

The Credit Dynamics Of Congestion Charging

Credit Analyst:

Robert Bain, London (44) 20-7826-3520; Jan Willem Plantagie, Frankfurt (49) 69-3 39 99-132

Table Of Contents

The Congestion Charging Review

Public Acceptability

Sustained Political Commitment

Revenue Risk

Financial Flexibility: A Key Credit Strength

Analyst E-Mail Addresses

The Credit Dynamics Of Congestion Charging

In the view of Standard & Poor's Ratings Services, public and political acceptability remains the key constraint to the broader adoption of urban road user charging. Standard & Poor's international review of this developing area of transport policy and finance has led to a number of other key conclusions:

- The launch of congestion charging in London could set the trend for other European cities to adopt road pricing as a means of paying for public transport and highway enhancements;
- Insulation from political interference, revenue dependability, flexible transaction structuring, and public acceptability are key credit determinants for any urban road-user charging initiative;
- There is a significant variance in scheme operating costs that is dependent, to a large extent, on the nature of the selected tolling technology and the way in which it is deployed;
- Another significant cost driver is human resources. These costs can be challenging to scale before scheme launch, for example where labor-intensive customer interfaces such as call-centers are provided;
- Two or three years of intensive preparations was the typical amount of time devoted to scheme planning and public education activities; and
- Technology itself does not appear to be a constraint in terms of the deployment of urban electronic toll collection solutions. Systems integration and the servicing of "back office" functions, however, retain risks that need to be fully understood or mitigated if the credit quality of urban road user charging-based schemes is to be considered investment grade.

The study, which examined urban road pricing in a number of countries, analyzed the credit dynamics of congestion charging and isolated the key credit drivers likely to affect city tolling schemes developed specifically for infrastructure investment purposes. The study also highlighted some of the challenges relating to the accurate prediction of driver behavior under urban tolling regimes. A detailed assessment of market--and therefore revenue--risk will remain central to credit analysis.

This article considers the different aspects of Standard & Poor's study of the sector. It highlights the main factors that could affect credit quality, grouped into four key categories.

The Congestion Charging Review

Standard & Poor's review considered each of the eleven urban road-pricing schemes in the world, including congestion charging in London. These schemes are summarized in table 1. The table also includes two projects that are closer to implementation than many proposals around the world: A trial scheme about to be launched in Stockholm; and plans for a referendum on congestion charging in Edinburgh. Reports suggest that a number of other European cities, perhaps as many as 32, are actively considering road pricing as a realistic policy response to congestion management, environmental concerns, or requirements for significant investment in urban transportation.

Table 1

Global Congestion Charging Schemes			
Location	Year of Launch	Description	Comments
Singapore	1975	Initially a coupon-based Area Licensing Scheme, replaced by electronic road pricing in 1998. Prices vary by time of day	Uses prepaid smart cards. Rates revised periodically to maintain traffic speeds
Hong Kong	1983	Electronic road pricing scheme piloted from 1983-1985	Demonstration project shelved despite meeting all requirements. Toll tunnels link Hong Kong Island and Kowloon Peninsula
Bergen, Oslo, and Trondheim, Norway	1986, 1990, and 1991	Urban toll rings	Early Norwegian toll ring revenues were dedicated to highway investment. The infrastructure improvement packages were subsequently extended to include investment in public transport services and cyclist/pedestrian facilities
Kristiansand, Norway	1992	Partial toll ring introduced in 1992	A complete ring with five tolling stations opened in 2000
Rome, Italy	1998	Electronic gates control access to a 6 square kilometer Limited Traffic Zone	City-centre access control introduced in 1989. Pricing policy for nonresidents introduced in 1998
Stavanger, Norway	2001	Urban toll ring with 21 stations. Prices vary by time of day	Regional road pricing scheme with the neighboring city of Sandnes
Durham, U.K.	2002	Small, single-street scheme using a rising bollard linked to a ticket machine	Motorists pay £2 to leave historic central area containing the city's castle and cathedral.
Namsos, Norway	2003	Urban toll ring	Small town with a population of only 12,000
London, U.K.	2003	See table 2	See table 2
Stockholm, Sweden	2005	Electronic toll collection with two zones. Prices will vary by time of day	This is an 18-month congestion charging pilot project. Residents will vote on retention of the scheme in a referendum scheduled for 2006
Edinburgh, U.K.	N/A	A referendum on a preferred cordon-based charging scheme is scheduled	N/A

N/A--Not applicable.

