

Policy instruments, policy packages and political support. Challenges and implications

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PhD Thesis
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*Series of dissertations submitted to the
Faculty of Social Sciences, University of Oslo
No. 914*

ISSN 1504-3991

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Cover: Hanne Baadsgaard Utigard.
Print production: Graphics Center, University of Oslo.

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Acknowledgments

This is (hopefully) the end of a long, fun, inspiring, and challenging journey. I could not have finished this dissertation without the help and support of many people.

I want to express my deepest gratitude to my supervisor, Professor Larry Rose. Larry is truly a great supervisor. I am very fortunate to have had such a friendly and dedicated supervisor during my years spent writing this dissertation. You have patiently shared your razor-sharp thoughts in a gentle and constructive manner. Your feedback, covering everything from advice on the big picture to comments on minor details, has helped to improve the quality of this thesis in so many ways. I could not have finished this thesis without Larry.

My co-supervisor, Jan Erling Klausen, also deserves special thanks. I have benefited from your critical comments and suggestions. You have continuously challenged me by asking hard questions, which has greatly improved my research.

I sincerely thank those who actually read parts of this dissertation. Silvia provided the “hours,” allowing Andreas Kokkvoll Tveit to deliver excellent input on the introductory part of this thesis. I am also grateful to Ove Langeland and Kåre H. Skollerud, who took an interest in my work and actually read and commented on the two first articles. I am also grateful to Jon Hovi and Peter Langsæther, who gave feedback and guidance on the completion of the thesis during my trial defense.

This dissertation was part of a larger project funded by the Research Council of Norway called COMMUTE— «Changing commuting in large urban areas—identifying acceptable and effective measures». Susanne Nordbakke led the project. You have been a most excellent project leader and chief researcher. I am truly grateful for the way you provided me with (way too much) confidence in finishing this dissertation and giving me full flexibility in pursuing what I really wanted to do. I would also like to thank Randi Hjorthol for your efforts in writing the proposal to the Research Council. Without you, the project would not have seen the light.

I am grateful for the financial support from the Research Council of Norway that enabled me to stay in California. I would like to thank Susan Handy and Mark Lubell for generously allowing me to join the academic community at UC Davis. It was highly inspiring to be part of a vibrant and stimulating research environment. I would also like to especially thank Emily Bell and Dillon Fitch for how they included me in their social environment.

I would like to thank the Institute of Transport Economics for offering me such privileged working conditions when pursuing a PhD. During the work of this dissertation, I have also enjoyed having several research directors who have provided me with flexibility and support. Frode, Silvia, and Trine all deserve a special thanks.

I am grateful to all of my colleagues and friends at TØI. I would particularly thank Kåre, Jardar, Christian, Øystein, Susanne, Nils, Cyriac, Jan, Tor-Olav, Fredrik, Andreas and many more for all the fun talks and breaks.

I would like to thank my family for all their support. Mom and Dad have always eagerly said yes to my requests that they be with Mathias when I needed to focus on the dissertation during weekends.

Last, but not least, I would like to thank Kristine. I am truly impressed by how strong you are. Most importantly, I can't express how wonderful a mother you are for our two absolutely adorable kids, Mathias and Ellinora. They (and I) are truly lucky to have you!

Petter Christiansen

Blindern, Oslo, Norway

March 2022

Summary

Political feasibility and public support are two key barriers for implementing restrictive policies that may be effective in addressing some of the pressing policy challenges facing governments. Recent studies have therefore examined factors explaining variations in support for restrictive policies as well as strategies for increasing both public and political support, since politicians often face a dilemma. Should elected representatives adopt and implement popular, but ineffective policies? Or should they select and seek to implement effective policies that face significant public resistance? And what are the political consequences in terms of political support of adopting and implementing the alternatives?

This last matter is a question which few have investigated systematically. Nor has there been much empirical research regarding the extent to which various groups of citizens and politicians have mutually congruent opinions when it comes to adopting and implementing various types of policy instruments. This thesis seeks to contribute to the literature on policy instruments and political support by examining how citizens and politicians prioritize various types of policy instruments, the extent to which policy preferences within various segments of society are congruent with those of politicians representing different political parties in three Norwegian cities, and how the choice of policy instruments may, from the viewpoint of citizens, influence citizen satisfaction with local democracy.

Norway is in this regard a highly relevant case. The national government has initiated a program of so-called “City-growth agreements”. This is a collaborative governance arrangement between the three principal levels of government found in Norway. The most important goal for collaboration is to achieve zero growth in personal car traffic. In order to reach such an ambitious goal, all levels of government are to coordinate and combine policy instruments in a manner that supports the zero-growth goal. Implementation of restrictive and unpopular instruments are thus seen to be necessary. Policy instruments play a fundamental part in these agreements, but do they influence political support?

The main findings from this dissertation can be summarized as follows:

First, the analyses document a relationship between transportation policies and satisfaction with how democracy works at the local level. Introducing restrictive measures, such as toll roads, can decrease citizens’ evaluations of both politicians, and their evaluation of overall governmental performance. Although the results suggest only small effects for satisfaction

with local democracy, these results nevertheless underline the importance of understanding how citizens are affected by specific policy instruments

Second, transportation policy priority congruence between citizens and politicians may influence political support. Such a result highlights both the importance of tool choice and more specifically the role of transportation policies for political support. Among the measures considered, lack of congruence with (local) politicians has the greatest effect on citizens' evaluations of politicians and regime principles. It is in particular among citizens placing themselves on the right side of the political spectrum, as well as car users, that a sense of policy responsiveness in terms of required policies studied in this dissertation was lowest. These results thus indicate how transportation policies may play an important role when it comes to political support at the local level.

Third, policy packaging – systematic combining different policy instruments – is argued to be a strategy that potentially increases acceptance of unpopular policy instruments, as well as to facilitate implementation of effective instruments. Few, however, have analyzed and compared how both politicians and citizens tend to combine different policy instruments. In doing so, this dissertation shows that despite (significant) variation between population subgroups, a majority of citizens tend to support a broad set of policy instruments which do not inflict any direct costs to the user. When it comes to politicians, on the other hand, this dissertation demonstrates the degree to which priorities regarding alternative policy instruments reflect different priorities of Labour and Conservative party representatives. Conservative politicians are more aligned with the average citizen, as well as their own voters. Labour politicians, in contrast, are less in agreement with the average citizen, supporting to a significantly higher degree policy instruments that are deemed effective in addressing key environmental goals.

Fourth, economic performance, public service quality and social protection have all been documented to be key factors explaining citizens' evaluation of governmental output and political support at the national level. There is considerably less knowledge, however, regarding the dimensions explaining citizens evaluation of political performance at the local level. Findings in this dissertation highlight the importance of transportation policies when it comes to the use of transportation policy instruments, but also when it comes to satisfaction with various aspects of transportation services. From such a perspective, the choice and character of policy instruments within the field of transport are likely to constitute a key feature in shaping citizens' evaluation of local political performance.

Finally, governments often need to combine and coordinate policy instruments since, by definition, there are no silver bullet solutions to challenging, intractable or wicked problems. The findings clearly illustrate the importance of political parties when it comes to defining the priority of policy instruments and consequently also underline how the stability and effectiveness of such arrangements may be highly dependent upon which political parties are in power.

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1 Introduction

1.1 Background

Governments across the world face policy challenges following deep-seated trends and tensions caused by urbanization, population growth, environmental degradation, climate change, as well as technological and economic changes (Braconier et al., 2014).

Policymakers rarely find themselves in a situation where there is a silver bullet solution – that is, a single measure that effectively addresses the pressing issues confronting all levels of government. An increasing number of policy areas are thus being characterized as complex and intractable, making it hard to design and implement policies that are able to amend or ‘solve’ pressing societal challenges (Head and Alford, 2015). Authorities consequently struggle with ‘delivering the goods’ within a rising number of policy fields.

Political feasibility and public support are highlighted as two of the main barriers for implementing policies that may address some of the critical policy challenges mentioned above (Wicki et al., 2019a). Fearing loss of public support, politicians can be reluctant to initiate policies that inflict considerable costs for people and businesses, or that intervene significantly in people’s daily lives. Politicians, therefore, often face a dilemma. Should they adopt and implement popular, but ineffective policies? Or should they select and seek to implement effective policies that face significant public resistance? And what are the political consequences of implementing the alternatives? Many policies, moreover, increasingly rely on a combined and coordinated effort among political actors at different levels of government (Ansell and Gash, 2008, Kuhlmann and Wayenberg, 2016, Hooghe and Marks, 2003).

Achieving stable, long-term collaborative arrangements may prove to be challenging considering how political actors at different levels of government often have different goals and priorities. Vetoing or opposing policies can have detrimental effects on policy output and outcomes (Pressman and Wildavsky, 1984).

In recent years, furthermore, there has been a growing concern regarding a rising distrust of political elites and institutions (Dalton, 2004). Of major concern are the potential political consequences of disgruntled citizens. Citizens may lose faith in politicians, political processes, and in the political system in general. Disgruntled citizens may also require constitutional reforms, call for new forms of government, and may be more likely to abstain

from engaging in the political system (Finifter, 1970). There is also evidence that populist parties across Europe have been fueled by rising distrust (Haugsgjerd and Kumlin, 2020).

A key question therefore is how such issues as those regarding climate and environmental challenges can be fashioned in the face of (fierce) opposition among citizens (Westskog et al., 2020). At the same time governmental failures to address these issues may also be a vital source of political discontent. From such a perspective the choice of policy instruments may be a critical factor influencing popular political support (Salamon, 2000:24), particularly since policy instruments are a fundamental part of governing (Howlett et al., 2020). Some of the presumably most effective policy instruments within climate and environment sectors, moreover, are costly, coercive and visible, making the choice of alternatives an important consideration for citizens in the policy review process. Policy instruments may as such be a critical factor in understanding political (dis)trust.

In short, the choice of policy instruments is fundamental for effectively solving or amending complex societal challenges (Howlett, 2019), but it is also, as this thesis argues, important when it comes to citizens' evaluation of political performance. Few, however, have analyzed the relationship between policy instruments and political support. The objective of this dissertation, therefore, is to explore whether lack of support for policy instruments influences political support. A key claim is that policy instruments may be critical for understanding variations in political support. Citizens may well agree with a set of policy goals such as improving the environment and reducing emissions of greenhouse gases (GHG), but simultaneously strongly oppose suggested policy options for reaching them. This thesis seeks to contribute to the literature on policy instruments and political support by examining how citizens and politicians prioritize various types of policy instruments, the extent to which policy preferences within various segments of society are congruent with politicians representing different political parties in three different cities, and how the choice of policy instruments may, from the viewpoint of citizens, influence citizen satisfaction with local democracy. The choice of policy instruments in these policy domains may as such be directly linked to a rising concern regarding the condition of democracy and popular political support.

Empirically, this dissertation focuses on the field of transportation in a Norwegian urban setting. Rapid increases in the number of vehicles have magnified problems such as air pollution, greenhouse gas emissions, congestion, and other sustainability issues. According to United Nations Sustainability Goal 11, cities should be safe, resilient, inclusive and sustainable, but there is still a wide gap between ambitious policy goals and policies for

reaching them. Is it political feasible to implement policy instruments addressing these sustainability issues? While most countries in the EU have reduced emissions in other sectors, for instance, transportation is the only sector where emissions have increased since 1990 (EEA, 2019). Transportation therefore constitutes a fertile ground for empirical investigation since the sector is essential for reaching politically agreed upon policy goals concerning the environment, urban development and climate. Addressing these issues also often requires implementation of ‘unpopular’ and visible policy instruments that impose costs on car use.

Norway is in this regard a highly relevant case. The national government has initiated a program of so-called “City-growth agreements”. This is a collaborative governance arrangement between the three levels of government found in Norway. The most important goal for collaboration is to achieve zero growth in personal car traffic. In order to reach such an ambitious goal, all levels of government are to coordinate and combine policy instruments in a manner that supports the zero-growth goal. Implementation of restrictive and unpopular instruments are thus seen to be necessary (Statens vegvesen 2018). Policy instruments play a fundamental part in these agreements, but do they influence political support?

1.2 Research questions

The overarching research questions in this thesis are as follows:

How is political support influenced by adoption and implementation of effective, but unpopular policy instruments required in the City-growth agreements?

To what extent are preferences of citizens and politicians regarding the choice of policy instruments mutually congruent, and what are the political implications of mutually congruence for the potential success of City-growth agreements?

These research questions are examined through three articles investigating different perspectives of policy instruments and political support. Article 1 – *Public support of transport policy instruments, perceived transport quality and satisfaction with democracy. What is the relationship?* – asks the following research question: If, and how, the use of specific policy instruments in the transportation sector can influence satisfaction with democracy? The article thereby focuses on the relationship between support of restrictive instruments and political support. First, the article studies how support for local road tolls and satisfaction with democracy varies between municipalities. Next, the article analyzes how acceptance of road tolls, as well as satisfaction with transport services influences satisfaction

with democracy both directly and indirectly. The article thereby contributes to both of the overarching research questions in this dissertation.

Article 2 - *The effects of transportation priority congruence for political legitimacy* – asks the following research questions: To what degree do transportation policies reflect public preferences? And is a possible lack of congruence regarding transportation policy preferences between voters and elected representatives linked to political legitimacy? This article also focuses on both of the general research questions for the thesis. Empirically the article employs data from both politicians and citizens. In order to analyze whether transportation policies reflect citizens viewpoints, the article first provides a descriptive overview of policy priorities for positive and negative policy instruments within the transportation sector. This includes both politicians and citizens. The article also investigates how policy priorities for these kinds of instruments varies between different political parties. The second part of the article studies how policy priorities align between politicians and citizens based on an index measuring the average differences in priority of instruments between politicians and citizens, as well as studying how lack of congruence influences political support.

Article 3 – *Policy packing among citizens and politicians. How do citizens and politicians prioritize between different types of policy instruments?* – addresses the second overarching research question. The specific research questions considered in the article are: To what extent do interests and political orientation explain variations in support for different types of policy packages? Are politicians and the public congruent when it comes to policy packages for reaching zero growth in personal car traffic? Data from both citizens and politicians serve as the empirical basis of this article. Principle component analysis is conducted in order to obtain a better understanding of patterns for how policy instruments tend to be combined for both politicians and citizens. Multinomial and logistic regressions are then employed to analyze variations in support for different types of policy packages.

Literature on policy instruments is thus at the heart of each article. While the first two articles are mainly concerned with issues related to how policy instruments may influence political support, the last article expands the perspective and analyzes how alternative combinations of policy instruments potentially increase public support for policies required within the City-growth agreements. All three articles thereby analyze areas that are highly relevant for understanding stability and successfulness of such collaborative governance regimes.

1.3 Structure

The remainder of this introductory chapter proceeds as follows. First, it starts with an overview of the main theories used, focusing on theories of political support, policy instruments and policy packaging. The literature review section ends by identifying a set of research gaps that this dissertation helps to fill. After this the following section highlights the relevance and importance of studying the field of transportation through the analytical lens of the public acceptance literature. Special focus is put on elucidating the importance of transportation for addressing key policy challenges as GHG emissions, air pollution, congestion and creating economic development, as well as describing the most relevant policy instruments. Transportation, moreover, is a policy domain requiring coordination and cooperation among political actors. The subsequent sections account for the research strategy employed, highlight the main findings, discuss ethical research issues, and end by identifying opportunities for further inquiry.

2 Empirical context – the role of transportation

This section provides an overview of the field of transportation. The first section highlights how transportation plays a crucial role in addressing policy challenges such as reducing GHG emissions, air pollution, congestion, and creating economic development. The second section provides an overview of the most widely used transportation policy instruments whereas the last describes the “City-growth agreements”, which require cities to reach zero-growth in personal car traffic.

2.1 Transportation challenges

The Paris agreement aims to keep the increase in global average temperature below 2 ° C. Achieving such an ambitious target requires paradigmatic policy changes across a variety of policy fields (Fuss et al., 2020). Transportation constitutes a particularly important policy domain due to its current dependence on fossil fuels. Within the EU, the transportation sector is responsible for roughly a quarter of GHG-emissions. In Norway, transportation presently accounts for almost a third of national GHG emissions. To reach international as well as domestic emissions targets, reducing transport emissions is therefore crucial. The government in Norway has recently announced plans to reduce emissions by up to 55 percent by 2030 compared to 1990 (Ministry of Climate and Environment 2021). To reach such national targets and other environmental goals, Norway’s Parliament has established an overarching goal for the largest urban areas, namely, to achieve zero growth in personal automobile

traffic. Considering forecasts anticipating economic growth and population increase in and around the urban areas, this is an ambitious target. In order to reach this goal a collaborative governance program labelled “City-growth agreements” has been established for the largest urban regions. Within this program implementation of restrictive measures will be needed (Statens vegvesen, 2018), measures which tend to be received unfavorably among different segments of society.

Despite recent reductions in the emission of pollutants such as nitrogen oxides (NO_x), air pollution is also perceived to be a major environmental concern (Tveit, 2018). Air pollution is currently regarded as one of the largest environmental health risks globally and is an important cause of premature deaths and diseases (UNECE 2021). Transportation is a major contributor of emissions for particulate matter and nitrogen dioxide. It is therefore argued that considerable environmental and health benefits could be achieved through reduced use of cars and increased walking and bicycling (Rabl and De Nazelle, 2012). Realizing these gains has been a major political target for the EU and its member states. Air quality standards have been established in the EU Ambient Air Quality Directives for pollutants. Compliance with EU legislation, however, requires that national, regional and local authorities adopt and implement air quality plans and meet the standards through a broad set of policy instruments varying from emission standards to regulation of transport (Slovic and Ribeiro, 2018, Hülsmann, 2016).

Moreover, congestion in larger urban areas is an endemic challenge that is only likely to magnify in intensity. Even though it is hard to predict future demands, some studies expect the number of cars globally to double within 2040 (Sperling and Gordon, 2010). Congestion is linked to longer travel times, increased levels of pollution and entail considerable costs for communities, individuals, and businesses. According to EU estimates, congestion costs up to 1 % of the EU’s GDP annually (European Commission 2021). Congestion pricing has been advocated as the primary policy instrument addressing this issue. Despite near unison appraisal of congestion pricing from economists (Smeed, 1964), to date there are relatively few instances where cities have implemented congestion pricing¹.

Achieving effective and efficient urban transport is in addition highly important in order to reduce externalities such as noise, pollution and traffic accidents. Although there is no

¹ Smeed (1964) is often cited for this claim due to the statement that “the case for road pricing is irrefutable”. See also Eliasson and Mattsson, 2006:603).

consensus as to how to calculate the costs for these factors, they are nevertheless associated with significant societal and personal costs (Rødseth et al., 2019). A well-functioning transportation system is also key for achieving political goals such as economic growth, employment, and increasing competition. Transport infrastructure and services are seen as fundamental in terms of among other things strengthening labor markets and promoting competition inasmuch as these allow for geographical specialization (Banister and Berechman, 2000). In the European Union, therefore, transportation is at the heart of the integration process.

In short, transportation plays a crucial role, both nationally and internationally, when it comes to effectively addressing pressing climate, environmental and economic issues. Most urban areas face challenges related to accessibility, congestion, emissions and air pollution.

Transportation is a sector that interacts with many other policy areas and thus it is fundamental for achieving a range of objectives across multiple sectors. Effectively addressing these issues, however, will often require implementation of a broad set of policy instruments, including restrictive and visible policy instruments facing considerable opposition among different segments of society. Transportation, moreover, is a policy field where responsibilities often are dispersed across sectors and different levels of government. Single actors are often not able to solve such complex and multi-jurisdictional problems unilaterally (Kooiman, 1993). A combined and coordinated effort among multiple actors at different levels of government are therefore often required.

2.2 Transportation policy instruments and responsibilities

The empirical focus in this dissertation is limited to the most pertinent instruments within the field of transportation with special emphasis devoted to those relating to personal travel behavior. Within extensive research regarding the mechanisms contributing to variations in individual travel behavior there is a general consensus that accessibility, land use, and travel costs are three fundamental factors influencing travel distance, travel frequency and mode of transport.

2.2.1 Accessibility

Norway has three levels of government: state, counties and municipalities. When it comes to accessibility, the state level is responsible for constructing and maintaining national roads².

² Geurs and van Wee (2004) define accessibility as the extent to which land-use and transport systems enable (groups of) individuals to reach activities or destinations by means of a (combination of) transport mode(s).

Road infrastructure is a vital driver of car use. Research suggests that improvements in road capacity generally stimulates accessibility and thereby more car use (Banister, 2008, Duranton and Turner, 2011, Goodwin, 1996, Noland and Lem, 2002). All larger urban areas have national highways functioning as main roads for car travelling into and out of the surrounding regions. These highways are crucial for total road capacity and often function as the main arteries for commuting by cars. The national level is therefore a key decision maker and provider of road infrastructure. That is particularly true considering how the national authorities are planning road-infrastructure improvements in all the major urban areas of Norway. Recent processes of decentralization have, however, given regional authorities control over a majority of the road infrastructure in Norway (Krogstad and Leiren, 2019). The counties therefore also play a crucial role in terms of road accessibility in each county. Local authorities are in turn responsible for municipal roads which are typically smaller. Hence municipalities play a lesser role in decisions determining total road capacity, but they are assigned with crucial tasks and responsibilities in governance of street connectivity³. In this fashion local authorities similarly influence road accessibility through design decisions.

Public transport is also an essential element in terms of accessibility. Public transport services influence the possibilities for reaching key destinations by means other than the use of cars. Emphasizing routing frequencies, comfort, costs and total travel time are important strategies for curbing car use (Redman et al., 2013). In this regard national government in Norway is responsible for rail infrastructure and train services which are important parts of the public transport system. The counties also possess key responsibilities since they are responsible for the planning and operation of regional public transport services as buses, light rail and metro. Regional public transport services are crucial in terms of reaching a zero-growth goal since the vast majority of public transport users travel by either bus, metro, tram or light rail.

2.2.2 Land use

Few areas within transportation have been under more intense scholarly scrutiny than the relationship between land use and mobility (Newman and Kenworthy, 1989, Næss, 2006, Engebretsen and Christiansen, 2011, Ewing and Cervero, 2010). Planners and transportation researchers have focused extensively on how the built environment plays a role in determining travel options for inhabitants. Empirical findings document that density, land-use

³ Street connectivity refers to how municipalities can influence traffic patterns through using such measures as one-way streets, low speed limits, or prioritizing public transport and bicyclists by having designated public transport and bicycle lanes.

mix, accessibility and distance from city centers define the transportation options available. Dense land use adjacent to areas with good public transportation services is associated with reduced use of cars, while urban sprawl is strongly correlated with increased use (Handy et al., 2005). In Norway municipalities have primary responsibility for land-use development within the municipality. Regional authorities, on the other hand, are responsible for creating regional planning strategies even though land-use decisions are formally taken at the local level. Regional authorities have fewer means for steering developments in this regard⁴. They are nevertheless intended to coordinate activities of different local and state authorities to promote regional development (Planning and Building Act 2008). National authorities have a less direct role in planning decisions, although in principle the state can overrun local land-use decisions. They also play a direct part role when it comes to determining the location of state enterprises.

2.2.3 Travel costs

In addition to transport infrastructure and land-use pricing mechanisms, such as congestion pricing and parking charges, are – despite being highly controversial among large segments of the public – also important in curbing car use (Christiansen et al., 2017, Inci, 2015, Eliasson et al., 2009, Börjesson et al., 2012). Parking policies are the responsibility for municipals, while congestion pricing and road tolls usually are decided in collaboration with local, regional and state authorities.

Transportation researchers have argued for greater use of economic instruments. A considerable amount of research has assessed how to calculate externalities to tackle market imperfections and to analyze the various social, economic and behavioral effects of various transportation policy instruments⁵. A key finding in this literature has been that effectively reducing car use requires restrictive instruments such as road tolls (Wardman et al., 2018, Fearnley et al., 2017). In contrast, policies entailing only ‘carrots’ are likely to have minor effects on reducing car use. According to Fearnley et al., (2017):

⁴ The counties have to a limited degree possibility for using binding juridical instruments for steering land-use developments. The county level is expected to have a mediating and coordinating role (Hanssen and Hofstad, 2017).

⁵ A recent example of such efforts in the Norwegian context can be found in Rødseth et al. (2019) estimating marginal external costs across a wide range of transport modes and multiple areas.

“Policy makers should therefore understand that 'carrot' measures of improving public transport or improve walkability with the goal of reducing car use, are likely to be exceedingly optimistic”

In a similar way Wardman et al. (2018) conclude in a study of inter-modal cross-elasticity that “the results indicate that ‘carrot incentives’ can be expected to be minor in terms of reducing car demand”. According to the literature, implementation of costly or restrictive policy instruments are prerequisites for effectively addressing policy challenges within the field of transportation.

2.3 The City-growth agreements

How do city growth agreements fit into this picture? As already noted, transportation is a multi-jurisdictional policy field where different actors often share responsibilities. Issues facing decision makers in transport are therefore challenging to solve due to their complexity requiring horizontal and vertical coordination. As a response, collaborations and networks have been proposed as a possible solution for promoting cooperation between relevant public, civic and private actors.

Collaborative governance involves joint decision making between different actors (Ansell and Gash, 2008) and can be seen as a set of tools for improving public policies (Scott and Thomas, 2016). Such forms of governance have blossomed over the last decades⁶.

Internationally there are several examples of various forms of transportation schemes promoting coordination and changed policies across levels of government (Swedish Urban Environmental Agreements, United Kingdom City Deals (O’Brien and Pike, 2019) and United Kingdom transport performance schemes (Marsden et al., 2009)).

The growth of new governance arrangements has spurred a wide array of theoretical and empirical studies on collaborative governance and networks. A central research question has been whether collaborations and networks are associated with a so-called collaborative advantage. While the number of studies on these issues is increasing, the findings are mixed with regard to the positive impacts of these institutional arrangements (Campbell et al., 2011, Kelman et al., 2013, Koontz and Newig, 2014, Koontz, 2005) (Lee et al., 2018, Doberstein, 2016, Scott, 2016, Ulibarri, 2015).

⁶ In the literature there are multiple definitions of networks and different forms of collaborations.

