

Working Paper Proceedings

Engineering Project Organization Conference

Cle Elum, Washington, USA June 28-30, 2016

The Financier State as an Alternative to the Developmental State: A Case Study of Infrastructure Asset Recycling in New South Wales, Australia

Caroline Nowacki, Stanford University, USA Raymond Levitt, Stanford University, USA Ashby Monk, Stanford University, USA

Proceedings Editors

Jessica Kaminsky, University of Washington and Vedran Zerjav, University College London



© Copyright belongs to the authors. All rights reserved. Please contact authors for citation details.

THE FINANCIER STATE AS AN ALTERNATIVE TO THE DEVELOPMENTAL STATE: A CASE STUDY OF INFRASTRUCTURE ASSET RECYCLING IN NEW SOUTH WALES, AUSTRALIA

Caroline Nowacki, Dr. Raymond Levitt², Dr. Ashby Monk³

ABSTRACT

As public debt rises, governments struggle to fund and finance new infrastructure. The past two decades have seen an increase in privatization of infrastructure assets and public private partnerships. However, alignment of interests between governments and private owners can be challenging. In addition, private investors' appetite has so far been skewed toward existing assets, while development requires new infrastructure. The literature about the role of the state in development also warns about a failure of the private sector to fulfill governments' development goals, and the need for a strong State to regulate the market in order to achieve development. A case study of the creation of a new coordination agency in New South Wales (NSW), Australia, offers a new perspective on how governments can lead development. Contrary to Evans' model of Developmental Bureaucracy, NSW created an agency staffed by employees from the private sector. They also focused on making the best use of private interests to indirectly serve developmental goals, instead silencing private interests by means of a strong bureaucratic culture. The connections between public and private sectors are reminiscent of O'Riain's Flexible State. However, this case transposes this theory to the strategic fields of private versus public sectors instead of local versus global. Finally, the power given to the coordinating agency is also crucial in this case, but we argue that government is an institution in Scott's sense, and that normative and cultural-cognitive elements are also crucial in explaining the success of NSW in addition to regulative aspects identified in previous studies. This case study supports a new theory of developmental state which we call the "financier state", in which Government uses the tools of global financial markets to achieve developmental goals. We describe "asset recycling" as one of such tools, successfully used by NSW to develop infrastructure.

Max: 300 words (now 299)

KEYWORDS: Developmental State; Asset Recycling; Greenfield Infrastructure; Public Private Partnerships; Project Finance; Infrastructure Funding Gap; Organizational Change Management

¹ PhD Student, Stanford Global Projects Center, Stanford, CA, USA, cnowacki@stanford.edu.

² Director, Stanford Global Projects Center, Stanford, CA, USA, rel@stanford.edu.

³ Executive and Research Director, Stanford Global Projects Center, Stanford, CA, USA, amonk@stanford.edu.

THE GREENFIELD INFRASTRUCTURE FUNDING GAP

In the aftermath of the global financial crisis (GFC), several trends increased the amount of private investments in infrastructure.

First, institutional investors with long-term mandates, such as pension and sovereign funds, started looking for alternatives to bonds in a very low interest-rate environment. P3s and privatization of infrastructure assets gave them access to stable, predictable cash flows, and an increasing amount of institutional investors started buying equity in brownfield infrastructure. Between 2009 and 2014, 60% of the sovereign funds globally invested in infrastructure, and direct infrastructure acquisitions went up 4 basis point compared to the previous 5 years, to reach 10% of all sovereign funds' deals (Prequin, 2015).

Second, neo-liberalist policies in several countries supported free market agreements and opened the market of infrastructure privatization to foreign investors.

Third, governments saw their debt levels rise considerably, forcing them to find new sources of cash and think about how to engage the private sector. The global gross government debt-to-GDP ratio grew from 65% in 2008 to 79.8% in 2014 and is projected to be 80.4% in 2015 (IMF, 2014). This trend is worse in developed economies where debt-to-GDP ratios have plateaued around 105% since 2012. However, if the GFC accentuated public debt, structural changes are likely to make them a new standard. Most notably, the ageing of the population will maintain high debt levels for the next decade, which means that governments are likely to have less funds to allocate to infrastructure.

It seems that private investors' growing appetite for infrastructure, and government's need for cash should solve the infrastructure gap. However, investors' interest for infrastructure is not aligned with the needs identified by international organizations and governments to support economic growth. Investors primarily want to buy existing assets in developed countries, when most of the need is in new assets and developing countries. Even for an existing asset privatization in a developed country, the bidding process used by governments, and the terms of the contract will dramatically impact the price investors are willing to pay. Changes requested after the contract is signed will also subsequently change the risk perception of investors and command higher returns for investors, which equals less funds for the government.

The "infrastructure gap" derives primarily from a perceived lack of "investable projects": a gap between the requirements and expectations of private investors and the characteristics of existing projects, regulations and bidding process. It also highlights how divergent interests and knowledge discrepancies can prevent governments from attracting investors in the first place, and be detrimental to them when they close a deal.

This question has led scholars to research the risks of each infrastructure project, and the regulations, governance and project structuration that could reduce these risks and align interests between governments and private investors (Loosemore, 2006; Yescombe, 2014; Déau, 2011; Page et al. 2008). Governments with repeated experience with the private sector also came up with standardized bills and processes such as "value for money" to reduce knowledge gap. However, the broader question is how do governments need to change, and what are some

general government characteristics that seem to lead to successful partnerships with the private sector to build infrastructure supportive of development?

