

FEATURE ARTICLE: INFRASTRUCTURE PRIVATISATIONS



INFRASTRUCTURE PRIVATISATIONS

There is a wave of anti-privatisation in the air and it has cost dearly those governments throughout the world who are persistent on selling state assets to reduce burdening government debt. The challenging global demographic forces of an ageing population, continued population growth and an urbanisation trend has left no one arguing that developed economies are in desperate need to both upgrade existing infrastructure and invest in new infrastructure projects. However, while the need to deploy capital in the infrastructure sector is evident in these economies, it appears that not all people can agree on how best to finance this much-needed infrastructure investment.

In this feature article, we discuss that whilst governments are able to retain state assets and fund new infrastructure projects on their own balance sheet, there currently exists a window for privatisations to occur at significantly higher than average prices. Because of this we believe that governments should be questioning whether to hold onto state-owned assets when such attractive prices are on offer, as high prices translate to either high growth assumptions or low expected ongoing returns (or a combination of the two). Should governments be minded to hold onto their assets rather than selling, then they will need to consider whether they can generate the high expected growth assumptions to justify that decision. Given the low long-term growth rates factored into bond market pricing, combined with a history of public owners not been able to achieve such growth, it is highly unlikely that they would be able to justify a decision to hold these assets. To put this in another way, governments would be better off spending the proceeds from these sales elsewhere.

Whilst voter aversion to infrastructure privatisation has been the defining factor in removing several incumbent governments and instilling those with an anti-privatisation agenda, politicians need to look beyond voter emotion and act more like rational investors, subscribing to the idea that anything, including state assets, should be for sale at the right price.

The current antipathy to privatisations also has significant implications for the private sector seeking to invest in these privatised infrastructure assets. The combination of increasing demand from institutional investors and diminishing supply of assets (given the withdrawal of privatisation plans) helps to fuel pricing levels significantly exceeding long-term averages, which is largely a function of today's exceptionally low yielding environment. There is a risk that investors chase this already hot market, seeking to deploy capital at all costs. However, the ability to generate the earnings growth rates required to achieve the expected returns implied by recent infrastructure transactions, as well as the risk of a price re-rating post-acquisition (to longer term levels) is an uncertain proposition for investors currently looking to deploy capital into this sector.

1.1 Asset Privatisations – The Voters Say No

Recently the Australian Labor Party in Queensland pulled off a surprise state election win against a first term Liberal National Party who had controlled 73 out of 89 seats in the Legislative Assembly. The result was the second largest shift of seats against a sitting government in Queensland since Federation in 1901. Voters in Queensland had unequivocally rejected the Liberal National Party's plan to privatise A\$37 billion (US\$29 billion) of state owned assets. History had repeated itself as it was the second consecutive Queensland state election loss that has been largely attributable to voters' negative attitudes to selling off public assets. In 2012, the Labor Party suffered the worst defeat of a sitting government in Queensland's history on the back of privatising state assets. The public's attitude towards privatisations is likely to feature prominently in the up-coming New South Wales state elections, where incumbent Liberal National Party has plans to privatise the state's 'poles and wires'.

The aversion to asset privatisations is certainly not Australia centric. Anti-privatisation sentiment also exists in Europe and a key obstacle political parties must address as part of the upcoming European elections. Spain's new anti-austerity party, Podemos, has seen its stock rise ahead of the Spanish elections at the end of 2015 (noting the country's current and planned

privatisations) – this is despite Spain’s relatively positive history with regards to asset privatisations. Furthermore, the UK’s Labour Party is trying to turn the national debate to the NHS (National Health Scheme) by backing an anti-privatisation bill in an effort to prop up the low personal rating of Labour leader, Ed Miliband, before the upcoming general election in May 2015.

However the European ‘poster boy’ for anti-privatisation of state assets is reserved for Greece after the Syriza Party swept into office

on the back of anti-austerity rhetoric in January 2015. During the first few weeks in office the new government halted the state asset privatisation program and requested the resignation of the heads of the national privatisation agency, the Hellenic Republic Asset Development Fund (HRADF). These measures were taken despite the HRADF struggling to achieve anywhere near close to the privatisation proceeds target initially implemented as part of the €245 billion bailout, as set out in the figure below.

Table 1: Actual vs Target Greek Privatisation



Source: European Commission, HRADF

At end December 2014, a total of €7.1 billion of asset privatisations had occurred, of which only €530 million has been received due to administrative and legal delays¹. The Greek assets yet to be privatised include significant investments:

- **Ports:** Piraeus Port, Thessaloniki Port and other regional ports;
- **Airports:** Athens Airport and other regional airports;
- **Utilities:** Public Power Corporation; and

¹ Financial Times, “Greece Backtracks on Privatisation” (4 February 2015).

- **Other infrastructure:** Hellenic Petroleum, Hellenic Post, Egnatia Motorway, rolling stock and real estate.

Given the Syriza Government's desire for strategic infrastructure assets to remain in public hands, it seems unlikely any further significant privatisations will occur.

Clearly voters in many countries have significant reservations regarding privatisation of state held infrastructure assets. However, considering the best interests of taxpayers over the long term, who is really the better owner of these assets? Should they remain in public hands, or be transferred to the private sector?

1.2 Monopolies, Price Gauging, and Other Drawbacks

There are several examples of why the public can be sceptical of governments handing the keys of prized infrastructure assets over to private sector investors. Returning to the Queensland state election – the privatisation of Port of Brisbane in 2010 (under the Labor Government) netted taxpayers A\$2.1 billion (US\$2.2 billion), and was described as “a great result for the taxpayers of Queensland” by the then State Treasurer, Andrew Fraser². The price achieved for the sale of the 99-year port lease to the Q Port Holdings consortium implied an EBITDA multiple³ of 15 times.

Less than three years later, one of the Q Port Holdings consortium members, New York based Global Infrastructure Partners, sold their 26.7% interest in the port for A\$1.4 billion (US\$1.5 billion) to Canadian pension fund Caisse de Depot et Placement du Quebec. This implied a value of Port of Brisbane of around A\$6.2 billion (almost three times higher than what the Queensland public received in 2010), at an EBITDA multiple of 28 times. The Queensland public could very well be justified in thinking the privatisation of the port did not provide appropriate compensation to the taxpayers, and may be sceptical as to who ultimately benefited from this particular process; the government,

the people or big business. The perception of this conflict raised doubts in voters' minds as to whether privatisations, in general, are in the public's best interest.

Besides being wary that state assets may not be sold at the highest price possible, the recent election results in Australia and Greece suggest the public are highly sceptical that, given the monopolistic nature of many of the assets slated for sale, private owners will seek to maximise profits (in the form of higher prices charged to end users) at the expense of taxpayers (being the end users). Furthermore, the public are wary of non-price considerations against privatisation including the desire (or rather, lack thereof) of the private sector to provide non-commercial services to the public where no clear user-pay structure is in place, as well as the maintenance of service quality under a for-profit service provider.

However, what is often overlooked in much of the debate is that there are several mechanisms available to the government to address these competition, pricing and service quality concerns to ensure the private sector cannot abuse their monopoly power. This generally occurs via industry regulation (setting price ceilings that may be charged by the private sector operator and ensuring appropriate price path development). For example, regulators often set an allowable rate of return on the regulated asset base of a monopolistic assets held in private hands which is typically reset at five year intervals. As highlighted by Infrastructure Australia⁴, as well as pricing issues, governments can ensure that private sector owners do not abuse monopolistic assets through:

- maintenance and service quality standards and commitments to expand the asset appropriately to service demand increases;
- requirements to provide a range of non-commercial services which may have

² The Courier Mail, “Queensland Sells Port for \$2.3 billion”, 11 November 2011.

