

**Crisis Of Confidence?**  
**The Dynamics of Economic Opinions During the Great Recession**

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**Abstract**

We examine the dynamics of public opinion about the economy before, during, and after the Great Recession of 2008 across 11 European countries. Specifically, using monthly public opinion data, we develop a unique measure of country-level economic opinion using Stimson's dyad ratios algorithm. We use this measure to describe the nature of opinion change after the onset of turmoil in the global economy, and to investigate whether the nature of the change and the content of opinion were shaped by macro-level political and economic factors, including the size of welfare states. We find that despite heightened insecurity brought on by the crisis, Europeans reacted in a generally sensible manner in forming their opinions on the macroeconomy during the Great Recession. Our analysis reveals that changes in economic opinion reflect changes in the macroeconomy, with Europeans becoming even more responsive to macroeconomic outcomes after the onset of the crisis. This connection between the real and perceived economy appears to have been stronger in countries with less generous social safety nets. Countries with extensive welfare protections softened the blow dealt by the economic crisis, with respondents under generous social policy regimes displaying less sensitivity to shifts in the macroeconomy than those in countries with less robust social policy institutions. We conclude with a discussion that highlights the significance of mass publics not panicking in light of the troubling economic circumstances. Despite overwhelming negative attention directed at European economies during this period by both politicians and pundits, Europeans offered reasonable opinions on the economy, and corrected those opinions accurately once economic conditions began to improve.

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In good times and bad, public opinion is an essential component of the demand side of politics. Few concerns are dearer to the hearts of democratic governments than what the public thinks about the state of the country's economy, as economic opinion is commonly seen to be crucial to incumbents' own survival in office. What is more, this has been particularly true in recent years, as western democracies and the governments that lead them have grappled with the fallout of the global economic crisis that erupted in full force during 2008.

Despite the real-world importance of the opinions citizens hold about the state of the country' or their own personal economic well-being, we know relatively little about the forces that shape economic opinions during times of intense crisis. It is commonly assumed that people's opinions about the economy usually mirror economic reality, but this assumption is not always supported by evidence. Even in the best of times, the subjective and the objective economy may not line up very neatly; and during a major economic crisis there is even more reason to suspect that the link between real economic conditions and economic opinions may be bent or even broken.

In this chapter, we use monthly opinion data from eleven European countries to develop a novel measure of "economic mood"—an indicator that gauges the overall sense of economic well-being in each country on a monthly basis. We use this measure to examine the dynamics of aggregate economic opinion before and after the onset of the Great Recession, and we investigate whether the content and trajectory of economic opinion varied significantly across countries. In addition, we investigate how economic mood was systematically shaped by specific aspects of countries' economic performance, and whether the structure of economic opinion changed as countries moved from the normal (pre-crisis) business cycle to a period of acute economic stress.

We first discuss the connection between the objective and subjective economy in scholarship on economic voting and public opinion in order to develop a set of expectations about the forces that shape them. We then describe the dynamics of economic opinions before, during, and after the depths of the economic crisis. We examine whether common underlying economic factors shape these economic opinions, and whether these factors vary before and after the onset of the economic crisis. Finally, we explore whether and how the dynamics and determinants of a country's economic mood are shaped by its macro-structural characteristics, including the size of welfare states and the partisan color of incumbent governments.

We find that the economic crisis produced a steep, but cross-nationally variable, decline in Europe's economic mood. Economic optimism recovered somewhat following the worst of the crisis, but at an unequal pace across countries. The dynamics of economic mood in each country over the course of the Great Recession were consistently shaped by actual macro-level economic conditions—the “real” economy. Indeed, economic opinions were probably considerably more sensitive to changes in economic conditions after the onset of the crisis than they had been earlier. This was especially true in countries with low levels of social spending—perhaps because their publics were less effectively shielded from the human costs of the economic downturn. Economic opinions were also especially sensitive to changing economic conditions in countries where left parties were especially influential—a difference we attribute to voters' tendency to view left parties and their policies as “luxury goods” unaffordable during economic hard times. Thus, our analysis suggests that the very nature of the relationship between objective economic conditions and subjective economic opinions may be strongly shaped by key aspects of a country's political context.