The theoretical part of the literature has contributed a variety of frameworks for understanding mechanisms for collaborations (Bryson et al., 2006, Thomson and Perry, 2006, Ansell and Gash, 2008, Agranoff, 2007, Provan and Kenis, 2008, Emerson et al., 2012, Bryson et al., 2015). Although the frameworks differ in terms of their theoretical foundation, mutual understandings among actors is commonly regarded as a prerequisite for success (Torfing and Ansell, 2017). When actors share the same goal it is assumed, achieving a collaborative advantage is more likely. But goals and policy instruments are closely related (Howlett and Cashore, 2009). And since collaboration usually entails some form of policy design, including altering the use of either substantive or procedural instruments, a deeper understanding of the implications for choosing and implementing policy instrument is required.

In Norway, as part of an agreement cutting across party lines, the Norwegian Parliament established the ambitious zero-growth target in 2012 (Ministry of Environment, 2012) incorporating many of the challenges mentioned in the previous section. Both car use and car ownership are expected to grow considerably. In order to promote a shift to low-emission mobility and avoiding negative externalities, changes in individual mobility patterns are needed. The overarching goal for the largest urban areas is thus to reach zero growth in personal car traffic. Considering forecasts anticipating economic growth and population increase in and around urban areas, that seems to be an ambitious target. To reach such a goal, the central government introduced a collaborative governance program labelled “City-growth agreements” for the largest urban regions⁷.

But cooperation and coordination do not just happen. The “City-growth agreements” offer significant carrots and sticks for the actors involved. The state level, through the Ministry of Transport, funds up to 50 percent of infrastructure costs for new public transport projects in each region. In Oslo, for instance, a new metro line is planned. Bergen, the second largest city in Norway, is planning for a new light-rail line, while Trondheim, the third largest city, is introducing a new bus-rapid-transport system. All these projects are regarded as crucial for improving the public transport system, thereby facilitating reduced car use. They are also regarded as ‘positive’ instruments expected to be received favorably among citizens of the three cities.

⁷ These are voluntary, long-term agreements, currently for six years,

In return, local and regional authorities face requirements when it comes to implementing policies within their domain of responsibility. Each region is expected to achieve zero-growth in personal car traffic through land-use policies, transportation infrastructure investments and transportation policy instruments. Restrictive instruments are likely to be particularly important. This is because all regions expect population growth (Statens vegvesen, 2018), but previous research finds that positive incentives (e.g., improved public transport) have only minor effects on car use. Hence, extant knowledge suggests that reaching the zero-growth targets requires increased costs or decreased accessibility for car users (Wardman et al., 2018, Fearnley et al., 2018). Given the present configuration of transport responsibilities in Norway's multi-tiered political system, measures such as road tolls, congestion pricing, and restrictive parking policies can only be implemented by local and regional authorities. Inasmuch as land-use policies also affect car use through accessibility, reaching the zero-growth target likely requires strategic use of such policies as well. Given that state, regional, and local authorities are involved in land-use policies, extensive collaboration and coordination is therefore essential. Such cross-tier policy alignment cannot be taken for granted.

At present each region has its own City-growth agreement. Before signing, the involved actors met regularly to negotiate the specific requirements for each participant. The state level, through the Ministry of Transport, also initiated detailed reviews for how the zero-growth goal could be reached (Statens vegvesen, 2018). This included likely effects of both single instruments as well as different combinations of policy instruments. The reviews studied possible scenarios for traffic development within the next 12 years. The main conclusion from these reviews is the need to implement restrictive policy instruments in order to curb traffic. It is in this context highly relevant to study whether the required policies receive (sufficient) public and political support.

3 Theoretical perspectives

The theoretical underpinnings of this dissertation are found in the literature on political support and the literature on policy instruments. The first part of this section focuses on the theoretical foundations and common operationalizations of public support. This section also explains how political support has evolved, underlines some of the key political implications of reduced support, and highlights the main factors explaining variations in political support. The second section focuses on key developments within the literature on policy instruments when it comes to analyzing variations in public support. The section also includes a literature review of policy design and policy packaging. The chapter ends with identifying a set of research gaps being addressed in the dissertation.

3.1 Political support

3.1.1 The roots and development of political support

Political support has deep roots within both philosophy and political science. Scholars have long dwelled with such fundamental questions as when can we call political decisions or institutions legitimate? But despite its long tradition, the concept is still contested (Langvatn 2016:133). According to Weber, political legitimacy can be defined as “the basis of every system of authority, and correspondingly of every kind of willingness to obey, is a belief, a belief by virtue of which persons exercising authority are lent prestige” (Weber 1964: 382). In other words, citizens need to both accept authority as well as obey its commands (Peter, 2010). Weber, moreover, distinguishes between three well-known sources of legitimacy: traditional, charisma and rational-legal. In a similar way, Beetham (1991:15-16) states that “power can be legitimate to the extent that (i) it conforms to established rules, (ii) the rules can be justified by reference to beliefs shared by both dominant and subordinate, and (iii) there is evidence of consent by subordinate to the particular power relation. According to John Rawls, by comparison, political legitimacy refers to the justification of coercive political power (Peter, 2010).


Clearly definitions vary. Moreover, concepts such as political support are challenging to measure (Norris, 2017:19). David Easton (1965, 1975) has in this regard provided one of the most influential theoretical frameworks for empirically studying such concepts. A key insight is how Easton (1965) differentiates between *specific* and *diffuse* support. Specific support focuses typically upon particular elected politicians or political actors. It also covers attitudes towards specific political parties, government, parliament, police or the legal system. Specific

support is expected to fluctuate frequently, particularly when it comes to support for political actors. The public is likely to respond to economic, political and social events or policies (Norris, 2017) when evaluating politicians or governments. Common operationalizations of these factors are regular opinion polls with questions tapping evaluations, as well as satisfaction with the particular leader, politicians or various institutions.

In Easton’s terms diffuse support is “*a reservoir of favorable attitudes or good will that helps members to accept or tolerate outputs to which they are opposed or the effect of which they see as damaging to their wants*” (Easton 1965:273). Diffuse support represents in other words more abstract feelings or attitudes towards the political community and regime. It often refers to attachment to the nation or local community, as well as support for democratic principles and democratic values. People may for instance be critical of specific politicians or governments but at the same time support the constitutional arrangements for how they are elected (Norris, 2017). Diffuse support is expected to be more long-lasting, stable and thereby less sensitive to short-term variations in governmental performance.

Another key contribution from Easton is how he regarded political support as a multidimensional concept. Originally he distinguished between three levels of political support: the community, the regime and the authorities. This framework has later been expanded by Norris (1999b) who introduced greater refinement and expanded political support into five categories: community, regime principles, regime performance, regime institutions and political actors (see Table 1).

Table 1. Conceptualization of political support (based on Norris 1999:10)

	Object of support	Definition	Common operationalization
Most diffuse support  Most specific support	Political community	Often refers to attachment to the political community being either the nation or community	Feelings of belonging to the community, feelings of pride or identity
	Regime principles	Refer to the democratic values and basic democratic principles for the political system	Agreements on specific values or question about democracy being the preferred form of governance
	Regime performance	Support for how the political system functions in practice	Usually satisfaction with how democracy works in practice
	Regime institutions	Attitudes towards e.g. political parties, government, parliament, police, the legal system	Questions tapping satisfaction with the various institutions
	Political actors	Specific support for politicians or political actors	Evaluations of particular leaders, politicians, governments or presidents

Support for the political community usually refers to attachments to the nation or local/regional community even though it can also refer to political cleavages within these boundaries (Norris, 1999:10). This is a dimension being characterized as the most ‘diffuse’ or as a ‘system affect’ (Almond and Verba, 2015). Common operationalizations are questions about feelings of belonging to the community or national pride. It is argued to be a dimension

that can help maintain a political system during times of political stress or crisis (Dalton 1999:72). Some cross-national variations notwithstanding, this facet of the political system typically receives high level of support (Van Ham and Thomassen 2017) ⁸.

Approval of regime principles represents adherence to the democratic values and basic democratic principles for the political system (Norris 1999). Also here a key challenge is related to the operationalization of this component of political support. There is no consensus as to how to define democracy and democratic values. The literature operates, for instance, with both a thin (Schumpeter, 2010) and a thick (Dahl 1989) definition. When it comes to operationalizations of regime principles the situation is much the same; there are many alternatives. Common approaches in the literature are to ask citizens to evaluate some of the following statements: ‘Democracy may have problems, but it is better than any other form of government’, ‘Democracy is always preferable to any other kind of government’, ‘Under some circumstances, an authoritarian government can be preferable to a democratic one’.

A key challenge in several contemporary democracies, especially in the U.S, is the extent to which citizens have become disillusioned and distrustful of democratic processes (Dalton, 2017) and the potential political implications of such developments. There are also studies on support for democratic values and principles in different regions (Claassen, 2020b). In Europe, and in contrast to the U.S. experiences, Van Ham and Thomassen (2017) show how there is no consistent evidence for declining support for regime principles after the mid-1970s.

The third level in Table 1 refers to evaluation of regime performance. This is a ‘middle’ level of support and is meant to capture the extent citizens support how the political system functions *in practice*. A widely used indicator for regime performance is ‘satisfaction with democracy’ (Norris 1999). Even though this measure is ambiguous in terms of its particular meaning and interpretation (Canache et al., 2001, Linde and Ekman, 2003, Wagner et al., 2009), it is argued to capture both support for democratic practices, but also support for the incumbent workings of the political government/regime. From such a perspective this item is expected to fluctuate, but to a lesser degree compared to specific approval of incumbent

⁸ It is also possible to employ Inglehart’s (1977) identification with international communities and identification with members of the nation state. Bornschieer et al. (2021) for instance document how a universalism – particularism cleavage has been formed in Switzerland with distinctive collective identities.

officeholders. In Europe, the level of satisfaction, varies greatly between countries (Zmerli and Van der Meer, 2017).

Confidence or trust in regime institutions represents the fourth level. This includes attitudes towards the functioning of core governmental institutions such as the parliament, political parties, the judicial branches (legal system and police) and public sector agencies. Typical questions are confidence, trust and satisfaction with the functioning of the specific agency or institution. These questions are meant to tap support for these institutions.

The last dimension is support for particular political actors. This is the most specific level since it measures satisfaction with the performance of incumbent office holders, as well as support for certain political leaders or parties. These questions are not meant to capture generalized support for democratic values and principles. The political implications of experiencing loss of support at this level is therefore regarded as less problematic than loss of support for objects in more diffuse categories. Approval of incumbent office holders are, moreover, expected to vary greatly. It is natural that support for specific parties or a government will depend on recent events.

3.1.2 Diagnosing political support

Analyzing variations in political support has been a long-standing research topic within political science. In particular the field of study gained momentum in North America as trust in politicians sank substantially during several crises (e.g. Vietnam and societal unrest) and as a result of political scandals during 1960s and 1970s (Dalton, 2004). A considerable amount of research has consequently studied developments in political support along different dimensions, as well as in different regions across the world. In the United States, for instance, trust in politicians and political institutions have fluctuated substantially over time⁹. The overall trajectory shows a substantial drop in political support since 1950s (Dalton, 2017). According to Hetherington (2005:8), lost faith in government is *the* key change in public opinion. Recent studies shows that only small fractions of Americans prioritize democratic principles when it would require them to also go against their preferred policies or partisan identification (Graham and Svobik, 2020).

In Europe, there are stable cross-national differences in satisfaction with democracy (i.e. support for regime performance in table 1) (Torcal, 2017, Závecz, 2017, Leiter and Clark, 2015). These differences have predominantly been explained by various institutional,

⁹ The two lowest dimensions of political support in Table 1.

political, economic and cultural differences between these countries (Wagner et al., 2009). Even though the number of critical citizens is rising, particularly in countries hardest hit by the economic crisis in 2008 (Armingeon and Guthmann, 2014), the level of political support has remained rather stable (Torcal, 2017).

For Norway, about half (49 percent) stated they trusted politicians in 2017 (Uio Factsheet 2019 ¹⁰). Even though the level of support has fluctuated over time (Listhaug and Aardal, 2011), especially during referendums regarding EU-membership, trust in politicians has remained at roughly the same level the last fifteen years (Uio Factsheet). The level of trust has, however, decreased substantially when compared to levels in 1977 (64 percent). Citizens are significantly more satisfied with ‘satisfaction with democracy’. 87 % stated they were either partly or very satisfied with democracy in 2017 (ibid). This is at the same level as in 1977 (ibid).

The majority of studies have focused on political support at the national level although considerable research has also been conducted on political trust at the local level (Vetter, 2007, Rose and Arnt Pettersen, 2000, Haugsgjerd and Seggaard, 2020). In a Norwegian setting, a substantial majority has been satisfied with local democracy. Although the last large-scale assessment of Norwegians satisfaction with local democracy dates back to 2011, 86 percent was fairly or very satisfied with local democracy. There are only modest variations in satisfaction with local democracy over time. The fundamental attitudes of local democracy have consequently been quite stable. These findings are similar to those found with respect to satisfaction with local democracy in other European countries. In Sweden, Denmark, Netherlands and Switzerland about 75 reported to be positive (Rose and Pettersen 2009:273).

3.1.3 What are the consequences of lack of political support?

Political support is deemed to be fundamental for the stability of the political system (Rothstein, 2009, Claassen, 2020a). The legitimacy of a political system hinges on its capacity to engender and maintain the belief that existing political institutions are the most appropriate or proper ones for the society (Lipset 1959:86). Reduced political support may thus have significant political consequences. Finifter (1970: 407) distinguishes between four different hypothetical consequences of disgruntled citizens (see Table 2). It is not

¹⁰ Trust in politicians has been measured with an additive index consisting of three questions: 1: Do you think politicians waste a large part of taxes, some of the taxes or very little of taxes? 2: Do you think politicians are competent people knowing what they are doing? and 3: Politicians are in general trustworthy.

theoretically given how such citizens may react. They may on the one hand actively participate in political processes or on the other hand completely withdraw from political processes altogether.

Table 2. Hypothetical types of political behavior as a result of political alienation. (Finifter 1970:407)

		Political powerlessness	
		High	Low
Perceived political normlessness	High	Extreme disengagement (Separatist movements Complete withdrawal	Reform orientation Protest groups within institutional framework
	Low	Apathy Very low level of political involvement	Political integration Confirmative participation

Empirical findings are mixed on the possible political reactions of reduced level of political trust. Citizens distrusting politicians or political institutions have been shown to be more prone to participate in protests (Norris, 1999a, Kaase, 1999, Hooghe and Marien, 2013). Anderson and Hoff (2001) on the other hand argues that there is no such association between trust and political protests.

The findings are also inconclusive when it comes to the relationship between political trust and other forms of political participation. Some studies show a positive impact of political trust and political participation (Norris 1991,2002:83) . According to Hooghe and Marien (2013) political trust is positively associated with so-called institutionalized participation, defined as party membership, working in a political party, contacting government officials and/or voting. Political trust is also negatively associated with non-institutionalized participation such as signing a petition, boycott products, as well as taking part in a demonstration (ibid). Gabriel (2017) concludes that the relationship between political trust

and political participation is often unrelated, but this may be explained by how political distrust can have both positive and negative political effects.

Political distrust may also be linked to voting for radical parties or supporting a challenger party. A challenger party can potentially bring new ideas to the table and they can both initiate realignment within the electorate and attract new voters (Bélanger, 2017). Such parties can, moreover, act as a vehicle for voters to channel and express their dissatisfaction (Hobolt and Tilley, 2016, Bergh, 2004, Kselman and Niou, 2011)

3.1.4 Explaining variations in public support?

In seeking to explain variations in political support across polities or across time a common analytic distinction has been made between so-called input and output dimensions (Scharpf, 1999). Input refers to the extent politicians or regimes are responsive to citizen concerns. This dimension highlights the participatory quality of the process in which decisions are made (Lijphart, 1999). Scholars have typically analyzed issues related to citizen representation, as well as the inclusion of interest groups and networks. From such a perspective electoral participation is an integral component of political support (Dahl, 1989). Output, however, usually refers to the performance/quality of governments or the problem-solving capacity of the political system (Magalhães, 2014). A range of different factors within the performance category have been identified varying from impartial government (Rothstein and Teorell, 2008) and economic performance (Krieckhaus et al., 2014, Magalhães, 2014) to welfare, public service quality and social protection (Lühiste, 2014, Haugsgjerd and Kumlin, 2020, de Blok et al., 2019) and scandals (Kumlin and Esaiasson, 2012). A large body of research has also been carried out regarding the impact of having voted for the victorious party or government on satisfaction with democracy (Loveless, 2020, Chang et al., 2014, Curini et al., 2012, Dahlberg and Linde, 2017, Singh et al., 2012, Singh, 2014, Nemčok and Wass, 2020, Nemčok, 2020).

A fundamental part of democracy is also to provide citizens with the policies they want (Pitkin, 1967). Congruence can be understood both as a process generating a set of elected politicians reflecting citizens' preferences (opinion representation) and the extent *policies* reflect the electorates preferences (responsiveness) (Miller and Stokes, 1963, Achen, 1977). Congruence is therefore a key issue in political science since it sheds light on about who gains and who loses from politics (Lupu and Warner, 2020). Much work has been done in studying the extent to which politicians exhibit congruence with their constituencies both in terms of policy preferences and behavior (Soroka and Wlezien, 2010, Bernauer et al., 2015).

The potential political effects of congruence has also been an important field of study when it comes to analyzing variations in public support (Reher, 2014, Reher, 2016, Kim, 2009, Hobolt et al., 2020, Mayne and Hakhverdian, 2017, Ezrow and Xezonakis, 2011, Wlezien, 2017, Arnesen and Peters, 2018). Lack of congruence may erode citizens' political support (Mayne and Hakhverdian, 2017, Arnesen and Peters, 2018) and vice versa.

Although a considerably amount of research has been done on studying how various factors influences political support, few have looked specifically at how the adoption and implementation of specific policy instruments may influence e.g. satisfaction with democracy. This is a particularly relevant field of study considering how policy instruments, according to Linder and Peters (1989), are the techniques or means which states attempt to attain their goals. Policy instruments are thereby involved in all stages within a policy process (Howlett et al., 2020) and lie at the heart of governing. The following section will therefore elaborate in more detail the literature on policy instruments.

3.2 Policy instruments

Governmental toolkits include a wide selection of different types of instruments. The selection varies from regulation and moral persuasion to financial mechanisms such as taxes, charges or grants (Bemelmans-Videc et al., 2011). Each policy instrument also differs in terms of their associated administrative and financial costs (Hood and Margetts, 2007), as well as the behavioral assumptions involved (Schneider and Ingram, 1990). Although the selection of policy instruments has sometimes been pictured as a as a straightforward technical and rational process, the literature on policy instruments also acknowledges that the choice of policy instruments may be inherently political (Peters, 2002).

3.2.1 Strains of analysis

Overall the literature on policy instruments can be categorized into different strains of analysis (Hood, 2007)¹¹. One strain has been mainly concerned with theory building and conceptualizing policy instruments to improve understanding the nature and differences between various governmental tools. Many different taxonomies of instruments have been developed – for instance that of carrots, sticks and sermons (Hood and Margetts, 2007, Vedung, 2017, Schneider and Ingram, 1990, Salamon, 2000, Lowi, 1972) – and the literature

¹¹ Hood distinguishes between three main approaches labelled “institutions-as-tools, the politics-of-instrumentality, and the generic policy approach.

operates with a high degree of heterogeneity with regard to the typologies that are used (Acciai and Capano, 2020).

Another branch has been more concerned with the process for choosing and understanding instruments from the view of decision-makers (Linder and Peters, 1989, Peters, 2002, Capano and Lippi, 2017). Politicians, it is argued, usually prefer to implement the least coercive instrument and would only increase the level of coercion when other measures have failed (Wilson and Seymour, 1974). Peters (2002) highlights the political dimension by considering factors that influence the choice of policy instrument: ideas, institutions, interests, individuals and international environment. Politicians, experts and citizens may also differ in their perceptions of the problem situation which have consequences for the instruments that are preferred (Linder and Peters, 1989).

Much research has also focused on explaining variation in support for climate policies (Drews and Van den Bergh, 2016), particularly for restrictive instruments since public opinion is arguably the most important barrier to implementation of presumably effective policy instruments (Albalade & Bel, 2007:972, Hysing and Isaksson 2015). The literature has focused on explaining variations in acceptance. Political ideology, context, climate change perception, self-interest, perceived beliefs about benefits, costs, fairness and use of revenues are identified as key determinants in explaining variations in public support for climate policies or restrictive instruments (Drews and Van den Bergh, 2016, Börjesson et al., 2012, Hansla et al., 2017, Eliasson and Jonsson, 2011, Hårsman and Quigley, 2010, Eliasson, 2014, Hysing and Isaksson, 2015, Tørnblad et al., 2014, Schade and Baum, 2007, Börjesson et al., 2016, Huber et al., 2019, Beiser-McGrath and Bernauer, 2019).

3.2.2 Policy packaging

Another part of the literature has analyzed governmental strategies for influencing acceptance (Carattini et al., 2018, Klenert et al., 2018). Research suggest that both trials (Cherry et al., 2014), earmarking (Schuitema and Steg, 2008, Sælen and Kallbekken, 2011), compensating low-income households (Kallbekken and Sælen, 2011) and public engagement (Hysing and Isaksson, 2015) can help making ‘controversial’ instruments more acceptable. A related topic within this branch of research is the literature on policy design (Howlett and Mukherjee, 2014). Policy design, according to Howlett (2019:22):

“elevates the analysis and practice of policy instrument choice – specifically tools for policy implementation – to a central focus of study, making their understanding and analysis a key design concern”.

The literature concerning policy design is heavily based on the analysis and conceptualization of policy instruments. Research on acceptance focused originally on individual policy instruments. A new body of literature, however, has moved on to study the arrangement of multiple policy instruments as public policies consisting of complex variations of policy goals and policy instruments. A broad set of policy instruments are typically needed in addressing complex policy challenges (Howlett et al., 2015, Howlett and Rayner, 2007, Howlett, 2014). Policy-packaging is thus a key element in policy design.

According to Givoni et al. (2013:3) policy packaging can be defined as *“a combination of policy measures designed to address one or more policy objectives, created in order to improve the effectiveness of the individual policy measures, and implemented while minimizing possible unintended effects, and/or facilitating interventions' legitimacy and feasibility in order to increase efficiency”*. Policy instruments, in other words, can as such be packaged in a systemized way in order to improve effectiveness, minimize the possibilities for unintended effects and to overcome public and political opposition (Givoni, 2014a, Howlett and Rayner, 2013). The literature on policy packaging focuses on the arrangement of multiple instruments in order to reach specific policy outcomes (Howlett et al., 2015, Howlett and Rayner, 2013).

These are crucial issues inasmuch as facilitating for increased legitimacy and feasibility are fundamental requirements for amending many of the societal challenging facing urban areas. That is true in particular because public opinion is linked to likelihood of implementation (Anderson et al., 2017). Strategically combining policy instruments can potentially help policy makers overcome public opposition when designing and implementing policies (Justen et al., 2014b, Justen et al., 2014a).

The literature on policy packaging is not new. Policy packaging has been studied in several policy areas, such as innovation (Flanagan et al., 2011), agriculture (Pereira et al., 2018), food production and consumption (Fesenfeld et al., 2020), energy efficiency (Kern et al., 2017), urban planning (Davoudi and Sturzaker, 2017) and transport (Marshall and Banister, 2000, Banister, 2008, Givoni, 2014b, Santos et al., 2010). The ‘first generation’ of studies on policy packages focused mainly on the need for policy packages (as opposed to stand-alone

policies), and offered strategies and guidance for how to combine instruments (May and Roberts, 1995, May, 1991, Givoni and Banister, 2010, May and Crass, 2007, May et al., 2006, Hull, 2008). Within the transport sector policy packages were argued to be necessary to respond to congestion and pollution following increased car use (Marshall and Banister, 2000, Banister, 2008). Particular emphasis was placed on how instruments should be mixed in order to achieve policy packages that create synergies and reduce unintended consequences of the multiple use of instruments (Givoni et al., 2013, Justen et al., 2014a, Justen et al., 2014b). Some contributions have also developed generic tools for policy makers (Kelly et al., 2008) or developed a framework for policy packaging (Givoni et al., 2013, Howlett and Rayner, 2007).

The political feasibility of implementing policy packages has received less attention (Givoni, 2014b) even though Sørensen et al. (2014) emphasized the importance of taking the barriers to implementation into account when designing policy packages. In their qualitative assessment of the implementation of road pricing Sørensen and associates emphasize the importance of policy packaging as a barrier-management strategy. In a similar vein Hysing and Isaksson (2015) show the importance of policy packaging, but also warns that policy packaging may increase the complexity and obscure the aim. Hysing (2015) also warns that policy packages can make it difficult for citizens to know who to hold accountable, hide major differences between political parties and lay the ground for single-issue parties. Eriksson et al. (2008), on the other hand, illustrate how combining push and pull factors potentially improve support for a policy package. Moreover, in a recent study on support for policies against vehicle emissions, Wicki et al. (2019b) document how it is easier to achieve acceptance for policies that combine primary and ancillary policy instruments¹². Wicki et al. (2019a), as well as Fesenfeld et al. (2020), likewise show the importance of the specific policy design and context, while also documenting how public support does not necessarily depend on the type of instruments included.

¹² Primary instruments refer to the main instrument used for reaching a policy goal while ancillary instruments are meant to affect public support as well as mitigate possibly negative effects of the primary instrument. When implementing congestion pricing (primary instrument), for instance, improvements in public transport (ancillary instrument) can help overcome public resistance and reduce the negative effect of travel time for former car users.

3.3 Research gaps

Despite relatively extensive prior research on these topics several research gaps remain. The gaps addressed in this dissertation are as follows.