³ EBITDA multiple equals enterprise value/EBITDA. EBITDA = Earnings before interest, tax, depreciation and amortisation.

⁴ Infrastructure Australia, “Part of the Answer to Removing the Infrastructure Deficit” (October 2012).

been undertaken under a public-sector ownership; and

- a range of broader operational standards including environmental protection, public safety and noise management.

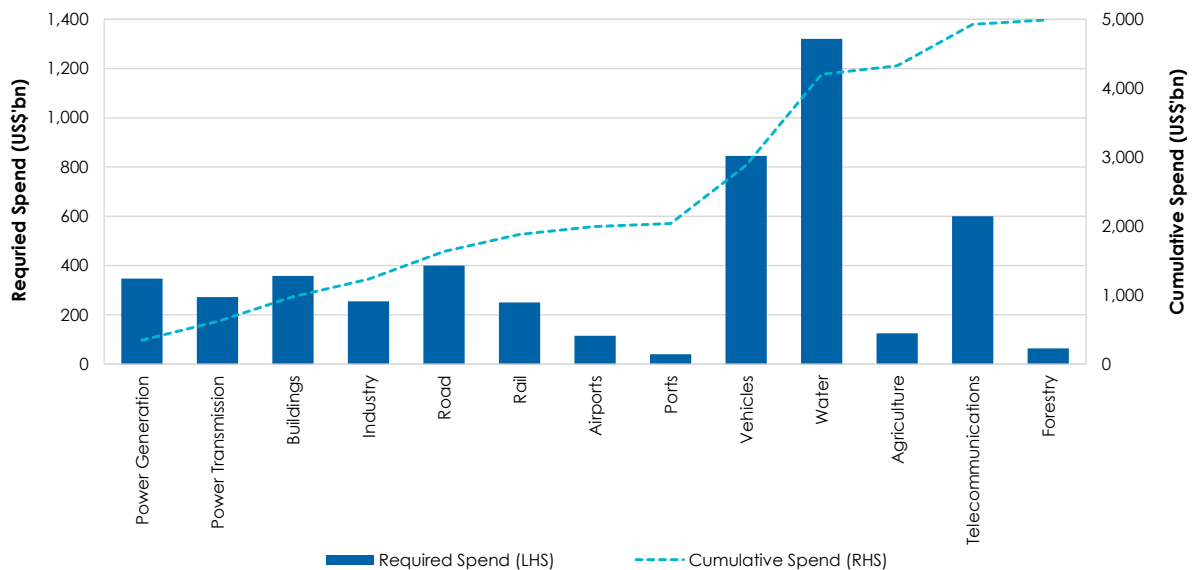
Therefore, if governments can instil a regulatory regime with teeth and extract a sizable premium (as is possible in the current market), there are strong grounds for privatisation of state assets to free up additional funds to further invest in much needed infrastructure projects.

1.3 The Clear Need for Infrastructure

Whilst there is significant debate about whether assets are best held in public or private hands,

there is little disagreement regarding the need for governments around the world to investment further in infrastructure in order to maintain pace with the global demographic forces of an ageing population, continued population growth and urbanisation. This, coupled with the growing importance of maintenance, upgrading and rehabilitation of existing infrastructure, has led to the Organization for Economic Cooperation and Development (OECD) projecting the need for US\$5 trillion per year to be spent on infrastructure until 2030, a cumulative amount of US\$75 trillion from now until 2030.

Figure 1: Global Infrastructure Requirements per year to 2030 (\$US billions)



Source: OECD, World Economic Forum

Given the quantum of investment required, the financing options available to governments to deliver the essential infrastructure required to meet the challenges of changing social demographics and global trends are important considerations.

1.4 How Infrastructure Assets are Privatised

Asset privatisations reported in the media often focus on the divestment of mature state-owned assets (that is, an outright sale) or the granting

of a concession period to the private sector to operate the asset for a specific period (such as a 99 year port lease). However, the transfer of new infrastructure investments to the private sector can also occur by way of ‘Public Private Partnerships’ (PPPs; or Private Finance Initiatives (PFIs) in the UK and P3s in North America). These types of privatisations can include a range of structures, including:

- **Traditional PPPs:** the private sector finance the construction and/or operations for a short period, but risk is

ultimately borne by the government. This may include a range of schemes, for example, design and construction (D&C); design, construct and maintain; build, own, operate and transfer (BOOT);

- **Availability Charge Model:** traditionally used for social infrastructure (schools, hospitals and prisons) whereby the private sector operator receives a payment stream from the government for ensuring the infrastructure is available for use. The infrastructure may revert back to government ownership at the end of the concession period; and
- **Economic or Patronage Model:** the private sector is provided the opportunity to build/construct the infrastructure and takes-on the demand/patronage risk for a specific concession period, after which ownership transfers back to the government. Such structures are generally suitable for demand based projects such as toll roads, rail projects and some water treatment plants.

While much of our discussion in this article focusses on the direct asset sales and long-term concessions to the private sector (and the resulting prices achieved), it is important to recognise that the market for PPPs is inextricably linked to the same factors impacting the market for privatisations. The public's concerns, as well as the current opportunities available to the government under prevailing market conditions, also extend to PPPs, and accordingly, should be factored into the general privatisation debate.

1.5 Financing Options

Governments have two basic options to finance further infrastructure investment:

- **Expand the balance sheet:** finance infrastructure by issuing additional debt; or
- **Maintain the balance sheet (recycle capital):** use capital raised from asset privatisations to reinvest in infrastructure projects.

The prospect of issuing new or additional debt is often met with resistance from the general public as it results in higher interest repayments (ultimately sourced from taxpayers). However, this oversimplifies key aspects of debt financing, importantly, the distinction between what could be touted as 'good debt' (used for productive purposes) and 'bad debt'. Using the proceeds of debt financing to invest in productive projects (typically generating returns in excess of debt servicing costs) is entirely reasonable, and is comparable to what any mortgage-holding member of the public has done in buying a house. We are not averse to the notion of financing productive investments in infrastructure by issuing additional debt (particularly at current historic low financing costs as discussed below), however governments are failing to adequately sell the notion that an increased interest bill does not always translate into poor fiscal management.

The alternative to debt financing, being capital recycling, uses proceeds from asset sales (privatisations) to reinvest back into the public infrastructure sector. A critical point to consider for recycled capital is that the proceeds from privatisations are ultimately dependent on the market conditions at the time of sale.

The low yields currently observable for new government debt issuances may tip the scales in favour of using debt funding (particularly having regard to current yields relative to longer-term average funding costs). However, given the prices observed for recent privatisations, as well as the valuation metrics observed for listed infrastructure companies, the government should be able to extract a significant premium relative to long term asset prices for privatising assets in the current market. To consider the relative merits of each financing approach, we have delved into each financing option in more detail in the following sections.

1.6 Expanding the Balance Sheet

Public opinion does not normally support the government voluntarily increasing its indebtedness to finance public infrastructure. Detractors usually argue that increasing the level of debt outstanding will only lead to higher

future obligations to taxpayers (in the form of interest and principal repayments). In its strictest interpretation, this concern is correct – increasing government debt will increase the quantum of governments’ debt servicing costs.

However, it is worthwhile considering the cost of funding currently achievable in the market,

relative to long-term measures. Governments can currently issue debt at rates significantly below long-term averages. The table below provides a summary of government debt auctions during 2015, relative to the long-term yields on tenor-matched government bonds.

