1 Mass media and political economics

1.1 Introduction

Mass media have been providing people with information about the men and women who govern them for decades and centuries even. One of the earliest examples was in the 16th century when the printing press served to propagate the ideas of the Reformation. Among other things, the reformers argued against the selfish behavior of bishops, priests, monks and other clerics who often rather strove to live a pleasant life instead of attending to their duties (Barzun 2001, pp. 4-11). Later, the printing press provided the basis for the establishment of a mass medium that has ever since been considered to play a vital role in holding government accountable: the newspaper. Thomas Jefferson, for example, wrote in the late 18th century:

> "...were it left to me to decide whether we should have a government without newspapers, or newspapers without a government, I should not hesitate a moment to prefer the latter."
>
> -Thomas Jefferson to Edward Carrington, 1787. Papers 11:48-49

More recently, political scientist Doris A. Graber (2001, p.1) wrote that it would be "as American as apple pie to regard the press as the chief tool of public political enlightenment" and the results from a survey by the Pew Internet & American Life Project (Horrigan 2004) confirm that the modern press is the most important provider of political information: When American voters were asked about their dominant sources of political news and information, television was on top with 74% of respondents calling it a primary source, followed by radio (54%) and newspapers (51%)[1].

This view of the mass media assumes that media coverage shapes both what people think about their politicians and how the latter act in office. Since politicians control billions of euros and dollars and make decisions that influence everybody's life it appears to be important to understand the role of mass media properly. Economists, however, had little to say about the relation between mass media and government until recently.

Although Downs (1957) already suggested the importance of information provided by the press and later studies analyzed how a given distribution or quality of information influences political and/or economic outcomes (see Persson and Tabellini (2000), Besley (2006) or Mueller (2003) for surveys) there were basically no rigorous theoretical or empirical analyzes

[1]The numbers add to more than 100 due to multiple responses.

that strived to explain the distribution of information in the electorate or its quality and to test the theoretical results empirically. Only within the last decade, there has emerged a literature that studies how the media market influences the informational situation of the electorate. Some of the most influential contributions deal with the topics of informative coverage and policy outcomes (Strömberg 2004a,b), ideological bias of news reports (Mullainathan and Shlaifer 2005) and capture of the press (Besley and Prat 2006) and they provided the bedrock for a now burgeoning literature which is briefly reviewed below.

This literature originates from a political economy perspective on government that regards politicians as self-interested individuals who also pursue their own goals instead of serving a well-defined public interest only, as the traditional public finance approach assumes. A self-interested elected politician may, for example, exploit public funds at his disposal, accept bribes from interest groups and bias policies towards their interest, implement policies according to his own preferences or simply enjoy his status instead of working hard. In principle, elections can serve to limit the extent of selfish behavior of incumbent politicians since they enable voters to kick bad politicians out of office. However, voters usually are not perfectly informed about the characteristics and actions of their politicians. Incumbent behavior then depends on the ability of the electorate to evaluate the incumbent where a more informed electorate should be better able to hold him accountable.

Elections, however, may not only help to ensure accountability but they can also influence incumbent behavior in a different way: When it comes to distributing funds among voters, a politician who seeks reelection has incentives to allocate more funds to informed voters, who consider this benefit when they cast the ballot, in contrast to ignorant voters, who are not aware of their benefactor. So elections may not only discipline politicians but they can also constitute an origin of biased policies which create winners and losers among voters. Then, it is interesting to study how market forces determine which voters are on the winning side because they get informed by the media.

These considerations illustrate that it is worthwhile and interesting to study how the media market determines the quality of information voters rely on or the distribution of information within the electorate and also how these aspects affect incumbent behavior. In the next section we describe how this book contributes to understand the relation between voters, politicians and mass media.

1.2 Contribution of this book

This book contains purely theoretical analyzes as well as empirical results all of which are concerned with the role of modern mass media in political economics. In chapters 2 and 3 we utilize tools from game theory and the economics of information to characterize the informational situation that arises when the electorate wants to obtain information in order to choose between political candidates or policies.

