

Enhancing the sustainability and inclusiveness of the Metro Manila's urban transportation systems: Proposed fare and policy reforms⁸

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Abstract

This article describes new and better ways to solve urban traffic congestion problems. It emphasizes win-win strategies that help achieve multiple planning objectives and therefore maximize overall benefits. This reflects a new planning paradigm which expands the range of impacts and options considered in the planning process. Win-win strategies include improvements to resource efficient modes such as walking, cycling and public transport; incentives for urban-peak travelers to use the most efficient option for each trip; and smart growth development policies that reduce travel distances and therefore total congestion costs. This article discusses the importance of comprehensive and multi-modal transport planning, describes omissions and biases in current planning, identifies various win-win congestion reduction strategies, and provides examples of successful urban transportation improvement programs. The win-win approach can be applied to many types of transportation problems, and is particularly appropriate in rapidly-developing Asian cities.

Keywords: government pricing and policy, multimodal transportation planning, travel time

Introduction

Developing megacities such as Metro Manila are facing significant challenges due to rapid motorization and deteriorating public transport systems. This trend is expected to worsen as urban population continues to increase. UN-Habitat forecasts that the world's urban population will increase from 3.6 billion in 2011 to 6.3 billion, or from 50% of total world population to 70%, by 2050 (UN-Habitat, 2013). Motorization trends also indicate that there will be over two billion cars on the road by 2050 (International Energy Agency, 2012), bringing with it the threat of more traffic gridlock. These growing problems are a barrier to both economic and social inclusion, and have negative impacts on health and the environment (UN-Habitat, 2013).

While many developed cities are struggling to increase public transport ridership, public transit systems in developing megacities are congested due to insufficient capacity to address demand. On the other hand, the present substantial modal share of public transport is likely to decrease as people grow increasingly dissatisfied with poor public transport and as private modes become more affordable with rising incomes.

Despite having a national policy framework to promote sustainable transport, as well as many well-intentioned policies to address specific aspects of the transport system, the Philippine government is facing many challenges in transforming the country's transport system. The most populous region, Metro Manila, is considered as one of the most notorious megacities in terms of lack of urban mobility and inefficient public transport systems. As in the case of many developing cities, public transport fares are often kept low through national government subsidies in order to address the social equity concerns of the poor. However, the affordable fare policy comes at the expense of huge tax burdens and deteriorating service quality, which eventually leaves everyone at a disadvantage. These issues, combined with other factors such as too much demand for the given supply and poor maintenance of vehicles and facilities that lead to breakdowns, result to the poor and unacceptable service quality of public transport, to the point that it is no longer appealing to use.

⁸ The views expressed in this paper are those of the authors and do not necessarily reflect the view of the United Nations.

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This article makes an in-depth analysis of the situation in Metro Manila to illustrate that it is highly improbable that the Government will be able to attain sustainable urban transport without reforms in the current transport system. The paper gives an overview of the trade-off between fare affordability and service quality by showing how fare policies, capacity and frequency affect the quality of the city's public transport systems. It also suggests specific policy reforms to address these issues and help bridge the gap between the Government's vision for a seamless, multimodal, low-carbon transport system and the realities on the ground.

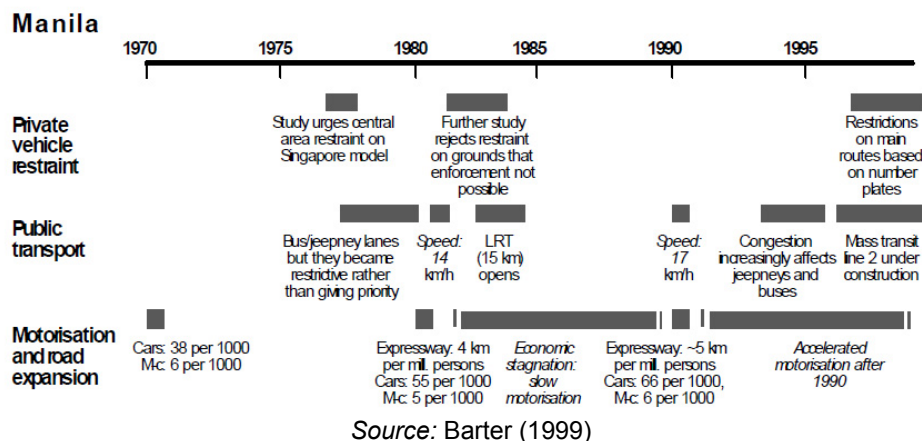
1. Overview of Metro Manila's transport systems and its challenges

Metro Manila is the Philippines' chief metropolitan area and serves as the political, economic, social and cultural center. It has a population of 11.5 million growing at a rate of 2% per year. Like other developing megacities in the region, the government authorities in Metro Manila are facing significant challenges due to rapid motorization and deteriorating public transport systems. Government authorities here refer to several agencies whose functions are unclear and thus sometimes overlap and conflict (NEDA, 2010), such as the Metropolitan Manila Development Authority (MMDA), the Department of Transportation and Communications (DOTC), the Department of Public Works and Highways (DPWH), rail authorities, local government units, the police and other concerned agencies. In 2011, the city ranked 64th out of 66 cities in a global study on urban mobility which included 50 of the world's largest cities in terms of population and regional GROSS DOMESTIC Product (GDP), and 16 focus cities (Lerner and others, 2011).

