

Evolving Futures for Australian and International Passenger Rail

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Abstract

A discussion of prevailing mass transit business models in Australia and further afield – and a look at future prospects for evolution and refinement.

Across Australia, each capital city has a unique mass transit business model in place. These models are often the result of slow evolution from historic precedent, or sometimes the consequence of sharp changes in direction and policy.

A progressive view of the mass transit business would take in lessons from high-performing exemplars overseas. In the United States, certain transit agencies perform strongly on cost recovery and planning, while also being subject to rigorous requirements for open reporting and accountability. The privatised UK market offers an interesting insight into future prospects for franchising arrangements in Australian markets. In East Asia, a property-centric rail business model produces outstanding outcomes in operator profitability, strategic license, and land-use integration.

This paper engages observationally with the business strategies, strategic approaches, and commercial performance of selected urban rail industry frameworks. Growth-oriented, commercially responsive business postures seem to offer an opportunity for positive change in the Australian industry.

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1. Introduction

Australian urban passenger rail operators (and their North American counterparts) currently face the prospect that the mass transit landscape will rapidly change and evolve in coming years. From the outset, it appears that a range of factors have led to low rates of cost recovery in Australia when compared to international benchmark operators or agencies – and this issue probably heads the list of key strategic questions.

Low cost recovery is problematic for a range of reasons, not least because it deters and de-incentivises growth in passenger numbers (from an agency or government perspective). It appears unlikely that Australasian operators can continue into the new century without a solid suite of strategies to reduce operating subsidy, increase strategic independence, improve availability of financial resources, and renew an appetite for growth in passenger numbers. Ultimately the Australian rail operators and other strategic stakeholders must evolve in order to play a constructive role in reshaping the broader transport landscape of Australian cities through sustained shifts in mode share from cars to transit.

Part 2 looks at the changing strategic context for passenger rail. Part 3 explores examples of passenger rail governance, institutional structure, and business approach drawing across a range of international and local examples. In Part 4 the “cultural approach” to passenger rail as a business is discussed – with international exemplars providing a commercially engaged contrast to risk averse Australian approaches. Part 5 concludes by discussing future options for Australian rail.

It is recommended that Australian passenger rail operators and partners need to adopt a new strategic posture that targets and delivers significant passenger growth *and* improvements to the revenue base. While the franchised model seems problematic and complex, we find significant advantages in the US approaches – especially in the area of accountability and reporting. Hong Kong’s MTR is positioned as a leading strategic exemplar because of its ‘fully integrated’ rail and property model.

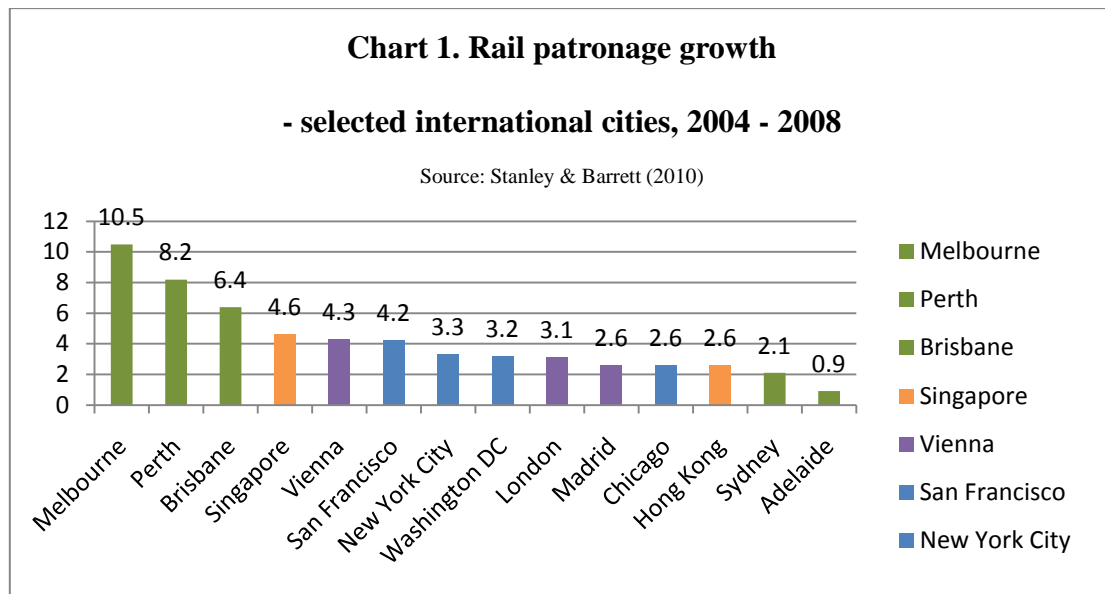
2. Changing directions in urban rail

Throughout the world, diverse ownership and strategic characteristics are observable across the transit industry. The following discussion seeks to briefly summarise the current state of practice in business models for urban passenger rail. New lines of enquiry are pursued regarding potential strategic directions suggested by relatively successful international examples of industry structure and outlook.

Currents and trends

“The most obvious, most measurable and most comparable index of success in urban public transport is ridership growth.” (Pucher & Kurth 1996, p283)

During earlier phases of rail history, prior to the advent of mass motoring, the financial profile of the rail business was generally more robust and profitable (Laird et al 2001). Subsequent to World War II, a boom in motoring reshaped travel paradigms, the planning approach to transport, and the business outlook of passenger rail – especially in North America and Australia (Laird et al 2001, ch2; Beauregard 2006; Flint 2006). Current trends indicate a substantial new growth period is underway in terms of rail passenger numbers in major cities in Australia - and possibly also in certain US cities (Gaymer 2010; Stanley & Barrett 2010, p13-15). A wave of new growth and optimism for rail transit appears to be dawning (Stanley & Barrett 2010, p51-53) – but new strategic outlooks are needed to capitalise effectively on changed circumstance.