THE DEVELOPMENTAL BUREAUCRATIC STATE IN THE LITERATURE

There is a large literature aiming to identify the characteristics that make governments successful at leading development, in the wake of Evans et al.'s work. This literature has focused on industrial programs in general (Chebby, 2002), and on specific sectors such as biotechnology in Singapore (Tsui-Auch, 2004) or Information Technology in Ireland (O'Riain, 2000). However, the model of a developmental State can be studied in the context of infrastructure programs for two reasons. First, a country's pool of built assets and infrastructure quality are strongly correlated with development⁴. Second, governments increasingly need to attract private and foreign investors into these assets, in the same way they need to attract industrial companies.

Evans et al. (1999) argues that the developmental State was characterized by a high internal cohesiveness, which gives it the strategic capacity and the power over private actors to lead economic development. In the tradition of Weber's bureaucracy, two elements are key to achieve internal cohesiveness. First, clear and strong rules for State functionaries channel their actions away from individualistic predatory practices. Second, clearly specified norms of recruitment and career mobility apply to functionaries. Chibber (2002) built on Evans' theory and underlined the need for a 'nodal agency', endowed with power over other state agencies, to resolve competition for scarce resources and avoid the withholding of information that could dilute the internal cohesiveness of the State.

The description of a highly cohesive government bureaucracy resembles an Institution in Scott's sense (2012). Evans' and Chibber's theories emphasize regulative aspects, but the stability of the career and common norms of recruitment point toward shared values and common culture, which correspond to Scott's three pillars of institutions: regulative, normative and cultural-cognitive.

Looking at the bureaucratic government in that light resolves the issue brought forward by Tsui-Auch (2004). Based on a case study of Singapore, Tsui-Auch underlines that the coordinating agency does not necessarily need regulatory power. The Singaporean coordinating agency she studied had a cultural-cognitive and normative authority by having a role in creating other government agencies and transferring its own culture to them⁵. According to Scott, the cohesiveness of the institution would increase when the means go from regulative toward normative and cultural-cognitive. In that sense, the Singaporean government has a long bureaucratic tradition and the agency could use other institutional elements, making the regulative aspects less essential. Indeed, a strong institution will have the ability to share knowledge and rules among members, thus building internal capabilities and authority over other actors in the institutional fields, notably private companies. However, the more cohesive the

⁵ Scott's definition of Institution in "Institutions and Organizations", 4th edition, 2014: *Institutions comprise regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.*

⁴ The World Economic Forum lists infrastructure as the second pillar of competitiveness and shows a linear relationship between the competitiveness score and the infrastructure score (WEF, 2013). The 30 countries accounting for 82% of the 2013 global gross domestic product (GDP) produced on average 40% of their GDP thanks to their built assets, real estate and infrastructure (Arcadis, 2015).

institution is, the less creative and adaptive to changing conditions it might become, which could explain the lack of long-term vision of the Singaporean agency described by Tsui-Auch.

O'Riain's study of the Irish government and its success at developing a striving information technology sector also underlines the discrepancy between the theory of the Developmental Bureaucratic State and observed imperatives of flexibility and adaptation. Indeed, he describes how the Irish government mediated global and local networks, allowing innovation to spread through both networks. The theory of the bureaucratic developmental state can explain how the State constrains local actors and bends their actions to support its development plan, but not how to adapt to new global actors, and incentivize them to set up their businesses in a country. O'Riain also describes how a set of government agencies can tap into different networks and create flexibility, but then faces fragmentation, making it difficult for the State to sustain a national coalition. His description of multiple network echoes Fligstein and McAdam's (2012) strategic action fields: embedded fields, each of them being a network of actors who agree on shared rules of the games, for material (power and interest) reasons, but also existential reasons (shared cultural frames, or construals, ways they construe the world around them (Goldberg & DiMaggio, 2015)).

In a global context where deregulation, privatization, and free trade agreements are common neoliberalist policies adopted by a majority of countries (Evans & Sewell, 2013), States are likely to be embedded in many global and local networks. In addition, they are also competing with many other locations for capital, which might push them to change the State's logic to accommodate new actors. We use a single case study of New South Wales (NSW), Australia, to propose an alternative model of State successfully leading development, which we call the Financier State.

A NEW MODEL OF DEVELOPMENTAL STATE: THE FINANCIER STATE

In 2011, the State of NSW, Australia, created by legislative act an independent statutory body called Infrastructure New South Wales (InNSW), to identify and prioritize the delivery of critical public infrastructure in NSW. InNSW's mission is to provide independent research and advice to all levels of government as well as investors and owners of infrastructure. In practice, InNSW advises the Premier and Treasurer on which projects should be prioritized and which financing structure should be use. The Premier also appoints its CEO and Chairman. InNSW sets the procedures that government agencies need to follow when proposing projects. Finally, and most importantly to this case study, InNSW was tasked with managing an infrastructure fund named Restart NSW. Restart NSW was promised by the NSW liberal government as a way to make sure that the partial privatization of the electricity general, transmission and distribution networks, would be used to fund new infrastructure projects and enhance existing infrastructure assets in the State. InNSW oversees this fund and publishes a prioritized, budgeted list of projects, which the Premier and CEO can only accept or refuse and not tweak as they wish.