Table 2: Recent Government Bond Auctions

Date	Currency	Tenor (Yrs)	Coupon (%)	Long-Term Average ¹ (%)	Spread to Average (%)
March 2015	AUD	9	2.75%	5.04%	(2.29%)
March 2015	JPY	10	0.30%	1.27%	(0.97%)
February 2015	EUR	5	(0.08%)	2.82%	(2.90%)
February 2015	USD	5	1.44%	3.37%	(1.93%)
February 2015	GBP	5	2.00%	3.61%	(1.61%)
February 2015	CHF	10	0.01%	2.21%	(2.20%)
February 2015	EUR	5	0.00%	2.82%	(2.82%)
January 2015	USD	5	1.24%	3.37%	(2.13%)
January 2015	EUR	5	0.05%	2.82%	(2.77%)

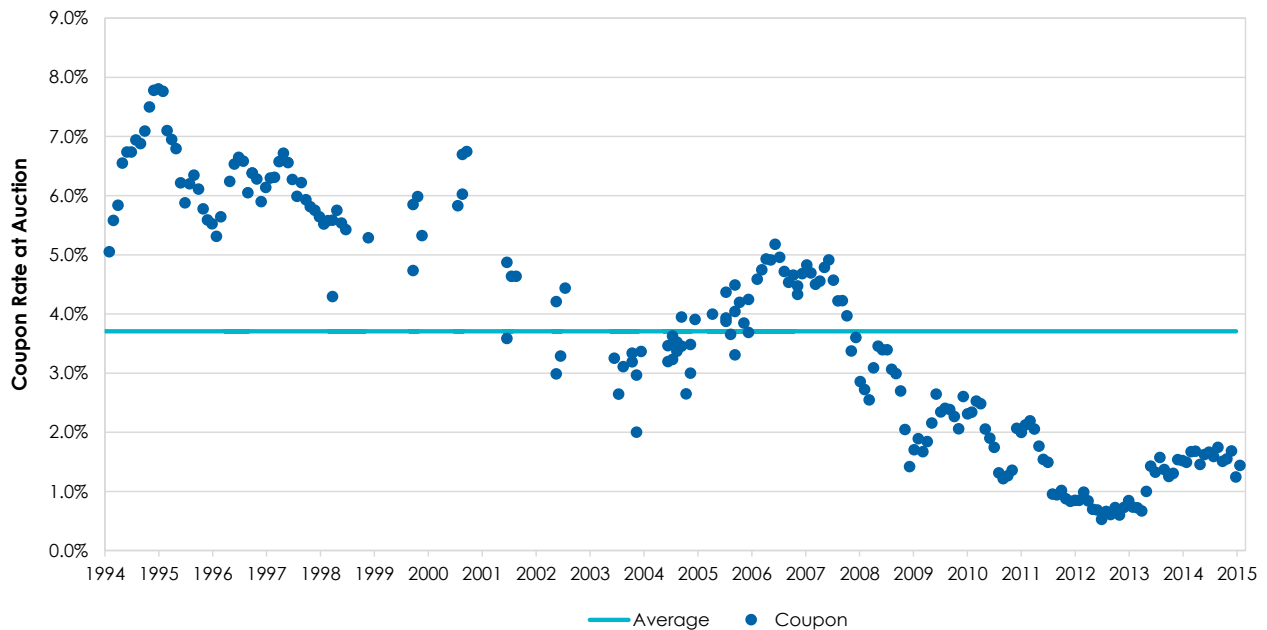
Source: Bloomberg

Note: Long-term average based on daily yields of the tenor matched generic government bond from 1 January 2000.

Based on recent auctions, it is evident that in some instances governments have been able to raise debt with nil or negative coupon rates, and at the very least, the coupon rates have been materially below long-term averages. As a result, to fund further investment in infrastructure and expand existing infrastructure, governments have the ability to do so at a low cost.

To put the current rates recently achieved into perspective relative to longer-term bond auctions (specifically the USD five year auctions – bolded in Table 2 above), the figure below sets out a time-series analysis of the USD five-year government bond auctions (which have typically taken place on a monthly basis) from January 1994 to February 2015.

Figure 2: USD Five Year Bond Auctions (January 1994 to February 2015)



Source: Bloomberg, Whitehelm analysis

In the mid- to late-1990s, the US government’s five-year debt cost around 5% to 8% per annum, in comparison to the most recent issuance at around 1.4% per annum. At the current rate, over the life of the debt, this would imply the US government’s interest servicing costs would be around 60% lower than the long-term average (and 80% lower than the mid-1990s). For governments able to issue debt with coupons at or near zero, the interest savings are even higher.

Relative to long-term funding costs, there are significant benefits for governments to debt finance infrastructure investments, particularly given the low risk, stable cash flows generally associated with infrastructure investments.

However, while the current climate may be conducive to low cost debt financing, the strong demand from large institutional investors for infrastructure assets has two key advantages to governments:

- Firstly, prices achieved for asset privatisations are significantly higher than average (discussed further below), which provides governments with much larger

proceeds than would normally be the case. Furthermore, the returns currently accepted by the private sector for PPPs have also substantially decreased, making such initiatives relatively cheaper for the government; and

- Secondly, by privatising assets, the risk of ownership of the assets is removed from the government. This is particularly important where aging infrastructure may require significant capital investment in the future (the Queensland State Government stated that taxpayers avoided estimated expansion costs of more than A\$1.0 billion as a result of its privatisation plan⁵). Furthermore, research⁶ suggests that the private sector may be able to achieve better outcomes than if the infrastructure remained in public hands (the efficiency gains available to the private sector are explored further below).

Accordingly, a major consideration for governments is whether to expand their balance sheets and retain the risks associated with the infrastructure investments, or to pass this risk on to private owners given there is clearly significant appetite from the private sector to

⁵ Infrastructure Australia (Australian Government), “June 2013: National Infrastructure Plan” (June 2013).

⁶ Infrastructure Australia (Australian Government), “Australia’s Public Infrastructure: Part of the Answer to Removing the Infrastructure Deficit” (October 2012).

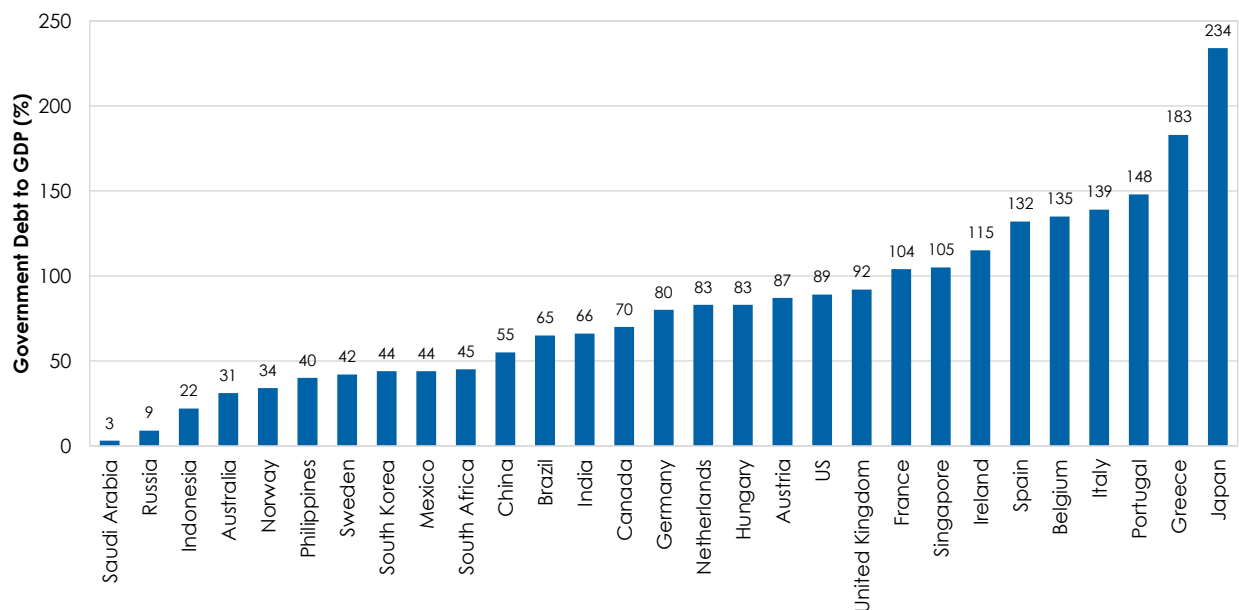
take on this risk. Where governments can extract a sizable premium for privatisations (or if private sector PPP participants willingly accept low returns), and private sector owners have the ability to produce better outcomes for end-users of these assets (being the tax payers) under appropriate regulation, it makes little sense for the public to retain ownership of these assets via issuing additional debt regardless of how cheap it is to finance.