“Public transport has clearly gained market share from the car in the (Australian) capital cities...” (Stanley & Barrett 2010, p13)

Internationally, we see a diversity of strategic approaches that have emerged from preceding generations of rail industry evolution. A number of more robust and commercially workable transit business models have asserted themselves (Cervero 1998; Jain et al 2008), and the rail industry is increasingly looking to the examples from Hong Kong, Singapore, and Japan for clues to business approaches that can underpin and optimise growth and financial outcomes.

“...not all governance development models have been successful in the sense that there exist variations in the performance of ...urban rail transit systems.” (Jain et al 2008, p1238)

Equally, a number of advanced examples have emerged from the USA – particularly the “new generation” metro businesses in the San Francisco Bay Area and Washington DC metropolitan area. The diverse examples in play throughout Europe are also not to be overlooked, whether the Australia-relevant case of the privatised/franchised UK rail industry, or perhaps the high quality and relatively financially successful passenger rail operators of Germany – organised under the famous *Vekehrsverbund* model. The discussion that follows seeks to place the strategic and commercial outlook of Australasian rail operators and agencies in the context of international norms and examples. The main certainty for passenger rail in Australia in coming years appears to be *change* - closely linked to issues such as; ongoing passenger growth, renewed focus on transport sustainability, evolution in urban structure, and a rekindling of network extension measures after a decades-long stagnation in network planning and investment. These changing circumstances present an opportunity far greater than any perceived challenge or crisis. But we can only deliver a better rail future for Australasian cities and communities if a clear-sighted view emerges of current strengths and weaknesses, as well as the emerging ideas that drive rail renewal. Most importantly it seems, Australian passenger rail operators and their partners need to adopt a new strategic posture that targets and delivers significant passenger growth *and* improvements to the revenue base.

“The first thing worth recalling is that there is no such thing as fully public or fully private urban transport anywhere in the developed world.” (Mees 2010, p72)

3. Review of governance and business models for passenger rail

Various “business models” present themselves internationally, and it is important to review their effectiveness, in order to shed light on potential opportunities. Examples from each of the selected “models” or paradigms discussed below seem to each contain aspects or strategies that should be of interest for Australian industry renewal.

Table 1. Selected International Transit Industry Paradigms

Paradigm	Examples	Indicative operating position/ratio	Comments
GOCs & statutory authorities (“traditional” models)	RailCorp (NSW); Queensland Rail; Hamburg Hochbahn	25 – 30 % Aus 85% Germany	Conservative, low cost-recovery model in Aus. International GOCs suggest innovation opportunity
Franchised operators	MTM (Victoria); Connex; London Overground; London Midland (Go-Ahead)	25-30% Aus ~ 60% UK	Genuine questions over rationale of the model – including franchisee “turnover”. Successes in UK...(?)
Mass Transit Authorities (USA)	WMATA (Washington DC); BART (SF Bay Area)	70 – 85%	US exemplars offer solid financial performance, land use integration efforts and high levels of accountability
“East Asian” model (HK, Sing, Japan)	Singapore MRT; HK MTR; JR East (Japan); Hankyu (Japan)	Operating break-even & profitability across broader business activities	Commercially-driven & diversified. High levels of land-use integration

Traditional models - GOCs

The GOC (government owned corporation) or statutory authority was virtually the sole model in Australian passenger rail prior to the introduction of franchising in Melbourne. Classic Australian examples include Queensland Rail (operating passenger rail services primarily in South East Queensland), and up to January 2009 RailCorp - operating metropolitan rail in Greater Sydney, and regional rail throughout NSW and beyond (now a statutory authority, but operated as a GOC until January 2009). These Australian examples are familiar in terms of accepted conceptualisations of a GOC. Less clearly understood are the alternative GOC models presented internationally, and the potential range of strategic stances or ownership vehicles that might be utilised for passenger rail. Some of these organisational structures point to a potential repositioning of business outlook for Australian passenger rail. Our leading selected exemplar in this grouping is the Hamburg *Hochbahn* business, and from the outset we see that there are successful GOCs in the international rail industry that differ widely from the “classic” Australian conception of a passenger rail GOC. Major points of difference and interest with regard to Hochbahn include:

- its status as an incorporated shareholder company (HH 2008, p72)
- that Hochbahn could be seen as 100% *local government* owned, depending on definition
- the fact that Hochbahn performs exceptionally on a cost recovery basis (see appendix)
- the integrated bus/rail service provision model of Hochbahn

In contrast to the successful and contextually unique structure of Hochbahn, Jain et al (2008, p1249) paint a picture of the “typical” pitfalls of long-term public ownership and public sector management approaches across the world of urban rail more broadly: “*For instance, the low level of managerial autonomy in the public sector, insufficient interaction between decision-makers and*

end-users, lengthy decision making processes and plan implementation phases, a lack of commercial objectives, etc.” These concerns appear to be issues of relevance for the Australian industry – and are discussed by Low and Astle (2009, p47), who suggest that “...*in some cases, the structure of governance of transport limits the capacity of government to respond effectively...*”, and that “*Transport systems for cities around the world are in different ways and to varying degrees path dependent, and their governance systems appear to be quite resistant to change.*” Commentators such as Low and Astle (2009, p54) and Lazanas & Stone (2010) are keen to promote “accountability” as a key goal for Australian transit governance over the medium term. Local examples of the statutory authority model such as RailCorp’s *CityRail* business (for example), perform in the typical range of Australian operators on metrics such as operating ratio, at around 30% (depending on source and definition - see appendix), which is not a high mark compared to cost recovery in many Asian or European operators. Of the broader dynamic for GOCs and Statutory Authorities, Jain et al (2008, p1242) suggested earlier evidence indicates that “...*highly subsidized railways were relatively less efficient than the less subsidized railways and that greater managerial autonomy led to increased efficiency...* (and that) ...*subsidy policies must be applied to encourage normal market mechanisms in railway operations to improve their cost-recovery and service levels, while the regulatory framework should encourage greater managerial autonomy for improved performance.*”