Research gap 1: Linking the literature on policy instruments to political support

Much has been done within the literature on policy instruments, particularly when it comes to developing typologies, understanding the nature of policy instruments, and understanding factors that explain variations in support for various instruments. A long-standing research topic has also been to assess the *effects* of various policy instruments, and this is especially the case within the field of transportation. We consequently have considerable knowledge regarding likely behavioral effects of various policies in terms of e.g. how congestion pricing reduces car use. But remarkably few have looked at the potential political implications of implementing various types of policy instruments when it comes to the potential relationship between policy instruments and political support¹³. This is an important field of study inasmuch as the choice and use of policy instruments are involved within all stages of a policy process and the fact that it can be challenging for citizens to evaluate political performance and policy outcomes (Dynes and Holbein, 2020). Policy instruments may also have distributional effects and hence inflict significant positive or negative consequences for different segments of society. Moreover, policy instruments may well affect citizens' evaluations of governmental performance, thereby influencing various dimensions of public support (Salamon, 2000). Hysing (2015), for instance, argues that introducing policy changes without sufficient public support can influence citizens' general trust in democratic processes, politicians or institutions which may in turn have political effects. There are numerous examples in this regard that illustrate the importance of policy instruments for public support, among them being the yellow vest movement in France that took the country by surprise when large protests began originally as a response to rising fuel prices (Jetten et al., 2020). Articles 1 and 2 in this dissertation are both relevant to this issue, investigating not only

¹³ A distinction is made here between behavioral effects and political effects when it comes to the literature on policy instruments. Behavioral effects refer to analyses of how policy instruments may alter behavior and (effectively) reach policy objectives. Within the field of transportation, much has been done of the effects of pricing strategies for reducing car use, the effects of improvements in public transport services, and how changes in land use may have an impact on travel behavior. Political effects, however, refer to how support for policy instruments may directly influence different dimensions of political support – whether specific actors, institutions or satisfaction with democracy more broadly.

acceptance of policy instruments, but also how attitudinal congruence between politicians and citizens when it comes to policy instruments may influence public support.

Research gap 2: Limited knowledge regarding citizens' and politicians' prioritization of policy instruments

Arguably policy instruments are inherently at the cutting edge of achieving policy goals, and not enough is understood about how they are constructed, or how they become publicly and politically acceptable. Much has been done when it comes to explaining variations in support for 'restrictive' instruments like congestion pricing. But considerably less research has been done with respect to explanatory factors and variations in support for policy instruments characterized as 'positive'¹⁴¹⁵. More knowledge is therefore needed for understanding variation in public support for different types of policy instruments and the conditions in which policy instruments are accepted. These aspects are crucial considering how addressing complex problems often require implementation of presumably effective instruments that may at the same time be strongly opposed among different segments of society. Increased fuel prices, restrictive parking policies and road tolls are examples of policy instruments typically receiving less support (Doherty et al., 2003, Kallbekken and Sælen, 2011). The governmental toolbox also includes a variety of different policy instruments ranging from land-use policies, improvements in public transport infrastructure, public transport frequencies, reducing public transport fares, and constructing bicycling lanes to alterations in road capacity. We have less knowledge regarding the public support of these policy instruments. The importance of citizens' prioritization is also important considering the effectiveness of combining different types of policy instruments for increasing acceptance.

Most previous studies, moreover, have focused on citizens' acceptance of policy instruments. Few have investigated how priorities of policy instruments within the field of transportation potentially varies between political parties, as well as between different municipal contexts. More studies are consequently needed to improve knowledge of how authorities can design policies that promote transitions towards reducing carbon emissions, as well as to increase understanding of whether and how effective policies can be formulated and implemented. In

¹⁴ Positive instruments here refer to policy instruments that encourage increased use of various transportation modes through the use of positive payoffs or through improved services (frequencies, infrastructure). Restrictive instruments, on the other hand, refer to policy instruments limiting the possibilities for using cars (e.g. congestion pricing, reducing parking spaces).

¹⁵ Manville and Levine (2018), Manville and Cummins (2015), Nixon and Agrawal (2019) and Palm and Handy (2018) have however studied acceptance for 'positive' instruments.

a related manner, one key area requiring more research is sectorial and national/geographical variations in mix dynamics (Capano and Howlett, 2020). Differences between contexts and political parties may in this regard be crucial factors not only influencing the political feasibility for reaching policy goals, but also for understanding the stability of policy networks and alternative governance arrangements. Such arrangements have blossomed because of an increasing need to combine and coordinate policies between levels of government (Peters, 2018)¹⁶. Is it more likely that the City-growth agreements will be ‘successful’ in Oslo compared to Trondheim and Bergen? This may shed some light on how adoption and implementation of instruments can be crucial barriers potentially ending in political stalemates in different settings. The results can also illustrate whether and how effective policies can be formulated and implemented. Are for instance certain policy instruments more popular in some cities, and if so, why and with what consequences?

Articles 2 and 3 make a contribution to this research gap by studying how politicians from different political parties in different municipalities tend to prioritize alternative policy instruments, and by studying variations in the priorities for various types of policy instruments among citizens.

Research gap 3: The level of congruence regarding preferences for policy instruments and whether congruence influences political support

Cities and local governments play a crucial role in democracies. More knowledge is needed about the extent local politicians are responsive to citizens viewpoints (Tausanovitch and Warshaw, 2014). A key research topic is therefore to study the level of congruence between politicians and citizens with respect to policy preferences. This is particularly important in instances where governments have formed governance arrangements that in principle require implementation of policies that are opposed by different segments of society. Few have studied how policy prioritization may vary between politicians and citizens in such cases. It is thus important to shed light on whether implementation of specific instruments may reduce congruence between politicians and citizens and whether a lack of congruence influences public support. Articles 2 and 3 make a contribution with respect to these issues.

Research gap 4: The role of transportation policies at the local level

¹⁶ At least two main features explain the need for coordination. The first is governmental responses to New Public Management reforms with its focus on horizontally specializing in the public apparatuses. The second is related to how individual organizations are not able to solve difficult policy challenges alone.

There are a number of national-level studies that have examined how for example economic developments and social policies may explain variations in satisfaction with governmental performance and satisfaction with democracy. At the local level, however, there is relatively little knowledge regarding what drives citizens' perception of satisfaction with local democracy. Transport is one of several issues that is understudied in this context. Land use, road tolls and transportation were together with schools, environment and amalgamation issues ranked as the most important issues in the local election in 2015 (Christiansen, 2018). Further studies of whether, and the possible extent to which, transportation policies influence political support, will therefore constitute important contributions.

Transportation is also a key issue for reaching national, regional and local policy goals with respect to environmental and climate challenges. An extensive amount of research has e.g. focused on strategies for promoting a shift to low-emission mobility. Changes in daily mobility are usually called for and it will be challenging to reach sustainable transportation systems without the use of restrictive policy instruments (Madslie et al., 2017). Particularly Articles 1 and 2 contribute to filling this research gap by directly analyzing whether satisfaction with transportation services influence satisfaction with democracy, as well as studying the significance of congruence between politicians and citizens when it comes to viewpoints regarding alternative transportation policy instruments. Article 3 is also relevant in analyzing the level of congruence when it comes to policy packaging.

4 Research strategy

All three articles in this dissertation utilize some form of statistical modelling to answer the research questions posed. The foremost argument for using a quantitative approach has been to account for the extent and degree of variation in how policy instruments are prioritized and accepted among politicians and citizens in different contexts. A quantitative approach has therefore been deemed necessary in order to make comparisons among various segments of citizens and politicians along the same metric¹⁷. A second aim has been to test whether the choice of policy instrument and the level of congruence (underlying factors X) may be interpreted as causing an effect on political support (variable Y)¹⁸. A central point has indeed been to study whether we can observe any effects. The project in short follows an “effects-of-causes” logic and approach where the research goal is to estimate average effects (Mahoney and Goertz, 2006).

Quantitative large-n studies have also been seen as necessary in order to control for other factors influencing political support identified in the literature, as well as to ensure that the research approach is in keeping with the vast majority of studies of satisfaction with democracy. Thus the dissertation follows the theoretical constructs and values used within this part of the extant literature (Douglas, 2014). By following such an approach, moreover, the results can be seen as relevant when it comes to the notion of evidence-based policy-making based on testing and developing knowledge that can be used to inform policy-makers (Munro, 2014). A qualitative approach could undoubtedly have yielded valuable insights into how policy instruments are understood and experienced among both citizens and politicians, and would potentially serve to identify new variables and hypotheses (Lynch, 2013). But a qualitative investigation would involve different types of research questions.

To the best of my knowledge there are few existing data sets that could have been used given my analytical purposes. No available datasets, as far as I am aware, contain information regarding various aspects related to citizens’ political support as well as their specific attitudes towards policy instruments (RQ 1). There are datasets that capture citizens’ political support nationally (for instance studies carried out in connection with local municipal council and national parliamentary elections – *Lokalvalgundersøkelsene* and

¹⁷ In doing so, also acknowledging the methodological challenges involved in among other things operationalizing key variables (Cartwright and Montuschi, 2014).

¹⁸ This is also referred to as “explanatory modelling”. See Shmueli (2010).

Stortingsvalgundersøkelsene respectively¹⁹), as well as citizens' perception of political support cross-nationally (e.g. European Social Survey). But these datasets do not contain attitudes towards relevant policy instruments within the field of transportation. When it comes to data analyzing the viewpoints of politicians, few (if any) datasets are publicly available. To assess the congruence of politicians and citizens when it comes to prioritization of policy instruments (RQ 2), comparable questions regarding explanatory variables are required.

It was thus necessary to develop and carry out two different surveys – one for citizens and one for politicians, both of which investigate how citizens and politicians respectively prioritize and assess combinations of different types of policy instruments. The surveys developed contained in two main parts. The first part included general political questions intended to tap attitudes along with questions regarding satisfaction with various municipal services. The second part asked questions regarding specific transportation measures. In this manner the questionnaires aimed at minimizing any possible effects of priming.

For the survey of citizens, residents in Oslo, Bergen and Trondheim were recruited to take part through a representative web panel during March 2017. A total of 6443 individuals aged 18 years or older were invited to participate, and of these 48 % completed the entire survey. The net sample was later weighted for age, gender and geography.

Table 3 compares the support for various political parties in the citizen survey with polling data to study representativeness. The table illustrates that overall the survey appears to be fairly representative in terms of support for political parties in all three cities. There are, however, some differences between the polling data and the survey in some instances. The Red Party is overrepresented in the survey data in Oslo and Bergen while the Socialist Left Party is overrepresented in Oslo and Trondheim. At the same time the Progress Party is underrepresented in the same two cities (Oslo and Trondheim), while the Conservative Party is underrepresented in Oslo.

¹⁹ See Saglie and Christensen (2017) and Bergh and Aardal (2019) for documentation and findings from these surveys.

Table 3. Support for political parties in the survey (weighted) and available polling data from the relevant time period.²⁰.

	Labor Party	Conser- vative Party	Progress Party	Socialist Left Party	Center Party	Christian People's Party	Liberal Party	Green Party	Red Party
Oslo (survey N=1060)	25.6	29.0	6.4	8.8	2.5	1.7	6.7	7.8	10.5
Oslo (poll March 2017 N=800)	26.6 (3.1)	34.4 (3.3)	8.6 (1.9)	5.7 (1.6)	1.9 (0.9)	2.7 (1.1)	5.0 (1.5)	7.6 (1.8)	6.5 (1.7)
Bergen (survey N=1108)	31.3	27.6	7.7	8.7	4.2	3.3	4.5	5.4	5.4
Bergen (poll March 2017 N=602)	36.2 (3.8)	23.2 (3.4)	7.8 (2.1)	9.1 (2.3)	4.2 (1.6)	5.8 (1.9)	6.1 (1.9)	5.7 (1.8)	1.9 (1.1)
Trondheim (survey N=866)	32.5	24.5	4.5	13.8	4.6	2.8	6.0	5.6	3.5
Trondheim (poll May 2017 N=600)	39.5 (3.9)	22.1 (3.3)	7.7 (2.1)	7.2 (2.1)	5.4 (1.8)	2.6 (1.3)	4.7 (1.7)	4.9 (1.7)	4.6 (1.7)

Such differences may represent a particular challenge when it comes to the validity of the findings related to whether policy instruments influence political support. More specifically since voters supporting parties to the left (Red and Socialist Left Party) tend to be more satisfied with local democracy and view road tolls more favorably when compared to the average. Individuals supporting the Progress Party and the Conservatives, on the other hand, are less likely to be satisfied with local democracy and more negative towards tolls. Such differences can represent a problem when interpreting the findings since estimated coefficients may have greater uncertainties. In order to assess this the analyses control for

²⁰ Polling data were extracted from www.pollofpolls.no.

political support in the regressions and test the robustness of the findings by analyzing different types of regression models. It is, however, impossible to totally rule out the possibility that sample biases reduce validity.

For the survey of politicians' city council representatives from the same cities were directly contacted to complete a survey with similar questions during March 2018. The response rate for politicians was on average 30 percent²¹. In general, the survey data includes representatives from all parties represented in each city council. An approximately equal share of respondents from the Conservative Party and the Labor Party completed the survey. These two parties constitute the two main blocks in Norwegian politics²². The smaller parties, however, are somewhat overrepresented in the survey data sets compared to their representation in the city councils. In its own right this is not critical. When analyzing data from politicians, the main aim is to analyze the dyadic relationship between politicians representing a political party and the citizens supporting them. The crucial aspect is thus to assess whether politicians who answered the survey are representative for politicians representing the same party. An investigation of the variance in prioritization of policy instruments among politicians within given parties suggests that representativeness does not constitute a significant problem.

4.1 Case selection and external validity

As already noted, the empirical context for this dissertation is the City-growth agreements between the Ministry of Transport, Ministry of Local Affairs, selected counties and the three largest municipalities – Oslo, Bergen and Trondheim. When the PhD project was begun these were the only three cities that had formally negotiated and signed agreements with the central government. They therefore constituted the “full empirical universe” of cities taking part in City-growth agreements at the time the research work was commenced²³.

How universal are the findings stemming from this dissertation? And would we observe the same tendencies in other cities or countries if similar schemes involving inter alia

²¹ The response rate in Oslo was 30 percent, the response rate in Bergen was 28 % and in Trondheim the response rate was 39 percent.

²² Even though the political constellation at different levels of government varies, the governing coalition usually consists of either Labour or the Conservative party in combination with other smaller parties.

²³ In 2019, the Nord-Jæren area (Stavanger, Sandnes, Sola and Randaberg) also signed a City-growth agreement. Five other urban areas were also potentially qualified to sign a City-growth agreement at this time, but none did so. These urban regions were Kristiansand, Buskerudbyen, Nedre Glomma, Tromsø and Grenland.

implementation of restrictive policy instruments were introduced?²⁴ When assessing questions of external validity, it is essential to consider what kind of cases the three City-growth agreements represent. First, these agreements can be regarded as typical examples of collaborative governance arrangements (George and Bennett, 2005). They involve collaboration between actors from different levels of government in order to realize public goods they are not able to achieve unilaterally. The City-growth agreements also target environmental and infrastructural policy domains. These two policy domains feature strongly within collaborative arrangements that have been studied in other countries (Douglas et al., 2020). Second, the City-growth agreements are relevant in settings addressing policy challenges pertaining to congestion, pollution and GHG-emissions. Addressing such issues will often require both collaboration among different political levels, as well as implementation of restrictive policy instruments. This is especially relevant since several European cities are formulating ambitious climate mitigation goals (Hofstad et al., 2021). From such a perspective, the findings in this dissertation may be particularly relevant within such policy areas.

Generalization, however, always entails risks since other cases may differ in several significant respects. For one thing the City-growth agreements investigated and reported upon here are embedded in a Norwegian context. This research therefore highlights the importance of how the agreements include political actors at different levels of government. Political actors can have other logics compared to civic actors which may in turn have consequences for an agreement's stability. Hustedt and Danken (2017) have for instance shown that party competition becomes more important when the actors are dominated by a political logic. This is particularly important when taking into account how the success of these agreements typically rest on implementation of instruments that entail high political costs. Hence support for policy different policy instruments is likely to illuminate the importance how contextual variations may contribute to distinct differences when it comes to the relative priority political parties place on specific instruments. In a similar vein whether the political system entails a multi-party or two-party system may likewise be of importance.

²⁴ It is worth noting that the City-growth agreements are highlighted by OECD as one of ten recommended policies for mitigating climate change <https://www.oecd.org/climate-action/ipac/practices/norway-s-zero-growth-goal-for-major-urban-areas-3cc592d3/>

It might also be questioned as to whether Norway constitutes a “least likely” case in terms of the relationship between political support and transportation policies (Eckstein, 2000). As indicated in the literature section, both politicians and the political system enjoy high levels of public support. When a majority of citizens believe politicians to be competent and honest, they are, arguably, less likely to express democratic discontent as a result of changes in the use of policy instruments. In addition Norway has had lengthy experience with road tolls. Citizens are thus familiar with these kinds of policy instruments. This is relevant when considering how public support is argued to increase with familiarity (Eliasson, 2014, Börjesson et al., 2016). Citizen opposition to restrictive transportation policy instruments may be significantly higher in cities where there is less experience with e.g. road tolls in which case the effects on political support can be significantly higher. This may in particular be true in contexts which also have general lower levels of public support²⁵. If the adoption of policy instruments influences public support in a Norwegian setting, in other words, we are likely to experience the same tendencies in contexts with lower levels of public support and less experience with road tolls.

4.2 Data limitations

4.2.1 Longitudinal versus cross-sectional data

The first article uses cross-sectional data for analyzing the relationship between acceptance of specific transportation policy instruments and satisfaction with local democracy. The findings suggest a correlation between opposition to the use of these instruments and a reduced level of satisfaction with democracy in all three cities. At the outset, however, the research strategy originally planned to exploit differences between the three cities when it came to changes in the use of (restrictive) transportation policy instruments. In 2016, Oslo had decided to increase the level of tolls for fuel vehicles by March 2017. No changes in the use of restrictive instruments were planned for Bergen and Trondheim. This situation provided an excellent opportunity for a difference-in-differences (DID) research design by gathering longitudinal data in all three cities both before and after an increase in road tolls in Oslo. DID attempts to represent experimental research design through studying the observed effects within a ‘treatment group’ and a ‘control group over time (Angrist and Pischke, 2008). Such a research approach makes it possible to move from correlation to causation by calculating

²⁵ Simultaneously, this may also mean that the effect sizes are particularly relevant for cities with familiarity and experience with restrictive transportation policy instruments. The time and experience dimensions may as such be highly relevant for the applicability to a wider set of cases.

and comparing the average level of, for example, satisfaction with local democracy at two points in time during which the level of road tolls is changed. Any difference in the change in satisfaction found in the two groups is inferred to be a causal effect²⁶.

As time progressed in 2016, however, it became evident that Oslo would not increase the level of road tolls by March 2017 (Statens vegvesen, 2016). Instead, the proposed policy change was postponed indefinitely. This change made it impossible to pursue a research strategy involving longitudinal data within the time limits of this dissertation. Pursuing a difference-in-difference research approach was in any event less relevant in articles 2 and 3, because these articles focus on attitudinal congruence between two sets of actors at a single point in time instead of estimation of a treatment effect observed over time. A special challenge is nonetheless confronted in articles 2 and 3 when seeking to register both politicians' and citizens' viewpoints at roughly the same time since it is well-known that recruiting politicians to participate in such surveys is quite difficult.

4.2.2 Method bias

As a consequence of the developments in Oslo data collection was confined to one point in time and consequently all three articles employ only cross-section survey data. One potential threat to validity in such circumstance is method bias. Method bias can be defined in different ways. According to Doty and Glick (1998:374) method bias “*occurs when the measurement techniques introduce systematic variance into the measure*”, and in the words of Podsakoff et al. (2003: 879) this is “*variance that is attributable to the measurement method rather than to the constructs the measurement represents*”. Systematic error variance can thus be a serious problem. Potentially it may threaten the validity of conclusions regarding the relationship between variables because of influences on the significance, magnitude and/or direction of coefficients. It is possible to distinguish between four different sources of common method bias: (i) common source bias, (ii) item characteristics, (iii) item context and (iv) measurement context (Jakobsen and Jensen 2003:5).

A range of potential sources for method bias exist. The most relevant sources for this dissertation are social desirability, a consistency motif and leniency bias (Podsakoff

²⁶ A difference-in-difference approach does of course not eliminate such biases as reverse causality and omitted variables. A difference-in-difference approach, moreover, also assumes that the treatment (Oslo) and the control groups (Bergen and Trondheim) follow parallel paths. Any observed and unobserved differences must thus be constant between the two data collection phases (Keele and Minozzi, 2013). Increasing the time between the two data collection phases clearly increases the probability of violating the assumption of parallel paths. A DID approach in the present case would have still suffered from weaknesses related to having relatively few cases in both the treatment and control groups.

2003:882)²⁷. These issues are particularly germane in this instance because the questionnaires covered topics that are highly political, and asked questions regarding actual (environmental) behavior. Careful considerations of these sources of method bias were important when designing the questionnaires. In order to reduce the likelihood of consistency motif, the questionnaires were constructed with separate substantive sections (Fink, 2003). When relevant, the respondents were also informed about the possibility for answering individual questions by indicating either that they did not know or that they did not have any opinion. As is commonly recognized (cf. Schuman and Presser, 1996:113-143) such an approach is crucial in order to avoid forcing respondents into ‘taking a side’ thereby, influencing the variance in later analysis. Great emphasis was also placed on making the questions easy to understand, as well as on using questions that have proven to be successful in similar questionnaires concerning the same subject. The questionnaires, moreover, were rather short (an average of 10 minutes) which reduces the potential for any ‘exhaustion effects’ (Lavrakas, 2008). Finally, the questionnaires employed random ordering of questions within each section, and questions were formulated using different attitudinal directions in the wording.

Despite these measures, article 1 employs dependent and independent variables from the same source. Common method bias could therefore be a potential issue, although it is impossible to assess the extent to which such an issue may influence the coefficients in the study. Research has also shown that relatively high levels of common method variance is needed and does not necessarily pose a grave threat to the validity of the conclusions (Fuller et al., 2016). Siemsen and associates (2010:456), moreover, have documented how common method biases ‘generally decrease when additional independent variables suffering from common method variances are included in a regression equation’ Furthermore the potential risk of common method bias in articles 2 and 3 is much less since indicators regarding the level of congruence are based on different data sources.

²⁷ According to Podsakoff (2003:882) *social desirability* refers to how respondents may respond to questions more as a function of social acceptability rather than their true feelings. *Consistency motif*, on the other hand, refers to the propensity for respondents to maintain consistency in their responses to questions, while *leniency bias* refers to the propensity for respondents to attribute socially desirable attitudes to someone they know and like rather than to someone they dislike.

4.2.3 Omitted variable bias

In all three articles various forms of regressions are used. Omitted variable bias is a type of selection bias that may occur if the models do not include the ‘right’ controls²⁸. Confounding (or missing) variables which may introduce estimation error bias are a serious threat to valid inferences. Concentrated efforts were therefore made to include the most important explanatory factors identified in the literature in all three articles. Still, totally ruling out the possibility of omitted variable bias is not possible. It requires assumptions about ‘no-unobserved confounding’ or ‘ignorability’ that are not possible to verify through the data. It is therefore necessary to expand the controls and to conduct sensitivity and/or robustness tests (Cinelli and Hazlett, 2020). Sensitivity analyses allows the researcher to examine how fragile the results are to an unobserved confounder. Or, in the words from Cinelli and Hazlett (2020:55), How strong would a confounder have to be to change the conclusions? And are the confounders that would alter our conclusions plausible? The appendices therefore report sensitivity checks.

4.3 Ethical research issues

The Guidelines for Research Ethics in the Social Sciences, Law and the Humanities identifies a total of 47 different standards within six topics (Sciences and Humanities, 2010). Some of these topics are already discussed in relation to other parts of this thesis. Hence this section focuses on two areas within the topic of research communication that have been particularly relevant in this dissertation, along with one area concerning how the dissertation ensures compliance with the rules and regulations proscribed by the Personal Data Regulations and administrated by the Norwegian Social Science Data Service (NSD).

First, according to guideline 41, researchers shall communicate scientific knowledge to the larger public and participate in the public debate with scientific argumentations. This is in line with the Mertonian norm of *communalism* (Merton, 1979) . Formal requirements within a PhD project are first and foremost related to academic quality. Publishing results in (prestigious) academic peer-reviewed journals are highly emphasized. Significantly less emphasis is placed on disseminating the results to the wider public. Ideally, intellectual property should be available to all since scientific findings are common property. Much research, including this PhD dissertation, moreover, is publicly funded which highlights the importance of sharing and communicating research. As part of this thesis two popular science

²⁸ The models should include all variables that can influence the dependent variable.

articles have therefore been published in a trade journal “*Samferdsel*” (Christiansen 2020a, 2020b) *Samferdsel* is an online journal aiming at communicating research results from the transportation sector. The main target groups are researchers, employees in public administration, consultants, and politicians. Main findings from the project have also been published as part of a larger research report (Nordbakke et al. 2021). The second journal article has in addition been published as (golden) open access. Taken together, I have striven to assure that my publicly funded research is accessible for a broader audience both inside and outside the research community. These efforts have contributed to this dissertation’s compliance with the norm of communalism (Ziman, 2002:33).

Second, when participating in public debates, researchers may experience how some journalists wish to frame and push an argument. It is thus of utmost importance to avoid propositions that may go too far and to prevent research findings from being presented in a distorted manner. According to MESH guideline number 44, researchers shall therefore participate in an unbiased manner and be clear in the communication to avoid any tendentious interpretations. Research results could otherwise be misused in political, social and /or economic contexts (Sciences and Humanities, 2010). On at least two occasions, journalists have made enquiries regarding findings from the project. In such circumstances it has been pivotal to be factual and provide extensive explanations regarding uncertainties and weaknesses concerning the research findings. This has been especially pertinent since some of the articles analyze various aspects related to road tolls. Restrictive instruments such as road tolls have been a highly salient and controversial policy instrument in Norway in recent years. During the last local election, for instance, road tolls was one of the primary issues during the campaign and received considerable focus in the media. It is thus possible that any public statements regarding the findings could have been misused politically.

Third, NSD was notified of the project in December 2016. Specific consideration was given to the researcher’s duty to inform respondents about the purpose of the study and to ensure that respondents consented to participate. NSD received and approved both the questionnaire invitation, as well as the specific question used in the study prior to launching the survey.

5 Presentation of the articles

5.1 A summary overview

This section presents the main substantive findings and contributions of this dissertation. Table 4 found below offers an overview of each article summarized according to (1) the title, (2) the research gaps addressed, (3) the objectives of the article, (4) the primary claim of relevance, (5) the theoretical foundations, (6) the methodology employed, (7) the key contribution made, and (8) the implications for further work. In the following sections the most salient aspects of each article are highlighted after which the principal (findings and) implications are briefly discussed.