In chapter 2 we use these techniques to investigate a common value election where citizens can obtain additional information from the mass media. The citizens can choose between two alternatives (politicians or policies, for example) whose qualities determine their future well-being and they are uncertain about which alternative is best. When media coverage is interpreted as a public signal to citizens, the impact of newly produced information on an electoral decision is non-rival and non-excludable in nature. Thus, the quality of media coverage is a public good and we show that subscriptions to newspapers can serve as a vehicle to contribute to this public good. Our results suggest that a competitive media market provides information of inefficiently low quality because the citizens have incentives to free-ride and therefore electoral decisions are inefficiently risky. Further, we find that the gap between the optimal and the market quality of information increases in the size of the electorate and that the citizens generally benefit from a more efficient technology to produce information. Besides shedding light on these problems a novel technical feature of the analysis is the use of Bayesian sampling theory to model the production of information.

We extend this framework in chapter 3 to analyze how media activity affects incumbent behavior when the electorate uses elections to select competent politicians. In contrast to the analysis in chapter 2, incumbent politicians are active players who can try to manipulate the electorate's belief about their competence. When voters rely on policy outcomes to infer an incumbent's competence, the latter can influence the policy outcomes by choosing a level of rent-seeking or effort, where less rent-seeking or more effort imply better policy results. From the incumbent's perspective, the effectiveness of this mechanism and thus his choice of rent or effort depends on the voters' ability to monitor policies.

We derive the demand for information of the electorate in this decision problem and characterize the equilibrium level of information the media market provides. This enables us to describe how features of the media market shape the incentives of incumbents. We find that low costs of information production and a technology that provides more precise information for a given amount of resources spent on investigations imply a better informed electorate which results in less rent-seeking. The effect of better prior knowledge about the incumbent on rent-seeking, however, is found to be ambiguous. Further, we find that the electorate does not suffer from reduced information provision when a competitive market is replaced by a monopoly. The monopolist exerts his power to charge a higher price, but it provides the same amount of information as a competitive market. Thus, the incentives of politicians are identical under both market regimes.

After these purely theoretical considerations, we turn to a more applied perspective in the two following chapters. These applied analyzes aim at studying whether popular information services actually in use, such as newspapers and local television programs, influence policy outcomes. The empirical results in these chapters are not meant as a direct test of the theoretical results in the chapters 2 and 3, but they strive to examine in general whether more informed voters receive favorable policies.

In chapter 4, we examine whether the circulation of local newspapers affects public sector efficiency in Norwegian municipalities. In a theoretical model, the share of informed voters, who can perfectly monitor the performance of a politician, originates from two factors: the share of newspaper readers and the amount of news space that the newspapers assign to the politician in a constituency. We take both of these factors as given and show how they shape the incentives of the politician to invest effort on public good production. The model predicts that a larger share of informed voters induces the incumbent to exert more effort.

We use panel data on Norwegian municipalities for the years 2001-2005 to test the prediction of the model. Our main variables are an index of public sector efficiency in Norwegian municipalities as introduced by Borge et al. (2008) and two measures of voter information that are based on data on the circulation of some 150 newspapers in Norwegian municipalities. The results support the prediction of the model that a more informed electorate is associated with higher levels of local government efficiency.

Finally, in chapter 5, we study whether the geography of television markets in the United States affects the allocation of federal funds. Media scholars have long been familiar with the fact that the cost to produce a report from a place increases in the distance of this place to the headquarters of TV stations. We show in a simple model that news programs may be biased towards regions close to media outlets due to this cost effect. As a consequence, citizens who live near media outlets are better informed about the spending decisions by an incumbent politician than citizens living in more distant areas. This distribution of information motivates the incumbent to allocate more funds to regions where media activity is higher because the effect of an extra dollar on expected votes is larger there.

We test this prediction empirically using U.S. data on county-level grant spending, Designated Market Areas (DMAs)[2] and location of licensed television stations. We show that the

[2]DMAs are the current industry standard for defining television markets in the United States.

distance of a county to the next media city in the respective market significantly affects the geographical distribution of grant spending, as predicted by the theoretical model. Counties which are closer to the media cities, where the bulk of television stations is located, receive significantly more funds. These results are robust to correcting for spatial correlation.

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1.3 Related literature

This section introduces the reader to the literature on mass media in political economics. We focus especially on some seminal contributions which pioneered this field and on papers which are closely connected to the content of this book.[3] Some special papers which are connected to one of the following chapters only are referred to in the introductory sections of the respective chapters.