“Traditional” ownership models – a summary of issues

The discussion in the literature of “traditional ownership models” such as statutory authorities and GOCs (in the Australian understandings) often seems to be suggesting a handful of recurring key issues, discussed further in the remainder of the paper, that need to be addressed in order for these models to retain relevance:

- Requirement for improved governance (Low & Astle 2009; Lazanas & Stone 2010)
- A need for internal capability enhancement to adapt positively to change (Mees 2010)
- The question of strategic focus (Mees 2010; Walker 2008)
- The need for a “growth-oriented” posture and incentives (Walker 2008)
- Cost-recovery performance and commerciality (Walker 2008)

Privately-owned franchise operators

The universe of franchised rail operators is complex. The UK provides the largest and most coherent single market for franchised rail operators, and so an overview of current dynamics in that market can provide understanding as to the strengths and challenges of this model. Key issues seem to centre on; franchisee tenure, tendering, the nature of service agreements with government, and the broader social role of operators in their urban/geographic context.

“Contracting out rail services is more complex, and presents a number of unique challenges (e.g. maintenance standards, risk allocation, demarcation of roles)...” (Stanley & Barrett 2010, p48)

UK franchisees are commonly, but not always, engaged on a 7 year term – which may or may not include opportunities for extension. The alternative to extension of franchise by agreement is generally the ending of engagement, and a full and open contest for a new term of 7 years or more. In recent times there has been significant discussion about the merits of longer franchise agreements (say 14 years +) (KPMG 2010; ATOC 2009). Franchisees tend to be saying, perhaps unsurprisingly, that longer franchise agreements offer stability and opportunity and hence should be utilised more often than is currently the case (ATOC 2009). Other sources suggest that there is little in the way of objective evidence that longer franchise agreements actually deliver better outcomes of themselves (KPMG 2010, p6; Kain 2006).

“Franchise contracts have been used extensively for the delivery of public transport services in the UK and internationally. In some cases these arrangements appear to have delivered improvements in performance and reductions in cost. However they have also often proved unstable, with a high incidence of early termination or renegotiation.” (KPMG 2010, p8)

There is now a significant track record in the UK, and now in Victoria (with the end of Connex's rail franchise and Keolis' tram franchise), of franchisees not being awarded extension of agreement beyond the initial term (Kain 2006). In simple terms, this means that many franchisees being awarded a 7 year term have not performed sufficiently to win another term – both in Australia and in the UK market. This outcome is either drastic and concerning, or “par for the course”, depending on point of view. The logic of rail franchising is heavily predicated on acceptance of free market efficiency theories, and their direct applicability in a public transport context. Some have questioned whether public transport was ever a genuine candidate for the testing of these theories (e.g.- Docherty et al 2004).

“The push for the market was driven by economists in free-market think-tanks, universities and public bureaucracies”. (Mees 2010, p70)

If one does adopt a “market efficiency” point of view, the failure of an operator to obtain a franchise extension is simply a downside part of the ordinary market mechanisms of contestability, vigorous competition, and appropriate reward (or penalty) for effort. In the UK market, an observer may well suggest that the relatively large number of franchises and TOCs (“train operator companies”) provides something approaching a coherent “free market” for rail management – albeit a somewhat small and narrow one when compared to markets for many other goods. It is not beyond reason for an independent observer to suggest that despite any peculiarities, a “contested and open” market for passenger rail franchises is actually operating and functioning in the UK. In this sense, the occasional failure of a franchisee to obtain a contract extension would initially appear not to be a particularly significant issue as such – unless we raise the question of *tendering costs* for in-coming franchisees (which would be indirectly passed-on to passengers).

“Tendering may have helped the process by providing an additional spur to improve efficiency, but it also imposed substantial costs of its own...” (Mees 2010, p80)

Anecdotally, and perhaps in evidence-based terms [e.g. *Go-Ahead* (2009, p7) growth outcomes], there are also grounds for suggesting that the franchise model has served the UK reasonably effectively in having catered for passenger growth, and delivered better services (still a somewhat subjective concept) (Kain 2006). There is little doubt that the UK franchisees have at the very least put a fresh face on an industry that was formerly moribund. Their explicit focus on growth and goal-setting is also commendable (e.g. *Go-Ahead* 2009). For all these reasons there appears to be broad-based acceptance that the franchise model is here to stay in the UK and possibly elsewhere. But there are still salient issues and challenges in both the UK and Melbourne markets - including the basic question of whether a rail franchisee failing to generate a contract extension is really “par for the course”. We also begin to ask ourselves about the performance of Melbourne and UK TOCs and franchises on a range of metrics, indicators and outcomes (without having the space or remit to perform that analysis here). Different interpretations abound, but Low and Astle (2009, p50) suggest: *“The fragmentation of authority and responsibility in the particular model of public-private governance introduced between 1993 and 1999 fatally weakened the rail system management.”* It seems clear from the Melbourne and UK markets that contested issues have emerged with regard to the franchise model as a whole, in the areas of:

- **Policy and investment dynamics** – a franchise contract must be framed to encourage efficient investment in facilities and infrastructure, but this is inherently challenging and problematic in a franchise model (ATOC 2009; Lazanas & Stone 2010). What is the franchisee's mandate or ability to deliver new outcomes connected to change of government policy (which is a certainty over time) – especially around key questions such as network extensions, upgrades, and capital investment levels (KPMG 2010; Lazanas & Stone 2010)? And can an operator itself influence, or be allowed to influence, policy change on the basis of sound transit business decisions or strategic issues? (see Low and Astle 2008).