Adding to this, many economies may find themselves constrained by the already sizable level of government debt currently issued. For example, highly indebted Euro Area economies (notably Greece), where government sector debt exceeds gross domestic product (GDP), there is little capacity to fund infrastructure investments via balance sheet expansions, despite the current low borrowing costs. This is

particularly the case where further debt issuances by a government may result in ratings downgrades (from the likes of Moody's, Standard & Poor's etc.), leading to higher future borrowing costs.

To provide a point of reference, the figure below sets out an analysis of the government debt to GDP ratios for selected economies in 2014. We note that, with the exception of Japan and Singapore, the fourth quartile (being the most indebted economies) is dominated by the euro area, where there is clearly strong pressure to reduce government debt. Notably, Australia and Norway are the only advanced economies within the lowest quartile, which may suggest capacity to expand the government balance sheet to fund further investment in infrastructure.

Figure 3: Government Debt to Gross Domestic Product (2014)



Source: McKinsey & Company

This high level of indebtedness in advanced economies has coincided with rising, and largely unfunded, aged related spending (pension and healthcare costs), with demographic influences making the fiscal outlook worse. As populations in Europe, the United States and Japan age, the ratio of active workers to retirees will shrink, resulting in adverse implications for future consumption, spending, asset values and government revenues. This has placed further scrutiny on the level of government debt, and raises doubt over the ability of these governments to independently finance the

required investment in infrastructure. Accordingly, while the current borrowing costs are at record low levels, the balance sheet expansion option is likely not to be feasible for many advanced economies.

1.7 Recycling Capital

The idea of capital recycling is simple – using the proceeds from privatisations to expand existing infrastructure or invest in new infrastructure. Interestingly, in Australia, this process is being further encouraged with the current Federal government proposing to provide an additional

incentive to state and territory governments seeking to privatise assets. The proposal is for any state/territory asset that is sold, the state/territory government will receive an additional payment (provided by the Australian Federal Government) equivalent to 15% of the sale price of the asset, provided the proceeds of the sale are reinvested in new, productivity-enhancing assets⁷.

A key variable associated with the capital recycling option is the ultimate proceeds received from the privatisation process, which is largely dependent on market conditions at the time of sale. This factor also extends to PPPs, where the returns bid by the private sector (being the implicit cost of the project to the government) are directly impacted by economic conditions and demand/supply elements for such assets. Recent evidence suggests that current pricing of infrastructure assets is significantly higher than long-term averages (and this is particularly the case for mature 'trophy assets' that are typically the subject of privatisations). We explore market pricing in a later section of the article.

Given governments are likely to be able to extract significant premia for privatised assets in the current market for both direct sales and PPP type initiatives (which would prevent the need to raise additional debt for new infrastructure investments), and from the governments' perspectives, the ownership risk can be transferred to the private sector, the capital recycling option makes sense in this 'hot' market. That is, for a rational investor, everything should be for sale, at the right price.

1.8 Who are the buyers?

Mature infrastructure investments (the type generally subject to privatisation) are often characterised by predictable, inflation-linked cash flows, with low correlation to traditional asset classes and relatively favourable default and recovery rates (in comparison to other sectors). Such characteristics are increasingly

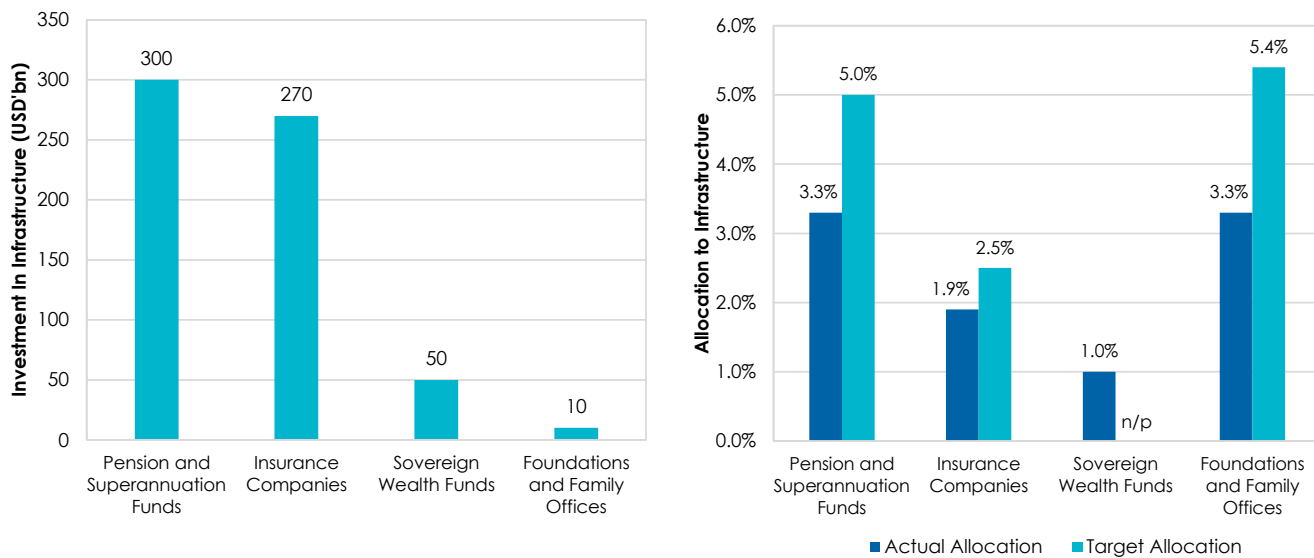
sought after by large pension funds, sovereign wealth funds and insurance companies globally, in particular:

- **Defined benefit pension plans:** the decrease in interest rates since the GFC has increased the value of defined benefit pension plans' long-duration liabilities. The long-life nature of most infrastructure investments (such as the 99 year leases granted for recent Australian port privatisations) provides a means to duration-match the pension plans' exposures; and
- **Insurance companies and defined contribution pension plans:** privatised assets typically exhibit relatively high income yields, particularly relative to fixed income securities in the current economic environment. This provides a low risk, inflation-linked income stream for investors. Furthermore, the infrastructure investments generally exhibit relatively low correlation to traditional listed asset classes, providing an additional benefit to institutional investors' portfolios.