5.1.1 Article 1: Public support of transport policy instruments, perceived transport quality and satisfaction with democracy. What is the relationship?

Although a significant amount of research has been conducted on identifying and studying how political support varies, few have empirically examined the possible relationship between acceptance of policy instruments and political support. Knowledge concerning the explanations of individuals' satisfaction with democracy remains limited (Wagner et al., 2009). This article aims at contributing to this arguably important lacuna by studying the theoretical claim that policy instruments may be a key factor explaining variations in political support.

Explanatory factors for variations in support usually fall within two main categories. The first is related to the input dimension which in general focuses on citizens' evaluation of democratic processes. The second is the output dimension. This is a broad category related to various dimensions of political performance. Although few have empirically investigated the relationship between the use of specific policy instruments and political support, from a theoretical point of view implementation of policy instruments may influence both of these dimensions. This is partly due to the importance and saliency of transportation policy instruments on the political arena. The first article therefore examines the relationship between the use of policy instruments and its possible effect on satisfaction with democracy, support for politicians, as well as satisfaction with political performance by asking the following research question:

If and how can the use of specific policy instruments in the transportation sector have an impact on citizen political support?

Table 4. Overview of the articles

	Article 1	Article 2	Article 3
Title	Public support of transport policy instruments, perceived transport quality and satisfaction with democracy. What is the relationship?	The effects of transportation priority congruence for political legitimacy	Policy packing among citizens and politicians. How do citizens and politicians prioritize among different types of policy instruments?
Research gap	Linking the literature on policy instruments to political support Few have analyzed the role of transportation policies at the local level	Linking the literature on policy instruments to political support Few have analyzed the role of transportation policies at the local level Illustrating whether transportation policies in general align with citizens wishes	Comparing citizens' and politicians' prioritization of policy instruments in policy packages Few have analyzed the role of transportation policies at the local level
Objective	Analyze the relationship between acceptance of restrictive instruments and satisfaction with local democracy	Explore the level of congruence between citizens and politicians regarding the priority of policy instruments Analyze whether there is a relationship between congruence and political legitimacy	Explore how prioritization of policy instruments depend on self-interest and political ideology Explore the extent to which citizens' and politicians' are congruent when it comes to prioritization of combinations of transportation policy instruments
Key claim	Implementation of restrictive policy instruments may influence the overall sense of political support that government enjoys in the eyes of its citizens	Lack of congruence between politicians and citizens concerning the priority of policy instruments reduces political support	Policies required for reaching national and local goals are highly unpopular among important subgroups of both citizens and politicians. Politicians and citizens are only to a limited extent congruent when it comes to opinions about the composition of policy packages
Theory	Political support, policy instruments	Political support, policy instruments, congruence	Policy instruments, policy packaging
Methodology	Descriptive statistics, OLS-regression, mediation analysis	Descriptive statistics, OLS-regression	Descriptive statistics, multivariate logistic regression, multinomial regression, principal component analysis
Key contribution	Few articles have empirically analyzed if and how implementation of unpopular instruments have any impact on political support	Provides knowledge regarding how political orientation affects individuals' policy-instrument priorities	Provides a broader understanding of the importance of congruence in policy priorities in making policy packing decisions, and how this

		Shows how policy priority congruence influences the political support governments may enjoy	impacts upon support among different subgroups of the population. Offers a deeper understanding about which subgroups are (less) represented by political parties
Implications	Demonstrates an empirical link between opinions on (transportation) policy instruments and political support	Demonstrates an empirical link between opinions on (transportation) policy instruments and political support Contributes to the literature on the potential stability and success of collaborative governance regimes Contributes to the literature on increasing acceptance of public transportation policy	Contributes to the literature on the (potential) stability and success of collaborative governance regimes Contributes to the literature on increasing acceptance of public transportation policy

Specifically, the article analyses the relationship between acceptance of local road tolls and satisfaction with local democracy. Road tolls are arguably a highly important topic in transport and urban politics. That is particularly true since such instruments may be increasingly important as governments struggle to reach environmental goals. The article therefore aims at shedding light on the extent to which how citizens are satisfied with governmental performance by including citizens' viewpoints on the use of restrictive instruments.

Through a series of regressions as well as mediation analyses, the article documents the potential political implications of restrictive and often unpopular policy instruments. In particular the findings show how road tolls may contribute to making citizens feel less satisfied with local democracy. Citizens may likewise be less satisfied with politicians' responsiveness, competence and integrity when views on road tolls are taken into account. Citizens opposing the use of such instruments are also more likely to be less satisfied with the way in which local authorities have handled local challenges. The average effects are significant, but the effects are small.

By virtue of these findings the article makes an empirical contribution to the literature on political support and policy instruments by showing how policy instruments may influence political support (research gap 1). The article also makes a contribution to the transportation literature (research gap 4). Criticizing much state-of-the-art transportation research, Marsden and Reardon (2017) argue that important questions related to e.g. the policy context and legitimacy have been largely ignored. Much of the research is therefore not likely to be utilized due to the 'distance between the research and the realities on the ground'. A key focus in this article has been to assess legitimacy in terms of political support.

These results illustrate the importance of taking into account how citizens may react to the introduction of restrictive policy measures. In the aftermath of this article, large protests broke out in several of the largest cities in Norway as a result of an increased level of road tolls. New political parties opposed to the use of more road tolls were also established, further illustrating the potential political implications of adopting specific policy measures.

5.1.2 Article 2. The effects of transportation priority congruence for political support

Implementation of unpopular policy instruments may in fact be necessary to solve or amend many of the policy challenges facing governments. But questions related to the degree to which citizens and politicians agree on required (transportation) policy instruments, as well as whether lack of congruence between politicians' and citizens' may influence political support, are areas that have remained unanswered in the research literature (research gap 1 and 2). While there is a significant amount of literature that studies congruence between politicians and citizens, there is little research on how and to what extent transportation policies align with the preferences of different groups of citizens (research gap 3 and 4). Marsden and Reardon (2017), for instance, find that the majority of articles on transportation policies do not 'engage with real-world policy examples or policy makers'. A key goal of democracy is presumably to provide policies that citizens want. As such a lack of congruence between citizens and politicians with respect to the choice of policy instruments may contribute to a lack of support for the political system. This article consequently asks the following research questions:

To what degree do transportation policies reflect the wishes of the public? And is a possible lack of transportation policy congruence between the views of voters and elected representatives linked to political legitimacy?

To answer these questions the article combines two datasets: one dataset for citizens and one for politicians. These datasets are used to identify the priorities of citizens and politicians with respect to different types of policy instruments and to assess the congruence between the views of these two groups²⁹. Two types of empirical findings are presented. First, a descriptive overview of the priority placed on policy instruments for public transport and for instruments restraining car use is provided. The article differentiates the priority of instruments by comparing those who support or represent a party in power with those supporting or representing the main political alternative. In the second part OLS regressions are used to analyze how political support is influenced by congruence³⁰. This second article therefore expands the perspective used in the previous article by also studying how politicians prioritize different policy instruments that are central to the City-growth

²⁹ The study therefore analyses the extent citizens and politicians tend to agree with each other concerning policies for reaching zero-growth in personal car traffic.

³⁰ Indexes are constructed based on measuring the average absolute difference in transport priorities for politicians and citizens respectively.

agreements. Investigating and comparing how different groups of citizens and politicians prioritize policy instruments is argued to be important not only for studying political support, but also for understanding the stability of the City-growth agreements

Findings presented in this article indicate that policy instruments are a key issue inasmuch as priority congruence is associated with the legitimacy governments enjoy. Lack of congruence tends to have the greatest effect on general evaluations of politicians' responsiveness, competence and integrity along with regime principles. The results also show how prioritization of (presumable effective) policy instruments depend on both context and political ideology. Conservative politicians, for instance, tend to place lower priority on the use of restrictive measures than do politicians representing parties more to the center and left of the political spectrum. Insofar as the choice of policy instruments may be critical in tackling issues where governments are struggling to deliver the goods, these findings are highly significant, especially in scenarios where conservative politicians are required to implement restrictive policy instruments in efforts to reach a zero-growth goal.

The article can also shed some light on the stability and effectiveness of collaborative governance arrangements. This is particularly so when taking into account how collaboration processes have typically have been regarded as a depoliticized process (Torfing et al., 2012). Within the City-growth agreements, policy instruments are expected to be of crucial importance. That expectation is reinforced by the seemingly widely held view that reaching a zero-growth goal hinges on policies restraining the use of private cars. Hence, the article illustrates how the stability and potential for collaborations may partly be dependent on which political parties are incumbents at different levels of government.

5.1.3 Article 3. Policy packaging among citizens and politicians. How do citizens and politicians prioritize between different types of transportation policy instruments?

Combining several instruments into policy packages has been regarded as a useful strategy for securing sufficient public and political support for policies that otherwise may face substantial opposition. Few, however, have empirically analyzed how different groups of citizens and politicians tend to assess and prioritize different combinations of policy instruments. Consequently we have unsatisfactory knowledge regarding how support varies both between different types of policy instruments and between subgroups within the population. This is important considering how the policies required for reaching zero-growth may quite likely have considerable distributional effects, inflicting costs for some groups

while benefiting others. It is therefore remarkable that few have studied issues relating to the political feasibility of policy packages. This is particularly the case when it comes to investigating differences in support for various types of policy instruments among politicians (research gap 3 and 4). The feasibility of alternative policy packages is likely to be a pivotal issue when it comes to the operation of collaborative governance arrangements considering how policymakers can have substantial differences in their priorities among specific policy instruments. The article addresses these research gaps by asking the following research questions:

To what extent do interests and political orientation explain variation in support for different types of policy packages?

Are politicians and the public congruent when it comes to policy packages for reaching zero-growth in personal car traffic?

Using the same datasets as article 2, the article analyzes differences in policy instrument combinations among various subgroups of citizens and politicians by means of principal component and regression analyses. Principal component analysis makes it possible to reduce the number of dimensions when it comes to different combinations of policy instruments. Regression analysis then makes it possible to study variations in different types of policy packages among subgroups of politicians and citizens. The article thereby studies the degree to which the comparative priorities in various policy packages reflect differences in the political orientation of political parties, and how different groups of citizens tend to combine different policy instruments. The third article is, like the two previous articles, theoretically centered around policy instruments, but expands the perspective through employing literature on policy packages.

The article shows how despite some noteworthy differences between subgroups the most favored combinations of policy instruments among citizens are those policy packages which do not impose direct costs. The role of political orientation and self-interest are high and pervasive. Politicians, on the other hand, display greater systematic variable. Conservative politicians have views in line with individuals supporting the Conservative party, but also with the 'average' citizen. Labour politicians, however, have views that are less congruent with citizens, to a substantially larger degree support policy packages that are estimated to be effective in reaching ambitions environmental goals as e.g. zero-growth in personal car traffic.

These results are relevant when evaluating how policy packages could be designed in order to increase acceptance. The findings illustrate the importance of carefully considering which instruments to include in a policy package. Some types of policy instruments are clearly more popular than others. The article also contributes to a larger discussion regarding the possible effectiveness of collaborative governance arrangements. Differences in policy packaging among politicians may prove to be an endemic challenge for establishing collaborative agreements. This is especially the case when taking into account how the City-growth agreements may require the use of restrictive policy instruments where the major political parties have fundamentally different priorities.

5.2 Findings and implications

The role of policy instruments may be both directly and indirectly linked to political support. It is thus pivotal to study such relationships. Governments struggle to tackle complex policy challenges often requiring implementation of policy instruments to which different segments of the population may be opposed. It is in particular a relevant field of study considering the mushrooming of various forms of governance arrangements among political actors. The stability and effectiveness of collaborative governance may hinge on differences in the priority of policy instruments chosen. This section summarizes the more general contributions from the three articles.

5.2.1 Linking literature on policy instruments to political support

At the time this dissertation was undertaken, the City-growth agreements in Norway were in their initial phases. A key question at the outset was how required policy changes would be met by citizens. That question seemed particularly important given that the agreements required policies typically receiving low public support. Theoretically it is not given whether such policies influence various dimensions of political support nor how various groups of citizens would react (Finifter, 1970). Empirically this was a relevant field of study when taking into account how restrictive instruments are pivotal for addressing key policy issues concerning e.g. environment and climate. The findings in this dissertation in fact suggest an empirical correlation. Citizens opposing key policy instruments are less satisfied with local democracy and have less confidence in politicians.

These findings are important in light of recent reactions to such policies in Norway. Local protests and a substantial increase in the support for protest parties have been prominent responses to increased levels of road tolls (Westskog et al., 2020, Tønnesen et al., 2019). A new political party, “The people’s movement against more tolls”, emerged as a reaction to the

extensive use of tolls, and gained considerable support in several cities in the subsequent local elections of 2019.

Findings in this dissertation indicate that policymakers may be wise to take such factors into account when designing and adopting transportation policies. Taking citizens perspectives into account can be an important strategy in this regard. Research suggests that informed dialogue between politicians and citizens can promote policy innovation (Sørensen and Torfing, 2019), thereby also potentially increasing knowledge and acceptance among citizens (Michels, 2011). Tension between policy effectiveness and political support nevertheless (still) exists. This tension remains despite efforts to mitigate such effects in the City-growth agreements.

5.2.2 The role of policy instrument congruence and political support

Empirical analyses also suggest that congruence between citizens and politicians in their viewpoints and priorities is a factor influencing political support. That result illustrates the importance of studying congruence when it comes to policy instruments. It is in particular among citizens placing themselves on the right side of the political spectrum, as well as car users, that a sense of policy responsiveness in terms of the requirements set in the City-growth agreements was lowest. The main dimension influencing political support is whether citizens are significantly less congruent in their views with the political majority³¹. This is, arguably, not surprising considering how the many parties in the Norwegian political system offer different political alternatives both supporting and opposing the use of key transportation policy instruments. A key question, however, is how congruence influences political support in instances where for example conservative politicians implement restrictive policies such as congestion pricing and restrictive parking policies. These policy instruments tend to be directly opposed by politicians representing such parties as well as citizens supporting them. Such a scenario is not unlikely in cities having entered a City-growth agreement. In principle actors involved in such agreements are required to implement policies for reaching zero-growth in personal car traffic regardless of changes in the political constellations after elections. Yet the political implications of conservatives' politicians implementing restrictive parking or increasing the level of tolls may be significant inasmuch as these policies are opposed among conservative voters. The required policies for reaching zero-growth in personal car traffic are as such likely to reduce the level of congruence to the

³¹ This is referred to as *collective congruence* meaning the extent politicians represents the ideology or policy preferences for all citizens.

nearest political alternative in cases where the Conservative Party is part of a majority political constellation.

5.2.3 The importance of transportation policies for evaluating political performance

At the national level there has been considerable research on factors affecting citizens' evaluations of political performance (output and outcomes). Economic performance, public service quality and social protection have all been documented to be key factors explaining citizens' evaluation of governmental output and political support (Kriekhaus et al., 2014, Haugsgjerd and Kumlin, 2020). We have considerably less knowledge regarding dimensions explaining citizens evaluation of political performance at the local level. This is important since satisfaction with local democracy may also influence not only satisfaction with democracy at the national level (Vetter, 2007), but also because local authorities in Scandinavia enjoy considerable local autonomy. The findings in this dissertation highlight the importance of transportation policies both when it comes to the use of transportation policy instruments, but also when it comes to satisfaction with various aspects of transportation services. From such a perspective, the choice and character of policy instruments within the field of transport are likely to constitute a key feature in shaping citizens' evaluation of local political performance. Transportation, to be sure, is only one of several policy areas, and the importance of transportation may be related to its high saliency following political discussions for reaching the target set in City-growth agreements. The relative importance of transportation may therefore be expected to vary depending on which political topics that are most discussed politically. Transportation policy is nonetheless a matter which has broad ranging consequences for the general public and hence represents an important touch stone for how citizens evaluate political performance.

5.2.4 Citizens' prioritization of different types of policy instruments

When looking at the literature on public support, research has mainly focused on explaining variations in support among different subgroups of the population. Research on political support for a wide set of policy instruments are less common. For authorities, it can be critical to have an overview of citizens' perceptions. A well-founded understanding of general acceptance of policy instruments can be crucial when it comes to designing, prioritizing and combining policy instruments, as well as framing the implementation of a set of policy instruments. The findings suggest that there are only small variations in support among different subgroups within the population for some of the 'positive' instruments, but

significantly more differences are observed when it comes to prioritization of ‘restrictive’ instruments. The results also illustrate that there is a clear difference along the left-right scale, but also related to self-interest³². These findings may have political implications when it comes to both policy design and framing. Although political actors may be required to pursue certain policies, they have flexibility in the stringency and priority of policy instruments³³. Prioritizing reducing public transport fares, for instance, may be a prudent strategy increasing acceptance for policy packages consisting of restrictive policy instruments³⁴. The results therefore illustrate possible strategies for increasing acceptance by showing which policies receive most support among different subgroups, as well as which instruments receive least support. Such a result is highly relevant in the context of City-growth agreements since it identifies the main ‘winners’ and ‘losers’ for the required policy instruments.

5.2.5 Insights into differences between politicians in the priority of different types of policy instruments

Even though choosing between different policy instruments is a fundamental part of governing, more knowledge is needed on how politicians prioritize between various types of policy instruments. The vast majority of studies have focused on citizens’ perspectives. Improved understanding of politicians’ priorities is especially relevant in cases involving collaborative governance agreements among political actors. Governments often need to combine and coordinate policy instruments since, by definition, there are no silver bullet solutions to challenging, intractable or wicked problems. The findings clearly illustrate the importance of political parties when it comes to priority of policy instruments and consequently also underline how the stability and effectiveness of such arrangements may be highly dependent on which political parties have the majority.

³² Self-interest is measured through analyzing the main transportation mode used by individual respondents. Car users are for instance presumably more affected by road tolls and parking policies compared to individuals who do use cars.

³³ Stringency refers to how strong actors pursue a certain policy instrument. Public transport fares can for instance be reduced by a small or a large amount. The same applies to other instruments as road tolls and parking policies.

³⁴ Such an argument does not, however, evaluate the effectiveness in terms of reduced car use.

6 Suggestions for future research

6.1 Policy instruments and collaborative governance

A crucial research gap, both theoretically and empirically, is whether choice of policy instruments affects the success or failure of collaborative governance agreements. Extant studies on networks and collaborative governance have typically overlooked such aspects. This may partly be related to how policy instruments repeatedly have been regarded as a seemingly rational and technical exercise. Implementation of policy instruments have thereby also, in certain parts of the literature, been portrayed as a rather straightforward process. Such perspectives are, however, oversimplifying the nature of instrument choice. Even though all the theoretical conditions for collaborations are met, actors may still disagree about the use and priority of policy instruments required since the choice of policy instruments is not politically neutral (Peters, 2002). The findings from this dissertation illustrate how there are substantial differences between politicians representing different political parties when it comes to priority of policy instruments regarded as crucial for reaching the City-growth agreements.

This consideration is particularly relevant insofar as collaborations often include multiple political actors. Political actors can agree on a set of goals, but – as documented in this dissertation – they may simultaneously have fundamental disagreements regarding the strategies for reaching these objectives. Moreover, even though a collaborative governance arrangement may be advantageous, at least theoretically, the success may be highly dependent on the political constellation participating in the arrangement. A new administration may pursue a different approach that is more or less effective in reaching the agreed-upon goal. Such changes may have important implications for the stability and the long-term effects of collaborations.

These examples illustrate the importance of understanding the role of policy instruments involving collaboration between political actors. Moreover, they highlight the need for studies investigating whether and how policy instruments can help explain if collaborations achieve a collaborative advantage or not. It is for instance possible that the specific policy instrument requirements within a governance arrangement – like the City-growth agreements– influence both the effect of and likelihood for collaboration between the involved actors. This means that future studies could do well in incorporating literature on policy instruments in studies of collaborative governance.

6.2 Policy instruments, policy packaging and political support

Many issues also remain on the agenda for students interested in the relationship between policy instruments and political support. First, robust evidence is crucial for the design of politically feasible policies. Although this dissertation suggests a correction between support for policy instruments and political support, more knowledge is needed on the direction of the relationship between policy instruments and political support. Generating and using empirical evidence that may shed light on such causal relationships will certainly constitute a major contribution to the literature. Similarly, a promising research topic based on the findings in this dissertation is to study how (planned) introductions of policy instruments influence voting behavior. Do parties who implement or support restrictive instruments such as road tolls lose support in areas heavily affected by these measures? And how do such policies influence voter turnout? Second, complex collaborative governance agreements – such as the City-growth agreements – can make it challenging to hold politicians accountable. Amundsen et al. (2019) document for instance blame games between politicians at different levels of government. From such a perspective it can prove insightful to study the relationships between the choice of policy instruments and political support on different levels of government, as suggested by Vetter (2007). Third, a promising field of research could be to study how specific changes in the stringency of various policy instruments influence public support. Is it possible to increase acceptance by making smaller adjustments in the intensity of policy instruments? Citizens may accept a certain level of road tolls, but simultaneously oppose raising the level or make adjustments in how toll stations are organized. Lastly, when it comes to congruence, more research is needed on expanding the perspective and studying congruence within a wider set of policy areas. In doing so it is possible to gain further knowledge about how congruence may influence voting behavior, support for political parties, and political support more generally.

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Appendix

Sensitivity analysis

Unadjusted Estimates of ' Opposing toll road ':

Coef. estimate: -0.21409

Standard Error: 0.06852

t-value: -3.12436

Sensitivity Statistics:

Partial R2 of treatment with outcome: 0.00455

Robustness Value, $q = 1$: 0.06533

Robustness Value, $q = 1$ $\alpha = 0.05$: 0.02483

The robustness value for bringing the estimate of toll road is 6.5 %. Unobserved confounders have to explain 6.5 of the variances of both the treatment and the outcome in order to explain away all the observed effect. Unobserved confounders that do not explain at least 2.4 % of the residual variance both on toll roads and satisfaction with democracy are not sufficiently strong to bring the significance level above .05.

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Transportation Research Part A

journal homepage: www.elsevier.com/locate/tra

Public support of transport policy instruments, perceived transport quality and satisfaction with democracy. What is the relationship?

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ARTICLE INFO

Keywords:

Acceptance
Transport policy
Restrictive instruments
Toll cordon system
Satisfaction with democracy
Political legitimacy

ABSTRACT

Lack of public support is regarded as a major barrier for implementing restrictive transport policy instruments. Recent studies have therefore analyzed factors explaining variations in public support and examined strategies to increase support of restrictive policy measures. However, few have analyzed whether there is an actual relationship between transportation policies and political legitimacy. This article thus makes two main contributions to the literature. First, it explores whether there is a relationship between support of restrictive instruments and political legitimacy to study the political implications of introducing such instruments. The results show that citizens opposing restrictive measures, such as local road tolls, are more dissatisfied with the performance of local democracy. The effect also appears to be mediated through citizens evaluation of politicians' and how they evaluate governmental performance at the local level. Second, the article analyzes the importance of transportation policies in particular for local political legitimacy. The results show that citizens dissatisfied with the quality of services within the transport sector are also more dissatisfied with the performance of local democracy.

1. Introduction

This article contributes to the literature on acceptance and support for restrictive policy instruments by analyzing the relationship between political legitimacy and the use of such instruments. While most studies have focused on measuring opposition or explaining variations in support (Eliasson, 2014; Eliasson and Jonsson, 2011; Hårsman and Quigley, 2010; Albalade and Bel, 2009; Börjesson et al., 2016; Schade and Baum, 2007), few have analyzed whether there is an actual relationship between opposition towards restrictive instruments and satisfaction with democracy.

According to Salamon (2002:24), “*tool choice can affect the overall sense of legitimacy that government enjoys in the eyes of the citizens*”. While these claims may be theoretically well-founded, there are few articles that empirically analyze whether the implementation of unpopular instruments have any impact on political legitimacy. This is an important field of study since scholars have argued that when citizens have positive attitudes towards the political system they are less likely to push for radical changes (Bernauer and Vatter, 2012:435). It is therefore important to understand the mechanisms explaining citizens' satisfaction with how democracy works and, in doing so, to analyze the importance of transportation policies for political legitimacy. Thus, the purpose of this article is to analyze if, and how, the use of specific policy instruments in the transportation sector can influence satisfaction with democracy (Bemelmans-Vidéc et al., 2011).

This is an especially relevant topic considering the challenges governments face in seeking to achieve targets for reducing GHG-emissions. Congestion and emissions from transport are frequently mentioned as examples of wicked problems. Use of restrictive

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<https://doi.org/10.1016/j.tra.2018.09.010>

Received 17 January 2018; Received in revised form 21 August 2018; Accepted 11 September 2018

Available online 20 September 2018

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policy instruments is commonly seen as necessary in order to address many of the negative consequences associated with such problems (Börjesson et al., 2012). But congestion pricing and tolls have proven to be highly controversial instruments which meet fierce public and political opposition in many cities (Rye et al., 2008; Eliasson and Jonsson, 2011; Börjesson and Kristoffersson, 2015). The lack of public, and hence political, support has therefore been suggested as a main reason for why such instruments are not adopted and introduced (Santos, 2008).

This article also contributes to the literature on political legitimacy. First, although there are several studies analyzing political legitimacy at the local and regional level (e.g. Rose and Pettersen, 2009b, 2000, 1999; Weitz-Shapiro, 2008; Vetter, 2007), few have analyzed the specific role and importance of transportation policies. This is especially important since, according to Wagner et al. (2009), we still lack knowledge on ‘what drives subjective perceptions of satisfaction with democracy’. In the Nordic countries, municipalities exercise substantial influence over policies relevant to peoples’ satisfaction with local democracy (Denters and Rose, 2005). The performance of subnational levels of government in these countries is thus likely to play a key role for citizens’ evaluations of democracy, especially considering the fact that lower levels of government have a crucial impact on policies regarding transport quality and transport instruments. When citizens in Norway were asked about the most important issue for their vote in the most recent local election, for example, land-use, toll roads and transportation were ranked as the most important issues together with schools, environment and amalgamation issues.¹

The article therefore aims at shedding light on why citizens are satisfied with governmental performance by including citizens’ viewpoints on the use of restrictive instruments, as well as citizens’ evaluation of transport quality. In doing so, the article responds to the call from Marsden and Reardon (2017) who criticize the ‘technical-rational model within the transportation literature’ while important questions, such as for instance political legitimacy, have largely been ignored.