- **Incentivisation and risk moderation** – these two inter-related issues are key questions (Kain 2006). Rail operators must be encouraged to optimise passenger growth and revenues, but the full force of market risk also needs to be buffered (KPMG 2010, p8) because of the centrality of urban and regional rail in broader economic and social life.
- **Broader societal impacts** – the generation of outcomes on a range of social and urban livability issues that were previously considered part of the *raison d'être* for urban rail (e.g. - Docherty et al 2004, p259) seem to have become problematic under a franchise model. To what extent is a franchisee responsible for delivering broad-based social and environmental benefits, or well-positioned to do so? (Low and Astle 2008)
- **Basic issues of service quality and quality measurement** – this is a foundation issue, but both performance and outcomes on the one hand, and analysis *methods* on the other are still genuine and recognised challenges in the UK market (ATOC 2009; Kain 2006).
- **Land use relationships** (Low and Astle 2008, esp p51), **transit oriented development**, and **real estate-based revenue streams**

If our analysis of operator models focuses on the Australian market, then we must also recognise specific local challenges, including:

- **Demands for network extension and mode share growth** arising from *population growth* as a driving force in Australian urban development, planning and social change

Summary of Franchising Issues

We should wrap up our very brief discussion of franchise model dynamics by returning to the fundamental question of whether we accept high levels of turnover in franchise operators for a given railway or market as “normal”. Once again, the “free market theory” suggests that failure is in-built and part of the natural functioning of any open market. On the other hand, mass transit plays a crucial role in urban life, with widespread impacts on: daily travellers; other non-rail travellers whose journeys are affected by the effectiveness of rail in the overall transport mix; businesses – especially those with a transit-riding workforce such as CBD businesses; governments and policy frameworks at various levels; the aforementioned issue of land use and urban planning; as well as many other aspects of society. In the context of a free-market based model that delivers operator turnover and “failure” at a reasonably significant rate we must seemingly re-state these basic issues and ask whether a franchise concept improves or detracts from wider transport-related outcomes. From the rider’s perspective, the business format of the rail operator or institutional frameworks for rail as an industry are not a foremost concern (see also Lazanas & Stone 2010 for a parallel discussion).

“Nonetheless, no clear consensus in both the theoretical and the empirical literature emerges as to whether (public transport) production is carried out more efficiently under private management.” (Amaral 2008, p86)

Given that many examples of successful non-franchised markets for rail exist, and improvements in services are often delivered by non-franchised operators, we ask ourselves in very practical and basic terms ... *what does the franchised model offer over and above other models, given the costs and disruption associated with franchisee turnover, and the identified challenges listed earlier?* This question is difficult to answer to say the least – especially in smaller, less “market-like” passenger rail industries like Australia.

Mass transit authorities (USA exemplars)

The “mass transit authority” is another familiar model – and the attributes and postures of some of the more successful “traditional” authorities could easily be overlooked in the search for improved governance and better performance for transit. Key positives from US-based exemplars seem to be; quality of governance, policy-development, land use integration, and cost-recovery performance.

WMATA (in the Washington DC metropolitan area) and BART (serving the San Francisco Bay Area) are two leading examples from the United States whose *approaches* to managing mass transit are at least as interesting to observers as the excellent results they achieve on a range of performance indicators. When we discuss the potential future of “traditional” governance models such as the transit authority, it is exemplars such as these that we turn to. A review of certain key performance indicators confirms the necessity of including these two agencies in any set of industry leaders for mass transit. In particular, the *operating ratio* financial indicator positions BART (at 73%) and WMATA (at 75 - 80% for Metro Rail) (Hale & Charles 2010) ahead of the pack with regard to other agencies and operators working in similar conditions of “new world, low-density planning and development” – which has often been advanced as a reason for poor financial performance (e.g.- Newman & Kenworthy 1998). Certainly, a range of pressures has pushed these agencies into a position of strong cost recovery, but management posture and the strategic aims of the agencies appear to have been continually oriented around *financial stability* over an extended period. Observers have at times lamented the lack of government financial support for these US leaders (e.g.- Puentes 2004), but the end result of limited subsidy has been enviable from the perspective of other cities whose leaders have been more financially generous to rail agencies. These two agencies also appear to put to rest the idea that rail operators functioning in generally low density suburbanised settings face an unmanageable and hopeless task. At this stage, it is surmised that these two US agencies should be of interest in any move toward formulating a business approach to rail that draws from the best elements of the best-performing agencies. These better practice elements, postures, policies, and management approaches include:

USA - High standards in reporting, analysis and governance

These are partially mandated by US Federal Government policies for grant recipients, but also a function of internal organisational culture. The level of publication of key planning and strategic documents by both the US leaders (e.g. WMATA Nov 2006; WMATA June 2008; WMATA April 2008; WMATA March 2009; BART 2008b; BART 2008a; BART June 2003) stands out as a stakeholder-interaction and information-provision *benefit*, and a spur toward effective delivery and implementation of nominated initiatives, rather than detracting from agency commercial focus. These reporting-based issues are nominated by Astle and Low (2009) as being of major importance.

USA - Clear strategic plans and goals

BART’s 2008 Strategic Plan (BART 2008a) is a case in point. It divides strategic directions into three “goal areas” that include; “quality customer experience”, “mission and value-driven workforce”, and “a stable, sustainable system”. Within these goal areas, a number of “implementation strategies” are offered which accentuate elements that are often absent or avoided in the publically-available documentation of major Australian rail operators. These include direct discussion of concepts such as; network enhancement, station access planning and infrastructure, the customer environment at stations and on trains, BART’s internal culture, workforce development, accountability, proactive management of capacity to meet projected ridership growth, system expansion (more-or-less ongoing), and financial stability. All of these goals and strategic directions are linked to nominated key indicators.