The literature that explores the role of mass media in political economics builds on the notion that the informational situation of the electorate has an effect on political outcomes and we can group the studies in this field into the main categories of informative coverage, capture of media and media bias. This book belongs to the first category for it studies how commercial motives of ideologically neutral and free media outlets determine how well voters are informed and why some voters are better informed than others.

The distinction between informed and uniformed voters can already be found in the papers by Baron (1994) and Grossman and Helpman (1996), for example, where informed voters are aware of policies or party positions. In their survey of political economics, Persson and Tabellini (2002) also emphasize the role of the information among voters for political outcomes, be it concerning distributional issues or agency problems, and say that it would be interesting to study how mass media affect the informational situation of voters.

The article by Strömberg (2001) is one of the first attempts to explain how mass media shape the formation of informed and uniformed voters. He shows how the incentives of

[3]For a more detailed and comprehensive overview of the current state of the literature, we refer the interested reader to the recent survey by Strömberg and Prat (2011).

commercial mass media can be introduced into various existing political economy models in order to explain why some voters are informed while others are not. These models deal with issues such as redistribution, the size of the government sector, rents and corruption, the effectiveness of lobby groups and political business cycles. While this study rather provides a first explorative overview, Strömberg (2004a) can be considered the first rigorous theoretical analysis in this area. In this paper, Strömberg adapts the location model by Lindbeck and Weibull (1987) to study both, the competition between media companies and political competition. He derives his results from special characteristics of commercial news production: Strömberg argues that news programs must attract an audience which is relevant for advertisers because advertising receipts constitute the bulk of revenues. Further, the costs to produce a newscast or the first copy of a newspaper are relatively high but the costs of additional copies or viewers are small or even negligible. Thus, the model predicts that mass media bias their programs in favor of large groups due to increasing returns to scale. Moreover, there is more coverage on topics important for groups that are more valuable to advertisers, for groups that attach a high value to information and for groups which are easier to reach in terms of distribution costs. Strömberg argues that when politicians announce their campaign promises before an election via mass media they take the biased allocation of news coverage into account. As a consequence, they promise higher spending levels for groups that receive more media attention because informed voters remember the promises and vote for the party which promises most. So, in a nutshell, voters who are better informed because they are more valuable for commercial mass media receive favorable policies.

In a closely related paper, Strömberg (2004b) analyzes data on the allocation of funds by a major New Deal program in the United States to find out whether politicians provide informed voters with favorable policies. First he shows in a theoretical model how incumbent governors can use radio programs to inform voters about what they have done for them. This influences voting behavior because voters only take benefits into account when they can assign them to a candidate. In line with the theoretical prediction, Strömberg finds in a cross-section analysis that per capita spending is higher in counties with a more informed electorate, where he uses the share of households owning a radio as a proxy for the share of informed voters in a county. But the share of households with a radio is only an indirect measure of voter information. Snyder and Strömberg (2010) acknowledge this problem and provide a very detailed analysis of the relation between media, information and politics. They present a sophisticated empirical analysis of three substantive effects from mass media: on the knowledge of voters, on various dimensions of incumbent behavior and on the allocation of funds. At the core of their analysis is the geographical fit between newspaper markets and congressional districts in the United States. They find that a poor fit implies that voters are less informed about their congressmen because newspapers hardly report about the latter. Another result is that congressmen from districts which are highly congruent with newspaper markets work harder for their constituency as measured by their engagement in congressional hearings, committee work and voting against the party line. Finally, Strömberg and Snyder show that the reduced accountability of politicians results in lower federal spending in poor-fitting districts. In a different context, Revelli (2008) examines how local media influence the behavior of politicians in the jurisdictions within a market and he shows that local media serve as a vehicle for yardstick competition: His findings suggest that yardstick competition affects tax policies of English local governments in districts belonging to the same local media market.

One of the first empirical papers on how media activity enhances the accountability of politicians is the study by Besley and Burgess (2002) who analyze panel data from India. They use newspaper circulation in Indian states to measure the share of informed voters and the results show that state governments provide more public food and calamity relief where newspaper circulation is higher. Reinikka and Svensson (2005) provide empirical evidence from Africa. They show that a Ugandan government program on school improvement is less inflicted with corruption in areas where local newspapers inform people about this program. Svaleryd and Vlachos (2008) add evidence from Swedish municipalities. They find that political parties refrain from (legal) rent-seeking in municipalities where citizens are well-informed due to extensive local newspaper coverage.