Case study methodology

The first author spent three months in Australia in 2015 working for an asset manager doing direct investment in infrastructure projects and became intrigued by the structure and process put in place in NSW to prioritize and speed up the delivery of infrastructure in the State. During these three months, the first author talked with someone at InNSW, with government representatives in charge of infrastructure development in Queensland, and with private actors in infrastructure in Australia. The second author led about 30 interviews with board members of infrastructure assets investors and operators, and government representatives in Australia in 2015. These interviews were open-ended and helped understand the context and refine the questions. None of these interviews were recorded and transcribed but the authors took extensive notes and wrote regular memos. These interviews served as hooks, and were completed by an analysis of documentation publicly available on internet, reports, newspaper articles and websites, in order to develop the theory. The authors plan to conduct more interviews during the summer to validate the theory proposed in this article, and ensure the authors took into account a wider breadth of perspectives on specific elements of the theory. The case selection and data analysis follow guidelines from Yin (2014) and Flyvbjerg (2006). The research questions motivating this case are:

- 1. What was the mechanism used by the NSW government to fund new infrastructure?
- 2. What key elements in this mechanism have supported the success of the program so far?
- 3. How different or similar is this model from previous models of developmental states?

We consider the program successful, first because of the public support it received ___ the liberal government was re-elected with asset recycling at the core of its political program ___ second, because its flagship privatization attracted sophisticated investors from around the world and reached a high price, and finally because the funds raised have been redeployed in the construction of greenfield projects.

We start by answering the third question and propose a new model of developmental state.

The Financier State

The goals of InNSW were to change the existing State bureaucracy process to achieve a more integrated plan in between existing agencies, and to use metrics and processes inspired by the private sector to prioritize projects. In that sense the program used a mix of social and developmental criteria and of financial returns as an indicator of the soundness of projects.

Chibber (2002) already noted the potential problems of divergent short-term interests between government agencies and the necessity to give one agency authority and power over others to use resources efficiently. In the case of NSW, we find a similar structure in which the Premier gives authority and power to InNSW. The authority is regulative, and we propose that

the fact that the government is trying to change the State institution explains why regulative tools are used instead of relying on common norms and cultural-cognitive elements. However, there is reliance on common norms and perspectives with other fields and actors. InNSW find strong support among the population, and tries to transfer elements of the culture of private actors in infrastructure to the States. This gives external support to InNSW and entices the State to accept some key elements of this change, because the State is embedded in different fields, notably the ones of infrastructure investors, builders and operators from whom the government want support for their infrastructure plan. The more alignment on some key elements they can get from each relevant field, the faster and cheaper they will be able to develop infrastructure.

However, our insistence on alignment with, and facilitation of the private sector's activities does not equate with the liberalist vision of *laissez-faire*, nor with neoliberalist vision of a State that Hayek supported. Indeed, the role of the State is not to facilitate a market in which only financial return optimization and private interest pursuit would dominate without support for a social, environmental and development agenda. The Financier State does understand and respect how the private sector works and make decisions. But this knowledge allows the government to select projects that meet both the State's development, social, environmental goals, and are attractive to the private sector. This ideal might not always be possible, but the goal is to align interests as much as possible, and build a strong State, able to steer other stakeholders. We call this model of developmental State a Financier State because it acts as a stakeholder manager in the same way as direct investors do with consultants, partners and contractors, but also because this State adheres to the idea that some management processes adopted in the private sector to select projects, using optimization and incentives, are effective tools that can serve the State. The objectives though are not only financial returns, but also social, environmental and developmental returns.

In summary, we propose a new model to describe a developmental state successful at attracting private investors, local or global but pertaining to a global industry field, in our case infrastructure investing and development. Contrary to Evans and Chibber and with O'Riain and Tsui-Auch, we find that internal cohesiveness can be an obstacle to the change needed to attract new actors. To the issue of fragmentation noted by O'Riain, we find that the earlier in the process of change, and the more distant the cultural-cognitive values between fields and institutionalization of these fields, the more regulative aspects _giving power to one entity driving change_ will be key to success. However, for the new rules and processes to be adopted, the agency endowed with power will also need to find support from culturally-cognitively close field, and be able to transfer its culture to key stakeholders in the embedded fields that need to collaborate. The key elements of the Financial State are:

- 1. The will to attract private investments, but to serve social good and development goals as well
- 2. The reliance on an agency that is a change leader and has the following characteristics:

- a. This agency hires people with cultural-cognitive embeddedness in fields that the State want as collaborators, usually global investors,
- b. This embeddedness serves to build insider's knowledge and a strong state, able to negotiate with the private sectors on more equal footing,
- c. These professionals have financial incentives, but also enjoy high status, and personal reward from contributing to social good,
- d. The emphasis is on aligning private interests, and using incentives instead of suppressing or constraining private interests, be it at the individual levels in the State workforce, or with private companies,
- e. The agency infuses optimization processes and efficiency values from the private sector, here the infrastructure investing and development sectors, into its practice, and the practices of other government agency,
- f. The agency benefits from regulative powers, and the support of the political leader of the State.
- g. In the rest of the article, we describe empirical aspects of the case that supports the theory presented above.

INFRASTRUCTURE NSW AS AGENT OF CHANGE

InNSW is an independent government agency, created to rationalize infrastructure investment in New South Wales. Its overarching logic is to support an efficient and effective government, inspired by the private sector's practices. It focuses on building internal capabilities and reducing information asymmetry, to be able to partner with the private sector. Based on a thematic analysis of notes from discussions, and official communication (website, plans and other reports) published by InNSW, we identified the following characteristics about how InNSW drives change in government and builds structures to partner with private stakeholders.