USA - Transit Oriented Development and Joint Development Programs

While many operators and agencies internationally (and in Australia) have *discussed* the benefits of TOD at length (see TMR 2010), few in the New World have moved into the arena as comprehensively as BART and WMATA (TCRP 2004). The engagement of both these agencies with TOD includes clear and openly-published guidelines and statements of strategic intent – which set out the rationale for TOD engagement, the principles behind high quality TOD, and the preferred path toward achieving those ends (e.g. BART 2003; MTC 2005; WMATA 2007). But WMATA and BART have matched TOD statements with on-the-ground resources, programs and outcomes. Basic indicators of success include BART’s sponsorship and completion of major TOD projects at Pleasant Hill, Fruitvale and elsewhere. While for WMATA, Cervero and Murakami (2009, p2024) identified a 2% total agency revenue stream from joint development – which is not in the realms of

certain other international integrated rail/property models, but certainly an interesting starting-point for a US (or Australian) agency. It appears that the examples from WMATA and BART are re-affirming the central importance of clear policy statements on TOD and other strategic questions. TOD outcomes appear closely correlated to the agencies and operators worldwide who are willing to commit their TOD strategies to paper (e.g. MTC 2005; Nelson-Nygaard 2006; WMATA 2007; MTR 2008; Hankyu 2009), while mass transit players with no TOD track record often appear to be lacking a clear statement of goals and principles in the field.

Summary of US Exemplars

The main lessons from the US exemplars appear to revolve around the benefits of accountability and clear reporting, the “self-reliant” aspect of robust financial performance in constrained economic contexts, and their genuine engagement with TOD policy development and projects.

Hong Kong MTR – an outlier model

Of the prominent mass transit systems in the world today with majority public ownership, Hong Kong’s MTR Corporation stands out for financial performance – and for this reason, researchers and mass transit professionals are increasingly looking to Hong Kong for clues and new directions (e.g.- Cervero & Murakami 2009). Hong Kong’s MTR can be mobilised as symbolic of a wider “East Asian” approach to passenger rail that also includes successful exemplars in Singapore and Japan – who all seem to share an emphasis on business diversification, large-scale real estate development activities, and operating profitability.

“Hong Kong has demonstrated a good example of safe, efficient and customer-friendly services provided by different public transport modes operated by self-sustained private companies and/or commercially run corporations.” (Tang & Lo 2008, p574)

Some are willing to put the “Hong Kong model” in the too hard basket due to cultural and urban density differences both real and perceived. But ultimately the future of mass transit is on offer in Hong Kong – and MTR’s position as a role model for growing cities with expanding rail networks is well-deserved.

“Today, MTR Corporation is involved in a wide range of business activities in addition to its railway operations. These include the development of residential and commercial projects, property leasing, and revenue from advertising, telecommunication services and international consultancy services.” (MTR 2008, p1)

A recent research exercise from the Hong Kong Polytechnic University (Tang et al 2004) put an interesting new angle to the question of whether the Hong Kong MTR business model is worth engaging with. They asked the essential questions of “what would Hong Kong *transport* be like without MTR?”, “what would *mass transit* be like in HK without the MTR *business model*?”, and how would HK MTR perform as a business if key elements of the *commercial model* were not in place?”. The answer was resoundingly that Hong Kong would be worse off as a city and as an economy, mass transit would be weaker in resources, and the transport system overall would be significantly worse off without key elements of MTR’s famous business model. This “internal” comparison appears to solve the logical issue of the relevance of HK MTR as a business model exemplar for transit operators. It appears clear that the mixed rail/real estate model provides a number of direct benefits to passengers and other stakeholders.

“For passengers, MTR stations are convenient places to shop because of the wide variety of goods and services they offer – from fashion, food and books to banking, dry cleaning, shoe repairing and travel services. Accordingly, occupancy rates in these high-traffic locations have always been high...” (MTR 2008, p1)

The current HK MTR model rests on a number of key planks, and many could be applicable and relevant in a review of future business orientation for other rail operators and agencies. These planks include (Cervero & Murakami 2009; HK MTR 2008; Tang et al 2004):

- Stock market listing with majority shareholding still retained by Hong Kong Special Administrative Region (SAR) government (MTR 2008, p1; Jain et al 2008, p1245)
- Strong strategic licence and a mandate to act decisively in delivering a workable mass transit system
- A growth-oriented approach to passenger numbers and overall business revenues
- Real estate development and master planning capabilities and activities at the core of the strategic approach
- Integrated transit oriented development complexes on a large scale across the HK SAR – particularly where new lines and stations are planned and delivered
- Excellence in mass transit engineering, operations and management capability
- A balance of business streams and revenues from a variety of sources
- Financial management that sees mass transit activities breaking even, while other revenue streams push the corporation strongly into profitability
- Ongoing network expansion (MTR 2008, p7)
- Leveraging of mass transit capabilities and the overall business model into contract-based business outside Hong Kong

The decisive point with these strategic directions is that most of them are available as options for other major transit agencies and operators internationally, including in Australia. Given that a rail/property model seems to solve many of the difficulties of “integrated planning” in growing cities, and many of the resourcing and financial performance questions for rail, it is surprising how little attention this potential strategic approach has received thus far.

“By way of example, new metro lines in Hong Kong are seen as the mechanism for making possible high quality developments focussed around the metro. The value added to the property through metro connections is captured through selling development rights, providing a significant proportion of the funding for the metro. This opportunity has been given relatively little attention in Australia.” (Stanley & Barrett 2010, p49)

Table 2. Hong Kong MTR – non fare revenue performance

(source: HK MTR 2008, p11; HK MTR 2010, p71)

All figures exclude international franchise revenues

Financial year	2010	2009	2008	2007	2006	2005	2004	2003
Non-fare revenue as a % of turnover	35.69	35.24	34.95	33.4	31.6	31.4	29.0	27.7