Research conducted by Prequin⁸ indicates that, while large institutional investors currently have meaningful allocations to infrastructure, this is expected to increase in the coming years, supporting the continued demand for infrastructure investments (including those that may become available via privatisations). While in Australia industry superannuation funds typically have around 10% allocated to infrastructure, we find that overseas the allocations are around three to five per cent. The figures below set out the quantum of infrastructure investments by large institutional investors, and the actual allocations to infrastructure for pension and superannuation funds, insurance companies and sovereign wealth funds, versus their long-term targets.

⁷ The Asset Recycling Fund Bill 2014 is yet to be passed.

⁸ Sourced from Inderst Advisory, "Institutional Investment in Infrastructure" (May 2014).

Figure 4: Estimated Investment in Infrastructure & Current and Target Allocation to Infrastructure


Source: Preqin (sourced from Inderst Advisory)

n/p – not provided

Focussing on pension funds (including Australian superannuation funds) and insurance companies, which contribute a significant proportion of institutional investors’ global allocation to infrastructure, and assuming a straight-line transition to the target allocation over the next ten years, this would suggest additional demand for infrastructure investments of around US\$160 billion⁹ per year, and a total of US\$1.6 trillion over the ten year forecast period. Clearly, the expected demand for infrastructure investments over the next few years is expected to remain high.

The quantum of this level of investment in infrastructure from institutional investors is relatively small compared to the current annual global spend on infrastructure investment (c.US\$2.5 trillion¹⁰), and significantly lower than the estimated required infrastructure spend to maintain economic growth of around US\$5.0 trillion per year¹¹. However, much of this infrastructure investment precludes private sector participation. Furthermore, the withdrawal of privatisation plans by

governments is further limiting the opportunities available to the private sector. Accordingly, any upcoming privatisations will likely face significant demand from institutional investors, and given the limited supply of these assets (over the short term), this will continue to place pressure on asset pricing.

1.9 Price Cycles of Financial Markets

Prices realised by governments when undertaking asset privatisations are heavily dependent on market conditions at the time of sale. As explored further below, market evidence shows that current pricing of infrastructure assets is high, relative to both historical measures and in comparison to the broader market. The low growth/low yield environment has spurred on a ‘hunt for yield’ by institutional investors (which matches the characteristics of core infrastructure investments). Furthermore, increasing allocations to alternative investments (including infrastructure) by institutional

⁹ Using a relatively similar approach, Inderst Advisory estimates additional annual investments in infrastructure of around US\$140 billion per annum, and up to US\$280 billion per annum.

¹⁰ Public-Private Infrastructure Advisory Facility, “Institutional Investment in Infrastructure in Emerging and Developing Economies” (March 2014).

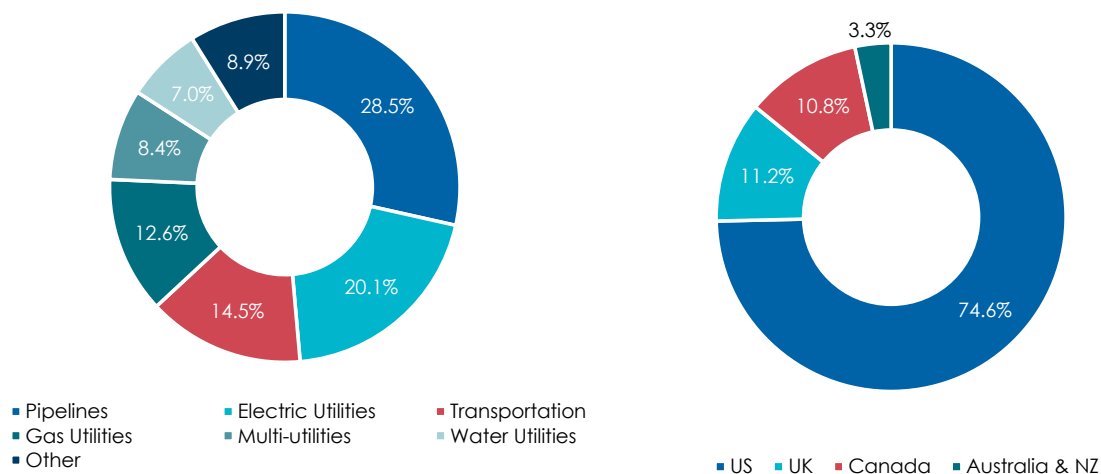
¹¹ OECD, “Private Financing and Support to Promote Long-Term Investments in Infrastructure” (September 2014)

investors has also contributed to the increase in demand for such assets.

To provide an indication of market pricing over time, we have conducted an analysis of listed infrastructure companies in the US, Canada, UK, Australia and New Zealand since January 2000. For the purposes of our analysis, infrastructure companies include the utilities (gas, electricity and water), transportation (airport, port and

rail), pipelines, energy storage and alternative electricity industries. The sample comprises 214 companies with a relatively even distribution across infrastructure sector, but a strong bias toward the US market (given the relative differences in the sizes of the markets). The figures below set out the distribution of the sample by country (of exchange listing) and sector.

Figure 5: Sample – Infrastructure Subsector & Sample – Country of Exchange Listing

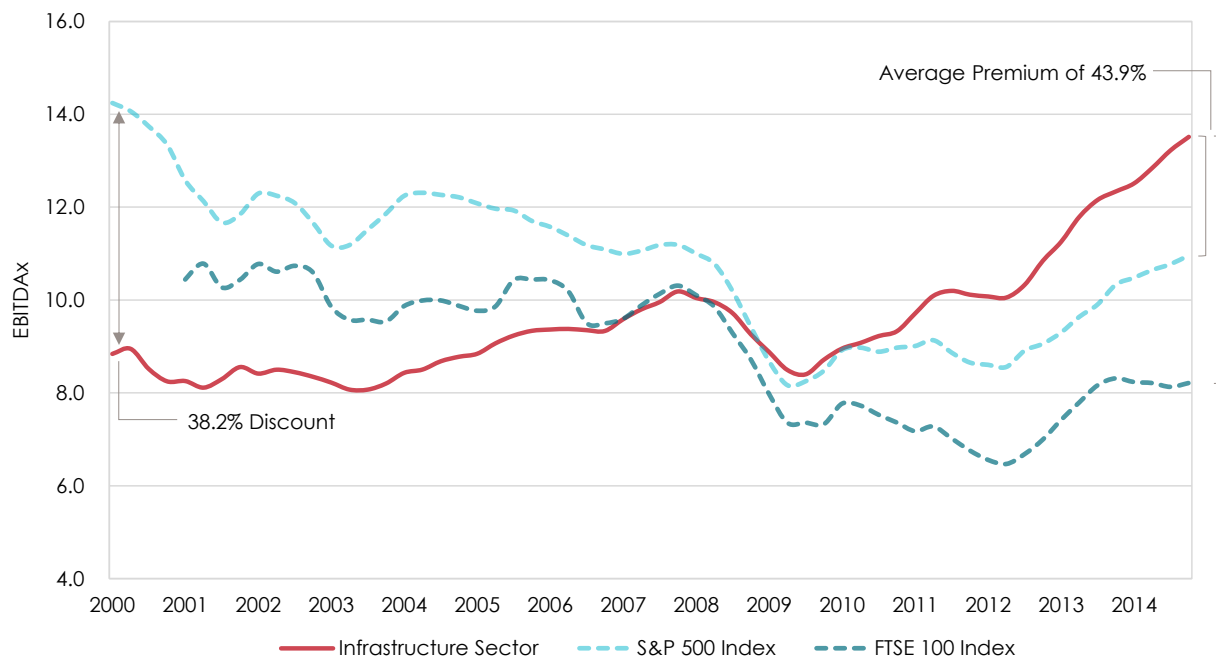


Source: Bloomberg, Whitehelm analysis

To assess pricing of the infrastructure sector over the period, we measured the sample's market capitalisation weighted earnings before interest, tax, depreciation and amortisation (EBITDA) multiple. The EBITDA multiple is a commonly used measure for asset pricing and provides a mechanism to compare companies (regardless of size and, to an extent, sector) on the basis of what multiple of earnings investors are willing to pay for these companies. The

higher the multiple, the more expensive the asset or sector. The figure below sets out a time series of the market capitalisation weighted EBITDA multiple for our infrastructure sample from January 2000 to December 2014. We have also included the implied EBITDA multiples for the overall US and UK markets (using the S&P 500 Index (US) and FTSE 100 Index (UK) as proxies) to provide a relative measure of the infrastructure sector to the broader market.