Table 2

The London Congestion Charging Scheme*	
Scheme parameters	Description/comments
Launch date	Feb. 17, 2003
Capital cost (Mil. £)	230
Primary policy objective	Traffic reduction
City center congestion zone size (square km)	21
Planning	
Timescale (years)	2.5
Staff resources	100
Tariff	
Prepayment	£5 for travel 7 am–6.30 pm Monday–Friday
Postpayment	£5 up to 10 pm on day of travel (travel during same times as above); £10 after 10 pm but before 12 pm
Penalty charge (£)	
Standard rate	80
If paid within 14 days	40
Failure to pay within 28 days	120

Table 2

The London Congestion Charging Scheme* (cont.)	
Performance	
Operational	100,000 paying customers/day; 40,000 prepaid customers/day; 2,000 violators/day
Financial	Net annual revenue of £70 million, about 70% of revised forecast
Payment methods (% of payments made through each channel)	
Retail outlet	37
Internet	25
SMS text message	18
Call center	14
Prepayment (fleet operators)	6
Post	0
Impact after 3 months (% change)	
Traffic entering zone	(20)
Traffic within zone	(16)
Average speed of all vehicles	10-15
Average speed of buses	20
Bus patronage	14
Bus journey reliability	25

*Scheme technology: 688 fixed cameras (and a range of mobile facilities) record the licence plates of drivers entering the zone, linked to automatic number plate recognition software. The number plates are then matched against a database of customers who have registered to pay. Number plates of those who have not registered are checked against the motor vehicle registration database and penalty notices are sent to violators.

Public Acceptability

The introduction of any new pricing policy by itself is unlikely to engender public support. The motivation and focus for many congestion charging publicity campaigns, therefore, is on public education, explaining why some sort of pricing solution is required in the face of increasing traffic congestion. These campaigns can be time-consuming and resource-intensive. Before the launch of road user charging in London, for example, leaflets were delivered to 3 million local households and 35,000 information packs were sent to vehicle fleet operators. Information was also made available via a call center, media advertising (TV, radio, newspapers, and magazines), the internet through a dedicated website, outreach meetings, and e-mail distribution. Indications are that the time and money spent on this campaign contributed significantly to the success of the London scheme.

Even with publicity campaigns and driver education initiatives in place, road tolling may remain unpopular. Some of the more vociferous complaints can come from local retailers fearing a negative impact on their business opportunities. Evidence to date regarding reduced commercial takings within charging zones appears mixed, however, and it can be difficult to isolate the impact of road pricing on businesses from other trends such as new retail start-ups, general economic slowdown, and transportation supply changes.

There is important evidence, however, that public opinion can change over time. For illustration, a sample of public opinion results is presented in table 3.

Table 3

Changes in Public Opinion Regarding Congestion Charging Schemes						
(%)	Stockholm		London		Trondheim	
	Prelaunch	Prelaunch	One year after launch	Prelaunch	One year after launch	Five years after launch
Against road charging	55	50	34	72	48	36
For road charging/don't know	45	50	66	28	52	64

There is further evidence that support for congestion charging is strengthened in circumstances where scheme revenues are hypothecated (ring-fenced) for well-defined, local transport--highway and particularly public transport--investment. Experience from Bergen in Norway suggests that additional public support will result from infrastructure improvements that are very visible before, or shortly after, the introduction of pricing.

The transparency of the investment decision-making process also appears to contribute to a lowering of public resistance to tolls. Local voters may, however, need assurances that congestion charge revenues will accumulate in addition to traditional funding sources, not act as substitutes for them.

Public opinion will remain a major factor behind the more widespread deployment of road pricing in urban areas, and the extent of public support will be an important consideration in any analysis of a scheme's credit strength. In the past, technology issues were identified as the major barrier to rolling out congestion charging schemes in city centers. This is no longer the case, and the emphasis has shifted to public and political acceptability as the key constraint.