Several factors have contributed to the city's current congestion problems. Historically, Metro Manila's transport and land use development patterns have been derived from the automobile-dependent planning style of many developed country cities. As a result, two urban growth patterns can be observed in Metro Manila: (1) sub-urbanization or the increase in the number of person-trips and trip distances which leads to severe traffic congestion; and (2) the proliferation of informal settlements in the city center as well as the establishment of big commercial centers along Epifanio de los Santos Avenue or EDSA, the main thoroughfare of Metro Manila, and other major corridors, leading to greater congestion and highly mixed land-use patterns (Montalbo and others, 2005).

These patterns have led to increased demand for urban transportation facilities and services, which has been met in a haphazard way by both public and private service providers. In Figure 1, Barter (1999) outlines key events that transformed transportation in Metro Manila. Notably, motorization accelerated after 1990 while no restraint on private vehicle ownership or use was put in place until the late 1990s. As a result, it is estimated that there are currently around 2.3 million vehicles plying Metro Manila, with motorization rates growing at a rate of around 6% per year.

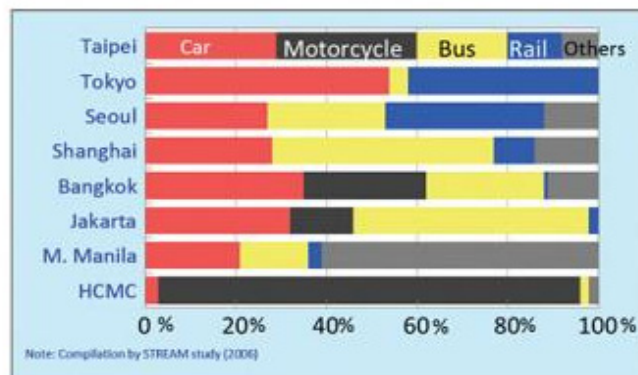
Figure 1. Transport development in Metro Manila from 1970s to late 1990s



Despite these trends, when compared to other megacities in the region, it is notable that the share of private car use is still relatively small in Metro Manila (Figure 2). The main transit modes are public transport, generally road-based such as jeepneys, buses and AUVs, but also rail-based with three urban rail lines (Light Rail Transit Lines 1 and 2 (LRT1 and LRT2), and Metro Rail Transit Line 3

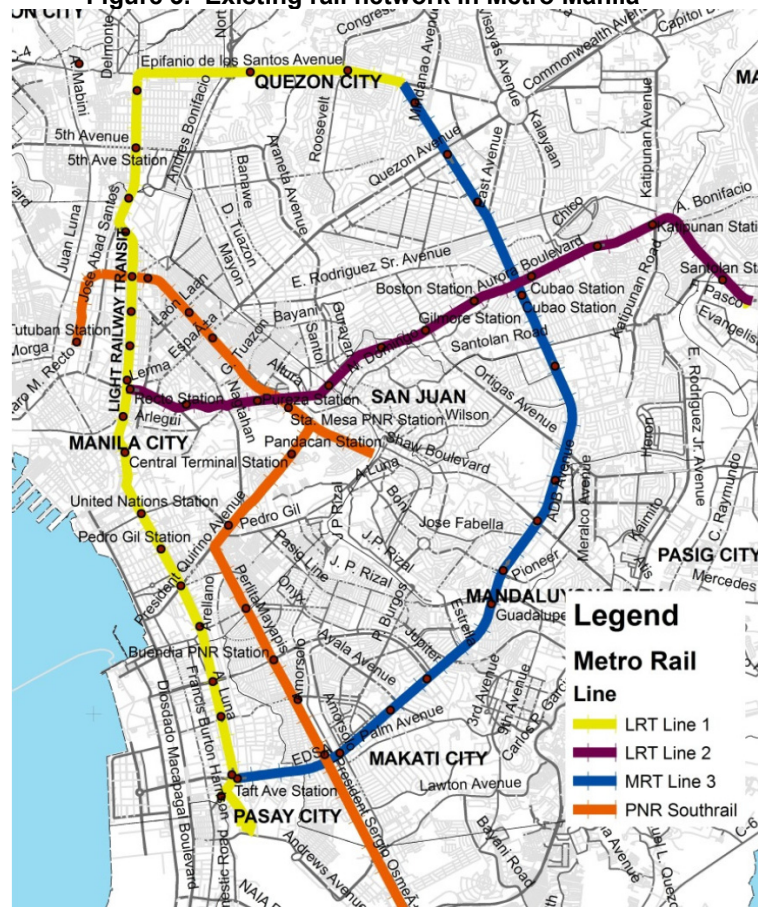
(MRT3)) and a commuter rail line (Philippine National Railways (PNR) Southrail). Figure 3 shows the alignment of these lines. Among these, MRT3 is probably the most critical rail line in Metro Manila because it follows EDSA where the major central business districts and other major landmarks of the metropolis are linked, and subsequently has the highest ridership. This 16-km urban rail line connects to the two Light Rail Transit lines, which also serve as major mass transit routes for commuters.