Figure 6: Historical EBITDA Multiples – Infrastructure, US and UK (January 2000 to December 2014)



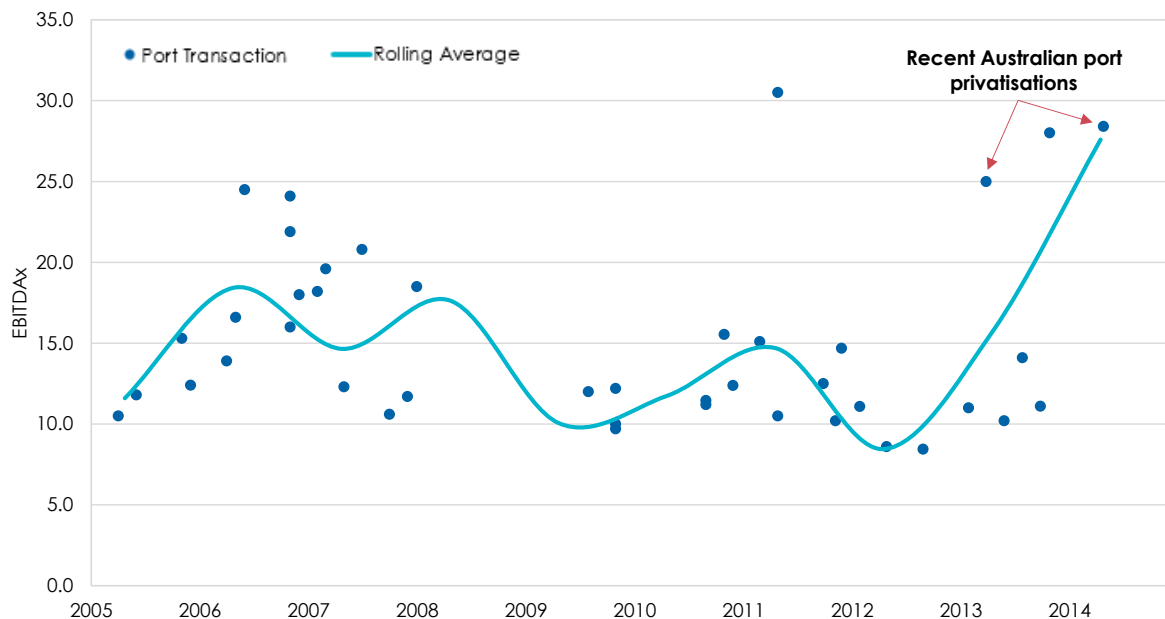
Source: Bloomberg, Whitehelm analysis

The analysis shows that, when measured on the basis of EBITDA multiples, the infrastructure sector over the post-GFC period has become increasingly more expensive than the general market. In the early 2000s, the infrastructure market traded at around a 20% to 30% discount to the broader US/UK market (and reaching a discount of almost 40% to the US market in late-2000). However, in the last several years this trend has well and truly reversed, with the infrastructure sector now trading at a 44% premium to the US/UK market. This coincides with unprecedented quantitative easing by central banks over the period in an attempt to address low growth while interest rates are already close to zero in major developed economies. The demand for the high yielding

(and relatively low risk) infrastructure investments has bid up asset pricing, and as a direct consequence, increased the observed EBITDA multiples for the sector.

While the analysis of the listed infrastructure sector benefits from availability of pricing data from a large number of companies in liquid markets, recent transactions (including privatisations) also point towards high prices relative to historical measures. This is particularly the case for recent privatisations in Australia where Ports Botany and Kembla and the Port of Newcastle were sold for estimated implied EBITDA multiples of around 25 times to 28 times. The chart below sets out the implied EBITDA multiples from global port transactions over the last ten years.

Figure 7: Historical EBITDA Transaction Multiples– Global Ports (January 2005 to December 2014)



Source: Various, Whitehelm analysis

The transaction data, while noting it is limited to one infrastructure subsector, also shows that infrastructure assets are currently priced high, relative to historical measures. The evidence from listed infrastructure companies and prices achieved in recent transactions provides strong arguments in favour of privatising assets in the current market from a pure pricing perspective.

It is worth noting that the current high pricing for infrastructure investments is also reflected in the PPP market. While the adoption of PPP funding models has continued to increase over the past few years, the returns accepted by private sector investors in bidding for PPPs have fallen away significantly (noting that low returns to private sector investors implies low cost to the government in financing such initiatives). We consider the price/returns impact on the PPP market directly corresponds to the evidence from the listed markets and recent infrastructure transactions.

Over the long-term, governments are unlikely to be able to replicate the prices achievable in the current market for core infrastructure assets, and therefore indicates that it could be in taxpayers’ best interests to take up this opportunity. In other words, while privatisation of state assets appears unpalatable to many voters, governments behaving rationally should consider that anything,

including state assets, should be for sale at the right price.

In the current environment, there is minimal risk that there would be insufficient appetite from investors for either the direct sale or PPP type structure. If a government was minded to think like an investor, it should assess the potential proceeds of its assets against the expected cash flows such assets can generate if it holds on to the asset. High prices paid means either high growth assumptions or low expected ongoing returns (or a combination of the two). Governments need to consider whether they can generate the high expected growth assumptions if they were minded to hold on to the asset rather than selling, and as discussed below it is highly unlikely than they would be able to.

1.10 Yes, prices are high, but what does that really mean?

As discussed, in Australia recent privatisations have occurred at multiples of between 25 times

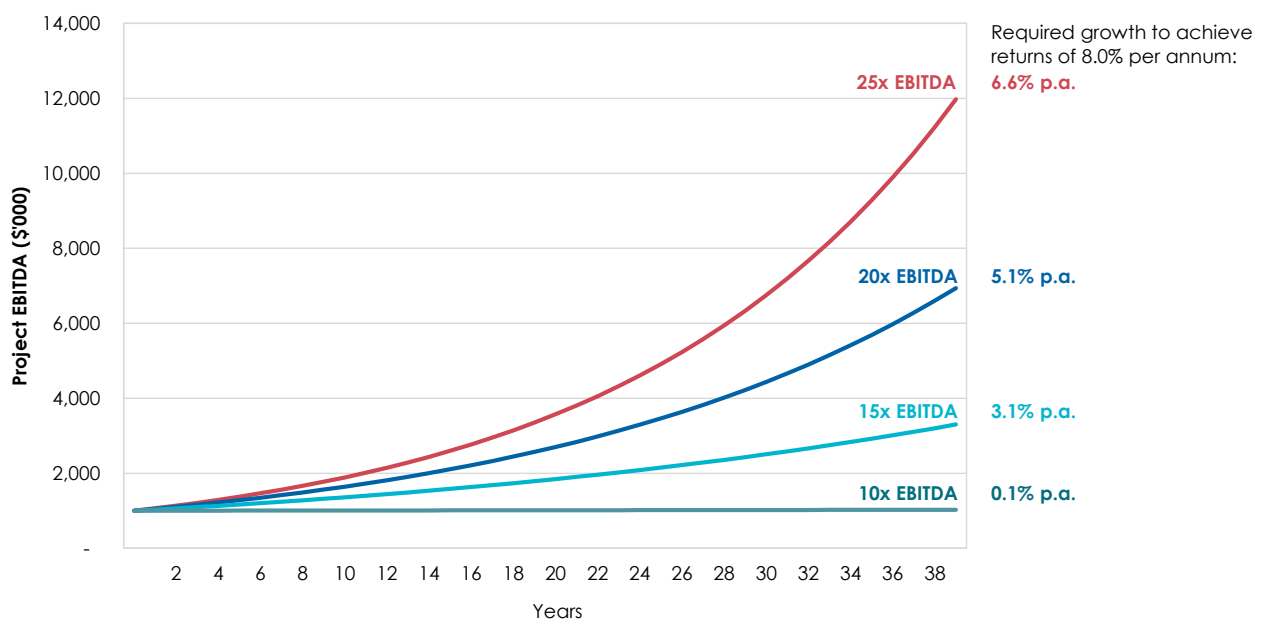
to 30 times EBITDA¹². However, while this headline number appears high, it is interesting to consider what this really implies from an expected earnings growth and returns perspective