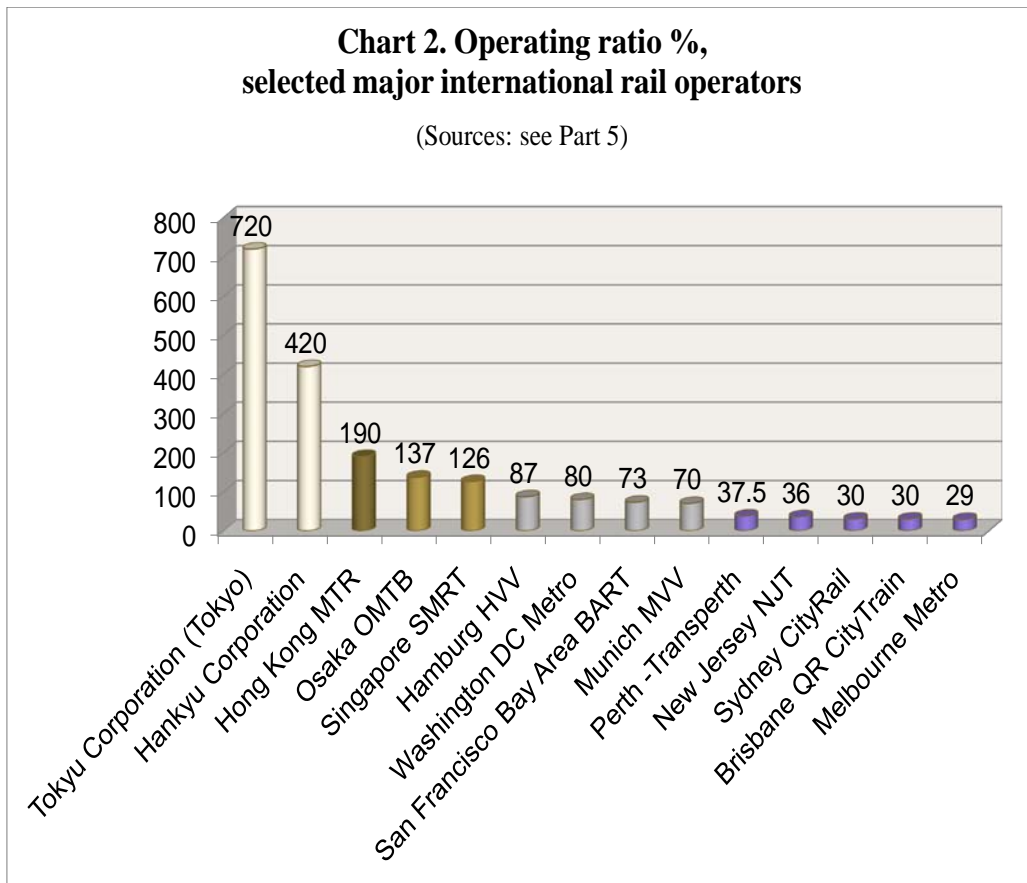
Summary of HK and East Asian Models

Cervero & Murakami (2009, p2020) discuss a list of reasons why this “integrated” or “leveraged” business model for rail is ahead of other options. These include outstanding planning-based advantages, whereby the rail operator *itself* can adopt a “carefully conceived process” for the planning, oversight, and implementation of new station complexes featuring various forms of TOD. The rail operator is then ultimately well-placed through its role in the ongoing management of particular station-area precincts once completed. This long-term role at a particular location then allows rail operators following an MTR-style approach the ability to continuously tap into land value impacts that rail infrastructure and service generates. Similar models hold sway in Japan and elsewhere in East Asia (Saito 1997; Shoji 2001; Hankyu 2009)

“Through the successful rail and property development business model, the MTR Corporation forms joint ventures with property developers to plan and create fully integrated commercial and residential communities along the railway alignment. Property developments are built around stations, giving residents convenient access to public transport. This, in turn, stimulates patronage and enhances land values.” (MTR 2008, p8)

We can summarise the key advantages of a HK MTR-type business model for rail according to those identified by Cervero & Murakami (2009, p2039-2040):

- “asset specificity” (an internal capability specific to the issues involved in handling station-related development projects)
- “accumulated knowledge” of planning and implementing TOD projects
- “reduced uncertainty” (due to effective delivery approaches on both the transit and property sides)
- “internalisation of transit’s value-add”
- and “asset protection”, whereby the rail agency can protect its mass transit interests through the design and planning process and beyond



4. Aims and Culture of Urban Passenger Rail

Our review has found that effective rail operators are distinguishing themselves according to several strategically important factors, including: the extent of public domain reporting, the quality and quantity of *plans*, and depth of strategy and analysis. Additionally, clear philosophical differences have presented themselves in the statements of intent and emphasis between different operators internationally, as-read in their publically available documents

UK franchisees, or US agencies such as BART and WMATA, for example, are clearly publishing more, analysing more, and releasing more info into the public domain compared to Australian operators with similar ridership. The Australians appear to seldom release strategic documentation or important data beyond what is provided in annual reports (Laird et al 2001, p100-101). Low and Astle (2009, p54) talk of an “accountability problem” in this context. It should also be noted that clarity in key passenger rail metrics and performance outcomes also receives scant attention in the Australian annual reports themselves, while the US and UK operators appear to be explicitly performance-analysis driven.

“The challenge is to choose the path we want that will create better economies, better communities, and better environments... It requires us to create decision-making systems that are open to public discourse and which can more fully reflect social values. We do not have this kind of system in Australia...” (Laird et al 2001, p21)

The philosophical differences between the Australian operators and others are currently quite pronounced. The Australian railways appear to be entrenched in a reactive, growth-averse, and risk-management oriented culture, according to discussion in their public documents (e.g. QR 2009; RailCorp 2009). Neither do they offer any detailed or extensive discussion of forward-strategy per se. By contrast, many of the non-Australian operators appear to be explicitly growth-oriented and growth-driven, based on both their statements and their track records in terms of passenger numbers (see appendix). It is not clear exactly what sequence of events has led to the divergence of observable organisational culture and posture between Australian rail operators and international exemplars. But we can speculate that several decades of deterioration for Australian rail in terms of passenger numbers and investment are part of the story. Low and Astle (2009) discuss these institutional issues for transit agencies in the context of a broader “path dependence” across Australasian transport, as do Laird et al (2001). As such, the upswing in passenger numbers in recent years appears to have caught the Australian operators and their state government sponsoring departments off-guard to some degree. Recently though, a new contribution from Queensland’s Department of Transport and Main Roads (TMR 2010) does appear to update the outlook to face 21st century circumstances. Elsewhere, few agencies anywhere appear to be offering risk management the prominence and strategic centrality it is afforded by an operator like RailCorp (2009). This is not to diminish the importance of safety or of risk management – but other agencies internationally appear to assume that these are self-contained aspects situated in a broader suite of strategic elements and drivers.

