Workshop 7 discussed the existence of and opportunities for innovative finance to fund innovative public transport in developed and developing economies across the globe. Innovation was seen in the use of existing mechanisms as well as in the use of new approaches to financing both the capital and operational aspects of projects. The 'when and how' of innovative finance and funding highlighted the need to be sensitive to the context, the nature of the actors involved, the beneficiaries and importantly, the allocation of risk between the various parties. Case studies of different experiences emphasised the critical elements of risk and scale in determining the appropriate financing mechanism and the importance of taking the institutional framework and cultural aspects into account when trying to transfer experience across borders. Policy and research recommendations centre on risk and its allocation between parties for a successful outcome, defining and implementing supportive governance regimes and building an evidence base to reduce the risk management aspects of financing innovative projects.

2. The evidence

2.1. Principles of innovative funding – when and how?

Motivated by the question posed by Olsen et al. (2011) as to whether the best selection of public transport schemes emerges from the contemporary Norwegian system of a series of locally raised taxes and national grants, the paper by Olsen and Fearnley

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(2013) provided a framework for examining innovative funding. This paper considered a number of different funding and financing practices around the world in the context of their transferability (to the case study country of Norway) and in terms of barriers to implementation. Broadly speaking, the paper identifies subsidies for operation and investment, different forms of loan for financing and tax-based schemes. Subsidies in Norway were contrasted with the system in Sweden where the national grant system was in proportion to the ‘amount’ of public transport provided, thus providing a clear link between provision and funding. Hypothecated or earmarked taxes ranging from congestion taxes, road tolls and the French versement payroll tax, were identified as alternative forms of funding as was looking at ways of exploiting land value uplift from the improvements in accessibility provided by new infrastructure. Public Private Partnerships (PPPs) for investments were discussed alongside alternative forms of contracting. However, the central point of this paper was its consideration of the policy transfer issues and the implications for transferability between countries. Good ideas from one country do not transfer without an understanding of the institutional and governance arrangements and the geographic and demographic characteristics of the originating and receiving countries. In particular Olsen and Fearnley (2013) highlighted the role of understanding the inter-group dynamics of the group of actors involved in public transport funding and financing, drawing on the work of Wilson (1980) and Winter (1991). Identifying the benefits of a project and the burden of its financing as being scattered or focused, provided the basis for intense discussion in the workshop, identifying the potential benefits of creating ‘policy packages’ where the disadvantages of one funding mechanism can be balanced by the strengths of another.

PPPs come in different forms and Crozet (2013) provided a detailed discussion of the use of PPPs and concessions for the rail sector in France and internationally. As innovative finance, PPPs in this sector have failed, sometimes dramatically, almost as if there is a curse on PPPs for railways. The over-estimation of demand (forecast traffic volumes) is often to blame for these failures. Analysing the appropriateness of financing through PPP or concession, the analysis showed how the high political status of rail projects (“the lines must be built, trains must run and the price quality must be acceptable” p.9) leads to an asymmetry of power and risk between politicians and concessionaire holders/PPP consortia which underpinned the difficult history of PPPs in the rail sector, especially when the public sector funding is the funding of last resort.

In the current climate of austerity, Macario (2013) argued that scarcity of resources made it especially important to develop better evaluation of the benefits of new investments to enhance urban mobility. Evaluating investments in terms of their contribution to enhancing accessibility was a fundamental building block of examining the ‘worth’ of a project. In the discussion of different funding and financing approaches, the paper highlighted the use of cross subsidisation — frowned upon in many economic circles— as a way of addressing social inclusion by linking good accessibility standards as a public service obligation — as an innovative and currently ignored source of funding. The link between accessibility and funding was discussed at length in the workshop and became a recurring theme as will be seen below.

In summary, the ‘when and how’ of innovative finance and funding highlighted the need to be sensitive to the context, the nature of the actors involved, the beneficiaries and importantly, the allocation of risk between the various parties.