## Economic Reality and Economic Opinions

The economy has long featured as a prominent element in models of democratic politics. It is, for example, commonly believed that hard economic times accelerated the disintegration of the Weimar Republic and that a bad economy can contribute to the collapse of democratic regimes generally. Moreover, a long line of scholars has contended that economic grievances can lead to rebellion and revolution or that material well-being shapes citizens' political values and preferences. But perhaps the most voluminous literature relating the state of the economy to political behavior has evolved in the area of voter behavior. At its most basic, this research purports to show that governments lose support during hard economic times (Anderson 1995).<sup>1</sup>

This research is commonly based on the assumption that the real economy—unemployment, growth, inflation, and the like—matters because it is systematically reflected in the subjective economy—what people think about the economy. The conventional model connecting the economy and voter behavior has long assumed a chain of causality that runs from the objective economy to political behavior via voters' economic opinions (Anderson 2007).<sup>2</sup> The plausibility of this assumption rests, in good part, on its consistency with existing evidence on economic voting (especially in the aggregate), and with research on aggregate public opinion, which has reported significant congruence between objective economic conditions and subjective economic opinion (see, for example, Hibbs 1987; MacKuen, Erikson and Stimson 1992; Haller and Norpoth 1994).

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<sup>1</sup> All of these claims have been qualified in some ways, either pertaining to countries, periods, or specific variables studied.

<sup>2</sup> Another important and often untested assumption is that “real” economy is exogenous to the subjective (or “perceived”) economy (Anderson and Rueda 2004).

In perhaps the best known example of this sort of work, Benjamin Page and Robert Shapiro's *The Rational Public*, American public opinion is described as moving in response to "real world conditions," particularly unemployment and inflation (Page and Shapiro 1992: 121-22). The authors concluded that "Opinions about employment, inflation, taxes, and energy, for example, related in systematic and consistent ways to objective trends in prices and unemployment rates" (Page and Shapiro 1992: 169). Similarly, Brandon Haller and Helmut Norpoth's analysis of U.S. public opinion came to the conclusion that economic opinion "has a firm footing in the real world" (Haller and Norpoth 1997: 26).

However, these findings of a link between macroeconomic outcomes and economic opinions have run up against a growing body of research into the connection between objective economic facts (the "real" economy) and people's opinions of them. Much of this work has emphasized (1) informational and cognitive limits to perceptual accuracy, and (2) the impact of values and predispositions on the formation of economic perceptions. Thus, while the assumption that economic facts and economic opinions are predictably connected is certainly plausible, there also are good reasons to question it.

The translation of "objective" economic conditions into accurate perceptions involves several necessary steps. First of all, it assumes that there is such a thing as the "objective" economy that can be perceived by voters, and it requires that this objective economy is actually perceived by voters at least somewhat accurately. These perceptions, then, are presumed to translate into negative, positive, or neutral evaluations of the economy (e.g., is it good or bad, or better, worse, or no different from before?).

In recent years, scholars have investigated how each link of this chain can be broken. Accurate "objective" information about the economy is frequently difficult for the average

citizen to come by, and the interpretation of “objective” facts about the state of the economy is frequently politically contested (Keech 1995). Most people learn about the national economy indirectly from mass media, which tend to over-report negative economic conditions (Goidel and Langley 1995). Via mass media, people also learn of the economic forecasts of elites (MacKuen, Erikson and Stimson 1992). However, these forecasts do not always faithfully convey economic information (Nadeau et al. 1999). These negative and perhaps biased reports heavily condition voters’ economic perceptions (Hetherington 1996), and economic evaluations potentially derive to a greater extent from the way in which the media present economic developments than they do from objective changes in the real economy (Sanders and Gavin 2004; see also Nadeau et al. 1999).

All this can limit the accuracy of voters’ perceptions of macroeconomic conditions. In addition, citizens’ cognitive limits reduce the extent to which they are likely to code objective information accurately (Krause 1997; Krause and Granato 1998; however, also see Sanders 2000). Moreover, people do not learn about different aspects of the economy in the same way or at the same pace (Nannestad, Paldam and Rosholm 2003; Weatherford 1983).<sup>3</sup> What is more, citizens’ own political biases and values work against a close relationship between perceptions of economic conditions and economic evaluations at the individual level. For example, partisans’ evaluations of the state of the economy tend to be consistent with their political predispositions (Wlezien, Franklin and Twiggs 1997; Anderson et al. 2004; Evans and Andersen 2006).