Collaborate, Challenge, Transform

The catch phrase that people see when visiting InNSW's website alternates between "We collaborate"; "We challenge"; and "We transform". As these suggest, InNSW is now an integral part of the government's process of determining priority projects and advising on the structure to finance and deliver these projects.

The notion of collaboration refers to the coordination of InNSW with the Federal Government and Infrastructure Australia. Copying the model of a dedicated entity for infrastructure at the state level helps align the federal plans with the State's, and makes the process of getting federal grants smoother. Collaboration also addresses potential misalignment and miscommunication between private actors and government. InNSW aims at making information flow more easily between them, making private actors more comfortable with processes such as project procurement, and enabling the government to benefit from their inputs. InNSW and the government created a pipeline of projects to give private actors a clearer view of opportunities, and eventually increase interest and competition for the projects.

However, InNSW also "challenges" and "transforms" government processes by infusing them with rational assessment methods and knowledge inspired by the private sector. InNSW is dominantly staffed and directed by representatives of the private sector. InNSW's board is made of five private sector representatives: a chairman who is a company director and held board positions for banks and has been a secretary for three state departments (treasury, planning and Premier's cabinet). Its CEO has a background as Department Secretary for the State of Victoria. The collaboration seems to be mostly with the State Government's existing departments, and aims at changing their practices and the whole process used by the State government to plan and deliver infrastructure. The values, process and opinions of the private sector are brought in through the workforce of InNSW more than by formal discussion/negotiation platforms. On the contrary, collaboration with the government is led by the new process set up between the State departments, InNSW, and the decisions made by the Treasurer and the Premier.

A key role of InNSW is to provide an integrated plan for infrastructure development in NSW, breaking the silos of traditional government departments. According to an interviewee, the way government budgets used to work was that, under each minister and ministry, there was an agency. The agency would make its own list of projects, price them, and then ask the Treasurer (under the Premier) for the amount they wanted. Then the Treasurer would negotiate with each agency under each ministry. The process led to a five-year plan updated every year that would allocate funds to each Ministry. This process created two main issues: first, there was virtually no possibility to adopt an integrated plan in which projects across ministries were thought of as complementary to each other, and investment in one was thought in correlation with investment in other to decrease costs and increase benefits. The budget was negotiated and distributed in a way that hindered holistic, systematic and integrated infrastructure planning. The second issue was that projects would get politicized: A Minister might give priority to a project in his/her constituency for example.

InNSW proposed a solution to both of these issues by establishing integrated plans and transparent funding processes. First, InNSW requires that each agency/ministry make a business case for each project proposed. This role was described as an "umbrella oversight" and "overarching viewpoint" by an interviewee. InNSW does not gather the information about each project, they act as a sort of regulator outside of government, requiring departments to develop a business case, asking external consultants/auditors to check the business case, then recommending to the Treasurer and Premier which projects to fund based on the criteria of "strategic fit" and "economic merit." Second, the treasurer can only say 'yes' or 'no' to these recommendations, which avoids "unfair" political pressure for "earmarked" projects. In line with its overarching role, InNSW is meant to stay "small and nimble", and use the same requirements for itself and the agencies it tries to change. The work of InNSW itself is audited as a private company's would be. The use of consulting companies increases the legitimacy of the recommendations and business cases to the citizens and potential private partners, and reduce InNSW's weight on the government's balance sheet.

Shared Values and Construals Supporting the Initiatives of InNSW

InNSW infused new values and perspectives to the State Bureaucracy. However, we think the agency is able to do so because it benefits from supports from other powerful strategic action fields who share these norms and perspectives. We use Goldberg and DiMaggio's (2015) distinction between construals and positions to show that InNSW norms and processes find wide cognitive-cultural support among politicians even they may not be shared by the State bureaucracy. Construals are concepts through which people construe the world around them, whereas positions are the actions or policies they claim to they support. Our analysis of the official communication of InNSW and discussions with someone from InNSW, reveals that the following two construals are widely shared among the population, politicians and private actors and strongly support the new norms and processes spurred by InNSW.

Shared construals among	Position of the NSW	Position of the political
politicians and citizens	government	opposition
Infrastructure is crucial to	We should attract foreign	We should avoid having foreign
economic growth and critical	investors to be able to build	investors own our infrastructure
to the country	more assets	for security reasons
Infrastructure investment	The best way to maximize	The expertise that the private
should maximize the ratio of	value created is to use the	sector has should be built inside
economic growth produced /	private sector, aligning	government and government
investment made by the	interests, benefiting from	should run the assets as well as
taxpayer. Financial	competition between bidders	the private sector and keep the
maximization processes from	and their expertise building	profits to reinvest in
the private sector should be	and operating assets	government projects
used by government		
Government is expected to	The Government should take	The Government is expected to
take risks when developing	the political risk since it is the	gain even more expertise
infrastructure	most able to control it, and the	internally and be able to take all
	private sector might overprice	the risks, including
	it. In addition, it could take	development, construction and
	demand risk also because the	operations
	private sector will overprice it	
	because recent bankruptcies	
	due to bad pricing of demand	
Historically, the government	Using quality of service	The Government should keep
has had a bad performance as	instead of budgets as	operation internal but improve
an infrastructure operator	government goals. Operations	its track record. If it builds the
	and maintenance would be	internal capacity to monitor the
	more fully optimized by a	private sector, it might as well
	private operator/investor.	internalize operations and reap

Regulation and contract with	more of the returns
a private operator based on	
quality of service might be	
better for the end-user than	
operation by the government	

The shared construals we describe above characterize other fields than the State bureaucracy itself, but show that there is external support to some key tasks of InNSW such as building internal capabilities, using different objectives, and maximization of returns on money invested. This external support makes it more likely for the State bureaucracy to comply with some actions and requests from InNSW. However, regulative elements are still crucial because there are only little shared norms and culture between InNSW and the State Bureaucracy. In that line, we describe the crucial role of the Premier in the success of InNSW as an agent of change.

