

Hypothecation and the parking levy: lessons from Sydney and Nottingham

Abstract

Policies which impinge on car use, such as parking or congestion charging, appear to be more acceptable to car drivers if revenues are ring-fenced and hypothecated to public transport improvements. This paper investigates the relative merits of two work place levy schemes in terms of their coverage (all versus business only, whole areas versus specific spatial areas) and differences in flexibility for hypothecation.

Nottingham, in the East Midlands area of the UK is the only city to introduce a Workplace Parking Levy (WPL) under the legislation, introduced in 2000, which gave local authorities opportunity to implement Road User Charging and/or a WPL to address congestion provided revenues were hypothecated to predominantly public transport improvements. Nottingham's WPL, introduced in 2012, hypothecates its revenue to provide 'high quality sustainable public transport' that are 'realistic alternatives' to the private car, such as extending the tram system.

In contrast, in Sydney, Australia, a parking Space Levy (PSL) has been in place since 1992 for the central business district and other centres with a high proportion of office space. The PSL applies only to business parking and the revenue is hypothecated, by law, to building commuter car parks.

The paper is based on a review of levy documentation in Nottingham and Sydney covering issues raised in the literature concerning the success and challenges faced by hypothecation elsewhere.

As an efficient mechanism to fund specific projects, hypothecation has mixed results. The flexibility of the UK model raises challenges of choice whilst the Sydney model provides no opportunity to divert funds to projects which might create more modal shift to public transport.

The paper will seek to identify the lessons can be learnt to aid other Cities contemplating WPL schemes with hypothecation of revenues.

1. Introduction

'Earmarking', or 'hypothecation', is the designation or allocation of particular tax revenues to particular forms of government spending." (Teja and Bracewell-Milnes 1991: 43). As such, it refers to an alternative to funding of provision from a pool of undifferentiated tax revenue (ibid., p.45.). As far back as 1984 the Brookings Institution stated that "Earmarking is prompted by a desire to protect particular programs, agencies, or regions from competition and to provide them larger or more stable shares of resources than they would otherwise obtain ..." (Brookings Institution 1984:12). It is against this backdrop that this paper considers the hypothecation from two parking policies, namely the Parking Space Levy and Workplace Parking Levy, operating in Sydney and Nottingham respectively.

In the UK in recent years there has been mounting concern as to the quality of transport provision and the view that more money should be invested in public transport systems. There has however been a lack of finance for public transport improvements and in fact competition for funds, hence a role for innovative revenue sources and hypothecation. This paper investigates the relative merits of the two work place levy schemes seeking to identify the lessons that can be learnt to aid other Cities contemplating WPL schemes with hypothecation of revenues.

2. Literature Review

Collecting taxes or charging which is subsequently earmarked for a particular purpose is not a new idea. For example, the revenue from the Road Fund Licence [now called the Vehicle Excise Duty] in the UK, in the late 1800's, for a number of years was used to fund road construction (Ubbels et al 2004). The road fund licence operated at a national level, and although hypothecation for transport activities at this level is relatively rare, hypothecation is increasingly being considered at the local level. This has been fuelled in part, in the UK setting, by the Transport Bill (2000) which gave local authorities in England and Wales the power to introduce a road user charge and/or a workplace parking levy, provided that the revenue stream from such charges be ring-fenced and ploughed back into transport improvements for a period of ten years. In Australia, the Parking Space Levy (PSL) was introduced in 1992 by a coalition government and retained by the following Labor government with clear state-wide 'earmarking' to public transport related activities embedded in the legislation.

Deran (1965), in referring to hypothecation, highlighted a number of criticisms and justification. The criticisms include the way in which hypothecation is argued to hamper effective budgetary control by removing degrees of freedom in spending taxation revenue (which explains why Treasuries do not favour earmarking); hypothecation can lead to a misallocation of resources with 'excess' revenue being devoted to some functions and other activities, not included in the earmarking, being unsupported; the earmarking of funds can lead to inflexibility in revenue structure, making it difficult for authorities to enact suitable adjustments when there is a change in conditions; the earmarking of revenue can remain in place long after the need for which it was established has disappeared and by removing a

portion of fiscal policy from periodic review and control, hypothecation impinges on the power of policy-makers.

Against this, Deran argued for a number of economic and non-economic factors which justify the use of hypothecation. In particular, hypothecation applies the benefit theory of taxation; it assures a minimum level of expenditure to, what can be seen as desirable authority functions; it assures the continuity for specific projects and is beneficial for long term planning and importantly, in the transport context, earmarking can help in overcoming resistance to new taxes or increased rates, especially those designed to elicit behaviour change giving rise to more of a win-win situation.