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<sup>3</sup> For example, differently situated voters are exposed to systematically different economic experiences that help determine how they perceive the state of the economy (Weatherford 1983; Welch and Hibbing 1992; Holbrook and Garand 1996; Duch, Palmer, and Anderson 2000). As well, lag times in citizens’ learning of economic trends differ for inflation and unemployment, for example (Conover, Feldman and Knight 1986), and significant proportions of voters are predominantly static and myopic in their evaluations of economic conditions (Paldam and Nannestad 2000).

Researchers long thought that all these individual differences mattered little for understanding the efficacy of the electorate's collective choice or judgment, based on the assumption that a significant portion of individual-level differences was simply the result of "noise" or random variation associated with survey data (e.g., Page and Shapiro 1992; Sanders 2000). As a result, aggregation of individual responses was expected to "cancel out" the random variation, thereby leaving only the underlying meaningful (or rational) component of public opinion (Kramer 1983; Wittman 1989).

This argument presumes, however, that individual errors in measures of public opinion are truly random. As Bartels (1996) notes, however, if these individual errors are systematic, aggregation will not produce unbiased aggregate measures of public sentiment. Rather, these aggregate measures will vary systematically with factors unrelated to objective economic performance, such as partisanship or personal experiences. As it turns out, the various sources of individual error terms in national economic evaluations are not necessarily random (Duch, Palmer and Anderson 2000). As a consequence, aggregate deviations of individual-level economic evaluations from objective economic conditions are not idiosyncratic, but rather reflect the systematic effects of respondent characteristics.

Taken together, this means that economic evaluations are predictably biased and inaccurate at the individual level, but also that some of this individual-level heterogeneity will not cancel out in the aggregate (Duch, Palmer and Anderson 2000). This could explain why aggregate assessments of specific economic indicators (interest rates, inflation rates, etc.) on occasion are quite inaccurate (Haller and Norpoth 1994), and why some of the aggregate variation in economic perceptions is driven by factors other than simply macro-economic fluctuations (Bechtel 2003). Analyses of aggregate data have also pointed to the critical role played by

political events, such as wars and crises, in people's economic perceptions (Clarke et al. 1992; DeBoef and Kellstedt 2004).<sup>4</sup>

Taken together, this literature suggests several things: first, that there is significant and systematic variation in economic opinions; second, that aggregate indicators of the perceived economy therefore can be systematically biased at certain times and under certain conditions; and third, that political events and attitudes can shape these opinions to a considerable degree. Put simply, this revisionist literature challenges the assumption of an unfailingly truthful translation of the real economy into people's economic attitudes as well as the assumption that economic opinions are exogenous to politics and political behavior.

How these literatures relate to public opinion in crisis situations is far from clear. For example, it is difficult to posit a priori whether we should expect to see the same kinds of patterns in times of crisis that we see in more "ordinary" times. On one hand, all the reasons for expecting discrepancies between the objective and subjective economy may be exacerbated in times of economic crisis—perhaps most directly for reasons related to information (or a lack thereof) and the stress in processing whatever information is indeed available.

Consider, for example, the difficulty of separating economic fact from fiction in the middle of an economic crisis, or the ways in which mass media are likely to report, interpret, and possibly skew the content and tone of information about the economy. As well, the stress brought on by the threat inherent in an acute crisis is likely to impede and stretch citizens' ability to collect, decode, and interpret complex information. Finally, voters' motivations to see what

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<sup>4</sup> In a study of aggregate consumer confidence data in the United States, for example, DeBoef and Kellstedt (2004) found that political attitudes, such as evaluations of the president's management of the economy and the party of the president had a direct effect on consumer sentiment, even after controlling for economic conditions.

they want to see—for political or personal reasons—when things are not going well are likely to be fully engaged when few people have all the facts and governments are actively working to mitigate the worst economic and political effects of the crisis.

Conversely, an alternative perspective would see the crisis as the kind of environment where information is plentiful—in fact, more plentiful than at any other time, save perhaps election campaigns. In particular, economic information of all kinds and from a variety of sources is likely to be abundant, much of which may be highly relevant to people's opinion formation process. As well, the stress of an unusual situation like a sudden economic crisis may make people more vigilant, and there is evidence in psychology that moderate amounts of stress actually improve cognitive performance (though excessive amounts degrade it). If this is the case, then unusually bad economic times may in fact enhance the link between economic fact and perception, and at least one published study has found that assessments of economic performance are more closely linked to objective indicators when the economy is in decline (Duch, Palmer and Anderson 2000).