Projected Earnings Growth

At a high level, to understand the growth and return assumptions that may be incorporated into some of the more recent Australian asset privatisations, we have constructed a simple discounted cash flow model to represent a

finite-life asset (such as a port lease) under various acquisition prices. Our model holds returns to equity (being the implied internal rate of return (IRR) of the project) steady at 8.0% per annum (p.a.) and solves for the growth in earnings required to generate that IRR under various acquisition prices. The assumed price (as a function of an EBITDA multiple ranging from 10 times to 25 times EBITDA) and its implied annual growth rate in earnings required to generate at 8% per annum return is presented in the figure below.

Figure 8: Implied Growth Rate Assumptions under various Acquisition Prices



Source: Whitehelm analysis

The analysis shows, as would be expected, that as the acquisition price increases, the required growth in earnings also increases if the investor is going to recoup their initial outlay over the finite investment period. With actual privatisations occurring at high prices (similar to the 25 times EBITDA scenario presented above), the bidders appear to be assuming significant earnings growth rates, in the order of 6.6% year on year to achieve returns of around 8.0%. This growth rate appears high, relative to what the incumbent public owners have generally been able to achieve and even more importantly, they appear high relative to the low growth rates assumed by bond markets.

Clearly private sector owners are including certain efficiency gains from the transfer between the public and private sectors.

Research conducted by Infrastructure Australia¹³ suggests asset privatisations may provide improved economic efficiencies, including:

- **Lower cost services:** capital market discipline and the competition for capital provides strong incentives for businesses to reduce costs;
- **Allocative efficiency gains:** private market participants are better positioned

¹² Ports Botany and Kembla: 25.0 times EBITDA; Port of Newcastle: 28.4 times EBITDA.

¹³ Infrastructure Australia (Australian Government), "Australia's Public Infrastructure: Part of the Answer to Removing the Infrastructure Deficit" (October 2012).

to respond to market demand and provide services that consumers want;

- **Dynamic efficiency gains:** private businesses may have better access to capital (for funding future growth and expansions) and may be better able to make more efficient investment decisions; and
- **Governance:** transferring ownership to the private sector helps address the implicit conflict of interest for governments that regulate the assets that they own and manage.

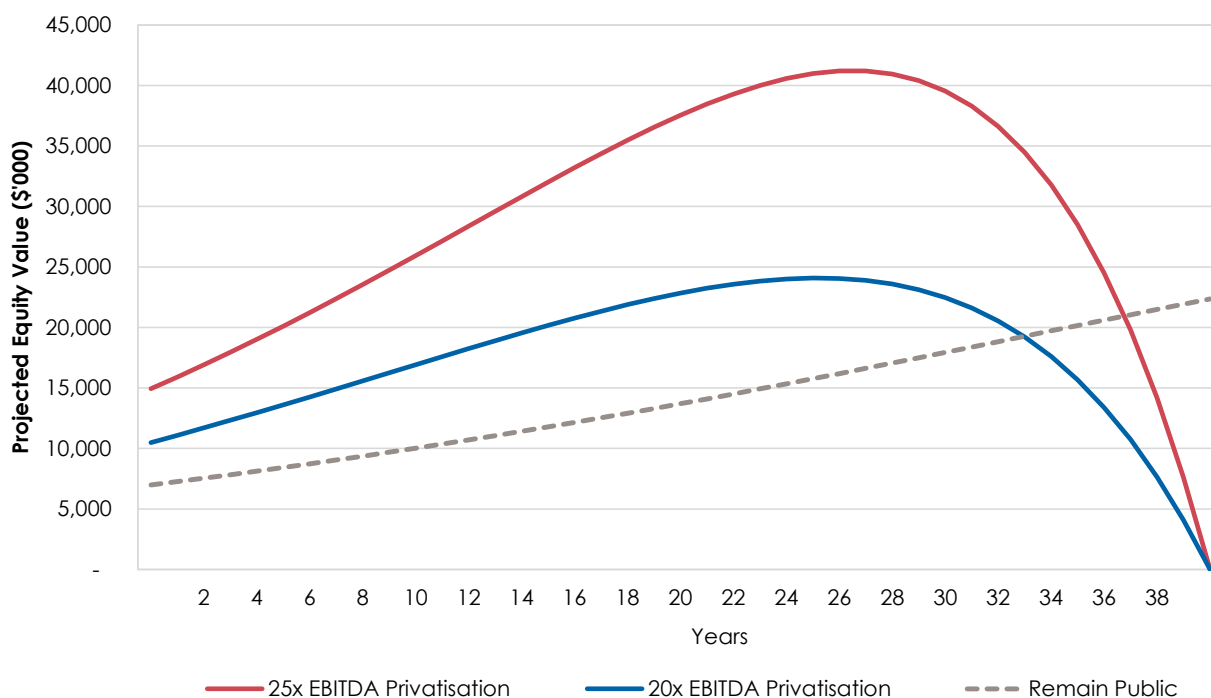
Furthermore, these economic efficiencies are in addition to the capital ‘recycled’ by the government to fund further infrastructure investments (on the assumption that the capital provided by privatisations is reinvested in a

productive capacity). For assets subject to privatisation, it is likely that bidders are factoring in a range of these improvements and gains into their bid price. Such benefits are not afforded to the government as the incumbent owner.

Implied Value Creation

The efficiencies only available to the private sector, particularly the access to capital markets, private market discipline and ability to respond to changing market demands, suggest that significant value may be created by transitioning these assets to the private sector. To assess this value creation, we have calculated the rolling net present value under the earnings growth rates implied by the high price cases (20 times and 25 times EBITDA) versus a ‘remain public’ case, whereby earnings growth is in line with the long-term level of inflation.

Figure 9: Implied Equity Value – Privatisation vs Public



Source: Whitehelm analysis

Note: the rolling valuation for each scenario was calculated using an 8% discount rate (equivalent to the expected returns on acquisition).

Under the privatisation cases, the equity values decline to zero at the end of the projection period reflecting the finite nature of privatisations structured as long-term leases (while the value of the investment to the private investor is nil when the lease ceases, the port

itself still has substantial value). The analysis suggests significant value creation in the case of privatisation. While noting, arguably, that this value creation is diverted to the ultimate shareholders, there is likely to be positive externalities associated with this growth in the

form of increased product/service offerings, higher employment and further investment. Furthermore, in some instances, the ultimate shareholders will be the taxpayers themselves where the acquirer has been a domestic fund (typically the pension or superannuation funds).