Clearly, as stated by Deran (1965) some of the arguments for and against hypothecation depend on value judgements and cannot be disputed or vindicated conclusively. Nevertheless for transport funding, many of these arguments have resonance as discussed below and have been used in different ways in the parking levy as it applies to Nottingham and Sydney.

Ring fencing revenue raised from a particular measure as a way of overcoming the resistance to a new tax is borne out by various studies in the international literature. For example, Ison (2000) sought the views of local authority officials and councillors to road pricing and found that support for such a measure increased dramatically if the road pricing scheme revenue was spent on specific policy options. In this regard 11.3% perceived road pricing as being totally/fairly acceptable before specific revenue allocation, whereas the figure was 54.6% if the revenue was allocated to specific policies such as improved local public transport. This line of argument was supported by Thorpe et al (2000) who found that acceptance of road pricing increased with guaranteed revenue allocation. Not surprisingly, the first implementations of road pricing, such as London, Singapore and Stockholm all had some element of hypothecation to increase acceptability.

As highlighted by Deran (1965), the issue of policy acceptance is important but in many jurisdictions the potential to assure continuity for specific projects has also played a significant role in terms of hypothecation. For example, the Norwegian toll-ring schemes, namely Bergen in 1986, Oslo in 1990 and Trondheim in 1991, generated revenue specifically for a package of transport improvements ranging from new infrastructure, safety and

environmental improvements (see Larsen 1995), where these measures would have taken much longer to introduce if the tolls had not been implemented.

3. The Levies in Nottingham and Sydney

The Workplace Parking Levy, Nottingham, UK

The Transport Bill in 2000 gave power to local authorities in the UK to implement either a Road User Charge (RUC) and/or a Workplace Parking Levy (WPL). Since the introduction of this Act, only one city has decided to introduce a WPL, namely Nottingham, in the East Midlands area of the UK. Nottingham City Council considered two demand management measures aimed at addressing congestion; namely road user charging and the workplace parking levy. The WPL was selected partly on the basis that a significant proportion of peak-hour congestion arises from the journey to work and many workplaces offered free parking. Moreover, a WPL could be introduced within a shorter time frame than a road pricing scheme which was politically more sensitive if not in Nottingham, at least outside in those metropolitan cities (Edinburgh, Manchester) where a road pricing scheme was rejected following well-articulated campaigns.

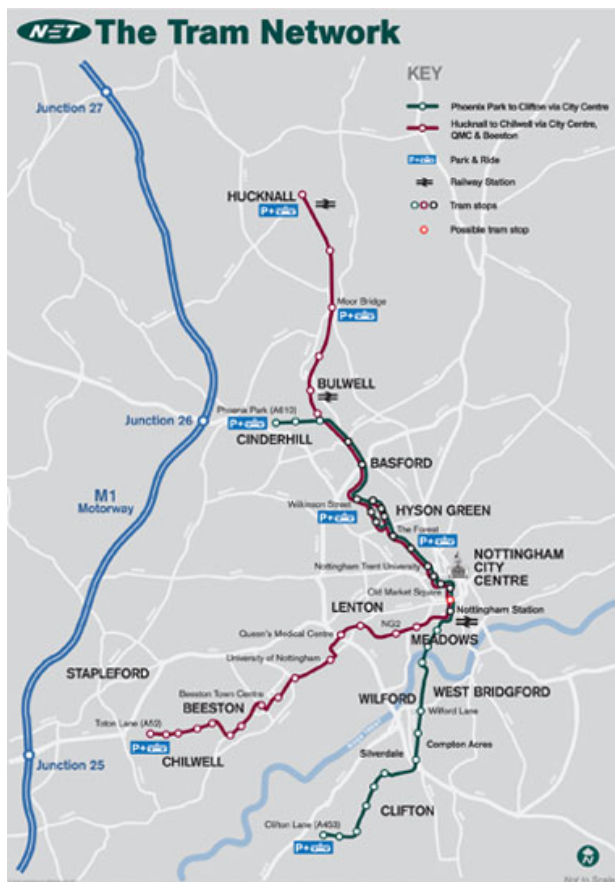
In Nottingham, a Workplace Parking Levy legal order was passed by the UK government in July 2009. From October 2011, this required employers, including regular business visitors, pupils and students, within the city to obtain a licence for the number of employee parking places they provide. Initially all employers received a 100% discount but charging for parking places for those employers with 11 or more employee parking places came into force from April 2012. Initially the charge was £288 per parking place per annum with a planned phased increase in the levy year on year, such that from 1st April 2013 - 31st March 2014 the cost of the WPL increased to £334, to an estimated £363 in 2014/15 and £380 in 2015. In future years it will increase in line with inflation. The phasing of the introduction is to allow planned public transport improvements to come on stream prior to the main part of the charge being implemented (Nottingham City Council 2008). Commuters account for 70% of peak period congestion (Nottingham City Council 2009) and it could be argued, on a congestor pays principle, that it is fair for employers to contribute to ameliorating this problem by paying a levy which provides for alternatives to the private car.