The remainder of the article is structured as follows. Section 2 provides a literature review of factors influencing satisfaction with democracy. Explanatory factors identified in the literature are then used to develop a set of hypotheses. Literature regarding policy instruments is also included. In Section 3 the dataset used to address the hypotheses is then presented. Ordinary least squares regression and mediation analysis following Imai et al. (2011) are used to analyze mechanisms explaining variation in satisfaction with democracy. Finally, the last section discusses the findings and implications from the analysis.

2. Literature

Political legitimacy has deep roots within political philosophy (e.g. Hobbes, 1994; Mill, 1998; Rawls, 1971; Kant, 1999; Weber, 1978) yet it is a concept difficult and problematic to define (Rothstein, 2009:312).² In general, political legitimacy is multi-dimensional in nature (Beetham, 1991). This was famously exemplified in Abraham Lincoln’s second inaugural address when he coined the well-known ‘government of the people, by the people, for the people’. He thereby illustrated three dimensions of political legitimacy.

Within the literature on political legitimacy, David Easton’s work (1965) is a common theoretical and analytic starting point for many. In this work Easton distinguishes three forms of political support: support for the political community, regime and authority respectively. This classification highlights the multi-dimensional aspect of political legitimacy based on what is often referred to as specific and diffuse support. Specific support refers to support for a particular government, party, politician, decision or actions, while diffuse support refers to support for the political system more generally as, for instance, the norms and rules found in that particular country or municipality. Dalton (1999) has later extended this operationalization of political evaluation into five categories; political community, regime principles, regime performance, regime institutions and political actors. Table 1, which in large part is based on the work of Norris (1999), illustrates how the different categories are defined and operationalized.

These levels can be understood as a scale of citizens evaluation of political support along an axis varying from specific to diffuse support (Norris, 1999). ‘Political community’ and ‘regime principles’ are factors representing more abstract or diffuse support of democratic ideals and democratic principles. One typical way to operationalize ‘regime principles’ is e.g. pose the following statement and ask for respondent’s agreement: “Democracy has its weaknesses but is better than any other form of government”. Support for ‘political actors’, on the other hand, involves an evaluation of e.g. specific politicians or a government. The implications of experiencing a loss in public support are thus expected to vary greatly between these different dimensions (Peffley and Rohrschneider, 2014). Experiencing a loss in citizens’ evaluation of democratic ideals can be grave since citizens might require constitutional reforms or accept of new forms of government. Experiencing a loss of public support for a particular government, on the other hand, can be less severe inasmuch as elections for example may offer an opportunity for changes in the government.

Support for democratic values and principles have traditionally been strong in the Nordic countries (Dahlberg et al., 2015). Thus, it is less likely that the nature of local transportation policies will have a significant impact on support for the principles of

¹ The question was the following: “Could you mention the most important issue for personally when you voted in the municipal election this year?”. The top eight issues were the following: Schools (9%), environment (6%) transportation (5%), municipal amalgamation (5%), care for the elderly (4%), health and social welfare (4%), economy, taxes and toll roads (4%), land-use/city development (4%). N = 1190. The data are gathered from “Lokalvalgundersøkelsen 2015”. Institute for Social Research and Statistics Norway made the data available but are not responsible for any of the analyses or interpretations.

² This is not the place for a more comprehensive account of developments regarding political legitimacy. For interested readers, see e.g. Beetham (1991), Beetham and Lord (1998), Habermas (1979), Dahl (1989), Norris (1999). With reference to (political) legitimacy Beetham (1991:15-16), for instance, state that “power can be legitimate to the extent that (i) it conforms to established rules, (ii) the rules can be justified by reference to beliefs shared by both dominant and subordinate, and (iii) there is evidence of consent by subordinate to the particular power relation.

Table 1
Conceptualization of political support (based on Norris, 1999:10).

Object of support	Definition	Common operationalization
Political community	Often refers to attachment to the political community being either the nation or community	Feelings of belonging to the community, feelings of pride or identity
Regime principles	Refer to the democratic values and basic democratic principles for the political system	Agreements on specific values or question about democracy being the preferred form of governance
Regime performance	Support for how the political system functions in practice	Usually satisfaction with how democracy works in practice
Regime institutions	Attitudes towards e.g. political parties, government, parliament, police, the legal system	Questions tapping satisfaction with the various institutions
Political actors	Specific support for politicians or political actors	Evaluations of particular leaders, politicians, governments or presidents

Most diffuse support



Most specific support

democracy. Similarly, transportation policies are expected to have low influence on general feelings of belonging to the local community. Use of restrictive instruments and perceived quality of transport may nonetheless constitute important factors for evaluating governmental performance and thereby satisfaction with how local democratic processes functions (Peffley and Rohrschneider, 2014). In terms of the model displayed in Table 1, this implies assessing regime performance.

‘Satisfaction with democracy’ is a widely used indicator for analyzing regime performance (cf. Norris, 1999; Linde and Ekman, 2003; Leiter and Clark, 2015; Hobolt, 2012; Huang et al., 2008; Curini et al., 2012; Wagner et al., 2009; Armingeon and Guthmann, 2014; Sanders et al., 2014; Anderson and Guillory, 1997; Blais and Gélinau, 2007; Aarts and Thomassen, 2008). There is, however, disagreement about its exact meaning and interpretation. On the one hand Canache et al. (2001) argue that satisfaction with democracy measures multiple dimensions of political support and that the question is highly sensitive to differences across nations and individuals. Linde and Ekman (2003), on the other hand, argue that satisfaction with democracy measures the level of support for the way democracy works in terms of performance rather than measuring support for input features such as democratic principles compared to nondemocratic forms of government, or satisfaction with specific actors. It is this latter interpretation which the present article aims at measuring.

2.1. Determinants of satisfaction with (local) democracy

Two standard models of regime support, input and output models respectively, are used as a frame of reference for addressing the research question. The input model focuses on democratic processes and institutions (Dahl, 1989; Easton, 1957, 1965) while the output model refers to the importance of policy output and policy outcome for political support (Rothstein, 2009; Magalhães, 2014; Dahlberg et al., 2015; Scharpf, 1999).

2.1.1. The input (procedural) model of satisfaction with democracy

One important dimension explaining satisfaction with democracy is related to democratic processes (Lijphart, 1999; Bernauer and Vatter, 2012). Democratic content or discontent is connected to citizens’ evaluations of being represented in the political arena and having their voices heard (Norris, 1999). Citizens need to regard political processes and the political system as fair and honest (Peffley and Rohrschneider, 2014). The legitimacy of the political system is likely to be reduced if citizens feel that the political institutions do not represent their views or if they perceive their political representatives to be dishonest or incompetent. This aspect is captured by analyzing whether citizens think their views are well represented by politicians and whether citizens evaluate politicians as being honest and fair. Taken together, the literature suggests the following hypotheses:

H1. Individuals having confidence in politicians are more likely to be satisfied with how local democracy works.

H2. Individuals who think that the city council represents what people think are more likely to be satisfied with how local democracy works.

2.1.2. The output (performance) model of satisfaction with democracy

Several authors have likewise documented a relation between better performance and more positive evaluations of democracy, although there is no agreement on how performance should be measured. Performance is a multi-dimensional concept which encompasses both political and economic aspects. While most articles analyzing the effect of governmental performance use economic variables such as the rate of unemployment, inflation and economic growth, some authors also link performance to issues as political salience and level of corruption (Bowler and Karp, 2004; Leiter and Clark, 2015).

Local authorities in Scandinavia enjoy strong local autonomy (Loughlin et al., 2012) and have considerable influence on transport and land-use issues. Among other things municipals are responsible for local roads, parking policies and land-use development while regional authorities are responsible for public transport services and regional roads.³ Local authorities consequently play a crucial role when it comes to the adoption of (restrictive) instruments influencing the quality of transport within the region, as well as the prioritization of infrastructure projects. It is therefore possible to distinguish between general and specific performance at the local level. General performance is linked to how citizens evaluate the overall quality of services in the municipality (Erkel and Meer, 2016; Rohrschneider, 2005) while specific support is in the present case linked to how citizens evaluate the local transport accessibility and municipal land-use development.

The relevant hypotheses are consequently:

H3. Individuals satisfied with the overall quality of services are more likely to be satisfied with local democracy (general performance).

H4. Individuals satisfied with the quality of transport are more likely to be satisfied with local democracy (specific performance).

2.1.3. The role of instruments for satisfaction with local democracy

The choice of policy instruments is a vital part of local governance performance, and instruments are not politically neutral (Peters, 2002; Salamon, 2002). Potentially, therefore, the adoption and implementation of a given instrument can have significant

³ However, the national level is responsible for national roads, train infrastructure and train services.

consequences for perceived political performance and hence political legitimacy (Schneider and Ingram, 1990; Salamon, 2002).

From such a viewpoint the selection and use of specific policy instruments may be subject to what in the literature is identified as ideological congruence between citizens and politicians (Kim, 2009). Previous research has largely used the left-right scale as an indicator for analyzing congruence. But as Stecker and Tausendpfund (2016) note, this provides only an incomplete understanding of political preferences and ideological congruence. Policy preferences are far more differentiated and multi-dimensional phenomenon (Stecker and Tausendpfund, 2016). Different issues are important for different people and the left-right scale does not fully capture the political differences across all policy fields.

In this respect support for local toll roads provide a better indicator of how perceptions of specific policy instruments may influence satisfaction with local democracy. In Norway most citizens are affected by toll roads since a majority own cars (Christiansen et al., 2016) and hence are subject to paying tolls when using their cars. The largest cities have in particular had a relatively long-term history of congestion pricing and use of toll rings. In Bergen, for instance, the first toll cordon system was established in 1986 (Engebretsen et al., 2017) while in Oslo and Trondheim tolls were introduced in 1990 and 1991 respectively (Bekken and Osland, 2005). These toll cordon systems have subsequently been expanded several times with the creation of new toll stations and new rates to finance local roads and public transport. These developments have been a highly salient topic of public debate. They are regularly discussed in local newspapers and between local political parties. Thus, most people living in these cities are likely to have a reasonably well informed opinion on the matter. Arguably, therefore, road tolls represent a policy area that is well suited for an investigation of the consequences of controversial long-term policy choices.

I therefore hypothesize the following:

H5. Individuals opposing toll roads are less likely to be satisfied with democracy.

2.1.4. Other hypotheses identified in the literature

In a somewhat related fashion a winner versus loser hypothesis states that citizens who voted for the winning side are more inclined to be satisfied with democracy since they are more likely to see policy choices as being more in keeping with their own political preferences. There are numerous studies documenting such a relationship (Curini et al., 2012; Chang et al., 2014; Blais and Gélinau, 2007; Anderson and Guillory, 1997; Anderson and Tverdova, 2001; Singh et al., 2012; Reher, 2016). Winners also express higher trust of parties or politicians that are in government (Blais and Gélinau, 2007). This leads to the following hypothesis:

H6. Individuals feeling attachment to the parties in government are more likely to be satisfied with local democracy.

Lastly, previous research has not found a clear effect of education. It can potentially have both positive and negative effects. For instance, education can presumably generate skepticism towards specific political answers and policies, but it can also increase citizens’ knowledge and appreciation of the complicated nature that characterize many of today’s societal challenges. Political interest may also be associated with satisfaction with democracy (Sanders et al., 2014). Just as for education, the same logic applies with respect to being politically interested or being informed on local politics through reading local news. Mass media can frame issues in a negative or sensational way, but they can also increase readers’ understanding of local politics and make them better equipped to assess local governmental performance. This leads to two contrasting hypotheses:

H7a. Individuals who are informed and interested in politics are more likely to be satisfied with local democracy.

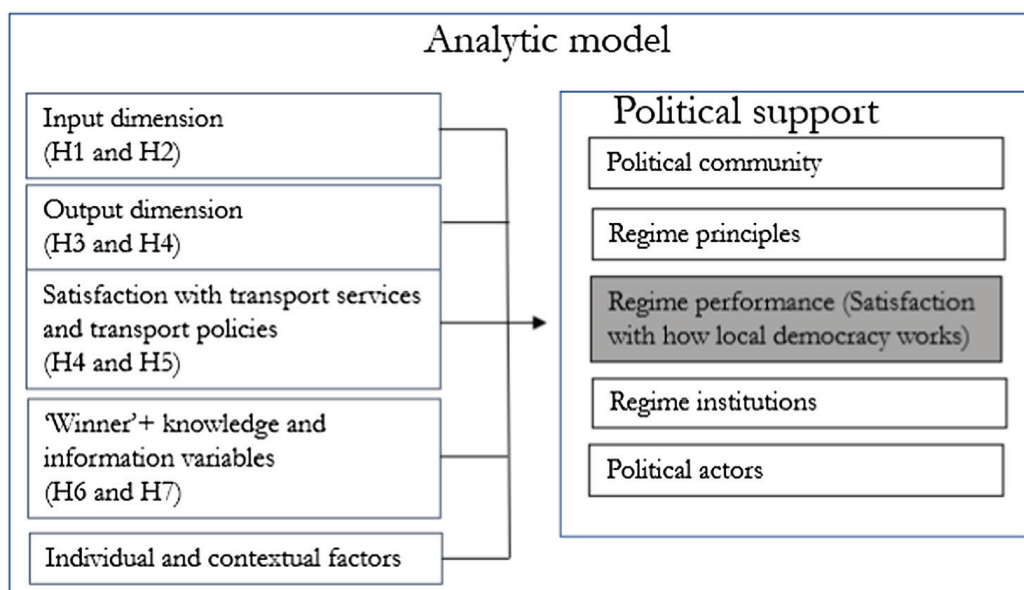


Fig. 1. Model specification for direct effects.

H7b. Individuals who are informed and interested in politics are less likely to be satisfied with local democracy.

Fig. 1 provides an illustration of the analytic model used in the next section. The figure is a summary of the hypotheses identified in the literature review and the relationships between the variables as they are usually treated in the literature. Four main determinants of satisfaction with democracy described by H1 to H7 are included and, in addition, three general predictors (age, sex and education) are included among the individual and contextual factors as control variables. The figure thereby illustrates a straightforward model for an analysis of the direct effects and functions as a point of departure for the regressions reported in Table 3.⁴

3. Data and measurement

Citizens in the three largest cities in Norway Oslo, Bergen and Trondheim, were recruited through a representative web panel. The questionnaire measured attitudes towards how local democracy works and captured the inhabitants' views on local governments performance and quality, as well as views on the use of selected transportation policy instruments. A total of 6443 persons aged 18 or above were invited to participate during March of 2017 and 48% (3072 persons) completed the survey. The sample(s) were later weighted for age, gender and geography. The appendix provides information about the questions included in the analysis and the coding of each variable.

3.1. Dependent variable

The respondents were asked 'How satisfied or dissatisfied are you with the way in which local democracy works in your municipality'.

3.2. Independent variables

First, to analyze the input dimension, respondents were asked to provide answers to three statements regarding their views on politicians' responsiveness, competence and integrity: "Politicians take into account the inhabitants' viewpoints", "Politicians are competent people knowing what they are doing" and "Politicians in my municipality set aside their personal interests when taking political decisions". Factor analysis produced a unidimensional component explaining 80% of the variance in the set of items (Cronbach's alpha = 0.80). In addition, a question about how well "the city council represents what people think" was also included as a separate variable to capture political representativeness.

Second, two variables are used for analyzing the governmental output dimension. Respondents were asked to state on a ten-point scale whether they were satisfied or not satisfied with the way the local authority has handled all types of local challenges. They were also asked to assess how satisfied they were with municipal services in general: "The municipal is responsible for different areas within health care, education, culture, sport facilities and transport. All in all, do you think the municipal services are very good, pretty good, less good or not good."

Third, the questionnaire included questions focusing specifically on support for local road tolls in the region, as well as satisfaction with quality of various aspects within transport. Respondents were allowed to answer 'don't know' on the majority of these questions.

Fourth, a variable showing in which municipality the respondents lived was also included in order to capture contextual differences. The model also includes questions about how well respondents felt they were about local politics and how often they read local or regional news. Socio-demographic variables included information about age, sex and education.

Lastly, individuals supporting a party in power are classified as "winners" while those supporting other parties, or who did not support any political party at all, are classified as "losers".

4. Results

4.1. Descriptive overview of satisfaction with democracy at the local and national level

Table 2 shows the distributions of satisfaction with how local democracy works in the three municipalities of interest, as well as a general development on satisfaction with democracy for all municipalities in Norway between 2007 and 2011. Support for local road tolls in the three selected cities is also shown.

If we look first at the right side of the table containing the distribution of satisfaction with local democracy across all municipalities, it is evident that the share of people who are satisfied with the way local democracy works has increased between 2007 and 2011. It is important to note in this regard that the local election in 2011 took place only a few weeks after the terrorist attack in Oslo and at Utøya on July 22. Trust in political institutions and politicians increased after the attack (Bergh and Christensen, 2013).

⁴ Although it is likely that several of the independent variables could influence other dimensions of political support, this article is limited to the effect on regime performance. Moreover, while theoretically interesting, the dataset does not allow for consideration of whether the dependent variable (satisfaction with how local democracy works) influences the other dimensions of political support. In Section 4.3, a more complicated model is used for analyzing mediation effects in order to account for interaction between the input and output aspects of political support.

Table 2

Developments and contextual differences for satisfaction with democracy and acceptance of road tolls.

		Oslo (2017)	Bergen (2017)	Trondheim (2017)	Local democracy (2007) ^a	Local democracy (2011)
Satisfaction with local democracy	Not at all	7	7	6	2	2
	Not very	20	31	23	16	12
	Fairly	67	58	61	75	71
	Very	7	5	10	6	15
	N	896	964	730	657	1027
Support for local toll roads	Very negative	14	15	16		
	Quite negative	16	21	21		
	Neither positive nor negative	27	28	27		
	Quite positive	30	25	27		
	Very positive	14	10	9		
	N	990	1078	816		

^a Data regarding satisfaction with democracy in 2007 and 2011 are gathered from “Lokalvalgundersøkelsen 2007” and “Lokalvalgundersøkelsen 2011” respectively. The Institute for Social Research and Statistics Norway made the data available, but are not responsible for any of the analyses or interpretations.

Compared to the national average in 2011, however, citizens in Oslo, Bergen and Trondheim are clearly more dissatisfied in 2017. Unfortunately there are no data for analyzing how satisfaction with local democracy has on average developed since 2011. In general, however, the share of citizens being satisfied is nonetheless higher compared to the average level in most other European countries (Sanders et al., 2014; Rose and Pettersen, 2009a).

The table also illustrates the importance of contextual differences when it comes to support for local toll roads. Despite long experiences with toll roads, the population is rather split in all three municipalities. Between 30 and 37% are negative, while the share of people that are positive varies between 35 and 44%. The share of people who are negative is higher in Bergen and Trondheim than it is in Oslo. Consequently, there are differences in the level of support between the three municipalities.

It is beyond the scope of this article to go into great detail explaining these differences in support for tolls in the three cities. The aim here is to analyze how lack of support potentially influences satisfaction with local democracy regardless of the reasons for being positive or negative. Within the literature on acceptance of public policies, however, attitudes to congestion pricing is linked to a variety of factors (see, for instance, Eliasson, 2017). At least three key contextual differences may partly explain the variation in support between the cities: (1) the level of congestion, (2) the general costs of tolls, and (3) when changes in the toll cordon system occurred. Oslo has relatively more congestion than Bergen and Trondheim. This may well have influenced an understanding of the need for tolls to regular traffic and to finance transportation infrastructure. In addition, Trondheim introduced new toll stations within the city in 2014, and Bergen had an increase in toll charges in 2012. Raising the tolls can potentially decrease the level of public support inasmuch as the costs for people increase. The same argument applies to the cost for passing the toll cordon. In 2017, the price for driving through a toll station was 25 NOK (49 NOK during rush hours) in Bergen, 9 NOK (22 NOK during rush hours) in Trondheim and 34 NOK in Oslo. The level of toll is therefore significantly lower in Trondheim compared to the other cities.

In the following further empirical analyses are divided into two sections. In the first section, which is based on Fig. 1, variation in the level of satisfaction with local democracy is analyzed controlling for other well-known explanatory factors already identified in the literature: This is done by means of ordinary least square regression. The second part analyses the indirect effects and proportions of the total effects being mediated through the input and output dimensions.

4.2. Model results – direct effects

Five models are presented here. The first includes individual, contextual and knowledge variables (control, H6 and H7), the second adds variables concerning the input dimension for political legitimacy (H1 and H2), the third model includes the governmental output dimension (H3 and H4), the fourth adds specific variables about the use of instruments and quality of services within the transport sector (H4 and H5), while the fifth model includes all variables. The regression analyses make it possible to compare the relative importance of variables added at each step by comparing differences in the adjusted R square.

Looking first at model 1 in Table 3, one can see that individual factors have the expected effect on satisfaction with democracy. The model also provides support for the winner and loser hypothesis; citizens who support the parties in a majority coalition are more likely to be satisfied with how local democracy works (H6). However, in contrast to existing literature, the model does not show any effect of feeling well informed about local politics or having higher education. In other words, neither H7a nor H7b receives support in the analysis.

Turning to the contextual factors, residents in Bergen are less satisfied with democracy. This can be related to the argument from Leiter and Clark (2015) and Bowler and Karp (2004) regarding the importance of valence with respect to the impact of governing parties on satisfaction with democracy. Local politics in Bergen has been more subject to instances of political turmoil compared to

Table 3
Direct effects on satisfaction with local democracy. OLS regression. Standardized B (std.error).

Variables	Model 1 (individual and contextual factors)	Model 2 (individual and contextual + input dimension)	Model 3 (individual and contextual + output dimension)	Model 4 (individual and contextual + transport issues)	Model 5 (all factors)
<i>Constant</i>					
Age	-0.14 (0.00)***	-0.09 (0.00)***	-0.12 (0.00)***	-0.08 (0.00)***	-0.09 (0.00)***
Sex (1 = male)	-0.02 (0.03)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)	0.02 (0.02)
Education	0.04 (0.3)*	-0.01 (0.02)	0.01 (0.02)	0.03 (0.03)	0.00 (0.02)
Bergen (Oslo = reference category)	-0.07 (0.03)***	-0.05 (0.03)**	-0.07 (0.03)***	-0.03 (0.03)	-0.04 (0.03)*
Trondheim (Oslo = reference category)	-0.00 (0.04)	-0.01 (0.03)	-0.04 (0.03)*	0.00 (0.03)	-0.03 (0.03)
Reading local news (H7a/b)	0.01 (0.04)	0.00 (0.03)	-0.00 (0.03)	0.00 (0.03)	-0.00 (0.03)
Political informed (subjectively) (H7a/b)	0.07 (0.03)***	0.01 (0.02)	0.03 (0.02)*	0.06 (0.03)***	0.02 (0.02)
Winner (H6)	0.26 (0.03)***	0.08 (0.02)***	0.12 (0.02)***	0.17 (0.03)***	0.06 (0.02)***
Politicians (H1)		0.46 (0.02)***		0.28 (0.02)***	
City council represents what people think well (H2)		0.15 (0.03)***		0.11 (0.02)***	
Satisfied with handling of local challenges (H3)			0.43 (0.00)***	0.17 (0.00)***	
Dissatisfied with municipal services (H4)					
Dissatisfied with "city-development" (H4)			-0.14 (0.03)***	-0.04 (0.03)*	-0.13 (0.03)***
Dissatisfied with car accessibility (H4)				-0.27 (0.03)***	-0.06 (0.03)***
Dissatisfied with tolls (H5)				-0.17 (0.03)***	-0.12 (0.07)**
Satisfied with handling of local challenges * toll roads (H5)				-0.15 (0.03)***	
Adjusted R square	0.11	0.39	0.36	0.27	0.46
N	2548	2455	2470	2476	2337

Significant values:

* 0.01.

** 0.001.

*** 0.

the other municipalities.⁵ Potentially this can partly explain differences in local satisfaction. The size of the effects, however, is in general small. The most important factors in model 1 are age (−0.14) and being classified as a winner (0.24).

In model 2, which serves to highlight the input dimension, all new variables are statistically significant. For citizens who agree with the statement that the city council represents what people think well satisfaction with democracy is greater (by a standard deviation of 0.15) than people who disagree. The index regarding attitudes about politicians also has a clear impact. Satisfaction with local democracy increases when politicians are regarded as competent and sensitive for citizens' viewpoints. In fact, in all models, the index concerning politicians has the largest impact on satisfaction with local democracy. An increase in R square from 0.10 to 0.39 clearly indicates the importance of input legitimacy for democratic satisfaction compared to individual and contextual factors. These results are thus in line with H1 and H2.

Turning to model 3, we can furthermore look at how the governmental output dimension influences satisfaction with democracy. Two variables are meant to capture the output dimension. The first variable measures the effect of citizens being satisfied with how local authorities have handled local challenges. The second variable measures the effect of being dissatisfied with municipal services in general. Moving one standard deviation with respect to being satisfied with how local authorities have handled local challenges increases satisfaction with democracy by 0.43 standard deviations, while being dissatisfied with municipal services reduces satisfaction by 0.14. The size of these effects and the increase in R square demonstrate that the output dimension is a key factor for explaining satisfaction with local democracy. Thus, as expected, the results support H3.

Model 4 expands the perspective to analyze the effects of being positive or negative towards use of a restrictive transportation policy instrument, as well as satisfaction with two transportation issues. In this case the model shows a relationship between support for a restrictive instruments and satisfaction with local democracy. Citizens being negative towards tolls are significantly more dissatisfied with local democracy. This confirms the assumption regarding a relationship between the choice of policy instruments and governmental legitimacy. The size of these effects, however, is rather low (0.15). In addition, model 4 shows how satisfaction with transportation policies influence satisfaction with democracy. Here the model demonstrates that transport services are relevant and citizens who are less satisfied with quality are less satisfied with democracy. The results then support H4 and H5.