The Crucial Role of a Political Sponsor

Despite its will to present itself as an independent auditor, InNSW is not completely neutral. It does represent the will and values of the liberal government that created it, and above all the vision of the Premier. Interviewees did mention that the success of this initiative seemed tightly linked with the persona of the Premier. Some explained that the same idea of privatization and asset recycling failed in another State partly because of a lack of likability of the political leader supporting it there. Another interviewee also underlined the fact that the Premier "had the appetite"—he was willing to lease government assets, and be transparent about it. The Premier also had a banking background, and thought about the assets owned by the government through this lens. Supporting this argument that change was strongly led by the Premier is the fact that InNSW reports to and gives recommendations directly to the Premier, and the Premier appoints the CEO and Chairman of InNSW. The Premier who created InNSW in 2011, Barry O'Farrel, fired the CEO and Chairman over disagreements in 2013. The close link between the Premier and the agency is understandable given the importance of the infrastructure program for the previous and current Premiers, and their will to change the way government works. This link gives them more control over the values and directions of the agency and the program. However, it also creates less stability, since a change in Premier or governing party is likely to change the current structure's leaders and culture.

InNSW can be thought of as a "Governance Unit", as described by Fligstein and McAdam (2012): an organization supporting the adoption of new values, rules and processes among actors in the field (here the government). The logic is still emergent, and it would be interesting to see how the governance of the structure evolves over time. Fligstein & McAdam's description of field emergence would predict that as the new logic begins to be adopted by the actors in the field, we might see a change in governance, loosening the link between the Premier and the agency, giving it more independence, and for example linking it to a more stable body

such as the Parliament. This new governance would make the agency more likely to mitigate the impact of changes in governing party on its internal logic.

THE FINANCIER STATE: BETWEEN STRONG STATE AND GLOBAL MARKETS

We described above how InNSW is staffed with professionals from the private sector and uses tools and processes coming from these employees' experience. This characteristic is not to be mistaken with a "laissez-faire" attitude toward the private sector. InNSW envisions an efficient and effective State that can negotiate on equal footing with the private sector. However, it also selects projects that the private sector would also be interested in buying once some risks have been taken off by the State. With internal capabilities to assess and manage some risks such as demand and political risks, the State can align interests with the private sector. It can also play its role of development leader by creating a pipeline of infrastructure projects that the private sector is interested in supporting.

An 'Efficient and Effective' State

Although InNSW's mission includes facilitating privatizations, this does not mean that privatization is held to be the best solution for all projects. InNSW wishes to build the tools for the government to assess what type of procurement is best for each project, and how to be an effective project manager if the government decides to handle design and construction, which is the case for some of the large greenfield infrastructure projects being developed now in NSW. On one hand, InNSW does follow up on projects approved for funding, doing regular "health checks" following upon time and cost compliance and on the risks identified during the planning stage. On the other hand, InNSW itself is responsible for the delivery of some important infrastructure projects in Sydney and created to this end Projects NSW, an internal team of specialists. Projects NSW mirrors the skills and knowledge an owner's representative might gather, and makes sure that InNSW can effectively monitor its contractors and avoid being a "price taker". With this expertise, Project NSW hopes to become the internal consultant of all other government departments needing to build infrastructure. All projects will not be delivered internally, but this team reduces information asymmetry between contractors and the government.

The efforts from InNSW to build capabilities to design and deliver infrastructure projects can be understood by the history of greenfield projects delivered as P3s in Australia. Private consortiums took patronage risk for new toll roads for which the forecast in traffic did not materialize, leading to the bankruptcies of Sydney's Cross City and Lane Cove tunnels, which left their parent companies in the hands of administrators. These experiences led many private investors to rule out considering projects where they had to take on patronage "demand" risk. In a recent enquiry by the Productivity Commission related to private investment into transport infrastructure, the private sector overwhelmingly asked the government to take on a larger proportion of both construction and patronage risk in greenfield projects. As an interviewee puts

it: they "learned their lessons." After these projects' failures, the government had to offer availability payments if they wanted to attract private money. This did not exclude leasing projects once built and operating, since this stage of the project attracts way more private investors. Competition could then help the government make profits later on. However, this scenario can only happen if the government has the internal capabilities to identify, measure and mitigate risks, as well as to deliver projects on time and on budget.

InNSW therefore gives the government new capabilities to be able to build new projects. However, the government still needs the upfront funds to take on the role of developer. In the next section we analyze asset recycling as a complementary mechanism, giving the government these needed funds.