The WPL in Nottingham is estimated to generate £14million each year. Employers with 10 or less parking places will continue to receive a 100% discount on the levy.

The identified objectives of the WPL are to:

- Reduce congestion by encouraging employers to reduce the parking available to employees so as to reduce their WPL bill [or become exempt] and, by reducing the number of termination points for an employee, reduce the level of congestion;
- Increase uptake of workplace travel plans and responsible parking management strategies;
- Help secure 'high quality sustainable public transport' that are 'realistic alternatives' to the private car. The improvements consist of extending Nottingham's tram system (NET Phase Two), improving bus services and modernising the train station;
- Encourage assistance to businesses in terms of developing 'smarter travel choices' travel plans and on/off-street parking management schemes;
- Provide no significant negative impact on business investment decisions in the City;
- Create no significant displaced parking problems.

Figure 1 NET Phase 2 Project



Source: <http://www.tramlinknottingham.co.uk/net-phase-2> © Tramlink Nottingham 2013

Line 1 of the Nottingham Express Transit (NET) from the city centre to Hucknall [see figure 1] was opened in 2004. The line has been seen as a success with 10 million passenger journeys each year and with peak period public transport usage increasing by 20% since it opened (Nottingham City Council 2007). There is strong support to build on this success and extend the tram network and the completion of NET Phase Two is seen to be important for the development of Nottingham city centre. The funding for NET Phase Two was an issue before the decision to implement the WPL was made. The government approved funding for £437 million which accounted for approximately 75% of the estimated costs. The remaining 25% needed to be raised from local funding (Nottingham City Council 2007). The view of the Council was that this was not attainable through existing revenue streams and as such, new funding was required and this motivated the development of the WPL. Speed in accessing local money was an important factor (pushing towards a WPL and away from road pricing as a local solution) as there was a view if local funding was not secured quickly, proposed central government funding may be allocated to other projects.

The Parking Space Levy, Sydney, Australia

Unlike Nottingham, the parking space levy (PSL) is well established in Sydney. The Parking Space Levy Act 1992 provided the legal background for the introduction of the Parking Space Levy (PSL) on business use of car parking spaces from 1 July 1992. This Act, and subsequent amendments to vary the level of the tax (the most recent of which is the Parking Space Levy Act 2009) identifies two objectives for the PSL:

“The object of this Act is to discourage car use in business districts by imposing a levy on off-street commercial and office parking spaces (including parking spaces in parking stations), and by using the revenue so raised to finance the development of infrastructure to encourage the use of public transport to and from those districts.” NSW Parking Space Levy Act 1992, Section 3

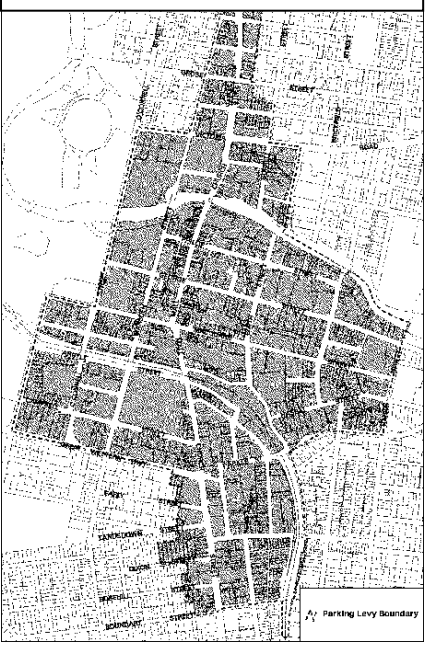
The Sydney PSL is aimed at business parking and includes a significant number of exemptions. The exemptions include residential parking, casual parking to provide ‘services’ such as tradespeople, visitors where there is no parking charge to local government offices, charities, religious organisations and where a vehicle is garaged overnight for emergency service vehicles. Since its introduction in 1992, the levy has been increased a number of times, and extended in area as shown in Table 1 and Figure 1.