Possible Proceeds to the Government

Given the high premia that governments may be able to extract from the private sector for infrastructure assets in the current market conditions, it is interesting to consider the value gap between the current carrying value of these assets, and what may be able to be realised, should the assets be privatised.

Infrastructure Australia¹⁴ conducted an assessment of the possible financial benefit (being the value gap between carrying value and possible 'market value') that may be achieved should the Australian Government

privatise certain assets. The analysis focussed on the direct benefit arising as a result of privatisation (that is, only the proceeds from sale) and excluded, for example, the additional savings to taxpayers that would be achieved by the government foregoing future expansions of the infrastructure assets. Accordingly, the analysis is likely to be relatively conservative.

Infrastructure Australia calculated the implied equity value of a sample of government assets using a dividend discount model (being the notional carrying value of the assets). This value was then compared against the price that may be achievable under a privatisation scenario (at market pricing at the time of publication – December 2013). The market values were calculated using the capitalisation of earnings approach (either using EBITDA or regulated asset base). A summary of Infrastructure Australia's findings is presented in the table below.

Table 3: Difference between Retention and Privatisation Value¹

	Privatisation Value (A\$m)	Retention Value (A\$m)	Difference (A\$m)
Ports	6,704	1,015	5,689
Electricity Generation	13,426	5,064	8,362
Electricity Transmission and Generation	31,880	10,015	21,865
Water	37,544	12,082	25,462
Other	2,403	155	2,248
Total	91,957	28,331	63,626

Source: Infrastructure Australia

Note: the valuations presented above represent the estimated equity values.

Of the assets analysed by Infrastructure Australia, the privatisation value (A\$92 billion; US\$72 billion) exceeded the retention value to the government (A\$28 billion; US\$22 billion) by a multiple of almost three times – almost A\$64 billion (US\$50 billion). We note this analysis comprised 30 public assets, which only represents a subset of possible assets available for privatisation.

Given the continued escalation in market pricing over the last 12 months, it is likely this

valuation gap (A\$64 billion; US\$50 billion) has increased, meaning there is greater financial incentive to privatise the assets, given the current market pricing.

Benefits to the Taxpayer in the Long Term

In public hands, infrastructure assets cannot benefit from the efficiencies associated with private sector ownership. These efficiencies allow private sector owners to generate growth in earnings in excess of those available to the public sector, and in doing so, generate

¹⁴ Infrastructure Australia (Australian Government), "Australia's Public Infrastructure: Update Paper – Balance Sheet Impacts of Sell to Build" (December 2013).

significant value. This is supported by evidence from Australian privatisations, which resulted in lower costs, improved labour productivity, increased patronage and higher returns¹⁵.

So, not only is there significant appetite from institutional investors for privatised infrastructure assets, the prices that governments can extract from the private sector for infrastructure assets under current market conditions appear very favourable. Furthermore, for certain assets (where appropriate regulation is available), privatisation may lead to better outcomes for the public than if these assets were to remain under government ownership.

1.11 What it Means for Clients' Infrastructure Portfolios

In our analysis above, we have determined that the infrastructure sector is expensive relative to historical measures and when compared to the general market. This is particularly the case for large 'trophy assets', which have generated proceeds to government significantly higher than expectations. Given Whitehelm manages portfolios of infrastructure assets on behalf of our clients, it is critical for us to consider the impact on our client's portfolios of both the current market pricing as well as the pipeline (or lack thereof) of state assets acquisition opportunities.

Investment and Divestment Opportunities

Whitehelm is currently examining the infrastructure assets in our clients' portfolios and assessing whether possible divestments opportunities are appropriate, and whether a premium can be extracted in the current market. Similar to the position facing governments, it is important to recognise that, for a prudent investor (which includes Australian superannuation funds), everything should be for sale, at the right price.

Conversely, regarding the deployment of capital in the current environment, the high prices currently being paid for some assets (and the implied earnings growth rates required to achieve a reasonable rate of return – as discussed earlier in this article) suggests a

heightened risk that expected returns may not be achieved. This is particularly the case where the assumptions around earnings growth are overly optimistic and the realisation of efficiency gains prove to be elusive.

The Impact of a Cyclical Market

Noting the high prices currently observed for infrastructure assets, and the cyclical nature of markets, we consider it is prudent to ensure that clients continue to deploy capital in an appropriate manner. While opportunistic investments may continue to occur in the current environment, we recognise the importance of maintaining sufficient capital to allow for investments at other points in the market cycle (where asset pricing and investor demand are more muted).

Furthermore, in the event there is a re-rating in market pricing for infrastructure assets (from current levels to, say, the long-term average), there is a risk that asset valuations will be negatively impacted. While this factor is relevant to all assets within a portfolio, this is particularly the case for investments made at the peak of the market cycle, given the higher likelihood that these assets are being carried at higher relative prices (for example, higher EBITDA multiples). Accordingly, in assessing possible investments, Whitehelm adopts a structured approach to our hurdle rate build-up and portfolio construction metrics that are intended to view the market 'through the cycle'. Maintaining a measured approach to investing in the current environment is a critical component to our investment philosophy.

Short and Long-Term Supply and Demand

Given the public's antipathy towards state asset sales, we expect governments will be less inclined to undertake widespread privatisation programs. Over the short term, this will reduce the supply of potential investments to institutional investors, and possibly increase demand for those privatisations that are still going ahead. Despite what we see as considerable advantages associated with privatisations, the ability of governments to clearly explain the rationale behind the process, will ultimately be the key driver behind

¹⁵ Infrastructure Australia (Australian Government), "June 2013: National Infrastructure Plan" (June 2013).

privatisation's future success (and the on-going supply of investment opportunities to the private sector).

Over the longer term, the rationale for privatisations remains compelling. Significant investment in infrastructure is required over the coming decades, and at some point, the ability for governments to realise proceeds from privatisations to support additional infrastructure spend may become their preferred financing option. When this does occur, the additional supply of assets from privatisations (and possibly additional opportunities from the recycled capital) will likely result in a more favourable market for prospective investors.

1.12 Conclusion

There is a clear need for investment in new infrastructure, and the expansion of existing infrastructure, in order to support continued economic growth. However, the avenues available to governments to finance additional spend on infrastructure (raising additional debt or asset privatisation and capital recycling) are often not supported by public opinion. In the case of privatisations, voter aversion has been so strong that it has been the defining factor in either removing incumbent governments or electing new governments.

To finance investment in infrastructure, we have demonstrated that either expanding the balance sheet (issuing additional debt) or using capital recycling (and privatising assets) are both reasonable options in the current environment. However, our recommended approach (from the perspective of the government and general public) is for the latter – privatising assets and recycling the capital, given the unique market conditions at present. By privatising assets and extracting high prices from the private sector (relative to long-term averages), the public are provided with sales proceeds significantly in excess of what would normally be expected (or at a lower cost, where privatisations occur by way of PPPs). Furthermore, these proceeds (or lower costs) may negate the need for governments to raise additional debt for new infrastructure investments.

Given the range of efficiencies associated with private sector ownership (which are not afforded to the government), privatisation has the ability to result in improved outcomes for taxpayers when compared to the situation where assets remain in public hands. As a result, not only are the public potentially better off from a service cost and quality perspective, privatisation of assets removes the future risks (and obligations) from the government's (and therefore, ultimately, the taxpayers') pockets.