Lastly, model 5 includes all variables. Just as in the previous models, the analysis supports hypothesis 1–6. The coefficients have the same direction and have the same significance levels. This serves to confirm that individual factors, in combination with the input and output dimensions, as well as specific transport issues, influence satisfaction with democracy. However, the model also shows that there are differences regarding the relative effect of some variables. Especially factors measuring the output and input dimensions, as well as specific transport factors, are reduced when all variables are included (model 5). This indicates that these factors are correlated not only with the dependent variable, but also with one or more of the other independent variables. It can thus be an empirically argument for conducting the mediation analysis in Section 4.3.

In model 5 an interaction term is also added since it possible that the effect of being dissatisfied with the local toll cordon system is dependent on how satisfied individuals are with the way local politicians are perceived to handle local challenges in general. Previous research has for instance documented that acceptance of some policy instruments is related to their perceived effects (Börjesson et al., 2012). In the present case the results in model 5 indeed show that the potential negative effects of opposing the local toll cordon system can partly be offset if citizens are satisfied with the way politicians handle local challenges more generally.

When all variables are included in the model, the adjusted R square increases to 0.46. It is difficult to compare the adjusted R square with results in other studies due to differences in approach and the variables used. The bulk of studies have focused on differences in satisfaction with democracy between countries at the national level and not on the local level. The explained variance in the present case, however, is relatively high compared to some studies (Anderson and Guillory, 1997) and is at roughly the same level compared to others (Armingeon and Guthmann, 2014).

Lastly, some authors have argued that democratic effectiveness is more important for democratic satisfaction than ideological congruence on the input side (Dahlberg and Holmberg, 2014). The models in this paper do not support such a conclusion. The differences in R² rather suggest an almost equal importance between the input and output dimension for satisfaction with democracy.

4.3. Mediation analysis

In the previous section, the direct effects of different independent variables for satisfaction with local democracy were analyzed. In this section, the aim is to gain more insights into how transport policies and transport quality can influence satisfaction with democracy by identifying mechanisms. Following Imai et al. (2011), a mediation approach is used to investigate how transport factors may potentially have an impact in both the input and output models used to explain variation in satisfaction with democracy.

Empirical results presented in Table 3 suggested a mediation effect. But every bit as important one can theoretically argue that perceived transport quality and support for selected transport policy instruments are relevant in the input and output models used in this article. Easton (1957), for example, wrote about the feedback mechanisms that are likely to exist between the input and output dimensions of support for a political system. In Fig. 2 this would imply that citizens opposing local toll roads could be more inclined to think that politicians are less competent or that politicians are less likely to consider the inhabitants' viewpoints. Politicians could also be blamed if

⁵ For instance, the former mayor was investigated for corruption. There have also been fierce discussions about future policies for light rail and whether the municipality should introduce congestion charging. See Pellegata and Memoli (2018). Corruption and satisfaction with democracy: the conditional role of electoral disproportionality and ballot control. *European Political Science Review*, 1–24. for an overview of corruption and its relationship to satisfaction with democracy.

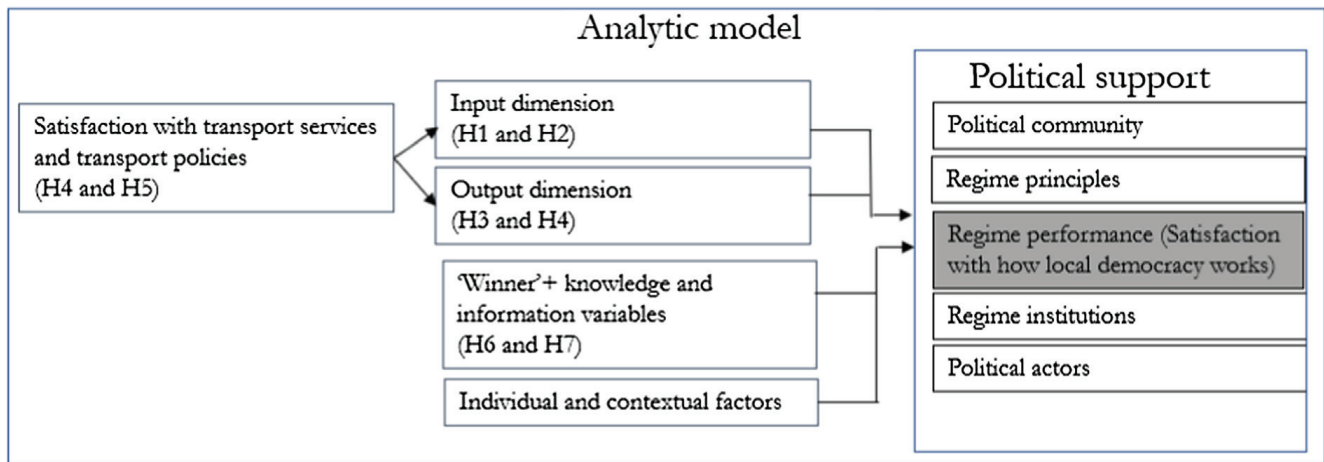


Fig. 2. Model specification for direct and indirect effects.

Table 4
Mediation analysis.^a N = 2354.

	Politicians			Satisfied with handling of local challenges (output)		
	ACME	Total effect	Prop. mediated	ACME	Total effect	Prop. mediated
Not satisfied “city – development”	–0.03***	–0.24***	0.13***	–0.03***	–0.24***	0.14***
Not satisfied car accessibility	–0.04***	–0.14***	0.28***	–0.01	–0.10***	0.10***
Not satisfied with tolls	–0.03***	–0.07**	0.47**	–0.02***	–0.05*	0.30*

Significant values:

* 0.01, 0.05.

** 0.001.

*** 0.

^a Bootstrapping, with 1000 simulations, is used in the mediation analysis.

citizens are not pleased with transport accessibility or if they disagree with local land-use development policies. People opposing local toll roads could also be less satisfied with the perceived character of policy decisions by arguing that tolls are unfair, inefficient or unnecessary for solving local challenges. Being dissatisfied with the quality within different transport issues could also naturally influence citizens’ evaluation of governmental performance. Consequently, the subsequent analysis will focus on mediation effects on both dimensions.

Fig. 2 illustrates the logic of the mediation analysis. Results presented previously in Table 2 documented the direct effect of each variable. By comparison, mediation analysis serves to identify mediated (indirect) effects. In the following model 5 from Table 3 is used in all of the analyses, and the results presented are limited to the average causal mediation effect (ACME), the total effect and the proportion mediated effect for each transport variable.

Results found in Table 4 suggest a mediation effect (ACME) for each independent variable. As is evident, being dissatisfied with tolls or being dissatisfied with the quality of services for car accessibility and city development reduces satisfaction with local democracy, and it does so via both the input and output dimensions. The results therefore indicate a more complex relationship between the variables since they imply pathways in addition to those reflected by the simple direct effects. In other words, the results suggest that transport policies and perceived transport quality influence satisfaction with how local democracy works both directly and indirectly. In particular, as the findings in Table 4 make apparent, they indirectly influence two of the factors having the relatively largest effect on the dependent variable. The size of the effects, however, is low, varying between an average of 0.01 and 0.04.

Coefficients found in the columns for proportion mediated furthermore show the importance of the average causal mediating effects by analyzing how much of the total effect is transmitted via the mediators. Thus, when comparing the relative importance of the mediating effects, the table shows that, on average, the proportion mediated varies between 0.10 and 0.47. Not being satisfied with tolls has the largest proportion mediated, but this is in large part related to the lower total effect of this variable.

5. Conclusion

This article contributes to the literature by analyzing how restrictive instruments and perceived transport quality potentially influence political legitimacy at the local level. It consequently sheds some light on an issue that, according to Marsden and Reardon (2017) has been largely ignored. The results also contribute to the theoretical discussion about satisfaction with local democracy, what constitutes quality of government (Rothstein and Teorell, 2008), and how citizens evaluate governmental performance (Olsen, 2017). However, it is important to note that the analysis is solely limited to regime performance. The analysis does not take into account the full range of factors that constitute the other dimensions of political legitimacy.

Results from both regression and mediation analyses suggest a relationship between transportation policies and satisfaction with how democracy works at the local level. Introducing restrictive measures, such as toll roads, can decrease citizens' evaluations of both politicians, and their evaluation of governmental performance. Although the results suggest only small effects on satisfaction with local democracy, these results nevertheless underline the importance of understanding how citizens are affected by specific policy instruments, as well as showing that ideological proximity and performance are multi-dimensional aspects (see, for example [Kim, 2009](#); [Ezrow and Xezonakis, 2011](#); [Stecker and Tausendpfund, 2016](#)).

There are several policy and research relevant implications stemming from these results. First, they highlight the importance of keeping an eye on public support. Even though previous studies on congestion pricing have shown that the level of opposition is reduced after it has been implemented, this study illustrates that there still is a significant portion of the population who are negative despite long-term familiarity with road tolls. This is especially relevant when taking into consideration that citizens who are dissatisfied with regime performance might be more likely to call for radical changes ([Bernauer and Vatter, 2012](#)) or the policies may erode beliefs about democratic principles ([Norris, 1999](#)). The potential negative political consequences arising from disgruntled citizens, however, are debatable. It can be argued that dissatisfied citizens strengthen democratic government insofar as they become more politically engaged (see [Norris, 1999](#)). For instance, a new party in Norway, *The peoples' movement against more tolls*, for instance, aims at competing in the next local election in 2019. The party was first established in Stavanger - Norway's fourth largest city- because of decisions about increasing tolls and the introduction of congestion pricing. Such a development can be of increased importance inasmuch as all levels of government increasingly rely on tolls for financing infrastructure projects and for reaching policy goals aimed at reducing emissions from the transport sector. The Norwegian Parliament has developed a zero-growth target which means that there should be no growth in personal car traffic. The national government therefore requires that municipalities shall have zero-growth in personal car traffic if they are to receive co-financing for local transport infrastructure. Restrictive measures such as tolls and parking policies then become essential tools.

Second, this study gives some support to the claim that instruments influence the political support that government enjoys ([Salamon, 2002](#)). This is especially relevant considering the fact that some studies suggest that it can be difficult for citizens to evaluate political performance and policy outcomes based on which party is in office ([Holbein and Dynes, 2018](#)). Thus, holding local governments accountable through retrospective voting based on objective evaluation of what local government achieves is challenging. Policy instruments, on the other hand, are something which politicians, arguably, control to a larger degree. The toolbox within the field of transport, for instance, contains a multitude of options varying from tolls, congestion pricing, parking policies and land-use policies. These are policies that to varying degrees are visible and foster disagreement along the ideological spectrum. From such a perspective, alternative policy instruments may well constitute one factor influencing citizens' evaluations underlying public support. In this respect future studies might do well to consider how opposition to or support for a multitude of different instruments, both within and across various policy sectors, influence political legitimacy. If so it would then become possible to study how the accumulation of support and opposition towards different policy instruments influences political legitimacy.

Third, taking into account context and time, the analysis shows that the level of satisfaction with democracy and the support for restrictive instruments varies between the three selected municipalities. This indicates the necessity of thinking about local contexts when considering implementing restrictive measures. The impact on political legitimacy can be partly dependent on the level of resistance within the city at a specific point in time. It is possible, for instance, that the consequences for local and national satisfaction with democracy are larger immediately after they are implemented. The same logic may also apply to instances when authorities decide to increase the costs for passing toll stations. This means that it is not irrelevant when in an election circle, for example, authorities decide to implement toll roads or congestion pricing. However, it is important to note that implementing restrictive measures also can increase satisfaction with democracy insofar as governments are perceived to perform better in terms of e.g. ameliorating problems associated with emission or congestion. These results also underline the need for understanding strategies to increase acceptance ([Eliasson and Jonsson, 2011](#)).

Fourth, previous research has argued that legitimacy at lower levels of government influences legitimacy at higher levels ([Vetter, 2007](#)). From such a perspective the performance of local authorities is relevant for the national level. It is possible, for example, that opposition to local tolls may also have an impact on satisfaction with democracy at the national level. Such an argument illustrates the interdependence between different levels of government.

Fifth, empirically this article has analyzed the effect of two contrasting theoretical perspectives with respect to satisfaction with democracy – one perspective which emphasizes the importance of feeling represented and having competent politicians, a second which highlights the significance of governmental performance. The results provide support for both perspectives and are in line with the findings from ([Dahlberg et al., 2015](#)). Changes in explained variance indicates that both the input and output models contribute significantly to satisfaction with democracy.

Further research regarding these issues is necessary. This article uses cross sectional data for analyzing the relationship between specific policy instruments and satisfaction with democracy at the local level. The findings suggest a correlation between introduction of these instruments and satisfaction with democracy. The dataset used, however, unfortunately allows little room for using other research designs allowing for an analysis of causality. Further studies are therefore needed for evaluating the direction of causality between the variables. Explicating the causal relationship between political legitimacy and voter turnout or voting behavior would, for example, be especially useful in understanding the political implications of transportation policies for political legitimacy. Other studies could also use designs involving before and after implementation analyses of e.g. tolls, congestion pricing, parking policies or implementing car-free areas in order to make better claims about causal effects and to study the short-term consequences of introducing restrictive instruments. Studies could furthermore analyze the importance of issue priorities for evaluating governmental performance at both the local and the national level, go into further detail with respect to how citizens evaluate governmental performance, and analyze how a toll cordon system influences satisfaction with democracy for citizens living in surrounding municipalities affected by tolls. Many issues, in short, remain on the agenda for further research.

Acknowledgement

I am grateful to professor Lawrence E. Rose at the University of Oslo for his invaluable comments. I also wish to thank Kåre Skollerud, Ove Langeland and two anonymous reviewers for their comments on earlier drafts of this article.

Funding

This work was supported by the Research Council of Norway for a project entitled “Changing commuting in large urban areas – identifying acceptable and effective measures (COMMUTE)’ (249733/O80).

Appendix A

See [Tables A.1 and A.2.](#)

Table A1
Descriptive statistics.

Variables	Mean	SD	Min	Max	Proportion 'don't know'
Age	44	16.9	18	89	0
Sex (1 = male)	0.5		0	1	0
Education	3.7	1.1	1	5	0
Newspaper reading	2.13	1.15	1	4	35
Political informed	3.16	0.8	1	5	43
Perception of local politicians (index)	2.67	0.66	1	4	635
Quality of public services are poor	2.98	0.87	1	5	351
City council represents citizens' viewpoints well	2.52	0.7	1	4	836
Not satisfied with local services	2.22	0.61	1	4	343
Satisfied with land use development	2.71	0.63	1	4	534
Satisfied with car accessibility	2.78	0.63	1	4	477
Supports local toll roads	2.99	1.22	1	5	196

Table A2
Variables overview.

Variable name	Question formulation	Categorization	Recorded values
Education	Highest finished education	1 = Primary school, 5 = University/college four years or more	0 = Primary school or high school, 1 = University or college degree
Political knowledge	How well informed do you feel you are about what happens in local politics in your municipality?	Four-point scale 1 = Not informed, 4 = Very well informed	0 = Not informed, 1 = Informed
Frequency of newspaper reading	How often would you say you read local or regional news?	1 = Daily, 2 = 4–6 times a week, 3 = 1–3 times a week, 4 = Fewer	0 = Seldom or never 1 = At least 1–3 times a week
Winner	One can feel larger identification to some parties than others. For the time being, which party do you feel closest?	All parties represented at the local level. Included “none” as an option	0 = Not identifying to any party in government 1 = Feel identification to a party in government
Satisfaction with local democracy	How satisfied are you with the way local democracy works in your municipality?	1 = Not at all satisfied, 2 = Fairly dissatisfied 3 = Fairly satisfied 4 = Very satisfied	1 = Not at all satisfied, 2 = Fairly dissatisfied 3 = Fairly satisfied 4 = Very satisfied
Satisfaction with municipal services	The municipal is responsible for different areas within health care, education, culture, sport facilities and transport. All in all, do you think the municipal services are...	Four-point scale from ‘not satisfied’ to ‘very satisfied’	1 = Not at all satisfied or fairly dissatisfied 0 = Fairly satisfied or very satisfied
Perceptions of local politicians (index)	Politicians in my municipality are sensitive for the inhabitants' viewpoints	Likert scale	Likert scale (1 = ‘do not agree’ and 5 = ‘agree’)
	Politicians in my municipality are skilled people usually knowing what they are doing	Likert scale	Likert scale (1 = ‘do not agree’ and 5 = ‘agree’)
Political representation	How well does the city council reflect the viewpoints of inhabitants?	Four-point scale	1 = Very or quite well, 0 = not at all or quite little
Political challenges	All things considered, how satisfied or dissatisfied are you with the way the municipality has handled challenges facing the municipality?	Scale from 0 to 10	Scale from 0 to 10. (0 = very dissatisfied and 10 = very satisfied)
Satisfied with local services	We would also know how satisfied or dissatisfied you are with the following services ...“accessibility for cars”, “city development”	1 = Not at all satisfied, 2 = Fairly dissatisfied 3 = Fairly satisfied 4 = Very satisfied	1 = Not at all satisfied or fairly dissatisfied, 0 = fairly satisfied or very satisfied
Toll roads	How positive or negative are you towards the toll roads in your city?	Likert scale	1 = Quite negative or very negative 0 = Quite positive, very positive or neither positive or negative

Appendix B. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tra.2018.09.010>.

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Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Transportation Research Part A

journal homepage: www.elsevier.com/locate/tra

The effects of transportation priority congruence for political legitimacy



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ARTICLE INFO

Keywords:

Transport policy
Satisfaction with democracy
Political legitimacy
Congruence
Public support
Collaborative governance

ABSTRACT

Congruence, defined as how closely the opinions of politicians match the policy preferences of voters, is a crucial aspect with respect to political legitimacy since a fundamental objective of democracy is to provide citizens with the policies they want. Yet there are not many studies that have analyzed the extent citizens and politicians are congruent when it comes to the field of transport. By studying transportation policy priorities of politicians and citizens concerning the use of (i) restrictive instruments and (ii) public transport instruments, this article contributes to the literature in at least three ways. First, the results illustrate how the priority of transportation policies varies between politicians and citizens. Politicians tend to prioritize restrictive measures more so than citizens whereas citizens tend to prioritize a reduction of public transport fares higher than politicians. Second, the article shows how the priority given transportation policy instruments is highly dependent on political ideology. Politicians representing parties to the center or left tend to prioritize the use of restrictive measures higher than politicians representing conservative parties. Third, the article explores whether there is a relationship between transportation policy congruence and political legitimacy. The article shows that lack of congruence is associated with a reduced level of trust towards local politicians and citizens being less likely to support local regime principles. These are important findings inasmuch as the literature suggests that lack of political support potentially make citizens more likely to call for radical changes, demonstrate and even abstain from the political process altogether.

1. Introduction

The role of public and political support is important when studying transportation policy. When it comes to public support, most research has focused on support for various forms of restrictive instruments (Albalade and Bel, 2009; Börjesson et al., 2016; Dill and Weinstein, 2007; Eliasson, 2014; Eliasson and Jonsson, 2011; Hansla et al., 2017; Hårsman and Quigley, 2010; Hysing and Isaksson, 2015; Nixon and Agrawal, 2019; Schuitema and Steg, 2008; Tørnblad et al., 2013), although recently the focus has been expanded by also analyzing public support for various improvements within public transport (Agrawal et al., 2010; Manville and Cummins, 2015; Manville and Levine, 2018; Palm and Handy, 2018). There is also a considerable literature examining the political realm of transportation decision-making, literature varying from how politics influence planning processes (Siemiatycki, 2005; Taylor et al., 2009) to specific studies of institutional, organizational and governance aspects within transportation policy making (Edwards and Mackett, 1996; Hatzopoulou and Miller, 2008; Hull, 2008; Tønnesen et al., 2019). But significantly less research has been carried out with regard to political support. This is especially the case for articles on the norms, values and preferences that affect politicians when it comes to their transportation priorities. Some articles do focus on the role of planners in decision-making (Battista and Manaugh,

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<https://doi.org/10.1016/j.tra.2019.11.005>

Received 6 May 2019; Received in revised form 16 October 2019; Accepted 8 November 2019

Available online 18 November 2019

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2017) and investigate the relationship between administrators and politicians (Wellman, 2016). Others have studied politicians through qualitative interviews (Linovski et al., 2018). And while there are examples of articles that specifically study politicians' viewpoints on transportation issues (Hay and Trinder, 1991), questions regarding how, and to what extent, transportation policies in general align with citizens wishes, and whether lack of congruence has political implications, have remained unanswered.

This article thereby contributes to filling this knowledge gap by studying the priorities of politicians and citizens respectively in three Norwegian cities with regard to two different kinds of transportation instruments: (i) restrictive instruments and (ii) public transport instruments.¹ It also examines the possible political implications of whether or not lack of congruence is associated with reduced political legitimacy. Congruence is here defined as how closely the opinions of politicians match the policy preferences of voters. This article therefore asks the following straightforward research questions: *To what degree do transportation policies reflect the wishes of the public? And is a possible lack of transportation policy congruence between voters and the elected representatives linked to political legitimacy?* This article consequently answers the call from Marsden and Reardon (2017, p. 249) who argue that fundamental questions regarding for instance political legitimacy have been ignored within transportation research.

Restrictive policy instruments are regarded as particularly relevant when considering that transport is pivotal for reaching goals connected to climate, environment and congestion. Restrictive and often unpopular instruments are commonly seen as a necessity for reducing car use (Deakin et al., 1996; Steinsland et al., 2018) and such instruments are increasingly used in Norwegian cities. It is thus important to study whether implementation of such key instruments might reduce congruence between politicians and citizens. The same applies to public transport instruments. It is often assumed that the combination of both positive and restrictive policy instruments are necessary for increasing both effectiveness and acceptance of public policies (Givoni et al., 2013; May et al., 2006). But few studies have looked specifically at which public transport instruments citizens or politicians would prioritize. This is particularly important in a Norwegian political context since public transport instruments play a key role in both reducing car-use and contributing to increased acceptance of restrictive instruments.

We also have insufficient knowledge regarding how politicians and citizens prioritize restrictive and public transport instruments. Collaboration is often regarded as a necessary and effective strategy. Especially considering that policies increasingly deal with wicked problems that often require a combined effort from different levels of government. The Norwegian government, for instance, has introduced so-called "City-growth agreements" that commit local and regional authorities to a zero-growth target for personal car use. This means that different levels of government are in principle required to pursue certain policies and goals regardless of changes in government after elections. This article therefore analyzes the potential for such arrangements by studying how transportation policy congruence might be dependent on which political parties are in office at the local level. Such an aspect is arguably important as we lack a deeper understanding on how congruence varies between different political ideologies.

The research questions posed are crucial inasmuch as a fundamental objective of democracy is, arguably, to provide the public with the policies they want. Pertinent literature suggests that support for the political system may erode if politicians fail to deliver policies according to citizen expectations. Lack of congruence, it is suggested, may make citizens resentful and feel powerless (Pitkin, 2004) and consequently make it more likely for citizens to call for radical changes or abstain from the political process altogether (Adams et al., 2006; Bernauer and Vatter, 2012; Reher, 2014). The topic of this article is therefore highly relevant in considering why a new political party – 'The peoples' movement against more tolls' – has been established in Norway. The party is expected to win seats in some of the larger cities with tolls in the coming local election. Decisions to increase the level of tolls, moreover, has spurred both demonstrations and in some instances damages of toll installations in several cities.

The remainder of this article is structured as follows. Section 2 provides an overview of the literature on congruence and political legitimacy. Section 3 describes the data, how the variables are operationalized, and the methods used. Section 4 presents the results on congruence and its possible influence on political legitimacy. The last section summarizes and discusses the findings.

2. Literature

This section is divided into three different parts. The first part deals with the literature on political legitimacy which constitutes the dependent variables considered. Three dimensions of political legitimacy are highlighted and provides information regarding common operationalizations of these factors. The second part takes up the literature on political representation and congruence. Congruence constitutes the main independent variables and different hypotheses are developed in order to capture the various aspects within the literature. The third part then offers a literature review on how congruence within the transportation sector may vary between political ideologies. The literature in this part is specifically linked to a Norwegian political context.

¹ This article categorizes transportation policy instruments into two categories; restrictive instruments and public transport instruments. Restrictive instruments are defined as instruments intending at reducing car use through charges or by limiting the possibility for using cars. This includes parking charges, tolls and reduction in the number of available parking spaces. These transportation policy instruments can be regarded as coercive since they have consequences for actual behavior as opposed to merely discouraging it (Salamon, 2000). Public transport instruments, on the other hand, are instruments that encourage increased use of public transport either through the use of positive payoffs (reduced fares) or through improved services (higher frequencies or new infrastructure). These alternatives provide positive incentives for the public to choose public transport and thereby (presumably) reduce the number of trips made by car.

	Object of support	Definition	Common operationalization
Most diffuse support ↑ ↓ Most specific support	Political community (5)	Often refers to attachment to the political community being either the nation or community	Feelings of belonging to the community, feelings of pride or identity
	Regime principles (4)	Refer to the democratic values and basic democratic principles for the political system	Agreements on specific values or question about democracy being the preferred form of governance
	Regime performance (3)	Support for how the political system functions in practice	Usually satisfaction with how democracy works in practice
	Regime institutions (2)	Attitudes towards e.g. political parties, government, parliament, police, the legal system	Questions tapping satisfaction with the various institutions
	Political actors (1)	Specific support for politicians or political actors	Evaluations of particular leaders, politicians, governments or presidents

Fig. 1. Conceptualization of political support (based on Norris, 1999:10).

2.1. Political legitimacy

Political legitimacy is a multi-dimensional concept (Beetham, 2013). Dalton (1999), for instance, distinguishes between five forms of political support: support for the political community, regime principles, regime performance, regime institutions, and political actors respectively. These dimensions vary on a scale from what is often referred to as specific and diffuse support (Easton, 1965). The various levels and common operationalizations are illustrated in Fig. 1.