Table 1 shows that the levy was doubled in 1997, 2000 and 2009 with increases in between being tied to the Consumer Price Index (CPI) since 2003. A category 2 PSL with a lower levy was introduced in 2000 to cover areas outside Sydney CBD and North Sydney. Whilst these might be thought of as lower order business districts, both Chatswood and St Leonards are included in the ‘global arc’ area of high income (business and residential) areas which has been developed and reinforced by high tech industries and Sydney’s universities

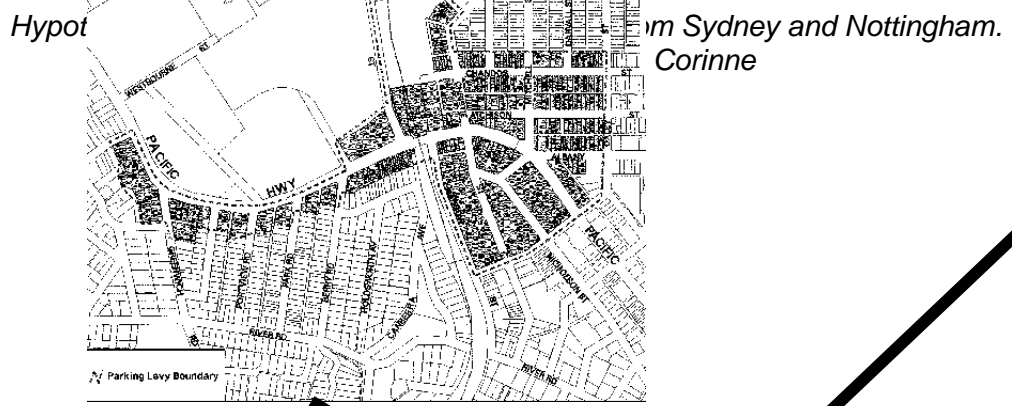
Table 1: The PSL and the Levy imposed by year

	Category 1 areas: Sydney CBD, North Sydney and Milsons Point	Category 2 areas: Bondi Junction, Chatswood, Parramatta and St Leonards
1 July 1992	\$200	
1 July 1993	\$200	
1 July 1994	\$200	
1 July 1995	\$200	
1 July 1996	\$200	
1 July 1997	\$400	
1 July 1998	\$400	
1 July 1999	\$400	
1 July 2000	\$800	\$400
1 July 2001	\$800	\$400
1 July 2002	\$800	\$400
1 July 2003	\$840	\$420
1 July 2004	\$860	\$430
1 July 2005	\$880	\$440
1 July 2006	\$900	\$450
1 July 2007	\$930	\$460
1 July 2008	\$950	\$470
1 July 2009	\$2000	\$710
1 July 2010	\$2040	\$720
1 July 2011	\$2100	\$740