So far, all studies have adopted the rather optimistic view that mass media report facts sincerely and biased reporting only consists in certain compilations of true facts when, for instance, news programs favor certain audiences. But there is also the problem that mass media do not transmit all of the information they have collected truthfully: Journalists can omit important facts, emphasize only selected facts or slant stories in various other ways. Media bias can result from various reasons. One possibility is that private interest groups or politicians control or bribe media outlets. Besley and Prat (2006), for example, analyze features of media markets and politics that affect the freedom of the press. In an agency framework, media outlets can inform voters about an incumbent politician, but they suppress bad signals if the politician successfully bribes them. The authors show that the number of independent news outlets and the transaction costs for bribing essentially influence the freedom of the press. Public ownership of media outlets is assumed to imply lower transaction costs which makes media capture more likely and it is shown that captured media reduce the accountability of politicians. In accordance with this theoretical result, Djankov et al. (2003) find that countries with a large share of state ownership of the media exhibit poor government performance. A paper by Petrova (2008) also deals with media capture. Rich voters can bribe the media to manipulate the coverage of redistribution issues. Her formal analysis predicts that lower income inequality and the availability of diverse information sources lead to a lower probability of media capture. The analysis of cross-country panel data supports these predictions. In a similar spirit, Corneo (2005) develops a model where mass media inform voters about the consequences of alternative policies but interest groups can bribe the media in order to manipulate coverage. Corneo shows that media bias is more likely when firm ownership is more concentrated.

Media capture is not the only source of distorted news, for biased reporting may also result from the demand side. Mullainathan and Shleifer (2005) show that media bias can result from a confirmatory cognitive bias of media consumers. Readers who hold beliefs (e.g. about the competence of a politician) which they like to see confirmed in the news can make commercial media slant the information they send to their customers. The authors show that competition may not reduce but even strengthen media bias when readers hold heterogenous believes. Gentzkow and Shapiro (2006) demonstrate in a theoretical model that biased coverage can also result from a the ambition of media firms to build up a reputation of providing accurate news. When their customers perceive information to be more accurate if it is close to their prior beliefs, commercial mass media are willing to distort their reporting towards these beliefs. Furthermore, Baron (2006) introduces the career concerns of journalists as a source of media bias. Journalists may use slanting to make it to the front page because this pushes their careers. Profit-maximizing media companies allow for slanting if journalists accept lower wages. Moreover, Baron shows that even rational media consumers who are fully aware of slanting can be influenced by media bias. Gabszewicz et al. (2001) construct a model that demonstrates how the advertising market affects the political orientation of media outlets. If they largely rely on advertising receipts, commercial media are shown to adopt rather neutral instead of extreme political positions.

Some empirical papers find evidence of biased media. DellaVigna and Kaplan (2007) present empirical evidence that biased media coverage affects voting behavior. They show that the entry of Fox News in U.S. cable markets significantly raises the share of votes for the Republicans in the respective areas. In contrast, Groseclose and Milyo (2005) find a tendency among U.S. media outlets to slant their stories towards leftist political positions. They suspect various factors to cause the leftist bias such as corresponding political preferences of journalists or, as Hamilton (2006) argues, that some groups with more liberal attitudes receive more attention because they are more valuable for advertisers. Gentzkow and Shapiro (forthcoming) provide one of the first studies on media bias in the internet and they find that news consumption in the internet is not heavily segregated ideology-wise.

There is also empirical evidence that mass media affect political participation. Gentzkow (2006) shows that the introduction of television in the United States significantly lowered voter turnout. In addition, he demonstrates that more informative media like radio and newspapers were substituted by television consumption which resulted in less political knowledge of voters. The findings by Gentzkow et al. (forthcoming) support the notion that newspapers play an important role for political participation, since the results indicate that having more newspapers published increases turnout. Oberholzer-Gee and Waldfogel (2009) find that the turnout among Hispanics was increased by the entry of local television programs in Spanish language. Althaus and Trautman (2008) study the impact of television market size on voter turnout. They find that turnout in local elections in the United States is lower in large television markets. Local elections are assumed to be less newsworthy in larger markets so that residents in these markets receive less political information which pushes down voter turnout. Prior (2006) finds that the rise of television in the United States contributed to the incumbency advantage of U.S House representatives in the 1960s. He suggests that television allowed incumbent politicians to have more media appearances than potential challengers to impress voters.