This article analyzes the relationship between transportation policy congruence and political legitimacy along three of these dimensions: political actors, regime performance and regime principles.² ‘Political actors’ and ‘regime institutions’ represent satisfaction with specific aspects of the political system. These dimensions are typically measured by asking specific questions regarding support for particular leaders, politicians or governments. Theoretically it is argued that experiencing a reduced level of public support for political actors is less critical since elections may provide citizens the opportunity to change who is governing. This, however, assumes that the political system provides citizens with political alternatives making it possible to “throw the rascals out”. ‘Regime performance’ represents something of a middle orientation and is meant to measure how citizens evaluate the way democracy performs (Linde and Ekman, 2003). ‘Satisfaction with democracy’ is commonly used for analyzing regime performance (Aarts and Thomassen, 2008; Curini et al., 2012; Hobolt, 2012; Leiter and Clark, 2015; Norris, 1999; Sanders et al., 2014). Yet despite its popularity, this measure has also received criticism for being highly sensitive to differences across countries and individuals (Canache et al., 2001). ‘Regime principles’ and ‘political community’, by comparison, are conceptualized as more diffuse factors and are meant to capture the support for more general democratic values and principles. Experiencing a loss in these diffuse dimensions is potentially serious since a decline in support on these dimensions might lead the public be more inclined to require constitutional reforms or call for new forms of government (Peffley and Rohrschneider, 2014).

2.2. Political representation and policy congruence

A fundamental element of a democratic system is to represent citizens through elected politicians (Dahl, 1989; Pitkin, 1967; Urbinati and Warren, 2008). In its perhaps most straightforward form, political representation means to have citizens perspectives present in the policy process (Dovi, 2006). Citizens who stand “close” to their elected representatives in terms of policy priorities are assumed to have their views better represented (Pitkin 2004). It is consequently also more likely that the implemented policies will align with their wishes. Representation, and thereby policy congruence, is therefore thought to be important for political legitimacy. Many studies have therefore analyzed congruence in different political systems for different policy areas (Andeweg, 2011; Bafumi and Herron, 2010; Belchior, 2010; Costello et al., 2012; Eliasson, 2014; Holmberg, 2011; Lax and Phillips, 2012; Önnudóttir, 2014; Spoon and Klüver, 2014). Few, however, have studied congruence when it comes to transportation policies at the local level.

But representation is a concept that encompasses many different dimensions (Mansbridge, 2003). Politicians are traditionally regarded as the people’s representatives (Downs, 1957; Enelow and Hinich, 1984). From such a perspective it is important to assess the extent to which different segments of society are represented at the political level. This is often referred to as *descriptive representation* (Brandenburg and Johns, 2014). Which segments to focus on, and to what extent they are represented, very much depends on context. According to a normative perspective emphasizing descriptive representation, a representative democracy should ensure that segments based on, for instance, considerations of gender, geographical background or education are all sufficiently present in the political system by being represented in the city council, the government or within particular committees. Thus, within transportation policies, Fiva and Halse (2016) have shown that geographical representation influences regional transportation policies. Such findings illustrate the importance of such a perspective for policy output. Arnesen and Peters (2018) also argue that people are more willing to accept a decision made by a member of a group like themselves, thereby illustrating how descriptive representation potentially influences input legitimacy.

It is also possible to assess various *dyadic relationships* when analyzing representation and congruence. Such studies often investigate how preferences align between either political representatives and their constituencies (Doherty, 2013; Gerber and Lewis,

² The two dimensions of ‘political community’ (5) and ‘regime institutions’ (2) are thus not analyzed in this article. This is not, however, highly problematic inasmuch as dimension 1, 3 and 4 are expected to offer a sufficient perspective on political support.

2004; Miller and Stokes, 1963) or preferences between voters and their closest political party (Costello et al., 2012; Spoon and Klüver, 2014; Önnudóttir, 2014). Policies or policy positions are based on within groups comparisons. Reher (2016), however, documents that it is not sufficient that politicians and citizens just align on various policy positions. It is also crucial that they match on the *priority* of policies. Priority congruence may therefore be argued to be an important aspect when it comes to satisfaction with democracy (ibid).

Politicians are from such a perspective regarded as “delegates” that should act as the constituents’ desire (Pitkin, 1967). But the politician’s concerns are commonly more limited to the good of a part rather than good of all (Rehfeld, 2009) in the sense that politicians are expected to represent the perspectives and priorities of the people voting for them. This means that politicians may mainly adopt and implement restrictive and unpopular instruments so long as their preferences and decisions align with a majority of their voters’ wishes. The same logic applies for citizens voting for parties on the losing side in elections. Hence Kim (2009) among others suggests that satisfaction with democracy increases with higher policy congruence. In a similar manner, those with larger ideological distance to the policy preferences of the nearest major party tend to be less satisfied with how democracy functions (Brandenburg and Johns, 2014).

From a structural perspective, the political system has also been argued to influence political legitimacy. Especially proportional representation systems tend to have higher levels of satisfaction (Lijphart, 1999). It has in Norway been argued in this regard that new parties are able to offer people better representation and channel dissatisfied citizens back to the ballot (Miller and Listhaug, 1990). The possible negative effects on political legitimacy might therefore be offset if they feel their views are represented by the opposition’s parties. Moreover, studies have shown that citizens are more likely to vote when politicians and parties address their concerns. Citizens are less likely to vote if they feel alienated or are indifferent regarding the candidates (Adams et al., 2006; Brody and Page, 1973; Reher, 2014).

Collective congruence, also coined *Proportionate Influence vision*, offers a broader perspective (Huber and Powell, 1994). In this case the focus is on how politicians or a government represents the ideology or policy preferences for all citizens. The normative aim is to promote policies that represent the good for all and not just the good of a part. This perspective stresses the importance of taking all citizens’ viewpoints into account in policy making. For this purpose, the median or average voter is often used as reference point for measuring policy congruence since it can be argued to be the policy position being most preferred by citizens.

A contrasting view is to highlight the independent role for politicians. Elected officials might regard themselves as possessing some expertise making them more suited to take decisions on behalf of the citizens. If so, politicians should focus less on public opinion in general and instead function as ‘trustees’ (Canes-Wrone et al., 2001; Pitkin, 1967; Rehfeld, 2009). This perspective is arguably becoming more relevant with the rise of wicked problems and increased interdependence. The relationship between policies and problems is increasingly complex, often demanding multilevel coordination and cooperation. For citizens it is arguably becoming harder to assess roadmaps for future policies. Under these conditions, it can be suggested, politicians should be regarded as more autonomous from their voters and instead rely on their own judgment. This is clearly a relevant perspective within the transportation sector. Most larger urban areas face challenges connected to congestion, emissions and pollution, for example, and these challenges are argued to have severe impact on people’s daily life and health (Seaton et al., 1995). Politicians may therefore face the challenge of implementing policies that are effective in amending such problems, but simultaneously have low public support. From a ‘delegate’ perspective, politicians should only implement policies that have sufficient support, whereas from a ‘trustee’ perspective, politicians should act as an expert in the field and promote policies they see fit regardless of whether or not they match the preferences of (their) voters. According to the latter perspective, lack of congruence is less serious if citizens share the view of politicians as ‘trustees’.

2.3. Transportation policy congruence and political ideology

International experiences concerning transportation policies suggest contextual, ideological and political differences when it comes to support for congestion pricing or specific transportation taxes (Eliasson, 2014; Eliasson and Jonsson, 2011; Hårsman and Quigley, 2010; Nixon and Agrawal, 2019). In the Norwegian political context, political parties to the center and left tend to be more positive towards *restrictive instruments* compared to political parties to the right. Previous studies have also showed that public support for restrictive instruments varies by political ideology, beliefs about the effects of restrictive instruments, and how affected individuals are by the restrictive instruments in question (Eliasson and Jonsson, 2011).

Public transport priorities can likewise be highly political (Taylor and Morris, 2015), and there are competing political reasons for preferring public transport improvements (Mackett and Edwards, 1998). New infrastructure projects like metro or light rail can for instance be of major symbolic importance for politicians (Enright, 2013; Siemiątycki, 2005) and hence lead to higher prioritization of new metro or light rail lines compared to less prestigious investments in public transport frequencies. Politicians can also prioritize various instruments for improving public transport differently. In Norway, for instance, political parties farther to the right have tended to favor road investments higher as compared to investments in public transport.

Previous research has similarly shown that from a citizens perspective arguments about how public transport may reduce congestion or have positive environmental impacts make citizens more likely to support increased investments in public transport (Manville and Levine, 2018). This is line with the findings from Palm and Handy (2018) and Manville and Cummins (2015) who show that beliefs about the impact of the policies is an important determinant for predicting support for sustainable transport measures. From such a perspective the priorities between politicians and citizens may differ. In principle politicians possess detailed knowledge about the likely effects of various transportation measures, especially when taking into account that each city has produced lengthy assessments regarding possible strategies for reaching a zero-growth target. Politicians thereby may diverge from citizens priorities

since they hold more ‘informed’ knowledge about the effects of each measure.³ Citizens may for instance on average be less inclined to believe that congestion pricing has the intended effects on traffic or queues (Börjesson et al., 2016). But politicians may also diverge from citizens priorities if they prefer highly symbolic projects compared to, for instance, reducing fares. In general citizens may also benefit more personally from higher frequencies and lower fares which may lead to higher prioritization of these measures.

2.4. Hypotheses

Taken together, the literature review leads to the following hypotheses:

H1: Politicians and citizens to the center or left prioritize restrictive instruments higher than conservative representatives and conservative citizens

H2: Politicians and citizens to the center or left prioritize public transport instruments higher than conservative representatives and conservative citizens

H3: Lack of policy congruence between the average politician and voter reduces citizens satisfaction with political actors, satisfaction with regime performance and support for regime principles

H4: Lack of policy congruence with the nearest party reduces citizens satisfaction with political actors, satisfaction with regime performance and support for regime principles

H5: Transportation policy congruence has minimal, if any, impact on any aspects on perceived political legitimacy

3. Policy context

Norway has three levels of government, all having different responsibilities essential for traffic development. Local authorities are responsible for local roads, land-use and parking policies. Regional authorities are responsible for regional roads, public transport and regional planning, while national authorities are responsible for national roads, rail infrastructure and rail services, as well as localization of state enterprises. The state level can in addition overrun local land-use decisions if some of the actors’ object to a certain development. Each level of government is elected every fourth year. Although the same parties are represented at all three levels, the political constellation of governing bodies often differs between local, regional and national levels. Transportation policies are also important for people when casting a vote and transport is a key element for each party while campaigning.

As part of a cross-party agreement regarding climate policies, the Norwegian Parliament has decided that personal car use should not grow. The goal is referred to as the zero-growth goal (ZGG) and is meant to acknowledge that increased transport demand cannot be met by increased car use. In order to reach this goal, a coordinated effort among all levels of government is needed. The national level consequently introduced “City-growth agreements”. These agreements are regarded as one of the most important national strategies within the climate policy domain. It is a voluntary long-term agreement (currently at least six years) based on negotiations between the involved actors. Before starting the negotiations, the national government has required a detailed review regarding likely scenarios for traffic development in the respective urban areas within the next 12 years. The assessment also includes detailed analyses on how to reach the zero-growth goal and the effects of various policy packages. All cities expect significant growth in populations, which consequently requires a combination of policies varying from improving public transport services to implementing restrictive instruments through changes in parking policies and/or increased toll levels for reaching the zero-growth goal.

In order to influence policies at lower levels of government, the national government offers to fund up to 50 percent of infrastructure costs for new public transport investments. In Oslo, the authorities are therefore planning for a new metro line, Bergen is constructing a new light-rail line and Trondheim is introducing a new bus-rapid-transit system. In 2013–14 the modal share for public transport was 26 percent in Oslo, 12 percent in Trondheim and 16 percent in Bergen. The national government is also committed to prioritize funds for national infrastructure projects in a way that promotes the ZGG objectives. In return, the regional and local levels are also expected to follow policies that contribute to reaching the zero-growth goal. The collaboration thus aims at changing policies at all levels of government without formally altering the balance between ministerial and regional/local responsibilities.

The collaboration agreements set clear boundaries for what the actors should prioritize. It is therefore important to analyze whether there are differences in policy congruence related to political ideology since policy congruence is theoretically linked to political legitimacy. It is likely that such arrangements influence local political legitimacy if the collaboration requires local actors to implement policies that are in stark contrast to their own interests. This is a clear possibility inasmuch as the arrangement does not consider changes in governments after elections. An important aspect is therefore to analyze how such arrangements might favor certain political ideologies more than others. The stability of collaboration, moreover, is likely to be reduced if it requires local actors to implement policies that do not represent their preferences.

4. Data and measurement

The article combines two datasets for analyzing transportation policy priority congruence between citizens and politicians in the three largest cities in Norway. Citizens in Oslo, Bergen and Trondheim were recruited through a representative web panel during March 2017. A total of 6443 aged 18 years or older were invited to participate. 48% completed the whole survey. The survey was

³ It is not possible, however, in this article to explain the possible direct or indirect role on how professional expertise may influence transportation priorities.

constructed in two main parts. The first part consisted of general political questions and attitudes, as well as including questions regarding satisfaction with various municipal services. The second part asked specific questions regarding transportation measures. In this manner the questionnaire aimed at minimizing any possible effects of priming. The sample was later weighted for age, gender and geography. Politicians from the same cities were directly targeted to complete a survey with similar questions during March 2018. The response rate for politicians was on average 30 percent. In general, the survey includes representatives from almost all parties represented in the city councils. An approximately equal share of respondents from the Conservative party and the Labor party completed the survey. These two parties constitute the two main blocks in Norwegian politics. But the share of smaller parties is somewhat higher compared to their representation in the city councils.⁴ In general, moreover, the parties operate with strong party discipline making it more likely that politicians represent quite adequately the viewpoints from their respective political parties. All-in-all, therefore, the political respondents offer a representative picture of political priorities within transportation policies at the local level.

4.1. Policy priority congruence

As intimated in the literature above, different scholarly traditions have adopted diverse means for operationalizing congruence (Broockman, 2016; Wlezien, 2017). There have therefore been debates regarding how to measure congruence and discussions regarding the implications of the various ways for operationalizing the concept (Jennings and Wlezien, 2015; Wlezien, 2017). In evaluating congruence, researchers need to measure what citizens wants within different policy areas and compare these wishes to preferences on adopted measures. A predominant way of doing this has been to measure the absolute difference in opinion on various issues between the median citizen and that of the relevant level of government or to measure the ideological difference on a left-right scale to the nearest party. Others compare public opinion and party platforms or compare the average positions for the public and politicians. Studies on opinion representation often use questions about the “most important problem” ((Jones and Baumgartner, 2004). Some also analyze respondents’ preferred level of policy through public spending (Jennings and Wlezien, 2015).

This article, however, follows the argument from Reher (2016) and studies how policy priorities align between politicians and citizens. Arguably this is a relevant topic within the transportation sector. It is for instance uncontroversial for both voters and politicians to be positive towards instruments improving the transport system, in particular if they are associated with low costs and do not have any significant negative consequences. But even though they both agree on the positive aspects, they might prioritize them in a different way. Thus, politicians and the public might agree on the direction for certain policies but might order them differently. This is of crucial importance, especially considering that transportation policies in Norway are - to a large degree - decided through multi-level collaborative arrangements. In principle these arrangements set clear restrictions for local and regional policies. How politicians rank policy measures are from such a perspective important.

This article specifically measures priority congruence within transportation by posing the following question to both politicians and citizens:

“Imagine that you can choose freely between different instruments within transportation policies. Please state how you would prioritize (on a four-point scale) the following instruments: reducing the number of parking spaces, increase parking charges, increase level of tolls, increase number of public transport departures, investing in new public transport infrastructure and reducing fares on public transport”.⁵

For measuring how priority congruence influences evaluation of regime performance, respondents were asked

‘How satisfied or dissatisfied are you with the way in which local democracy works in your municipality’.

In order to analyze support for politicians, respondents answered the following three statements:

“Politicians take into account the inhabitants’ viewpoints”, “Politicians are competent people knowing what they are doing” and “Politicians in my municipality set aside their personal interests when taking political decisions”.

Factor analysis of these three items produced a unidimensional component explaining 80% of the variance in the set of items (Cronbach’s alpha = 0.80).

The last political legitimacy dimension used in this article is based on two questions meant to capture viewpoints on regime principles:

‘The Norwegian democracy could function just as well without local self-government’ and ‘Local self-government is not that important as long as the level of public services is maintained’.

Reliability analysis of these two items yielded a Cronbach’s alpha of 0.73.

5. Results

Two different kinds of empirical results are presented. First, in Section 5.1, descriptive data regarding transport priority

⁴ See appendix A for an overview of response rates according to party distribution.

⁵ This means that it is possible to give same rank to multiple measures.

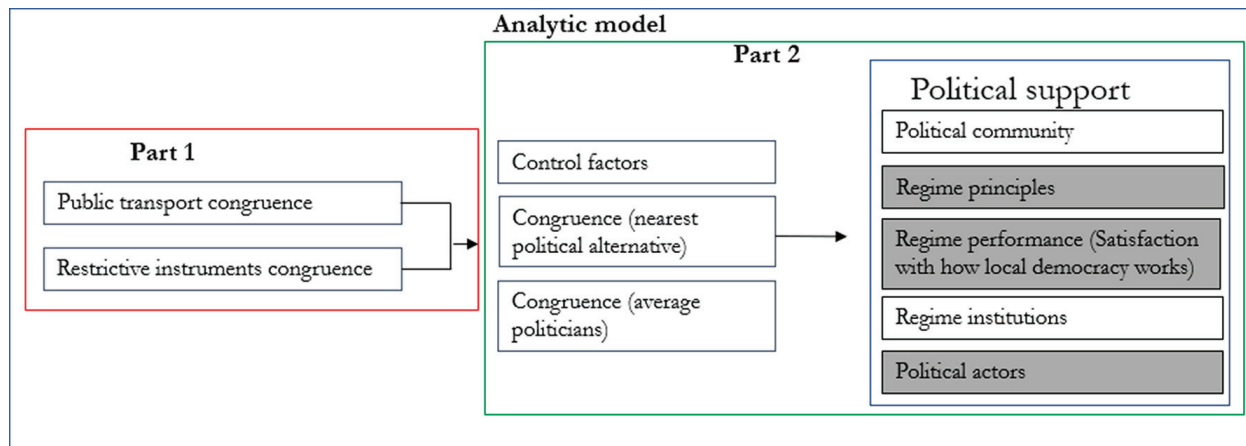


Fig. 2. Analytic model.

congruence are presented. The analyses focus on hypothesis H1 and H2. In the second part (Section 5.2) analyses using ordinary least square regression focus on the effects of congruence on political legitimacy (hypothesis H3, H4 and H5). Fig. 2 illustrates the analytic models used and the relationship between the different parts.

5.1. Descriptive overview of policy priority congruence for restrictive instruments

Fig. 3 shows the average prioritization of *restrictive policy instruments* for both the public and politicians in the three cities.⁶ The figure also differentiates the priority of restrictive instruments by comparing those who support a party in power with those supporting the main political alternative. In Oslo the Labour party governs in a coalition with the Socialist Left Party and the Green Party. Bergen is governed by a coalition consisting of the Labour party, the Christian Democratic Party and the Liberal Party. Trondheim includes the same parties as above but also includes the Centre Party. In short, the Labour party governs in coalition with other parties in all three cities. The Conservative Party, but also the Progressive Party, are the two main opposition parties in all three cities. These two parties therefore represent the main plausible political alternative and are consequently the most natural parties for comparing congruence.

The figure illustrates several aspects. First, when it comes to political and regional differences, politicians representing the parties in power tend to prioritize restrictive instruments significantly higher than political representatives from the Conservative and Progress parties. The pattern is the same for all three cities although there are some regional differences. This provides support for hypothesis H1 which posits that politicians representing political parties to the center or left prioritize restrictive instruments higher than conservative representatives.

Moreover, politicians in Oslo – regardless of political party – prioritize restrictive instruments higher than politicians in the other cities. This can be related to Oslo's experience of being significantly larger than Bergen and Trondheim. Oslo faces more severe challenges connected to congestion, population growth, and a need for funding for larger infrastructure projects compared to the other cities. From such a perspective restrictive instruments such as tolls are arguably necessary, especially considering that tolls are pivotal for funding new infrastructure projects. Regional differences between politicians on the winning side of the political spectrum can partly be explained by the different political coalitions. Context is therefore an important factor, and the results may also suggest that possibilities for reaching zero-growth through increased use of restrictive instruments are highly dependent on the political coalition governing at the local level.

Second, citizens attitudes display the same pattern as politicians. Citizens favoring parties in power tend to prioritize restrictive instruments higher than citizens favoring the Conservative or Progress parties. This illustrates at least some congruence between politicians and citizens. But citizens to the center and left nevertheless prioritize restrictive instruments significantly lower than politicians representing the same political side. Priority congruence is from such a perspective lower for parties on the winning side. Fig. 4 illustrates such a point by showing the absolute differences in policy priority between politicians and citizens. The black line represents the median value, while the colored area shows the upper and lower quartile. The black circles show outliers.

Restrictive policy congruence is lowest between politicians and citizens representing winners in Oslo and Trondheim. The median absolute difference between politicians and citizens is over 1 in these two cities, but below 1 in Bergen⁷. Politicians and citizens representing Conservatives or the Progress Party, however, have smaller differences in opinion regarding the priority of restrictive instruments. The median values in Bergen and Trondheim suggest that most of those voters are relatively congruent with politicians. Citizens supporting the Conservatives or Progress Party in Oslo are relatively least congruent among the three cities.

All things considered, the results thereby illustrate the importance of both political ideology and context when it comes to priorities for restrictive instruments. The results may therefore be highly relevant when considering the stability of collaborative governance arrangements requiring implementation of such instruments.

⁶ T-tests show whether the differences between the citizens and politicians are significant.

⁷ Maximum variance is 3 and minimum variance is 0.

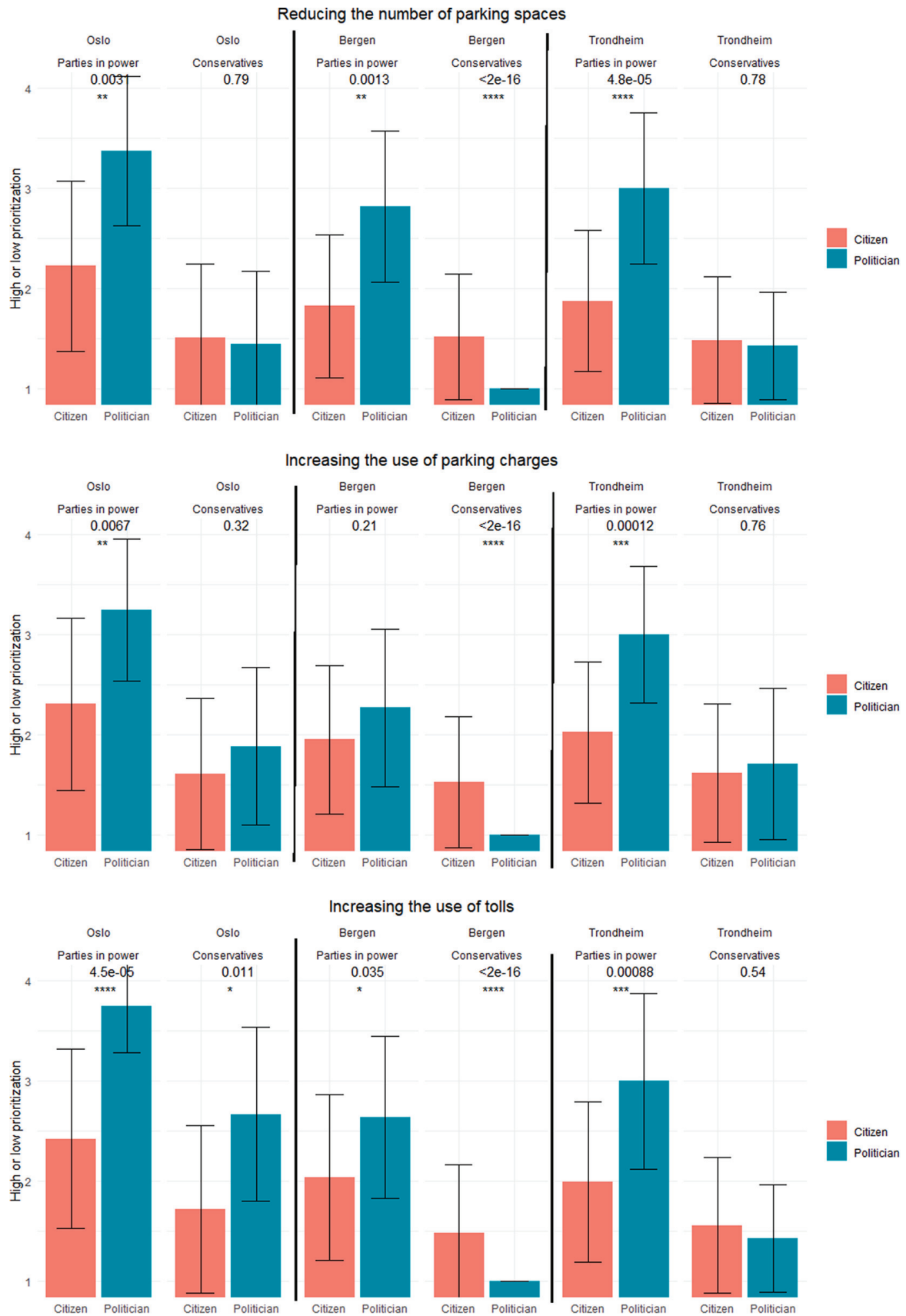


Fig. 3. Prioritization of restrictive instruments (4 = very high priority, 1 = very low priority).