“Efficient, passenger-focused agency cultures can evolve from fortunate organisational histories, but usually have to be created. This issue has been poorly understood in many institutional reform exercises, which have assumed that setting up appropriate bureaucratic structures is sufficient. Bad organizational cultures have to be tackled directly, rather than by simply rearranging the same people in different public or private administrative units.” (Mees 2010, p158)

5. Summary - potential opportunities & futures for Australian rail

In Australia, and to an extent North America, new and emerging contextual circumstances are reinforcing the centrality of urban rail in the metropolitan transport mix. A number of observers, this author included, are now of the view that Australian rail is in particular need of a generational re-evaluation with respect to; business strategy, commercial outlook, the attitude toward growth, accountability and governance, and a range of other issues.

“Many have sought to follow a ‘third way’ combining elements of market discipline in service procurement and delivery with stronger state regulation for social and/or environmental reasons.”
(Docherty et al 2004, p262)

Something for Australian transit

From the discussion so far, it seems that certain “markers” of a relevant and up-to-date passenger rail business model have emerged. In summary, it appears that modern passenger rail businesses *should* be demonstrating attributes and outlooks such as:

Table 2. Key Strategic Needs for Australian Urban Rail

Strategic Element	Comments & Opportunities for Australian Rail
Financial Performance	Stronger outcomes needed on operating ratios, farebox ratios, and other key financial indicators (Stanley & Barrett 2010, p1). Optimised fare structures required (Hale & Charles 2009; Hale & Charles 2010)
Growth targeting	Adopting an explicit “ridership growth mentality” – referencing the track record of passenger market growth observed in international exemplars (Walker 2008)
Innovation & change	Innovation and creativity in business outlook (Walker 2008; Stanley & Barrett 2010)
Over-arching frameworks & governance	Flexible, practical institutional & governance frameworks - allowing operators to optimise performance via self-management and strategic licence (Mees 2010, p160). “Accountability” (Low & Astle 2009, p54)
Strategic independence	Independence of the rail operator in setting business strategy and making major investment-related decisions (Mees 2010, p160; Jain et al 2008, p1242)
Land use integration & TOD	Effective relationships with stakeholders regarding transit-friendly land use changes & real estate opportunities (Laird et al 2001; Stanley & Barrett 2010). Mechanisms and policy frameworks to deliver <i>value capture</i> (TCRP 2004)
Business & revenue diversification	Openness to the breadth of business possibilities that passenger rail has traditionally offered (such as real estate), as well as sensitivity to new and emerging opportunities (TCRP 2004; Hankyu 2009; Saito 1997)
Developing & enhancing passenger markets	Customer service focus (Beirao 2007, p479; Vuchic 2005). Attention to market segments (Beirao 2007). Optimised fare structures (Hale & Charles 2010)

In current circumstances, the experience and approaches of leading international operators probably offer the best grounding. From a selection of leading international operators we observe financial performance and cost recoveries (which should be interpreted as apex performance indicators) that are notably stronger than among Australian rail organisations (see appendix). This question of **financial performance and cost recovery presents itself as the key issue for Australian rail moving forward** – in conjunction with changes in overall business stance and strategic licence.

Ultimately the Australian rail operators and other strategic stakeholders must evolve in order to play a constructive role in reshaping the broader transport landscape of Australian cities through sustained shifts in mode share from cars to transit.

Appendix. Major International Rail Operators – a benchmarking of profitability, passenger markets & network scale

These figures comprise the outputs of a short undertaking of original research for this paper. Figures primarily provided by agency staff, other than report-sourced figures for Hamburg Hochbahn (2008, p44), Osaka OMTB, Tokyu (2003), and Hankyu (2009).

Agency	Daily passengers (approx)	Operating Ratio¹ (approx)	Proportion revenues from non-rail sources	No. of stations	Network length km (approx)	Metro population served by agency (million)²
Osaka OMTB	2.25 million	137%	-	123	130	3 (city)
Hong Kong MTR	4.4 million	190%	33%	85	175	7
Munich MVV	2 million	70%	n/a	245	540	5
Tokyu Corporation (Tokyo)	2.7 million	720%	86%	108	100	4.6
Hankyu Corporation (Kansai)	2.1 million	420%	76%	130	183	3 (city) - 9 ³ (prefecture)
Singapore SMRT	1.72 million	126%	-	51	90	5
Hamburg HVV	1,500,000	87% ⁴	n/a	278	803	3.5
Sydney CityRail	1,000,000	30 - 40%	n/a	300+	1,600	4.5 to 5.5
Nagoya Subway	1,000,000	-	n/a	93	87	5 to 6
Washington DC Metro	750,000 weekdays	76–80%	2%	89	170	5
Melbourne Metro	585,000	29%	n/a	200	830	4
San Francisco Bay Area BART	362,000	73%	-	43	170	4-4.5
New Jersey NJT	270,000	36%	-	162	860	8+
Perth - Transperth	200,000	37.5%	n/a	67	173	1.7
Brisbane QR CityTrain	170,000	30%	n/a	143	382	3

¹ Operating ratio (%) = (farebox revenues + other non-subsidy revenues) / (total non-capital costs)

² Indicative only, researcher's best estimate from various sources

³ Osaka Prefecture – indicative only

⁴ Figure for Hamburg Hochbahn (U-Bahn) – does not include S-Bahn, but generally indicative