Figure 2. Trends in public transport share in Asian megacities



Source: Parikesit and Susantono (2012)

Figure 3. Existing rail network in Metro Manila

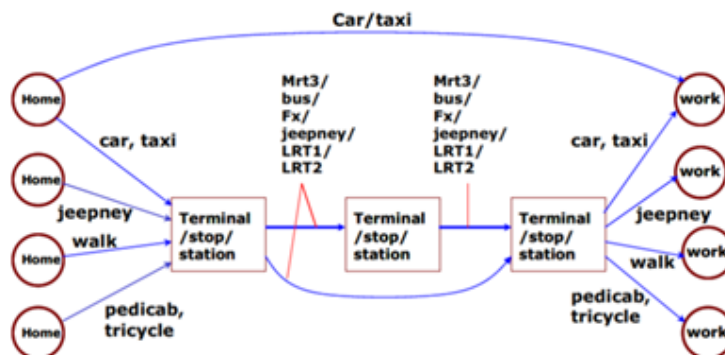


Source: DOTC (2012)

One notable characteristic of commuter patterns in the city is that most commuters use a variety of transport modes, with an average of two to three transfers. Figure 4 shows the universal

modal choice set for home-to-work trips by urban travelers in Metro Manila (Fillone 2005). It can be observed that using public transport modes generally requires multiple transfers.

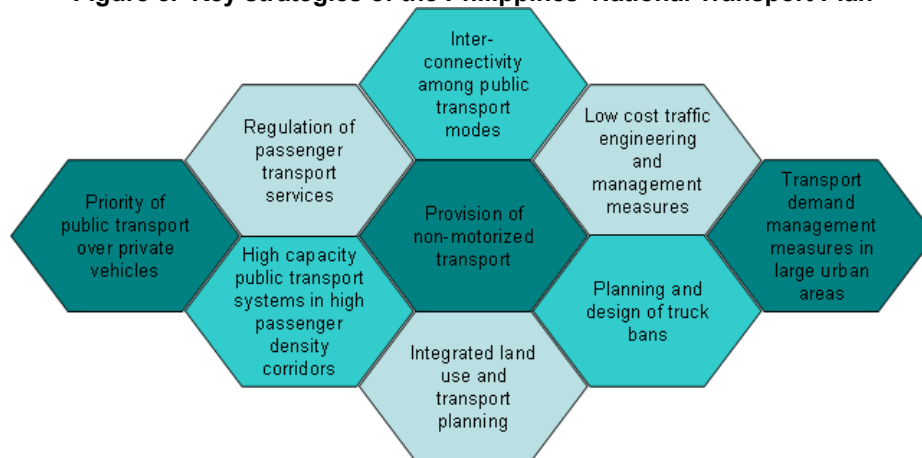
Figure 4. Multi-modal transport in Metro Manila



Source: Fillone (2005)

The country's unsustainable transport systems are associated with lost man-hours, additional fuel consumption, health costs and lost investment opportunities – estimated to account for 140 billion Philippine pesos (\$3.13 billion in Metro Manila alone, or roughly 2 per cent of the country's GDP in 2008 (NCTS, 2011). In response to these issues, the Government of the Philippines has developed a National Transport Plan. It is one of the country's initiatives to promote inclusive growth, which refers to sustained growth that creates jobs, draws the majority into the economic and social mainstream, and continuously reduces mass poverty while factoring population, geographical differences, and social complexity. The NTP envisions "a safe, secure, efficient, viable, competitive, dependable, integrated, environmentally sustainable, and Philippine transportation system (NEDA, 2010)." Its key strategies are outlined in figure 5.

Figure 5. Key strategies of the Philippines' National Transport Plan



Source: NEDA (2010)

Urban transport is one of the seven key policy areas identified under the National Transport Plan (NTP). The NTP aims to address the undesirable side effects of transportation such as traffic congestion, traffic accidents and environmental deterioration. To achieve this, the Government launched the National Environmentally Sustainable Transport (EST) Strategy (NCTS 2011), which was also used as an input to the NTP. The EST Strategy has three main goals, outlined below:

1. Reduction of the annual growth rate of energy consumption and associated greenhouse gas and air pollutant emissions from the urban transport sector;
2. Enhancement of sustainable mobility through the development of a viable market and shift to low emissions transport of goods and services

3. Formulation of strategies based on the 12 thematic areas of the Aichi statement¹²

The Government therefore established a clear vision for the development of a sustainable transport system, which includes Metro Manila. However, key policy reforms are also necessary to achieve this vision. In particular, as in the case of other developing megacities, “modal keep” rather than “modal shift” is becoming a pressing issue for the authorities in Metro Manila (Morichi and Acharya, 2012). There is a risk that the substantial modal share of public transport will decrease as people grow increasingly dissatisfied with poor public transport and as private modes become more affordable with higher incomes.

2. Fare policies and their impact on urban transport in Metro Manila

2.1 Salient features of fare policies in Metro Manila

The National Government has an explicit fare policy for public transport. In the case of Metro Manila, there is a difference in the fare setting objectives of the different modes of public transport, as shown in Table 1.

Table 1. Fare setting objectives for rail and road-based Public Transport

Public transport mode	Fare-Setting Objectives		Consequences	
	Social Acceptability	Financial Viability	Impact on fares	Fiscal burden
Rail based	√		Artificially low fares	High subsidy
Road based	√	√	Profitable fare	No subsidy

Source: DOTC (2012)

The Land Transportation and Franchise Regulatory Board (LTFRB), a government agency, is tasked to regulate fares for public land transportation provided by motorized vehicles. It ensures both financial viability and social acceptability for road-based public transport services, which are supplied by the private sector without government subsidies on investment and operating costs. Fares are set such that private operators earn a reasonable return on their investments. Fare adjustment may be discussed upon operators' request following changes in diesel prices or inflation, subject to public consultations to ensure that fares stay within socially acceptable limits (DOTC, 2012).