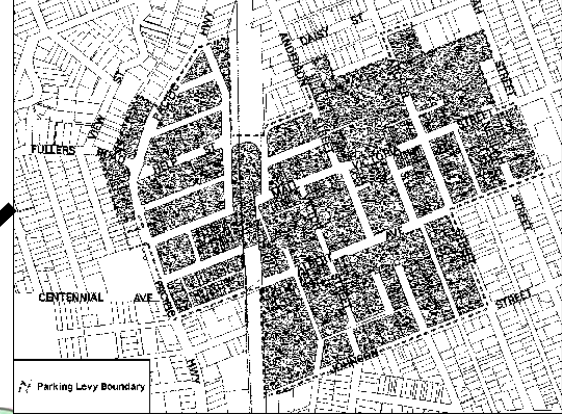
Category 2: Parramatta



Category 2: St Leonards



Category 2: Chatswood



Category 1: North Sydney /Millsons Point

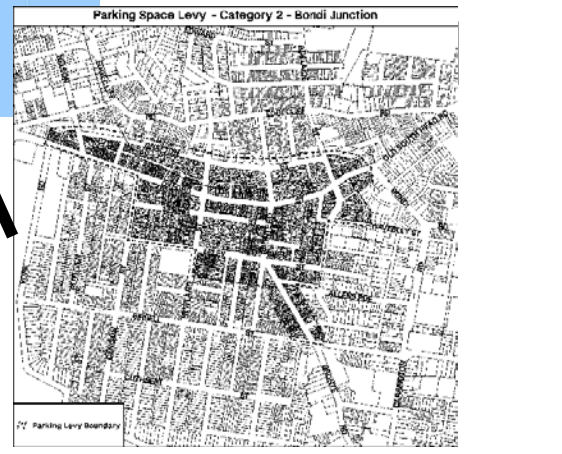
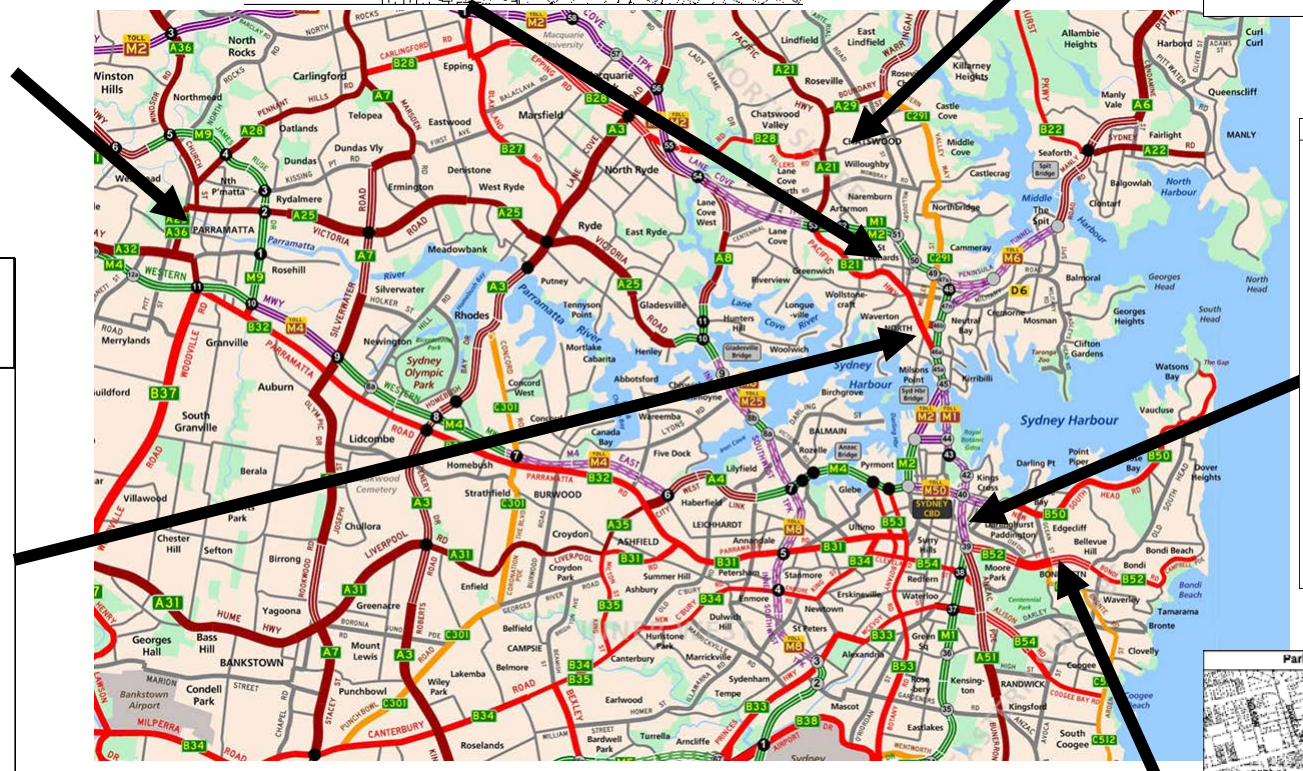
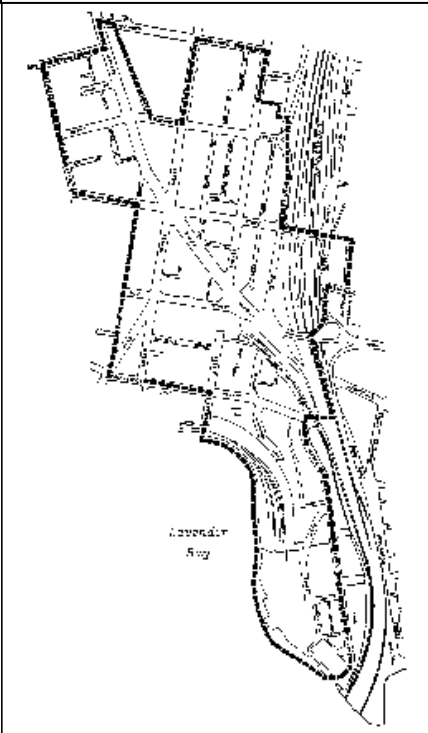
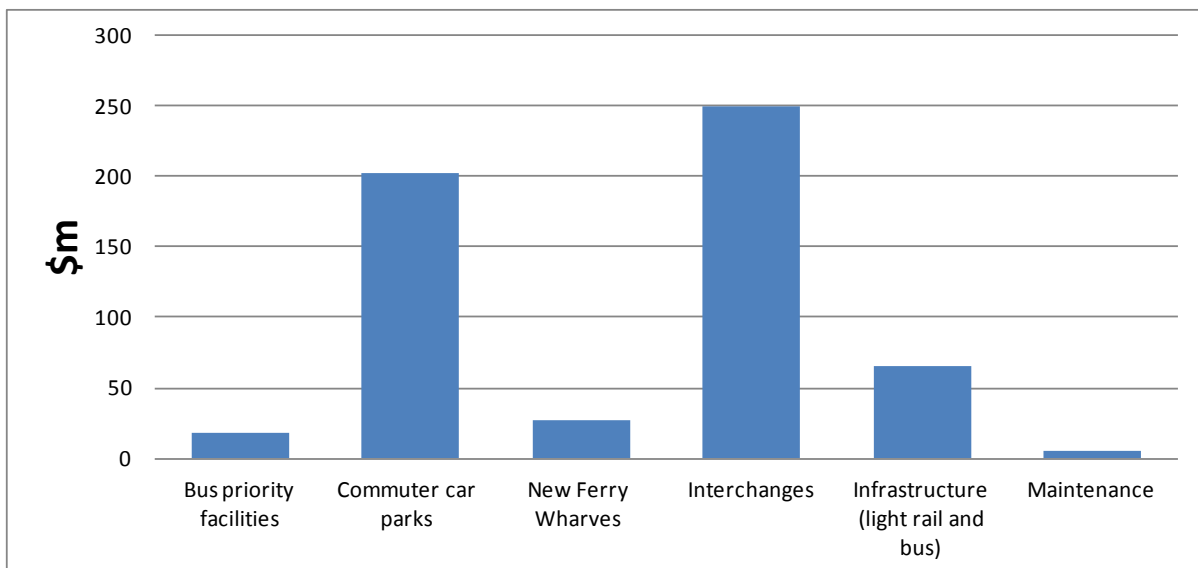