2.2. New funding for innovation: can it work? Examples in practice

Papers in this section covered a wide variety of practical settings of innovative funding. Dale, Frost, Ison, and Warren (2013) presented the case of a workplace parking levy with its revenue hypothesized to the extension of the tram system in Nottingham (UK), Morais, Aragao, Orrico, and de Freitas Durado (2013) was more of a hypothetical case study to show how value uplift could have provided the funding for the Metropolitan Railway of Brasilia (and other city infrastructure projects) and how care would be needed in balancing the cash flow if this was to be successful. These large scale projects were contrasted with case studies on the funding of a bicycle rental scheme in Spain (Sastre, López, Alvarez, 2013; Sastre, Casanova, Brieba, Figueroa, 2013) and a co-operative car sharing schemes in small cities and rural areas in Austria (Shibayama, Lemmerer, Winder, and Pfaffenbchler, 2013). In Spain, the short-term rental scheme was designed to complement the public transport network and the PPP provided for the development and operation of the scheme by allowing the concessionaire to add to revenues through the use of the service and the local area for advertising contracts. In contrast, the car sharing scheme in Austria, intended to complement public transport where it was scarce, was organised by the municipality as a semi-public service and the paper showed how this provided financial benefits both to the municipality in terms of savings in subsidy to public transport and to the car users in terms of removing the need for the purchase of an additional car.

Whilst not explicit, the case study examples of this section highlighted the need to take the scale of the project into account. In Nottingham and Brasilia, the innovative funding was for large scale public transport improvements in contrast to Spain and Austria where the scale was local and small. Each of the case studies echoed elements raised in the papers more devoted to principles (Section 2.1) in terms of being sensitive to context, the important role of risk allocation and the need to be aware of the building block of accessibility in driving the need for investment.

2.3. Can PPPs be designed to provide funds for innovation?

PPPs have been the subject of much discussion in the Thredbo series and three papers were presented to this workshop on the practical implementation of PPPs in the transport context. Discussions centred on the implications for the design of a PPP which were identified as fundamental to success. Olyslagers (2013) provided evidence from developing countries to show that a more ‘commercial’ approach to ‘system managing’ bus networks created by a partnership between the public and private sectors was more successful than relying on a regulatory framework to make public sector entities behave more like private firms. It was more successful because it provided more equal partnership and a fairer sharing of the risk. Moreover, focussing on the network as a whole allowed the benefits of accessibility and connectivity to be realised. Sastre, López, et al. (2013) and Sastre, Casanova, et al. (2013) provided an ex-ante study of putting in place an intelligent transport system for the Chilean railways, where partnerships between the public and private sectors took different forms at different stages of the project development. The final paper of this theme, and the paper that was presented to the Conference plenary, was about the M4 motorway tolling PPP in Sydney, Australia (Chung and Hensher, 2013). This was one of the early PPPs which was successfully seen through to completion in 2010. It was an ‘incomplete’ contract in the contractual sense but the paper highlighted how this incompleteness actually gave the flexibility for both sides to negotiate and resolve issues over the term of the contract. Managing the risk was key to this successful outcome as well as the willingness of the respective parties to cooperate in solving the unforeseen matters that arose during the lifetime of the concession.

All three papers in this key theme highlighted the role of risk in determining actual or potential success. Important too was the
recognition that incompleteness in contracts may not necessarily be bad and may even be good, provided both partners to the contract are committed to sensible negotiation over incompleteness when the need arises.

2.4. Challenges for innovation in funding

Whilst all themes identified challenges for innovative funding of public transport schemes, as discussed above, the two papers presented in this theme were specifically focussed on challenges per se. Krogstad and Leiren (2013) concentrated on the impact of the recent trend to delegate public transport investments and operations to specially formed, quasi-autonomous agencies that operate at arm’s length from the politicians. However, whilst it might be expected to reduce the tension in the funding of public transport investments and operations, the presented case study showed how this may not be the case. The way in which transport touches everyone’s everyday life meant that citizens were very vocal about transport issues, which in turn involved the politicians. The supposedly independent agency is then subjected to political constraints. An important lesson that emerged is that governance issues are often ignored but turn out to be so important. Governance issues were also at the core of Bougna and Crozet (2013) in which the emerging reforms in France to reduce transaction costs were presented. The analysis of transaction costs and a comparison between French and German railways performance highlighted similar financial indicators but markedly different productivity performance. The conclusions were that governance issues must match the desired outcome and that in the case of the French railways, focussing on productivity improvements might produce a better outcome since transaction costs formed only a small part of the total costs.

Governance issues appear to be at the heart of the recent research into the challenges of financing, mainly because more tangible issues of funding have had more attention, such as risk or scale of project. Nevertheless, as these papers and the discussion of the workshop showed, governance issues have a very insidious effect on the outcome, and it is an area where transport specialists have relatively less experience.

3. Discussion

Many of the papers involved looking at investments or operational aspects motivated by getting people out of their cars or using cars or schemes designed to be an adjunct to public transport. In this context, the role of accessibility was key, and valuing accessibility was highlighted as essential in capturing the social inclusion aspects of investments and also their competitiveness.