Meanwhile, rail-based public transport LRT1, LRT2, MRT3 and PNR are owned and/or operated by the government. Fare setting for rail-based public transport is largely based on social acceptability. The government has maintained the policy of keeping rail fares low to make it affordable to the masses and boost ridership, by subsidizing fares amid inflation and increasing operational costs. There is no compulsion under the current government policy to even recover investment and/or operating costs. As a result, ridership went beyond capacity in 2005 and has been increasing ever since.

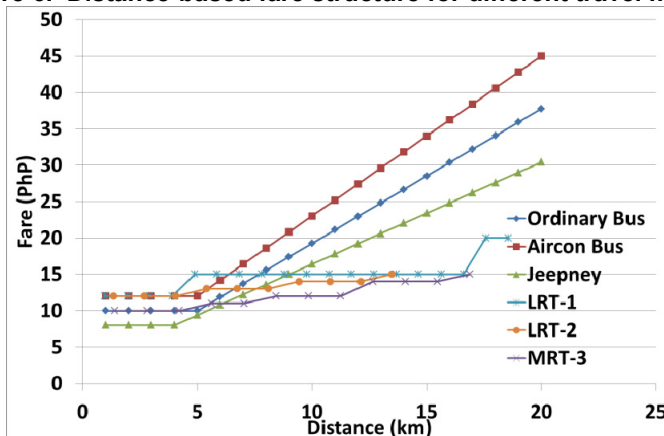
The Government implements a distance-based fare structure for every mode. However, fares for road-based modes rise more steeply with respect to distance compared to fares for rail-based modes. Fares are also computed on a per-ride basis rather than on a per-journey basis, wherein passengers have to pay a base fare every time they transfer to another vehicle. For instance, a 4-km trip with two jeepney rides costs twice as much as the same journey with just one jeepney ride. The road-based fare structure is strongly differentiated with respect to distance through its base and

¹² The Aichi Statement in 2005 established a regional forum for the promotion of environmentally sustainable transport in Asia. Its twelve (12) thematic areas are: (1) public health; (2) roadside air quality monitoring and assessment; (3) traffic noise management; (4) vehicle emission control, standards, and inspection and maintenance; (5) cleaner fuel; (6) public transport planning and transport demand management; (7) non-motorized transport; (8) environment and people friendly urban transport infrastructures; (9) social equity and gender perspectives; (10) road safety and maintenance; (11) knowledge base, awareness, and public participation; and (12) land use planning (4) vehicle emission control, standards, and inspection and maintenance; (5) cleaner fuels; (6) public transport planning and travel demand management; (7) non-motorized transport; (8) environment and people friendly infrastructure development; (9) social equity and gender perspectives; (10) road safety and maintenance; (11) knowledge base, awareness, and public participation; and, (12) land use planning.

incremental fares, while that of urban rail lines is weakly differentiated and almost resembles a flat fare structure.

As a result of these policies, fare levels for road-based transport modes (i.e. ordinary and air-conditioned buses, jeepneys) are much higher than rail-based transport modes (LRT1, LRT2 and MRT3) for trips beyond 5 km. Figure 6 shows how the fare varies according to distance for each mode for one ride without transfers.

Figure 6. Distance-based fare structure for different travel modes



Sources: LTFRB and MRT3 Metrostar Express (2012)

Table 2 shows that the fare difference between road-based transport modes with respect to distance traveled has increased from 2004 to 2012, while that of urban rail lines stayed the same. As a result, long-distance travel by road-based modes have become more disproportionately expensive than rail-based modes, and it has become significantly cheaper to travel by rail than by other public transport modes that are not subsidized and whose fares are set mostly based on profitability.

Table 2. Distance-based fare structure for different travel modes in 2004 and 2012

Transport Mode	Base Fare (first 4-5 kms or first 3-4 stations)		Incremental Fare (per additional km or station thereafter)	
	2004	2012	2004	2012
Ordinary Bus	6.00	10.00	1.25	1.85
Aircon Bus	9.00	12.00	1.50	2.20
Jeepney	5.50	8.00	1.00	1.40
Vans (FX)	10.00	15.00	5.00	5.00
LRT1	12.00	12.00	3.00	3.00
LRT2	12.00	12.00	1.00	1.00
MRT3	9.50	10.00	0.50	0.50*

*rounded off to the nearest peso for operational efficiency

Sources: LTFRB and MRT3 Metrostar Express (2004, 2012)

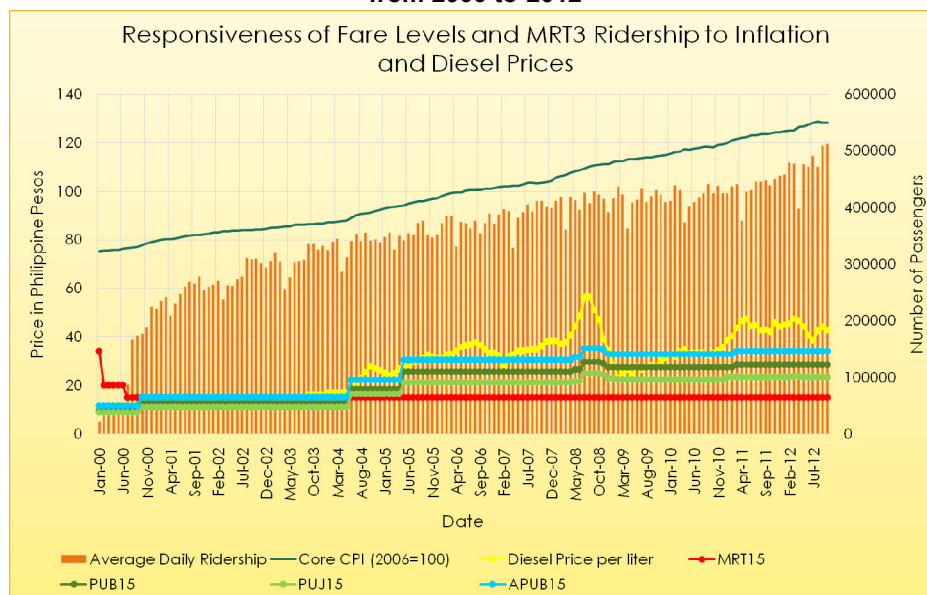
2.2 Consequences of the government's fare policies

