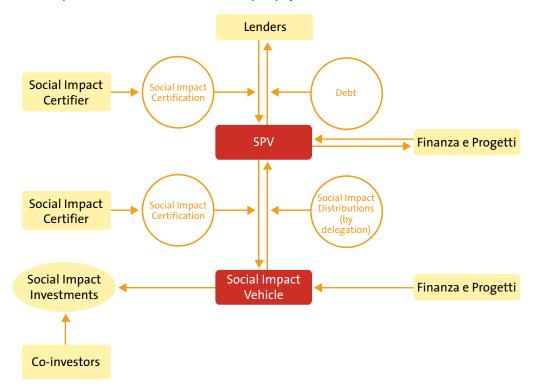


Diagram 2: Social impact investment structure for Treviso hospital project



documents, such special distributions are subject to specific distribution requirements compared to ordinary distributions.

Investments by the social impact vehicle must be made within a set period of time and must comply with certain social investment parameters agreed with the lenders. Compliance is checked by a firm appointed by the SPV or by the social impact vehicle with the consent of the lenders. In addition, the mission of the social impact vehicle is set out in its constitutional documents, which cannot be amended without the consent of the lenders.

The identites of the shareholders of the social impact vehicle and of the SPV are not required to continue to coincide but, if they cease to coincide, the social impact vehicle must be "kept whole" by the outgoing shareholder.

Diagram 2 above summarises the social impact investment structure for the project.

Another challenge raised by the structure is that savings from the EIB financing are not accrued upfront but over the duration of the loan, and therefore social impact distributions are potentially delayed, which, in turn, could delay social impact investments. To mitigate this, the social impact vehicle may require its shareholders or external lenders to bridge this funding gap.

This factor, along with other features of the social impact provisions, makes the project structure quite unique in Italy in that social impact investments are achieved not through a not-for-profit organisation, a foundation, a philanthropic initiative or a corporate social responsibility programme, but through a for-profit vehicle.

This structure may prove a viable alternative option, or an upgrade option, for a number of PPP projects in Italy, particularly in the hospital sector, which has experienced significant growth in recent years.



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Mark Elsey writes...

As long ago as 1906, Mark Twain was warning that figures can so easily be used to "beguile" an audience and that there were "three kinds of lies: lies, damned lies, and statistics". In an era of "fake news" and "alternative facts", the same warnings need – more than ever – to be heeded today, and a healthy scepticism applied to claims made by pressure groups and by those with strong vested interests or ideological bents. In a world awash with data, it has never seemingly been harder to identify the truth.

Recently, one hopefully trustworthy source – the UK's National Audit Office – published its long-awaited report on the PFI and PF2 business models. The NAO concluded, in its survey of 11 government departments, that cost certainty was generally seen as a benefit of PFI, and that most considered maintenance standards under PFI to be higher than in traditionally-procured projects. The NAO also reported, crucially, that there was a lack of data available on the benefits of PFI/PF2 deals, making it difficult to form an effective business case for their use.

To no great surprise, the main findings of the NAO were ignored by the majority of the press and those with ideological bents and the headlines and sound bites proclaimed that "the Government can borrow more cheaply than expensive PFIs" and that taxpayers are being "forced to hand over" £200 billion under private finance deals.

Taking its lead from the NAO, the National Infrastructure Commission has called on the industry to provide it with data evidencing the performance of PFI and PPP projects. If an industry, which has to date been reticent at sharing data, is serious about wanting to rebut some of the many mistruths about PFI and to fill the current information vacuum, then let's hope that the NIC postbag is full of data.

But, I still have a nagging concern. I am not sure that data, no matter how convincing (or otherwise) will be the silver bullet that some are hoping for. The rise of populism (and even, perhaps, the votes for Brexit and Trump) can in part be traced to the rise of convenient mistruths. Can data alone sway the masses or the ideologues?

My concern is that the majority empathise more with Mark Twain than the NAO, which takes us back to fundamentalism and some simple value-based judgements. I would hope that most rational commentators and politicians agree that a procurement methodology that delivers real financial accountability, clear risk allocation and a whole-life approach should have a place in a nation's infrastructure toolkit. Can I prove incontrovertibly the benefits? No. Do I believe and judge that they are real? Based on more than 25 years' experience in the infrastructure industry working on both publicly and privately financed projects, yes absolutely. If someone can provide substantial and meaningful data to the contrary, then I am of course open to persuasion.

P.S. Can those with the data please share it with the NIC and prove that my beliefs are correct.



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