Asset Recycling as a tool representative of the Financier State

The NSW State Government created the fund Restart NSW as part of its Rebuild NSW program in July 2011. It is an example of asset recycling in action: it is a program to lease existing assets, capture the money in a fund and reinvest the money in the fund into new infrastructure projects. The process is summarized in Figure 1. Restart NSW is a fund aimed at directing capital toward high-priority future infrastructure projects. This mission is made possible by the work of InNSW to establish such a prioritized list of projects, relatively isolated from political influence. The sources of funds come from the privatization of two ports for AU\$4.3 billion in 2013, the lease of the Sydney Desalination Plant for AU\$312 million, and most recently, the 99-year lease of the Transgrid electricity distribution network for AU\$10.258 billion at the end of 2015. However, AU\$96 million from additional tax revenues and AU\$46 million from Waratah Bonds complement the capital coming from the lease of existing infrastructure. The fund collected more than AU\$15 billion, getting close to the AU\$20 billion the Prime Minister announced as necessary for his infrastructure program. Restart NSW also put together a detailed list of prioritized projects with corresponding capital required to fund them, a list that the State Government officially approved. In 2013, AU\$4.7 billion out of about \$9 billion had been allocated, with 2.6 billion going to highway projects in the Sydney region, notably the first stage of the Motorway WestConnex for AU\$1.8bn in 2013.

Almost a third of the proceeds of Restart NSW are reserved for projects in regional NSW, with 10 % of this funding to be spent on the Resources for the Regions program, which aims to ensure a fair share of infrastructure for communities affected by mining activity. In addition, out of the lease of one port, AU\$100 million were put into the Restart NSW Illawarra Infrastructure Fund. Local councils, community groups, industry and business groups and non-government organizations were consulted to identify the region's highest priority infrastructure projects. Finally, AU\$135 million were also allocated to the Bridges for the Bush program to replace and upgrade 17 bridges in regional NSW.

The mix of tax, bonds and proceeds from privatization into the fund makes the nature of this capital enigmatic. The government describes the mechanism as a funding solution, but it most closely resembles a financing mechanism, which deserves further discussion. In the

following section, we discuss the nature of the asset recycling tool, in an effort to characterize its innovative nature and success.

IS ASSET RECYCLING A FUNDING OR A FINANCING MECHANISM?

Capital raised through "financing" has to be paid back in the future. Sources of financing are equity and debt, both of which expect cash flows in the future to pay back the capital and an interest to compensate for the value of time. The future cash flows needed to pay back creditors come from funding sources. Funding sources can be cash flows created by the project such as user fees, or funds sustainably dedicated to a project as in the case of taxes. Financing can help create value, when the money borrowed is invested in projects that will create an incremental stream of cash flows worth more than the repayment of the debt and interest. We can analyze asset recycling using this difference between funding and financing.

Potential profits from the lease of assets

With asset recycling, the government obtains funds when leasing an asset, but commits to giving away user fees or giving availability payments to the lease holder. On their balance sheet, they also have exchanged capital for cash. Theoretically, the government did not create value. In practice, they can make a profit if the bid value is higher than the present value of the future cash flows they would have received from owning and operating the asset. In that case, the value creation is highly dependent on the procurement process, and the ability of the government to attract multiple investors to compete in the bid, and package the deal so that from their point of view, the money they get is superior to the Net Present Value (NPV) of future cash flows. It is also debatable to decide whether the government made a profit, because the NPV calculation depends on assumptions for the discount rate used to transform future cash flows into a present value. However, comparisons with other deals can provide a good benchmark.

By this standard, the NSW Government has been successful at setting up bids for assets and getting high payments for them by industry standards. Part of the high price can be explained by the fact that many investors are interested in brownfield infrastructure assets, and competition is driving prices up. However, this explanation seems to be insufficient, because other deals for brownfield assets in developed countries did not draw as much interest, or as high prices. The consortium that won the bid for TransGrid paid about 14.7 times the EBITDA of the company, less than the 28 times EBITDA some investors paid for a toll road and tunnel in Brisbane, but more than the 8 to 11 times EBITDA usually paid for regular private companies. For regulated assets, a bid price of between 1.3 and 1.4 times the regulated asset value is considered normal, but TransGrid was sold for 1.65 times its asset value. The asset was highly levered, but after repaying debts, the NSW Government was estimated to obtain about AU\$7.3 billion⁶⁷. The bid also attracted four bidding consortia with institutional investors from all over the world. The winning consortium was composed of the Canadian pension fund Caisse de depot et placement

^{6 &}quot;\$10.3 billion NSW power sale a good deal or the Baird government", by Malcolm Maiden. The Sydney Morning Herald. November 25, 2015

du Quebec (CDCQ) with 24.99 %, Hastings (20.02 %), the Abu Dhabi Investment Authority (19.99 %), Kuwait Investment Authority (19.99 %) and with the remaining 15.01 % held by Spark Infrastructure, which will operate the asset.⁸

Comparing the value of owning an asset to using these funds to build a new asset

Another important question to assess if asset recycling creates value is to compare the projects sold to the new projects being funded. A report from The McKell Institute supports this comparison. They classify projects based on their profitability and the value and certainty of the cash flows coming from different infrastructure projects. They underline that the assets being sold are probably the most profitable. Therefore, from an investor's perspective, for the reinvestment to be worth the sale, the new projects being funded should have a Net Present Value superior to the ones just sold. This would mean that the government has to invest in toll roads for example, and not in hospitals or schools according to their classification of infrastructure projects by potential to generate future revenues. However, a critical difference is that the government values economic development creation and livability as well as purely financial cash flow generation. In addition, the cash flows for the government need not necessarily come from user fees, they can come from taxation, notably of new businesses and activities born thanks to new infrastructure.