Figure 2: Geographical distribution of the PSL in Sydney, NSW

Figure 2 shows the geographical distribution of the areas subject to PSL. This identifies that the Sydney CBD is only one of the areas covered by the legislation and reflects the way in which the Sydney Metropolitan area consists of a hierarchy of centres (referred to as a ‘City of Cities’ (NSW Government 2012).

PSL is collected by the NSW Office of State Revenue (OSR) and is hypothecated to spending on public transport related activities. It is deposited into a special account called the Public Transport Fund. Receipts to the fund are in the order of \$100m per annum (2011) (OSR Annual Reports). From the date of implementation, the Public Transport Fund has been spent on bus priority and bus facilities (such as new layover spaces), commuter car parks, new ferry wharves, interchanges, new infrastructure for light rail and bus and maintenance. Figure 3 shows the distribution between these different elements revealing the greatest contribution has been to the provision of interchanges, although one interchange in particular, Parramatta, dominates this expenditure at \$142m. Without this, the greatest part of the Fund has been used to fund 36 different commuter car parks, both new and upgrades.



Source: Public Transport Fund, Transport for NSW

Figure 3: Expenditure of the Public Transport Fund (completed projects) 1992-2011

In the PSL Act 1992, Section 18(3) defined the way in which the Fund could be deployed as “money for the construction and maintenance of car and bicycle parking facilities, and other infrastructure, which facilitate access to public transport services to and from the

City of Sydney and any other areas covered by the PSL or in accordance with a direction of the Minister” (NSW Parking Space Levy Act 1992 (Section 18, 3-4)). In the 2009 Act which replaces this, the use of the Fund has been extended to finance:

“(a) public transport services, and

(b) projects that facilitate access by public transport to and from, or within, leviable districts, including projects for the construction, maintenance and ongoing management of parking facilities, and other such infrastructure, and

(c) initiatives for the communication of information to commuters, including initiatives that make use of new technologies...”