a) Fall in real fares for rail transit with increase in ridership

The government is a competitor that can artificially lower its fares because it can rely on subsidies, as well as a fare and route capacity regulator of other public transport modes. This has resulted to a huge discrepancy in fare levels throughout the years. Figure 7 shows the difference in road-based and rail-based fare setting with respect to inflation and diesel prices, as well as the resulting MRT3 ridership. MRT3 fares were drastically reduced in 2000, and its ridership subsequently increased. By 2005, MRT3 has exceeded its capacity of 400,000 passengers daily, and has

continuously done so until now.

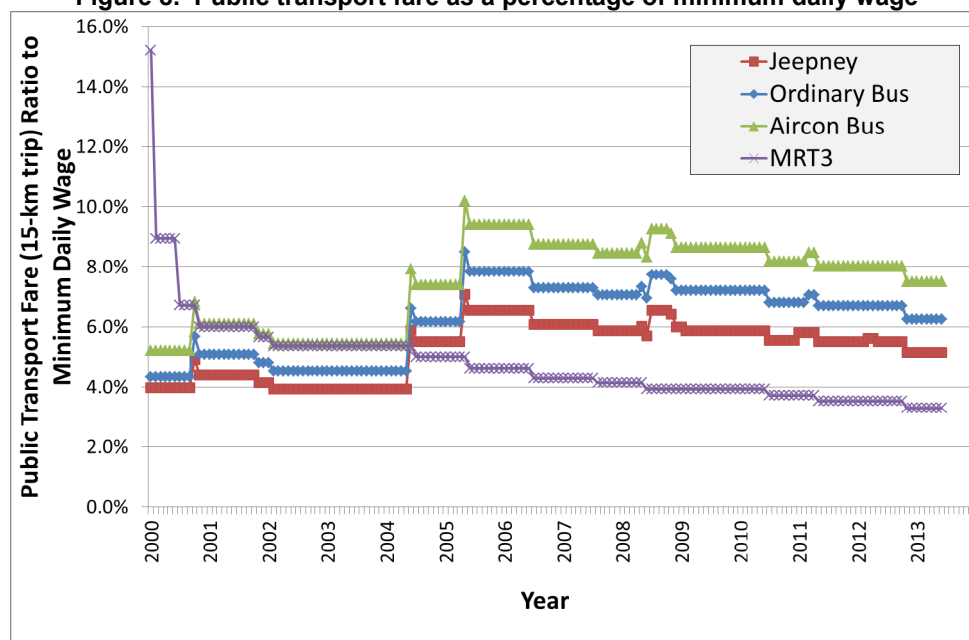
Figure 7. Trend of fare levels, MRT3 ridership, inflation and diesel prices from 2000 to 2012



*15 stands for 15-km trips; PUJ – Public Utility Jeepney, PUB – Ordinary Public Utility Bus, APUB – Air-conditioned Public Utility Bus, MRT – Metro Rail Transit Line 3

Sources: LTFRB, DOTC-Metrostar, World Bank, National Statistics Office, www.alternat1ve.com

Figure 8. Public transport fare as a percentage of minimum daily wage



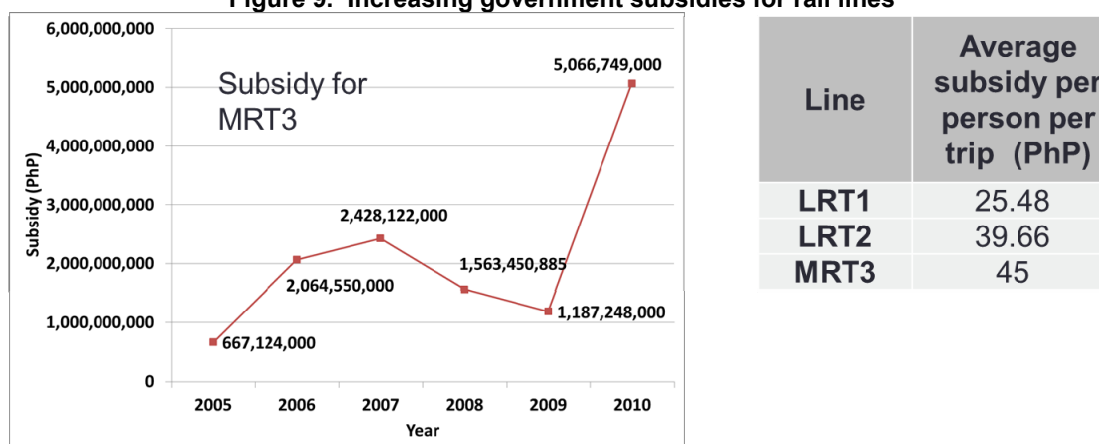
Sources: Department of Labor and Employment, LTFRB, MRT3 Metrostar Express