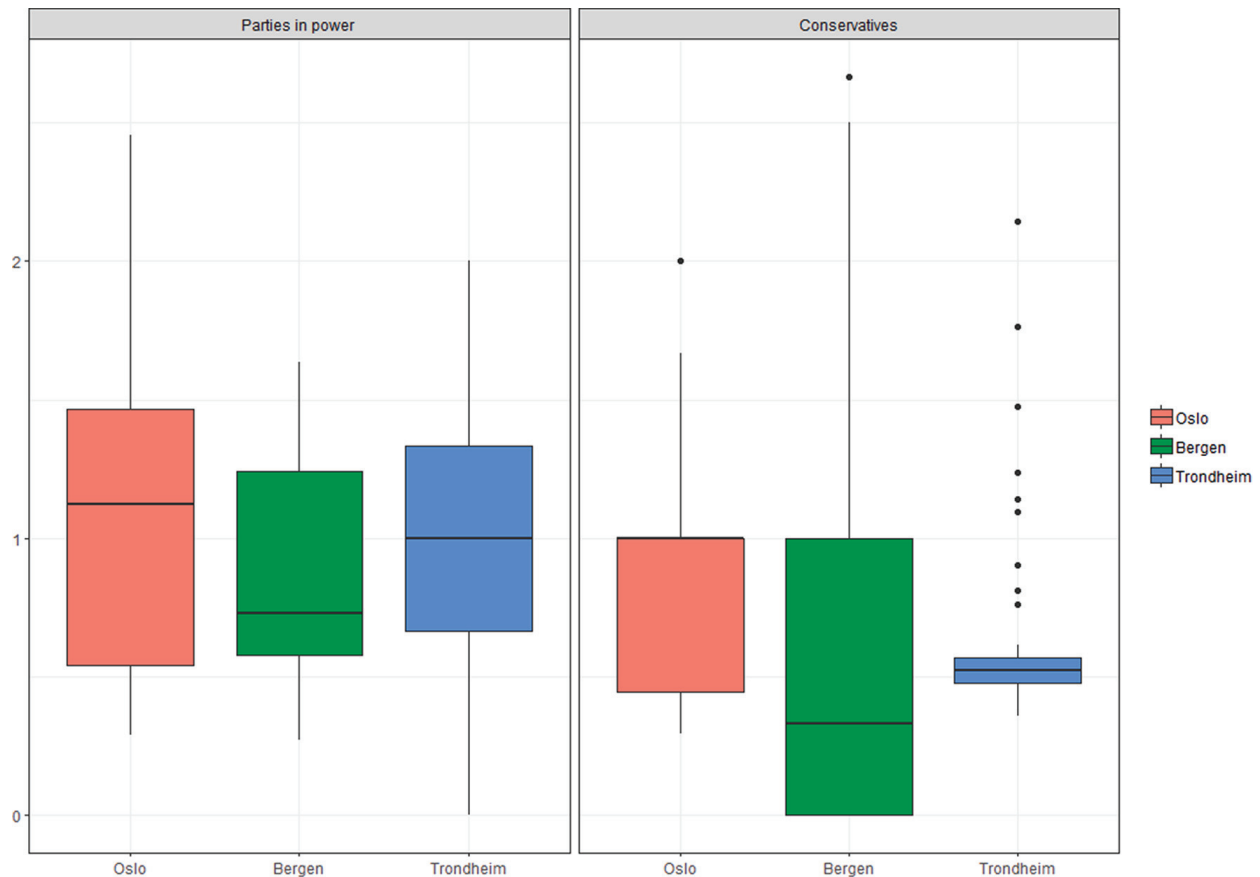


Fig. 4. Boxplot average absolute differences in priority of restrictive instruments.

5.2. Descriptive overview of policy priority congruence for public transport instruments

Fig. 5 shows the average prioritization of *public transport instruments* for both the public and politicians in the three cities (H2). The figure also differentiates the priority of public transport instruments by comparing those who support a party in power with those supporting the main political alternative.

Fig. 5 shows priority congruence for three *public transport policy instruments*. The figure illustrates a more mixed picture compared to the results for restrictive instruments. First, both politicians and citizens tend to prioritize public transport measures. For citizens, the median values for all public transport instruments are close to 3.5. This is close to the political median on 3.4. Politicians and citizens are from such a perspective relatively congruent when it comes to public transport instruments.

Second, there are, however, differences when it comes to how these instruments are prioritized. Increased frequencies and reduced public transport fares are the two instruments that are given highest priority by citizens. Politicians, on the other hand, prioritize on average increased frequencies and investments in public transport infrastructure highest. The only exception is politicians representing the Conservatives and Progress Party in Bergen. Citizens prioritize reduced public transport fares on average higher than politicians. Such a finding can be highly relevant when considering that reduced fares have not been a particular priority in Oslo for instance.

Third, there are also regional differences. Citizens supporting Conservatives or the Progress party in Bergen and Trondheim prioritize infrastructure investments for public transport lower than those supporting the parties in power. This can be linked to the various types of infrastructure projects that are being promoted. Locally there has been much debate regarding the effects and needs for investments in a new light rail line in Bergen and a new bus rapid transit system in Trondheim. The construction of a new metro line in Oslo, by comparison, has been quite uncontroversial.

Fourth, when looking at politicians, there are some political differences when it comes to the priority of public transport measures. Politicians representing the parties in power – and thereby representing the center and left – tend to prioritize investments and reduced fares higher than politicians representing the opposition.

All things considered, the results provide support for H2. Politicians and citizens representing the political parties to the center or left tend to prioritize public transport instruments higher than conservative representatives. There are, however, some differences when it comes to the priority of investments in public transport and reduced fares. Fig. 6 illustrates such an aspect by showing the average absolute differences in policy prioritization between citizens and politicians' prioritizations for all public transport instruments.

Citizens and politicians are significantly more congruent when it comes to the priority of public transport instruments compared

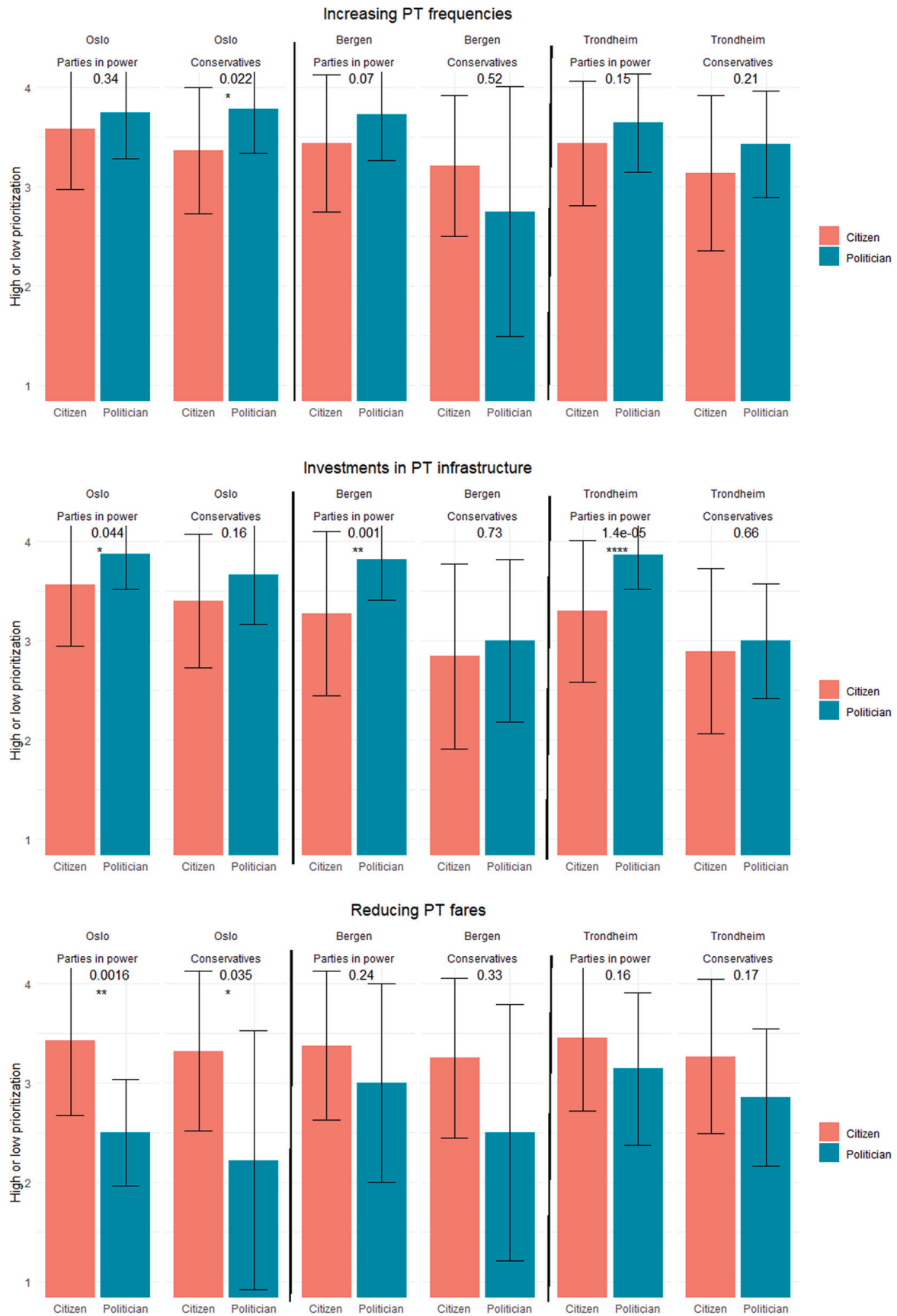


Fig. 5. Prioritization of public transport instruments (4 = very high priority, 1 = very low priority).

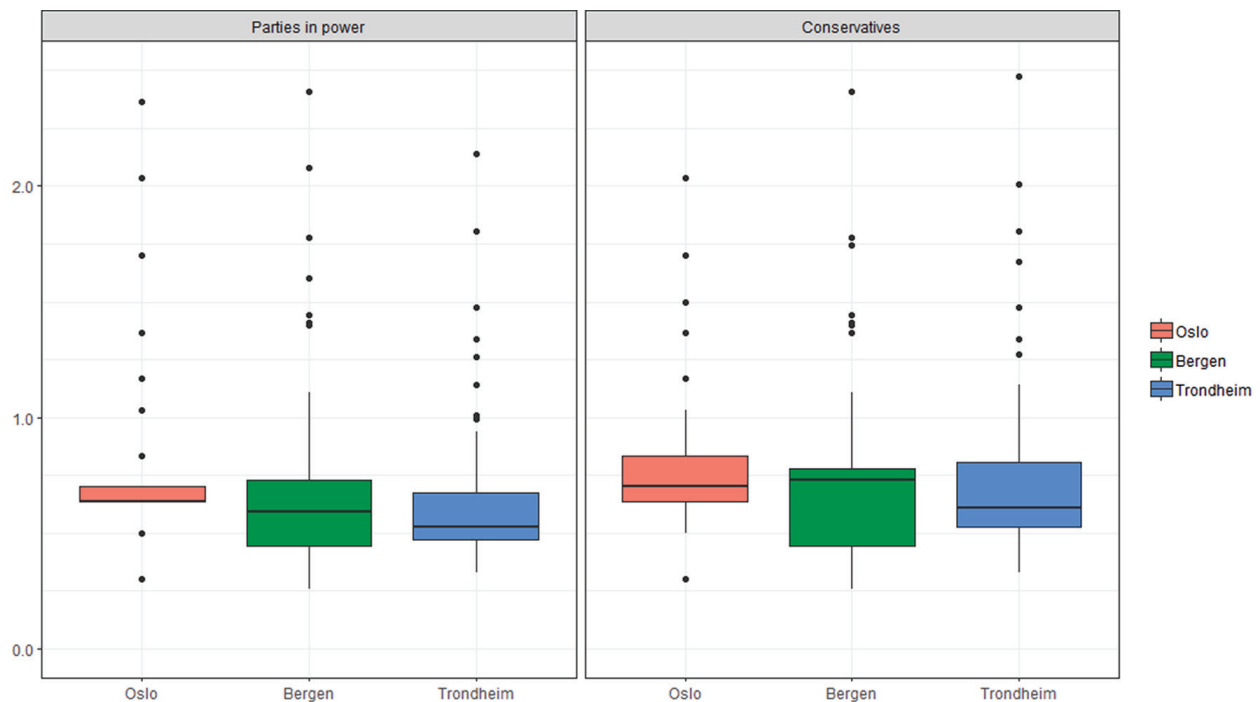


Fig. 6. Boxplot average absolute differences in priority of public transport instruments.

to restrictive instruments. The results therefore illustrate that the stability of collaborative governance arrangements may be stronger when it comes to public transport. Both citizens and politicians tend to prioritize public transport instruments relatively highly. There are also small differences when looking at congruence between parties in power and conservatives between the three cities. But the results also suggest that there are differences between citizens and politicians since the median difference varies between 0.5 and 0.75 for all cities. As explained previously, these differences are in particular related to investments in public transport infrastructure and reduced fares.

5.3. Transportation priority congruence and political legitimacy

The previous part illustrated how policy prioritization varies between citizens and politicians for different types of instruments. In this part the focus shifts to whether lack of congruence has any political implications. How the different perspectives for understanding congruence influences political legitimacy (H3, H4, H5) is investigated. Two different indexes of congruence serve as independent variables (congruence with the political average and congruence with the nearest political party). The first variable is an index based on measuring the average absolute difference in transport priority compared to the political average (H3).⁸ The second index measures the average absolute difference in transport priority compared to the nearest political alternative (H4).⁹ The indexes include all transport instruments thereby considering both restrictive and public transport instruments. Three dimensions of political legitimacy (politicians, satisfaction with local democracy and regime principles) serve as dependent variables. The analysis is carried out by means of ordinary least square regression. See Figs. 1 and 2 for an overview of the conceptualization of political support and the analytic model.

Table 1 presents the empirical analyses of how variations in policy congruence influence the three different aspects of political legitimacy. The analysis also includes an interaction term since it is plausible that the effect of congruence is dependent on whether citizens feel an attachment to the political parties governing the municipality. Previous research has shown that citizens favoring the ‘winning’ side of a political context are more satisfied with how democracy functions. The models control for other factors identified in the literature as being important for influencing political legitimacy (Christiansen, 2018). By means of simplification the model only presents the results for the variables measuring congruence. Appendix B presents the full results for the analytical models including all variables. Although there are some small variations between the models when it comes to significance levels and effect size for the independent variables in appendix B, it is beyond the limits of this article to explain these results in detail.

Looking first at results for model 1 in Table 1, the analysis suggests a (negative) relationship between congruence in transportation policy priorities (for the political average) and satisfaction with politicians. The results suggest, in other words, a pattern where

⁸ That is: $\frac{\sum_{i=1}^T (X_i - Y_i)}{T}$ where Y is the political average for prioritization of measure t.

⁹ In this respect the article aims at accommodating differences in public opinion. On the one hand, the political average can be understood as a power dimension since parties holding political power locally will typically have more representatives. On the other hand, the second index is meant to capture differences in public opinion by analyzing congruence with the nearest political party.

Table 1

Direct standardized effects of congruence on three dimensions of political legitimacy. OLS.

Congruence variables	Model 1 Satisfaction with politicians	Model 2 Satisfaction with local democracy	Model 3 Measures of regime principles
Congruence average politician (H3)	−0.05***	−0.02	−0.15***
Congruence average politician* ‘Winner’	0.03	0.05	0.05
Congruence nearest political alternative (H4)	0.00	−0.01	0.03
R ²	0.54	0.45	0.19
N	2198	2044	1839

increased distance to the political average tends to reduce trust in politicians. This gives support to the idea that with opinions that are less congruent with the political average are less likely to regard politicians as competent and being sensitive for citizens’ viewpoints (H3). Although not statistically significant, the results also indicate, however, that the effect of congruence is dependent on whether citizens feel attachment to the political parties governing the municipality. Lack of congruence with the nearest political alternative, on the other hand, does not have an impact upon citizens’ evaluations of politicians. Such a finding therefore provides more support for H5 and less support for H4. From this perspective, citizens might tend to regard politicians being close to their viewpoints as ‘trustees’ while increased political distance to the opposition tends to reduce satisfaction with politicians.

In model 2, the dependent variable is ‘satisfaction with local democracy’. The results show a similar pattern although there are some differences compared to model 1. Lack of congruence with the political average reduces satisfaction with (local) democracy by a smaller margin (−0.02) than it does for citizen evaluations of politicians (−0.05). The result, moreover, is not statistically significant. The results, in short, provide only weak support at best for H3 when it comes to the relationship between satisfaction with democracy and congruence. The effect of congruence also tends to be dependent on whether citizens feel an attachment to the political parties governing the municipality (0.05). There is also a weak and negative – but not statistically significant relationship – between lack of congruence to the nearest political alternative and satisfaction with democracy (H4). Taken together, the findings provide more support for H5 since the effect sizes are on average quite small.

Model 3 analyses whether lack of congruence makes citizens more likely to support a political system without local government. The results illustrate a significant and much stronger relationship between transportation priority congruence and support for regime principles than is found for the two other dependent variables (−0.15). Citizens being less aligned with the political average are on average more inclined to agree with statements regarding how the political system could function just as well without local government and that local self-government is not that important. The results thereby give strong support for H3. Even though the coefficient is not significant, model 3 suggests a similar pattern as the other models with respect to supporting parties in power. Lack of congruence with the nearest political alternative does not have an impact upon citizens’ evaluations of regime principles.

6. Conclusion

This article contributes to our knowledge regarding transportation policies by analyzing the level of congruence between politicians and citizens based on evidence from three Norwegian cities. It thereby offers input for understanding how prioritizations for two different kinds of transportation policies may depend on political ideology. This is particularly relevant considering that various forms of multi-layered collaborative governance arrangements have bloomed in recent years (Ansell and Gash, 2008; Emerson and Nabatchi, 2015). The article also contributes to the literature on political legitimacy and transportation policies by specifically analyzing how transportation policies can influence citizens evaluation of politicians, satisfaction with democracy and regime support.

To summarize, the results first suggest that transportation policy priority congruence influences the legitimacy governments may enjoy. The article thereby highlights both the importance of tool choice (Salamon, 2000) and more specifically the role of transportation policies for political legitimacy. Lack of congruence with the average priorities of (local) politician tends to have the largest effect on citizens’ evaluations of politicians and regime principles. But previous analyses have shown that evaluation of politicians also influences citizens’ satisfaction with democracy (Christiansen, 2018). The results therefore suggest that congruence may well influence satisfaction with (local) democracy indirectly. These results thus indicate how transportation policies possible play an important role when it comes to political legitimacy at the local level.

The importance of congruence in policy preferences is likely to be particularly important inasmuch as all three cities investigated have planned to increase the level of road tolls and increase the use of restrictive parking policies. This is also relevant when taking into account the political implications of reduced legitimacy. Citizens may well abstain from voting when they feel alienated from the political candidates (Adams et al., 2006; Brody and Page, 1973) or they may push for radical changes in the political system (Bernauer and Vatter, 2012). The findings in this article are in this way central when considering how new parties are emerging (*‘The peoples’ movement against more tolls’*) at the local level or observing increased levels of demonstrations when it comes to the use of restrictive policy instruments.

It is, however, necessary to offer a nuance to some of the results. For one thing, the findings show how support for regime principles is reduced when citizens feel less congruent with the political average. This may imply that citizens have less confidence in the political system and therefore be more inclined to support radical changes. This does not, however, necessarily mean that citizens will support non-democratic reforms of governance. It is arguably more likely that the results suggest increased support for changes

making the regional or national level more powerful. The analysis, moreover, indicate that the relationship between congruence and political legitimacy is weak. On the one hand this illustrates how transportation is only one of several key policy areas at the local level. On the other hand, it is important to remember how just smaller changes in voter abstention or support for various political parties can potentially have large impact on governmental constellations and policies.

Second, the results show that the political system offers political alternatives supporting both low and high prioritization of both restrictive instruments and public transport instruments. The results furthermore suggest that lack of congruence with the nearest political alternative has little influence on political legitimacy. This might be related to the fact that citizens and politicians agree on whether restrictive or public transport measures should be prioritized high or low. They are consequently arguably ‘on the same side’. If so, then the lack of congruence mainly represents differences in whether politicians and citizens prioritize various instruments very high/low or quite high/low. This is highly relevant when taking into account how the national government has introduced binding agreements with the local and regional level. The agreements require zero-growth in personal car use which consequently makes the use of restrictive instruments a necessary strategy. The findings in this article therefore suggest that the stability of such agreements may be highly dependent on political constellations at the local level. Both citizens and politicians supporting or representing the Conservative and Progress parties tend to have low prioritization of restrictive instruments. This shows the importance of political ideology and can arguably indicate that local elections can be highly important for both the stability of these agreements and for the possibility for reaching the zero-growth goal. A strategy in which local governments governed by Conservatives are ‘forced’ to implement restrictive measures would in this case be likely to have a greater impact on political legitimacy since it would reduce the level of congruence to the nearest political alternative.

Third, within the literature on policy packaging and acceptance, the combination of both positive and restrictive policy instruments are regarded as necessary for increasing effectiveness and acceptance of public policies (Givoni et al., 2013; Justen et al., 2014; May et al., 2006). Politicians thus often combine different forms of positive instruments when introducing congestion pricing or implementing more restrictive parking policies. Some of the most relevant public transport instruments are usually a combination of either increased frequency on public transport, improved public transport services by constructing new infrastructure, or reduced fares. But the literature has not specifically studied how the priorities for such instruments might differ between politicians and citizens. This article shows that citizens and politicians differ in the prioritization of these instruments and the results therefore indicate that it is not irrelevant what kind of positive measures politicians choose to implement in a policy package.

Lastly, this article serves to highlight the importance for planners and decision-makers of taking into account citizens perspectives in policymaking. Arguably designing arenas that allow for informed dialogue between politicians and citizens can contribute both to policy innovation (Sørensen and Torfing, 2019) as well as increased issue knowledge and public support for decisions (Michels, 2011). Such processes may be especially important when citizens and politicians differ in their respective priorities and perceived effects of alternative policy instruments. Including citizens perspectives can therefore potentially be relevant in terms of both producing ‘better’ and more acceptable policies, but also be a strategy that has positive democratic effects in terms of reducing the perception that politicians do not care about what people think.

Further research on these issues are needed. It would be particularly interesting to analyze the preferred level of policies for various transportation instruments. Although this article has made a first contribution in this aspect, further knowledge is needed. Citizens might in general be in favor of having road tolls, for instance, but at the same time think that the existing toll levels are too high or low. It might also be important to study how citizens perceive and are able to evaluate governmental policies. To what extent are citizens able to detect changes in policies and hold politicians accountable for these changes in policies? Another issue to be analyzed further is how congruence may change over time and consider how support for various policies might depend on not only how it is framed, but also who is advocating it. It is also relevant to study how including citizens in policymaking could influence policies and satisfaction with democracy. Lastly, further research could do well in analyzing how congruence on a wide selection of policies may influence political behavior in terms voting and support for various political parties.

Acknowledgement

I am grateful to professor Lawrence E. Rose at the University of Oslo for his invaluable comments. I also wish to thank three anonymous reviewers, as well as Ove Langeland and Kåre Skollerud for their constructive comments on earlier versions of this paper.

Funding

This work was supported by the Research Council of Norway for a project entitled “Changing commuting in large urban areas – identifying acceptable and effective measures (COMMUTE)” (249733/O80).

Appendix A

Response rate and number of political representatives for political parties in Oslo, Bergen and Trondheim.

	Oslo		Bergen		Trondheim	
	Survey	City Council	Survey	City Council	Survey	City Council
Red Party	0%	5%	0%	3%	11%	3%
Socialist Left Party	10%	5%	14%	14%	11%	6%
Labor	20%	34%	33%	38%	19%	41%
Centre Party	0%	0%	5%	1%	4%	3%
Liberals	15%	7%	10%	6%	4%	6%
Greens	10%	8%	10%	3%	15%	7%
Christian People's Party	0%	2%	10%	4%	4%	3%
Conservatives	40%	32%	14%	22%	19%	20%
Progress Party	5%	7%	5%	8%	8%	6%
Other	0%	0%	0%	1%	4%	5%
N	20	67	21	74	26	67
Response rate	30%		28%		39%	

Response rate and party allegiance of residents in Oslo, Bergen and Trondheim

	Oslo	Bergen	Trondheim
	Survey	Survey	Survey
Red Party	10%	5%	3%
Socialist Left Party	8%	8%	13%
Labor	24%	28%	30%
Centre Party	2%	4%	4%
Liberals	6%	4%	5%
Greens	7%	5%	5%
Christian People's Party	2%	3%	2%
Conservatives	27%	25%	22%
Progress Party	6%	7%	4%
Other/none	8%	12%	11%
N	985	1037	796
Response rate for all cities*	48%		

*6443 were invited to participate in the survey. In the end a total of 3072 answered the whole survey. Response rate is 48 percent.

Appendix B. . Direct standardized effects on three models for political legitimacy

	Model 1	Model 2	Model 3
(Intercept)	Politicians 3.37*** (0.04)	SWD 2.74*** (0.04)	Regime principles 2.87*** (0.06)
Age	-0.03** (0.01)	-0.05*** (0.01)	-0.00 (0.02)
Male	-0.04 (0.02)	0.02 (0.02)	-0.10** (0.03)
Education	0.09*** (0.02)	-0.00 (0.03)	0.03 (0.03)
Bergen	-0.04 (0.03)	-0.07* (0.03)	0.10* (0.04)
Trondheim	-0.11*** (0.03)	-0.05 (0.03)	0.06 (0.04)
Reading local newspapers	-0.01 (0.03)	-0.04 (0.03)	0.09* (0.04)
Politically informed (subjectively)	0.05* (0.02)	0.03 (0.02)	0.09** (0.03)
Winner	0.13*** (0.02)	0.10*** (0.03)	0.08* (0.04)
Politicians		0.19*** (0.02)	0.15*** (0.02)
City council represents well	0.27*** (0.02)	0.15*** (0.03)	0.05 (0.04)
What people think			
Satisfied with handling of local challenges	0.26*** (0.01)	0.15*** (0.02)	0.06** (0.02)
Dissatisfied with municipal services	-0.20*** (0.03)	-0.04 (0.03)	0.06 (0.04)
Dissatisfied "city-development"	-0.12*** (0.02)	-0.20*** (0.03)	0.14*** (0.04)
Dissatisfied with car accessibility	-0.18*** (0.03)	-0.11*** (0.03)	-0.02 (0.04)

Congruence average politicians	−0.05*** (0.01)	−0.02 (0.02)	−0.15*** (0.02)
Congruence average politician* 'Winner'	0.03 (0.02)	0.05 (0.03)	0.05 (0.04)
Congruence nearest political alternative	0.00 (0.01)	−0.01 (0.02)	0.03 (0.02)
N	2198	2044	1839
R2	0.54	0.45	0.19

***p < 0.001; **p < 0.01; *p < 0.05.

Appendix C. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tra.2019.11.005>.

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