The new projects in which the NSW government will invest the Restart NSW's funds show both the desire to invest in projects that make financial and economic sense, as well as projects that reflect a sense of duty to invest fairly across the territory. Part of Restart NSW was earmarked for community projects, in which communities had a large say about the projects they wanted to see built, demonstrating attention to local social and civic values. On the other hand, the flagship project being financed and developed by InNSW is the WestConnex road in Sydney. Although this project is attractive for many institutional investors, and seems like it would bring profitable cash flows the government had enough money to decide whether development would be better handled internally or by using a private consortium. In this case, they judged they could design and build the project more cost-efficiently themselves, mainly because the private sector prices the construction and demand risks higher than the government did. Part of the government rationale might also be that the private sector would pay a premium to buy the asset once it is operating, which would largely compensate them for the risk of construction. The government did not, in fact, announce that it would sell the project, but one can imagine that the fund will become similar to a revolving fund, in which the government could take construction and demand risk for some projects but sell projects that are less risky, creating steady cash flows that allow investment in new projects that drive economic growth.

In summary, asset recycling makes the government give up future cash flows from existing projects to fund the construction of new projects. However, operation and maintenance costs still need to be covered by other sources of funds, taxes or user fees, and ideally, construction costs would also be recouped through these funding sources if the government does

^{8 &}quot;Transgrid deal: NSW power network asset sale proceeds set to top \$20b" by Brian Robins for the Sydney Morning Herald. November 26, 2015

not want to lose capital. In addition, securing future cash flows is essential to continue recycling assets, and sell these greenfield projects to private investors in the future. Nevertheless, future cash flows do not necessarily need to come from user fees to make the project more valuable to the community and the government. Thus, a transit project not fully funded by user fees might create more economic value, tax revenues, avoid future costs to the government, and be more valuable overall to the government and citizens than a toll road fully funded by user fees.

CONCLUSION AND FURTHER RESEARCH

Through this case study, we've detailed a model of developmental state that differs from existing theories about the Developmental Bureaucratic State and the Flexible State. We propose another model that we call the Financier State. The model is based on our observation of how the State of NSW created a new kind of coordinating agency, which created a program of asset recycling in which the interests and processes of the private sector are indirectly put to serve State developmental goals. Some key elements of the proposed model are that the Government tries to instigate change in the State bureaucracy by giving regulatory power to a coordinating agency, and adopting processes and values that find support in other powerful groups in the civil society. This agency adopts processes and knowledge from the private sector to reinforce the power of the State when dealing with private partners, but also to be able to create structures where interests are aligned, and risk is managed by the most able stakeholder. In this particular case, the coordinating agency found wide support for its processes and construals, and did not have to deal with a large amount of diverse stakeholders, which can explain why there might have been less fragmentation that in O'Riain's study of Ireland. We posit that with an increase in complexity (number and diversity of stakeholders), several agencies might be needed to deal with field logics that have very little in common. The analytical tool of construals versus positions, and the three levels of regulative, normative and cultural-cognitive institutional elements can help nuance the model, and case studies with variation on these axes will help refine the proposed theory.

We also detailed an innovative structure overseen by the coordinating agency, the asset recycling fund Restart NSW. The fund benefited from the isolation from the government's budget. Partitioning the proceeds from privatization from the government's budget gave confidence to voters, and ensured the rational use of funds toward the goal of maximizing economic benefits. The mechanism was based on the idea of maximizing profits from the sale, and choosing the correct projects, notably with the capabilities to efficiently procure them internally if necessary. To realize this vision, InNSW had to build capabilities, and not only gather knowledge and communicate it. It also had to advise on structuring an attractive bid and coordinate with consultants to that end, and create internal capabilities to evaluate and mitigate construction and patronage risk. An underlying assumption supporting the success of this fund that we did not study in details is the capacity of the State to handle better construction and demand risks, or to use funds from indirect consequences of a project to fund that same project.

In fact, subsidizing a project with other revenues is often considered bad investment practice in the private sector. However, for projects with hybrid goals such as infrastructure, it might actually be better practice from the government's perspective. Indeed, projects benefit from each other, and each projects' value can increase by the addition of another project. However, if the State claims to be guided by a sound financial and economic analysis, such a "transfer" still needs to be based on an economic analysis assessing the real cost versus revenues of a project over its lifecycle. We've also underlined that the asset recycling mechanism in and of itself does not guarantee that a new project will be funded over its entire lifecycle. The government still needs to secure long-term funding for the operation and maintenance of new projects, be it through user fees, taxes or other innovative capture of the value created by new projects.

Finally, this single case study could be completed by comparing the different Australian States to strengthen the model by getting variation on the proposed explicative factors, and the outcome of developing infrastructure and/or creating asset recycling funds. The model would also benefit from being tested in other settings notably in developing countries and for development projects that include industries as well as infrastructure. We also only briefly described the key mechanisms that are the ability to procure projects, and to structure the sale of existing assets. Given the importance of such skills, further research could focus on understanding those mechanisms more fully.