Moreover, minimum daily wage has been adjusted several times in the past decade or so to account for inflation and other factors. It can be seen in Figure 8 that travel by MRT3 has become relatively cheaper for minimum-wage workers for a 15-km direct trip, while that of other modes have become relatively more expensive.

b) Growing fiscal burden due to mounting subsidy bill

In order to meet the shortfall in operating expenses, the government subsidizes much of the urban rail lines' expenses, which include daily operating expenses such as overhead, power supply and salaries, as well as repair and maintenance costs of infrastructure and vehicles, and payment of existing debts. Figure 9 shows the rapid increase in government subsidies spent on MRT3 alone, while the table on the right side shows the subsidy per passenger for each rail line. In 2012, LRT1 and LRT2 had a combined deficit of Php4.704 Billion, while MRT3 had a shortage of Php7.250 Billion, which had to be taken from the government coffers. The average passenger cost for LRT1 and LRT2 passengers was Php34.74, while they paid an average of Php14.28, which means that the government subsidized 59% of the cost. Meanwhile, MRT3 passengers had an average cost of Php53.96 and an average fare of Php12.48, implying that 77% of passenger cost is subsidized.

Figure 9. Increasing government subsidies for rail lines

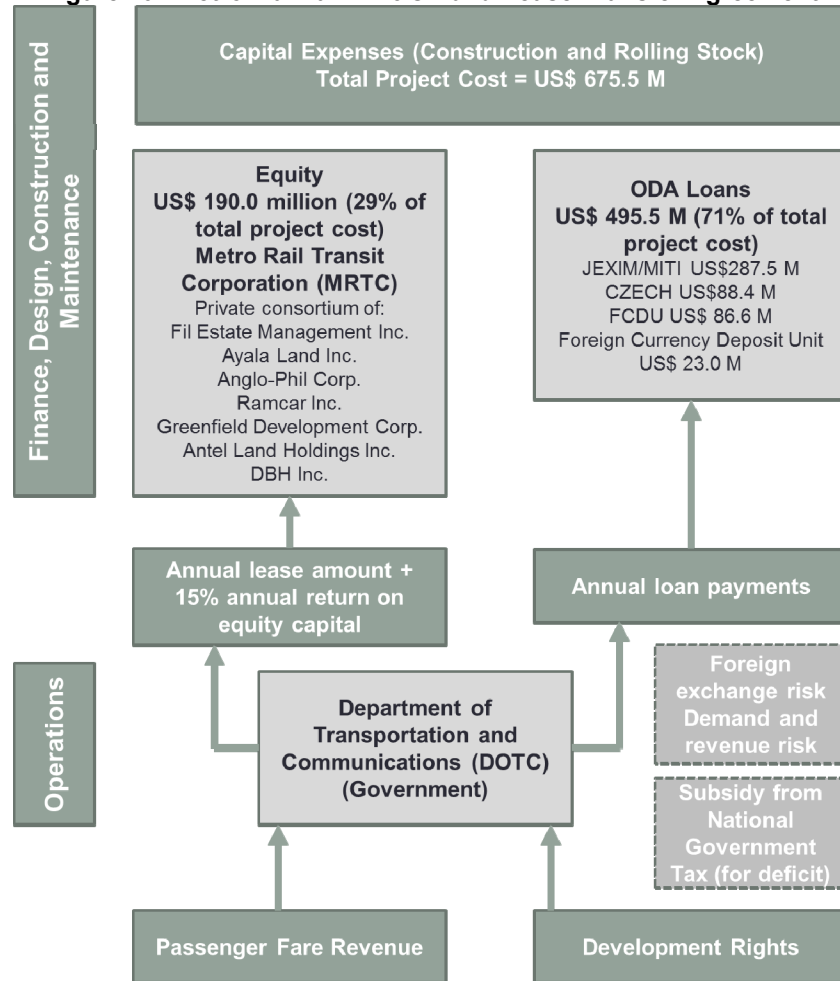


Source: MRT3 Metrostar Express, as reported by GMA News (2010).

The implications of the growing fiscal burden are particularly severe in the case of MRT3, which was built using a Build-Lease-Transfer (BLT) agreement. The structure of the agreement is shown in Figure 10. Increasing operating losses due to low revenues and delays in providing subsidy funding from the national government have since prevented the government from regularly meeting its financial obligations under the concession contract.

De Langen, Alzate and Talens (2004) note that the MRT3 contract appears to be quite one-sided in its allocation of project risk, because the market risk with respect to passenger fare revenue is taken completely by the government.

The relatively high subsidy cost for MRT3 is due to debt servicing and the risk which the Government agreed to take on under the terms of the BLT contract, as seen in Figure 10. Certainly, the experience from the MRT3 project undermines the potential to use public-private partnerships to finance further transport infrastructure in the city. However, regardless of the source of investment, the fact remains that as long as the current rail-transit price structure is maintained, the Government will continue to face a huge fiscal burden to subsidize the difference between passenger fare revenues and actual costs.

