

Science for Environment Policy

Effects of congestion charging increase over time

Congestion charging in Stockholm has become more successful over time, according to a study by Swedish researchers. Although the total cost of a journey that enters the congestion charge zone has fallen in real terms since the charges were first introduced in 2006, there has consistently been around 29% less traffic within the zone, compared with levels in 2005.

Congestion charges have been introduced by several cities, such as London and Durham in the UK, and Rome and Milan in Italy, to reduce traffic volumes. Reducing vehicle numbers also has benefits for public health, particularly as air pollution from traffic is a growing health hazard.

In Sweden, congestion charges were introduced for a six month trial period in Stockholm in 2006, before being introduced as a permanent measure in 2007. Since then, people have questioned the long-term effectiveness of the charges.

The results of this study suggest that congestion charging can work over the long-term, supporting plans to introduce such charges in other cities across Europe. The findings also demonstrate that some concerns about the charges, such as increased congestion on other routes, are not supported by the evidence, and that public acceptability may increase over time.

The researchers investigated how traffic levels within the congestion charge zone in Stockholm have changed when external factors, such as population growth, employment levels and fuel prices, were considered, and how inflation and other price factors have affected the charges. They also looked at the effects of charging on congestion on other roads, on sales of alternative fuel vehicles which were exempt from the charges, and on changes to public and political acceptance.

They found that the overall reduction in the amount of non-exempt traffic across the congestion charge zone, taking account of external factors, has remained stable at around 29%, compared to levels in 2005. However, inflation reduced the congestion charge by 2% per year and the charges were made tax-deductible for commuters in 2007, so the cost of the average journey has fallen in real terms. Despite this, traffic volumes were consistently reduced, suggesting the charges were having a progressively greater effect as people found it easier to adapt in the long-term and find alternative routes or use other forms of transport. The researchers caution, however, that charges will probably need to increase in future if their effects are to be maintained, particularly if population and employment continue to grow.

There has also been concern that congestion charges would increase traffic on relief roads in and around Stockholm. However, the researchers found no significant increase in congestion or traffic volume on other routes, except that caused by population growth.

Excluding alternative fuel vehicles from the charges also seems to have increased sales of such vehicles, although this led to a small increase in traffic volume within the congestion zone.

Finally, the researchers looked at public and political acceptability. Support for congestion charges grew from 36% in 2006 to 70% in 2011. This may be because residents have seen that the charges do reduce congestion whilst not having a major effect on them personally. Their attitudes may also shift as they accept unavoidable charges, and become more familiar with the idea of road pricing.



6 September
2012. Issue 296

Subscribe to free
weekly News Alert

Source: Borjesson, M., Eliasson, J., Hugosson, M. B. & Brundell-Freij, K. (2012). The Stockholm congestion charge – 5 years on. Effects, acceptability and lessons learnt. *Transport Policy*. 20: 1-12. DOI: 10.1016/j.tranpol.2011.11.001.

Contact:
maria@borjesson@abe.kth.se

Theme(s): Sustainable mobility, Urban environment

The contents and views included in Science for Environment Policy are based on independent, peer-reviewed research and do not necessarily reflect the position of the European Commission.

To cite this article/service: "Science for Environment Policy": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.