NSW Parking Space Levy Act 2009, Section 11 (3)

The extension in 2009 allows the Public Transport Fund to be used for current or revenue subsidy of public transport and to invest in ‘soft’ policy options of delivering information and improvements using new technology whereas previously it was reserved for capital expenditure. This change in potential use of the PSL has not so far been used as shown by the Fund statements for 2009/10 and 2012/11 in Table 2.

Table 2: Expenditure from the Public Transport Fund 2009-2011

Parking Space Levy Act 2009	Expenditure from the Public Transport Fund	2009-10 \$000	2010-11 \$000
s11.3(a)	Public Transport Services		
s11.3(b)	Public Transport Infrastructure		
-	- <i>Infrastructure Maintenance</i>	5,310	4,825
-	- <i>Project Development</i>	420	573
-	- <i>Car Parks and Interchanges</i>	86,651	62,593
-	- <i>Other Transport Infrastructure</i>	4,727	5,355
s11.3 (c)	Communication to Commuters		

Source: Public Transport Fund, Transport for NSW

4. The relative merits of hypothecating revenue streams: a comparison of WPL and PSL

The discussion in this section is based on a review of levy documentation in Nottingham and Sydney respectively covering issues raised in the literature concerning the success and challenges faced by hypothecation. In terms of the relative merits of hypothecation relating to the WPL and PSL a number of issues can be identified:

Business attitudes

In Nottingham, the hypothecated WPL is being paid by businesses that could choose to relocate to new locations outside the City, although this in itself could represent a cost both to the business and their staff which may be above that paid in terms of the WPL. It could also have unintended land use outcomes. An alienated business community coupled with a reluctance of businesses to move to the area because of the levy is a concern, particularly in the current economic climate but this has to be weighed against the reduction in congestion and the improvement in alternative forms of transport the levy has engendered. The workplace travel plan has an important role to play, to a certain extent, in placating the business community, but clearly its role cannot be overstated. Unless and until other local authorities, particularly those in neighbouring localities, most notably Derby and Leicester decide to introduce their own WPL, the Levy could act as a deterrent to incoming investors, when they consider the relative costs and benefits of relocation. It is useful to note that Phase 1 of the NET has been successful in attracting businesses along its route.

In Sydney, the attitude of businesses has not been a key feature of the PSL implementation. The PSL has attracted media coverage indicating that Sydney has the 4th highest parking costs in 2011 (comparison of median prices for 20 capital cities (Colliers International 2011)) and the periodic reviews of the legislation underpinning the PSL has promoted peak body commentary against the PSL. The Property Council (2004) argued not so much against the tax per se but for its failure to control congestion particularly in the Sydney CBD. Related to this is the bigger issue as to whether the PSL has the intended 'bite' to encourage behaviour change with little evidence of the PSL being passed directly to car users whether in dedicated employer spaces or in casual parking.

Planned spending of hypothecated revenue

In Nottingham, a specific issue with hypothecation is the way in which the WPL revenue is earmarked for particular NET lines. This means that certain businesses and possibly their employees (if the levy is passed on) who live or work due west or east of the city centre have no way of benefiting from the NET extensions in terms of their commuting. It is also the case that other public transport alternatives may not be an option for these commuters. As with all fixed period, all day taxes, the WPL does not distinguish between those travelling at congested times of the day, and those travelling at other times. This latter aspect is shared with the Sydney PSL. In Sydney, whilst there is a clear link between the hypothecation of the PSL to the Public Transport Fund, there is no such transparency on how spending *from* the Public Transport Fund is planned to be linked to the objectives of the PSL in encouraging public transport use to the areas where the PSL is applied.

Destination of the hypothecated revenue

With any example of hypothecation there is always the argument that the revenue could have been better spent, and the use of the WPL to fund the NET among other things is no exception. Against this, in Sydney, the PSL seems to have been introduced more as producing a 'bucket' of money from which improvements to public transport access can be funded rather than a planned process of improving access to the specific centres where the PSL is applied.

A stable source of revenue

As with all property based taxes, taxes on parking spaces are difficult to evade. Moreover, property based taxes, because of their tax base, provide a stable and predictable source of revenue that is typically unaffected by business cycles. This has been recognised in Nottingham where Nottingham City Council (2008) identified these features as compared to other sources.

Relatively simple to administer

A single rate of WPL or PSL undoubtedly makes a scheme relatively simple to administer and this was a key feature of the choice in Nottingham in identifying a suitable revenue stream for the Phase 2 project. Simplicity was one of the reasons the Council has not made provision for a differentiated levy based on employee circumstances including access to

public transport, or a levy which is applied unevenly across the city area. Whilst the PSL in Sydney does have more than one band of levy, the different levels of tax are applied in spatially differentiated centres.