Figure 10. Metro Manila MRT3's Build-Lease-Transfer Agreement

Source: De Langen, Alzate and Talens (2004)

This is in contrast with the financing arrangements for the two other urban lines LRT1 and LRT2, which are operated by the Light Rail Transit Authority (LRTA), a government-owned-and-controlled corporation. The subsidy issue in this context is straightforward – the government is merely providing the deficit between the costs (e.g. depreciation expenses, amortization expenses for its operating/organization costs, interest expenses, rehabilitation and yen loan repayment) and the farebox and non-rail revenues in the form of government subsidies (LRTA, 2007; Sanshu Engineering Consultants, 2009).

c) Equity dimensions of the governments' fare policies

As mentioned above, the National Transport Plan promotes a “users pay” culture but the huge subsidies for rail-based transport run contrary to this principle. The government has also expressed alarm at how the subsidies have increased and proposed for a fare hike as early as 2008.

However, these proposals have been met with strong opposition from pro-poor groups and some government officials, while other groups argued that the fare increase is ‘not timely’ as it comes in the wake of significant price increases in gas, utilities, non-rail public transport and other commodities (GMA News, 2008; DOTC, 2013; Philippine Daily Inquirer, 2011, 2013).

Opposing groups also demand that the government improve the MRT3 service quality first before even considering a fare hike. They argue that commuters are already enduring long queuing and overcrowding in stations and trains on a daily basis and should not be burdened by a fare increase (Manila Bulletin, 2014). This scenario leads to a chicken-and-egg problem: fares cannot be

increased due to poor service, at the same time, service cannot be improved due to low fare revenues.

Moreover, many pro-poor groups reiterate that most of the present subsidy go to debt servicing rather than to operation and maintenance costs, and believe that debts should not be passed on to commuters as it is the government's function to provide good urban rail services (Bayan, 2013). Despite DOTC's claims that the fare hike would bring better train services (DOTC, 2013), its opponents state that this would not necessarily go to service improvement but to guaranteeing profits to private investors (Bayan, 2013).

This also raises an important issue of inter-modal equity, that is, equity between modes. Non-rail users (either urban rail is not in their choice set or they are not able to ride because of lack of capacity, i.e. latent demand) pay more to use a lower-quality public transport mode like jeepney or bus. Prices of basic commodities, including fares for different modes of transport, have increased in the past 14 years and wages have also been adjusted for the rising cost of living. Given that urban rail fares have remained the same throughout this period, it has actually become relatively cheaper to use the rail over time with all these factors considered.

Moreover, taxes are taken from the national government so non-Metro Manila residents also subsidize the city's rail commuters. This is countered by arguments that provincial projects are also subsidized by Metro Manila dwellers and that Metro Manila taxpayers contribute the most to the economy.

Another issue that should be considered in assessing the appropriateness of the current fare policy is cross-subsidy between passengers. For instance, it costs more to transport long-distance passengers than short-distance ones, and if this is not accounted for in the fare structure, cross-subsidy occurs. There may also be a cross-subsidy issue according to the time of day if peak pricing is not present, with peak riders being subsidized more due to higher operation and maintenance costs. Costs also generally increase with higher ridership (e.g. more frequent breakdowns), and low fares do not compensate for these. While there has been no published studies specific to MRT3 that investigate on this matter, there should be an effort made to ensure that cross-subsidies do not occur or are justified on equity or efficiency grounds.

While some argue that fare rates should not be raised in order to increase access for the poor, there may be a latent demand of rail users – those who are discouraged to use rail because of lack of capacity especially in the middle stations during the peak period (Mijares et al, 2013). This then becomes a matter of spatial equity because while rail transit may be in the choice set of the poor, they cannot access it because of constraints. Given the political climate in the Philippines, there is a need for more research into the equity dimensions of the Government's fare policies.

3. Policy implications

3.1 Reform of the current fare policy

While subsidies may be warranted for urban rail because of the high cost in providing the service to each passenger to make it reasonably affordable, fares should be set at a level at which urban rail would be fairly competitive against other transport modes. Setting fares too low may result to cost savings for the direct users but would cause negative externalities towards operators of other public transport modes. Parikesit and Susantono (2012) cite reports that indicate that low fare levels do not benefit in the long run as they are associated with non-reliable services and the need for high subsidies. Public transport is traditionally viewed as an inferior good because most people consume less of it once their incomes increase and switch to private modes. The underlying reason for this is that high-income people tend to be more sensitive to service quality than lower-income people (Notteboom, 2013). However, if urban rail is of high quality and disincentives to private transport are in place, it may serve the corresponding increase in mobility that is associated with an income increase instead of private transport. Increase in revenues through fare increase may be used to improve urban rail's quality and promote its use even for high-income earners to discourage automobile use.

Fare-setting should also consider all modes of transport in order to achieve balance in supply and demand between modes. In this regard, the Government may consider using optimal fare-setting.

Fare-setting in the Philippines is an underutilized tool in managing transport demand. This is obvious in EDSA, where buses have higher fares and slower speeds compared to MRT3. Even if the problems of congestion and waiting time uncertainty at certain MRT3 stations exist, MRT3 is still the fastest way to travel, especially from less-congested stations.

A reasonable fare increase that strikes a balance between affordability and service quality, like the one proposed by the government, should be implemented soon. In order to address the concerns of the pro-poor groups, the Government needs to show that the current fare policy that is geared towards the poor and is highly subsidized is not socially equitable since it creates a huge tax burden on all income levels and on the entire nation. While social inclusion of transportation-disadvantaged people should be addressed, this should not be done at the expense of the service quality of the public transport system and government funds.