Sustained Political Commitment

The challenges of securing long-term, cross-party political support for urban road pricing are indicated by the fact that a number of schemes have been developed only as demonstration or pilot projects. The Stockholm initiative, for example, will run for 18 months from spring 2005 before city residents get to vote on its continuation or cessation.

Road pricing trials were conducted in Hong Kong from 1983-1985, but the demonstration project was stopped owing to public resistance and the government then concluding that traffic growth could be accommodated until some time after 2006. The electronic pricing trials, however, are reported to have met all of the design criteria established for them.

In Norway, political commitment was secured through an agreement by the main political parties not to make the "toll rings" a political issue. This united stance left scheme opponents with limited recourse, even though opinion polls indicated that only one city (Bergen) had a majority in favor of road pricing.

Revenue Risk

Standard & Poor's credit analysis looks very carefully at the revenue predictions from urban tolling schemes. Revenue dependability is identified as a key credit strength. In this context, the Oslo tolling operator Fjellinjen AS (AA/Stable/-) benefits from a history of tolling experience and stable traffic growth. Future transactions with investment-grade rating aspirations will have to demonstrate particularly robust revenue predictions against a range of downside scenarios, perhaps through the support of existing revenue sources, security protections, and/or other structural credit enhancements.

Accurately predicting the consumer response to urban tolls is a significant undertaking. This response is likely to differ in the short term (incremental adjustments to travel behavior) from the long term (possible retiming and/or relocation of activities) and will depend on factors including drivers' perceptions of benefits versus the tolling costs, the nature of the tolling regime, the availability of local alternative travel options, and a host of other factors, some of which are difficult to assess before a scheme's launch. In London, for example, a number of city-center car parks have recently reduced their daily fee by the equivalent of the congestion charge cost, effectively re-establishing the travel costs drivers experienced before the scheme's introduction.

Early indications suggest that there may be a tendency to underestimate the traffic-reduction impact of congestion charging and, therefore, overstate revenues. This has happened in the U.K. with the London initiative. Net revenues in London are reported to be about 54% of forecasts (70% if adjustments are made for a generous residents' discount scheme not envisaged when the revenue predictions were formulated). Similarly, following the introduction of electronic road pricing in Singapore, observed traffic volumes were reported to be lower than forecast.

Financial Flexibility: A Key Credit Strength

The difficulty of predicting drivers' responses to urban tolling is increased by the way in which behavior patterns evolve as consumers get used to new pricing regimes and experiment with schemes. This demands a degree of financial flexibility in transaction structures and the ability to adapt scheme parameters to meet customer needs. A number of electronic toll collection facilities have observed changing demands being placed upon their call centers, for example. In some cases customer contact regarding account management or scheme regulation has fallen to one-half its initial levels within months. Similarly, demands placed on enforcement regimes or the payment channel mix employed by customers may differ from expectations or demonstrate rapid evolution. A surprising element of London's congestion charging scheme was the high utilization of SMS text messaging as a payment vehicle. After two months, phone-based text messages accounted for 15% of all payments, rising to 18% one month later.

In Norway, the revenue surplus from the Oslo toll ring contributes to the funding of local transport improvement packages. This contribution is entirely discretionary, however. The operating company therefore retains strong financial flexibility because proposed contributions can be deferred. This flexibility is a major credit strength for the scheme. In order to be considered to have investment-grade credit quality, future road user charging schemes will have to develop similar degrees of flexibility to ensure that they retain the ability to respond to unanticipated and/or evolving consumer behavior.

Analyst E-Mail Addresses

robert_bain@standardandpoors.com

jan_plantagie@standardandpoors.com

InfrastructureEurope@standardandpoors.com

Copyright (c) 2010 by Standard & Poor's Financial Services LLC (S&P), a subsidiary of The McGraw-Hill Companies, Inc. All rights reserved.

No content (including ratings, credit-related analyses and data, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P. The Content shall not be used for any unlawful or unauthorized purposes. S&P, its affiliates, and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P's opinions and analyses do not address the suitability of any security. S&P does not act as a fiduciary or an investment advisor. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.