The PSL has been in place for some time and maturity has led to an uneven use of car spaces, particularly in the Sydney CBD with car parks towards the fringe of the PSL area being relatively underused. This maybe a reflection of the success of the PSL in discouraging car parking and car use or alternatively, it could be a reflection of the more recent ability of car park owners to claim reductions for unused 'casual' parking spaces on a daily basis. This exemption of course militates against the stability of the tax revenue.

Varied objectives of the hypothecated WPL

In both cities, the tax on parking spaces have more than one objective. In addition to the revenue raising properties of the tax there are additional objectives that each scheme seeks to address. Reduced congestion, via removing the number of workplace parking spaces (viewed as a complement to the journey undertaken), encouraging sustainable travel and mode choice, in addition to stimulating the uptake of travel plans are objectives of an implemented WPL are identified objectives of the Nottingham scheme as are no significant negative impact on business investment decisions in the City and/or significant displaced parking problems which are much harder objectives to achieve. In Sydney, reduction in congestion is also a stated objective with the implicit objective of encouraging transfer to public transport modes through the enhancement of this through hypothecation. Congestion in Sydney remains an issue and over 50 per cent of respondents to the Sydney Household Travel Survey identified the use of public transport was to 'avoid parking problems' (Hey and Shaz 2012). There is however no direct evidence as to whether parking difficulties are related to expense or lack of supply.

5. Conclusions

Earmarking revenue for particular purposes is not a recent phenomenon, with the introduction of the PSL dating back 20 years. The WPL has only been in place for a year however, but given the current economic climate in many countries alternative sources of revenue for particular projects is receiving greater attention. Hypothecation can assure a

minimum level of expenditure for a particular project, can assure continuity, as well as being beneficial for long term planning and aiding in overcoming resistance to the introduction of a new levy. There are therefore a number of lessons that can be learnt for those authorities considering the introduction of such a levy.

Since it is the business community who will have to pay the levy then how they react is clearly important. It is possible that they may choose to relocate and/or that businesses considering relocating to the area may think again. This can have a significant impact on an area although of course a conurbation like Sydney may not be affected by such a policy given its prime location. Businesses may alternatively choose to pass on the levy to their employees and in theory this is necessary if the levy is to achieve behaviour change in employee travel to work patterns. It remains to be seen if employers pass on the levy to employees in Nottingham but anecdotal information in Sydney suggest employees are not generally aware of paying for the PSL in their salary package if their employment is associated with a reserved car parking space.

Commuters may not benefit from the earmarked revenue since it could be focussed on specific localised projects such as the tram in Nottingham or a car park or interchange in Sydney which they do not have easy access to. In addition, the decision on the destination of the earmarked revenue is a value judgement, particularly in the case of Sydney where the Public Transport Fund is used more as a 'pot of money' for eligible projects. In practice, the WPL is clearer than the PSL in that the projects have been identified at the time of introduction of the levy and this gives a transparent link between tax and beneficiary. However, when the tram extension is built in Nottingham, whether or not similar transparency exists remains to be seen. It is however interesting to note that stamped on buses are stickers showing what the WPL is paying for, whether funded or part funded by the WPL.

Success of a parking levy might be seen as a reduction in the number of car spaces used for parking in the designated area. In Sydney, for example, parking spaces at the fringes of the taxed area are more likely to be unused and therefore not generate levy revenue. As part of a policy of taxing off-street car parking spaces, policy-makers should give thought to design developments which include car parking spaces to ensure that if not required in the future, car parking spaces can be converted into alternative uses, such as commercial or rental spaces.

On the positive side the levy, as a land based tax, is capable of providing a more stable source of revenue that is relatively simple to administer, as compared to an income based tax which can be seriously affected in its revenue generation by economic cycles. But the revenue raising potential is critically affected by the type of exemptions that are granted. More than the revenue stream guarantee, the exemptions also dictate how easily a parking levy can meet its other objectives: in both cities, the parking levy is designed to reduce congestion but a failure to include on-street parking in the policy and the agreement to exempt key categories such as casual parking in Sydney, will compromise the message to car-based commuters.

In both cities, the levy has more than one objective. So, in addition to its revenue raising capabilities it can aid in reducing congestion, encouraging alternative modes of transport and stimulating the uptake of travel plans. However, policies which have more than one objective are more difficult to evaluate for their success and, in particular, give opportunities for opposition on the grounds that one element of the policy is not working.

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