3.2 Reform of road-based public transport systems

While this article is focused on fare policy, it is also necessary to consider other reforms which are also needed to increase the effectiveness of the public transport system as a whole. In contrast to the rail transit systems, the road-based transport systems are almost entirely privately owned and operated. In theory, the government is supposed to regulate public buses, jeepneys and other modes of public transport through the Land Transportation and Franchise Regulatory Board (LTFRB) and the Land Transportation Office (LTO) of DOTC, and the traffic management performed by the MMDA, local government units and police agencies in Metro Manila. However, the overly competitive nature of road-based public transport makes it difficult for the government to regulate them sufficiently.

For example, Morichi and Acharya (2012) noted that there are too many private operators in road-based public transport in Metro Manila. Monopoly of a route is not allowed and the government requires at least two operators per route. Operators who want to serve a certain route that it deems profitable may do so by applying for a franchise with the LTFRB, which regulates the number of issued franchises and authorizes units according to route capacity. The agency previously granted all applications for franchises but made a drastic change in 2012 by granting franchises based on the requirements indicated in demand studies. However, supply and demand are still not well-balanced in spite of these efforts, as evidenced by the proliferation of illegal public utility vehicles (PUVs).

Due to the commission-based salary, PUV drivers tend to compete for passengers and are disorganized and work for very long hours, compromising safety and level of service. It was reported that an average of 16 bus accidents happen daily in Metro Manila alone.

The problem was partially tackled under Department of Labor and Employment (DOLE) Department Order No. 118-12, or Rules and Regulations governing the employment and working conditions of drivers and conductors in the public utility bus transport industry. This directive reformed the salary structure into a fixed one which guarantees minimum wage and other benefits, but drivers are still entitled to performance-based bonuses related to higher farebox revenue. As a result, drivers still gain direct incentives from competing for passengers. In a sense, transport is no longer a social service but a competitive business, where drivers are competing for passengers instead of serving them.

While countries like Japan have successful mass transit transport systems that are provided by the private sector, it is because of proper government supervision and market maturity. The current system in the Philippines is too disorganized due to its weakly regulated free market principle, and contributes to unreliability and increasing motorization. However, whenever a proposal to reform the bus system is suggested, legalities favoring the transport operators govern the societal good. Refusal to change the status quo is a huge hindrance in developing sustainable urban transport systems.

It can be argued that the consolidation of bus companies with monopoly on each route is likely to make them less competitive. Meanwhile, routes can be rationalized, and capacity (vehicle supply and service frequency) could be adequate for the demand. Synchronization of schedules between feeder and trunk modes to reduce waiting and transfer time and integrating the fares through a contactless payment system are also desirable.

3.3 Restricting the number of private cars and internalizing the cost of private vehicles

Even with a high-quality mass public transport system in place, it may be unrealistic to expect major reductions in road congestion in developing cities without car-restraint policies such as car ownership costs that internalize the associated negative externalities. Car ownership is more directly correlated with user costs and parking fees. As such, a combination of the two policies can be effective in achieving the desired modal shift. Vehicle retirement policy and proper implementation of emissions testing can also be considered to address the environmental aspect.

Such policies are probably more effective than the current policy of private vehicle restraint in the form of a “color coding scheme” wherein car use is prohibited once a week depending on the plate number. Fillone, Montalbo and Tiglao (2005) found that majority of these car users just opt to use another car on banned days, and that a number of people still use private modes by riding with a family member on a different car, hitching with neighbors or friends, leaving home early or delaying travel. This indicates the strong preference of perennial car users towards private modes. Moreover, the scheme may have been a factor in increasing car ownership as travelers who prefer using their own car to work merely buy another car that is banned on a different day.

4. Conclusions

A key aspect of an efficient transport system is good integration between modes in terms of fare and schedule, as well as the policies implemented by various authorities. This is where Metro Manila seems to be lacking, with differing philosophies for the public transport system – road-based public transport is provided by the private sector, while rail-based public transport is government-owned or operated. In addition to fare policy reform, there has to be changes in how road-based public transport is provided.

In this regard, market segmentation of public transport can be done to maintain a certain level of quality for people who are willing to pay for it. The Government can explore how to differentiate public transport services through fare levels and service quality, and provide more choices for people from various walks of life. Rail transport can be priced higher than road-based public transport in order to attract a substantial share of car users, eliminate the need for huge subsidies, and maintain acceptable service quality.

Moreover, more investments are needed in new and modern modes of mass transit systems, and the Government must look at ways to overcome the legal and political barriers that hinder the swift implementation of mass transit projects. For instance, the capacity expansion project of MRT3 to increase supply by more than 50% has been pending since 2007 due to various issues such as alleged bribery. Meanwhile, feasibility studies on a Bus Rapid Transit (BRT) system connecting the two major financial districts, Makati CBD and Bonifacio Global City in Taguig, have been completed but the project has not been approved due to concerns about the impact on public utility vehicle drivers who might lose their jobs.

With the current Government’s policies regarding public transport, the goal of achieving sustainable transport in Metro Manila is expected to take some time. Comprehensive changes in the different aspects of the city’s transport system are needed, including how transport projects and land-use patterns are planned out, how fares are set across different modes, and greater clarity about the roles of the different government agencies and other stakeholders in the transport system. The Urban Land Institute (2013) also pointed out the importance of a “champion” for the development of Metro Manila – a single city authority with powers over its commuter catchment area for strategic planning, transport, environmental protection, and self-financing. Perhaps such a central authority is needed to translate the Government’s vision for sustainable transport into reality.

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