Private consortia (incl. foreign Pension Funds)

Private consortia (incl. foreign Pension Funds)

Recommend projects to fund NSW public agency

Treasurer approval

NSW State Premier

One time payment

Money from privatizations

Fund dedicated to greenfield infrastructure

Figure 1 – Asset Recycling Mechanism in the Case of Restart NSW

REFERENCES

- Arcadis Consultancy, (2014). "Built Asset Index Arcadis." Arcadis.
- Arcadis Consultancy, (2015). "Arcadis Global Built Asset Wealth Index 2015." Arcadis.
- Australian Government, Australian Trade Commission, Unlimited Australia, (2015). "Investment Opportunities in Australian Infrastructure." Available at file:///C:/Users/Caro/Downloads/Investment-Opportunities-in-Australian-Infrastructure-brochure.pdf
- Calcino, C. "LNP has 'no plan B' to privatising electricity", published on Feb 28th, 2015, on The Coff Coast Advocate website. Retrieved, March 30th, 2016.
- Chibber, V. (2002). Bureaucratic Rationality and the Developmental State. American Journal of Sociology, 107(4), 951–989. http://doi.org/10.1086/341010
- Déau, T. (2011) "How to Foster Investment in Long-term Assets such as Infrastructure?" OECD Journal: Financial Market Trends. Volume 2011/1. OECD Press.
- Evans, P., & Rauch, J. E. (1999). "Bureaucracy and Growth: A Cross-National Analysis of the Effects of "Weberian" State Structures on Economic Growth" American Sociological Review, Vol. 64, No.5 (Oct., 1999), pp. 748-765 Pub, 64(5), 748-765.
- Evans, Peter, and William H. Sewell. "The neoliberal era: Ideology, policy, and social effects." See Hall & Lamont 2013 (2013): 35-68.
- Fligstein, N., McAdam, D., (2012) A Theory of Fields. New York: Oxford.
- Flyvbjerg, B. (2006) "Five Misunderstandings About Case-Study Research", Qualitative Inquiry
- Ferrer, E., Macken, S., Stewart, S., for The McKell Institute, (Nov. 2014) "Getting Us There: Funding the Transport Infrastructure of Tomorrow", The McKell Institute.
- Goldberg, A., & DiMaggio, P. (2015). "Searching for Homo Economicus: Institutional Boundaries and Americans' Construals of and Attitudes toward Markets", 1–56. Working Paper
- Infrastructure New South Wales Website. Available at: http://www.infrastructure.nsw.gov.au/
- Loosemore, M., (2006) "Risk Allocation in the Private Provision of Infrastructure", *International Journal of Project Management.* 25 (2007) 66-76
- New South Wales Government Website. Webpage of the Treasury. Available at: http://www.treasury.nsw.gov.au/
- New South Wales Government Website. Webpage about their infrastructure strategy and documents related to it. Available at: http://www.nsw.gov.au/initiative/state-infrastructure-strategy and at:
 - https://www.nsw.gov.au/sites/default/files/miscellaneous/nsw_government_submission_cover_letter.pdf

- New South Wales Government submission to the electricity networks leasing inquiry. Available at: https://www.nsw.gov.au/nsw-government-submission-electricity-networks-leasing-inquiry
- New South Wales Government webpage about Rebuilding New South Wales:. Available at : https://www.nsw.gov.au/rebuilding
- OECD, (2014). "Pooling of Institutional Investors Capital Selected Case Studies in Unlisted Equity Infrastructure." Paris: OECD.
- OECD, (2012). "G20/OECD Policy Note on Pension Fund Financing for Green Infrastructure and Initiatives." Paris: OECD.
- Riain, S. Ó., Autler, G., Egan, T., Burawoy, M., Evans, P., Grimes, S., ... Zook, M. (2000). The Flexible Developmental State: Globalization, Information Technology, and the "Celtic Tiger." Politics & Society, 28(2), 157–193. http://doi.org/10.1177/0032329200028002002
- Page, S., Ankner, W., Jones, C., Fetterman, R. (2008) "The Risks and Rewards of Private Equity in Infrastructure." *Public Works Management and Policy*. Volume 13, Number 2
- Prequin & Ferguson. (2014). "Infrastructure Themes 2013." Prequin.
- Prequin. (2014). "2014 Prequin Global Infrastructure Report." Prequin.
- Prequin. (2013). "Institutional Investors in Instrastructure Q1 2013." Prequin.
- Prequin. (2013). "Preqin Special Report: European Infrastructure." Prequin.
- Scott, R. (2013). "Institutions and Organizations: Ideas, Interests, and Identities." SAGE Publications; 4th edition
- Thornton, P., Ocasio, W., & Lounsbury, M. (2012). "Introduction to the Institutional Logics Perspective." The Institutional Logics Perspective: A new Approach to Culture, Structure and Process.
- Tranter, K. "Restart NSW: an election fudge?." Web article written on Feb 9, 2011, retrieved on March 30, 2016. Available at: http://www.abc.net.au/news/2011-02-10/restart_nsw3a_an_election_fudge3f/43866
- Tsui-Auch, L. S. (2004). Bureaucratic rationality and nodal agency in a developmental state The case of state-led biotechnology development in Singapore. International Sociology, 19(4), 451–477. http://doi.org/10.1177/0268580904047367
- Yescombe, 2014; "Principles of Project Finance." Academic Press, Elsevier, Second Edition.
- World Economic Forum, (2013) "The Global Competitiveness 2013-2014, Full data Edition" Edited by Professor Klaus Schwab, World Economic Forum, Geneva.
- World Economic Forum, (2013) "World Economic Forum, The Green Investment Report" World Economic Forum.