The discussion in the workshop highlighted that ‘innovation’ and ‘success’ did not necessarily go hand in hand. Getting the right project was the key to success and this needed to take account of the institutional framework in particular. Municipalities rather than national governments played a role in innovative funding with development of the cycling scheme (Spain) and co-operative car sharing (Austria), and with the workplace parking levy funding new transport infrastructure in Nottingham. Getting the project right also required ‘bottom up’ input before the design of the project and an understanding of operational issues before designs were completed. Perhaps the most important attribute of the institutional framework that required recognition was the risk loving behaviour of politicians wanting projects to suit political ends leading to a high probability of failure (e.g., the job creation potential of the project; the eventual establishment of infrastructure etc.). The institutional context crucially affects the allocation of responsibilities in the funding process and this was shown to clearly affect outcomes.

Understanding the defining features of finance was a recurring topic arising from the papers. The scale of projects, large versus small, determines the appropriateness of instrument. Considering the number of actors involved, whether scattered or focussed, showed how packages of instruments could be more innovative than the financing of separate projects. Indeed, the bundling of projects would also support the spreading of risk, making combinations of projects even more attractive. The papers and discussions at the workshop highlighted the existence of a private-public continuum and the way in which the most successful of projects had carefully chosen a point on this continuum. And finally, and perhaps the most important point to remember in defining the features of finance is that bad projects do not need innovative finance, they are just bad and should not be done.

The workshop identified a number of important considerations in financing. Policy and decision-making designed to bring public acceptance or make innovations workable can bring sub-optimal solutions; for example, excluding small workplaces from the workplace levy in Nottingham or excluding environmentally friendly cars from a congestion tax. The lesson here is that the measure must point clearly to the purpose of the tax – workplace travel and congestion respectively. The workshop also discussed at some length the transferability of experience from one place to another – transferring successfully required a clear understanding of the impact of different cultures and settings and the need for transparency and clarity. Capacity building in this respect was seen as key to successful transfer of experience as different outcomes can come from the common objectives of improving efficiency or providing economic benefits.

Workshop discussions returned many times to the mechanisms of innovative financing and agreed that innovative use of existing mechanisms was indeed innovative. PPPs were a good case in point where more effective (not necessarily more complete) contract design would be innovative, avoiding the problems of optimism bias and building trust and partnership (as in the Sydney M4 (Chung and Hensher, 2013)) and importantly getting the risk allocation right would be innovations. Nevertheless, there were a number of possible innovative mechanisms that have not been widely tested, even when the empirical evidence suggests that have worked in some cases, such as value capture, parking and space levies, versement taxes.

The most often recurring theme of discussions was the issue of risk. In particular the allocation of risk to the appropriate party, understanding the relationship between risk, costs and incentives and the role of incomplete contracts in providing flexibility to reallocate risk over the life of the financing product. Associated with this was a need to understand the ethics of risk management and the need to account for risk management in the design of competent and empowered authorities as parties to the financing process.

4. Policy recommendations

The principal recommendations were that there should be recognition that existing funding and financing mechanisms can provide good outcomes and are transferable to other countries or cities, provided the contextual, institutional and cultural attributes were well understood. In terms of mechanisms, the workshop discussions highlighted the key aspect of aligning risk allocation and responsibilities, and that better outcomes would be realised if investment projects were evaluated on wider criteria. Extending the criteria from costs and benefits to include the use of accessibility measures and economic and fiscal impact
analysis would create more certainty in understanding the wider impacts of the project and more security for the providers of finance.

5. Research recommendations and themes for Thredbo 14

Four areas of further research were identified by the workshop discussions. First, the role of risk was shown to be the key determinant in whether PPPs were successful or not. Understanding how risk has been allocated in PPPs and the impact of this on the outcome is an important research question. Second, innovation in PPPs is limited by a lack of an evidence base, particularly in relation to risk management, and this makes risk management a bigger element in the financing of innovative projects than projects which are more straightforward. The workshop recommended that research to create a structured database and benchmarking of existing PPPs and the costs and forecasts of projects would provide this evidence base thus reducing the risk management of new projects. Third, whilst it is known that many PPPs fail because of optimism bias in the forecasts faced by those providing finance, there is no evidence base as to why optimism bias occurs — is it inexperience, stupidity, political expediency or a systematic error from some other source?

Finally, the workshop discussions highlighted a need to have a better understanding of the links between the sources of funding and the outcome of infrastructure and operational developments to provide an evidence base on which to build capacity and transfer knowledge across the globe. In this context, an important component is to understand the role of governance and its impact on the success or otherwise of existing projects.

References


Workshop papers