References

- Amaral, M (2008) *Public vs private management of public utilities – The case of urban public transport in Europe* Research in Transportation Economics 22
- ATOC - The Association of Train Operating Companies (2009) *Franchise Reform: a better railway for passengers and for taxpayers* London: ATOC
- Banister, D (2002) *Transport Planning* London: Spon Press (second edition)
- BART - Bay Area Rapid Transit District (2008a) *2008 Annual Report* Oakland: BART
- BART - Bay Area Rapid Transit District (2008b) *BART Strategic Plan* Oakland: BART
- BART - Bay Area Rapid Transit District (2003) *BART TOD Guidelines* Oakland: BART
- Beirao, G and Sarsfield Cabral, J (2007) *Understanding attitudes toward public transport and private car: A qualitative study* Transport Policy 14
- Beauregard, R (2006) *When America Became Suburban* Minneapolis, MN: University of Minesota Press
- Cervero, R (1998) *The Transit Metropolis – A Global Enquiry* Washington, DC: Island Press
- Cervero, R and Murakami, J (2009) *Rail and Property Development in Hong Kong: Experiences and Extensions* Urban Studies 2009: 46
- Dittmar, H and Ohland, G (2004) *The New Transit Town* Washington, D.C: Island Press.
- Docherty, I Shaw, J and Gather, M (2004) *State intervention in contemporary transport* Journal of Transport Geography 12
- Flint, A (2006) *This Land – the battle over sprawl and the future of America* Baltimore, MD: Johns Hopkins University Press
- Gaymer, S (2010) *Quantifying the impact of attitudes on shift toward sustainable modes* Canberra, ACT: Australasian Transport Research Forum (ATRF) 2010
- Go-Ahead - The Go-Ahead Group plc (2009) *Annual Report 2009* London: The Go-Ahead Group plc
- Hale, C and Charles, P (2010) *Rail Patronage Management – effectiveness in practice and new theoretical frames* Lisbon, Portugal: World Conference of Transport Research (WCTR) 2010
- Hale, C and Charles, P (2009) *Managing Peak Demand for Passenger Rail – a literature review* Auckland, NZ: Australasian Transport Research Forum (ATRF) 2009
- Hankyu - Hankyu Hanshin Holdings Inc (2009) *Annual Report 2009* Osaka: Hankyu Hanshin Holdings
- HH - Hamburg Hochbahn (2008) *Annual Report 2008* Hamburg: Hamburger Hochbahn AG
- Jain, P Cullinane, S and Cullinane, K (2008) *The impact of governance development models on urban rail efficiency* Transportation Research Part A 42
- MTR - Hong Kong MTR Corporation (2010) *Growth Momentum – annual report 2010* Hong Kong: Hong Kong MTR Corporation
- MTR - Hong Kong MTR Corporation (2008) *Business Overview* Hong Kong: Hong Kong MTR Corporation
- Kain, P (2006) *The pitfalls of competitive tendering – addressing the risks revealed by experience in Australia and Britain* Canberra, ACT: BTRE
- KPMG LLP (2010) *Rail Franchising Policy: Analysis of Historic Data* London: KPMG LLP
- Laird, P Newman, P Bachelis, M and Kenworthy, J (2001) *Back on Track – Rethinking Transport Policy in Australia and New Zealand* Sydney, NSW: UNSW Press
- Litman, T (2010) *The future isn't what it used to be* Victoria, Canada: VTPI

- Low, N & Astle, R (2009) *Path dependence in urban transport: An institutional analysis of urban passenger transport in Melbourne, Australia, 1956-2006* Transport Policy 16
- Mees, P (2010) *Transport for Suburbia* London: Earthscan
- MTC – Bay Area Metropolitan Transportation Commission (2005) *MTC Resolution 3434 Transit Oriented Development (TOD) Policy for Regional Transit Expansion Projects* Oakland, CA: MTC
- Nelson-Nygaard (2006) *MTC's Resolution 3434 Transit Oriented Development Policy – interim evaluation* San Francisco, CA: Nelson-Nygaard
- Newman, P and Kenworthy, J (1999) *Sustainability and Cities – Overcoming Automobile Dependence* Washington, DC: Island Press
- Pucher, J and Kurth, S (1996) *Vekehrsverbund: the success of regional public transport in Germany, Austria and Switzerland* Transport Policy Vol2. No. 4
- QR Limited (2009) *QR Limited Annual Report 2008/09* Brisbane: QR Limited
- RailCorp - Rail Corporation New South Wales (2009) *Annual Report 2008 - 2009* Sydney: RailCorp
- Saito, T (1997) *Japanese Private Railway Companies and Their Business Diversification* *Japan Railway and Transport Review 2*
- Shoji, K (2001) *Lessons from Japanese Experiences of Roles of Public and Private Sectors in Urban Transport* *Japan Railway & Transport Review 29*
- Stanley, J and Barrett, S (2010) *Moving People* Sydney, NSW: ARA/BIC/UITP
- Tang, B Chiang, Y Baldwin, A and Yeung C (2004) *Study of the integrated rail-property development model in Hong Kong* Hong Kong: The Hong Kong Polytechnic University
- TCRP - Transit Co-operative Research Program (2004) *Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects TCRP Report 102*. Washington, D.C: Transportation Research Board
- TMR – Department of Transport and Main Roads, Queensland (2010) *Connecting SEQ 2031 – an integrated regional transport plan for South East Queensland* Brisbane, QLD: TMR
- Vuchic, V. (2005) *Urban Transit: Operations, Planning and Economics* New Jersey, Wiley
- Walker, J (2008) *Purpose-driven public transport: creating a clear conversation about public transport goals* *Journal of Transport Geography* 16
- WMATA – Washington Metropolitan Area Transit Authority (2008a) *Metrorail Station Access & Capacity Study* Washington, D.C: WMATA
- WMATA – Washington Metropolitan Area Transit Authority (2008b) *Comprehensive Annual Financial Report* Washington, D.C: WMATA
- WMATA – Washington Metropolitan Area Transit Authority (2007) *Report of the Joint Development Taskforce to the Washington Metropolitan Area Transit Authority* Washington, D.C: WMATA
- WMATA – Washington Metropolitan Area Transit Authority (2006) *Metrorail Revenue Vehicle Fleet Management Plan* Washington, D.C: WMATA
- WMATA – Washington Metropolitan Area Transit Authority (2009) *Transit Ridership Trends and Markets* Washington, D.C: WMATA