By answering the questions we investigate here—whether macroeconomic performance explains economic opinions, and whether it does so differently during times of economic crisis—we seek to build on these sometimes contradictory strands of scholarship. We are agnostic but curious as to the effect of the Great Recession the connection between economic facts and opinions. Thus, we put these varying expectations to the test by estimating a set of regression models relating economic opinions to macroeconomic conditions and examining whether the results differ before and after the start of the economic crisis. But before we can do that, we must turn to the issue of measuring public opinion about the economy: what, exactly, were European publics saying about the economy before and during the Great Recession?

### **Measuring Economic Opinions in Europe**

Knowing how to interpret what the public is saying about the economy requires a way of measuring aggregate public opinion. We rely on a series of monthly surveys conducted by the European Commission since 1985 with representative samples of national populations.<sup>5</sup> These surveys, originally designed to gauge consumer confidence in each member state, include a series of questions about the economy, including standard evaluations of personal and national economic conditions (including the overall economy as well as specific questions about unemployment and prices), both retrospective and prospective. (The full list of questions and question wording appear in Appendix A.)

The multiple items used in the surveys are well suited for gauging European electorates' overall sense of how the economy is doing—a kind of “economic mood”—as the items tend to be highly correlated over time but capture different dimensions of subjective economic well-being in a country. Because these opinions cover a variety of economic opinions, including people's opinions of their own and the country's economy, as well as forward- and backward-looking evaluations, jointly, they measure people's overall sense of how the economy is doing.

But instead of relying on the index of consumer sentiment supplied by the European Commission, we constructed our own country level summary indicator of Europeans' economic opinions based on the statistical properties of the items with the help of Stimson's dyad ratios algorithm (Stimson 1999).<sup>6</sup> The algorithm, which has been widely used by students of public

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<sup>5</sup> For more information, see: [http://ec.europa.eu/economy\\_finance/db\\_indicators/surveys/index\\_en.htm](http://ec.europa.eu/economy_finance/db_indicators/surveys/index_en.htm).

<sup>6</sup> An alternative would be to make use of the Commission's official consumer confidence index derived from these items. We chose to follow the strategy described here in large part because it is not clear what

opinion in a variety of domains,<sup>7</sup> is designed to identify and extract the common dynamic elements of public opinion aggregates from multiple indicators across surveys by focusing on the relative changes within an item rather than their absolute values (we describe the technical details in Appendix B).<sup>8</sup> Having developed the measure of economic mood, our next question is this: what did economic opinion look like during the Great Recession of 2008? This is the question we turn to next.

### **Economic Opinions in the Great Recession**

To get a handle on the dynamics of public opinion over the course of the crisis, we start by describing Europeans' economic moods from the onset of the crisis, starting immediately before the crisis erupted in mid-2007 until early 2011 (our data end in February 2011). Figure 1, which

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the psychometric properties of the consumer confidence index are, nor exactly why the items have been combined in the particular constellation used by the Commission.

<sup>7</sup> The dyad ratios algorithm is implemented through the "Wcalc" program, which is made available on James Stimson's website ([www.unc.edu/~jstimson](http://www.unc.edu/~jstimson)). Wcalc users are responsible for providing the program with survey responses, the dates of those responses, and the number of responses collected. Wcalc is then able to sort the responses into the appropriate specified periods (daily, monthly, quarterly, annual, or multiple years as designated by the user), and performs a weighted averaging procedure when more than one survey response is available per period (Stimson 2008). For a detailed description of the algorithm see, in particular, the appendix to Stimson (1999), esp. pp. 133–137.

<sup>8</sup> Stimson's algorithm takes advantage of the fact that, while the absolute values of survey marginals are not directly comparable across indicators with different response categories, the ratios of change between any two points in time within an indicator are. Moreover, the algorithm helps to overcome the problem of missing data during periods when some of the questions were not asked by making use of the various pieces of information we do have, from each survey question that has been measured more than once, concerning the relative values that those particular questions take when they are measured. As Stimson points out: "it is useful to switch focus from what we don't know, the missing values, to what we do know" (Stimson 1999, 133).

shows the economic opinion series for each of the countries included here from 2007 onward, reveals several important dynamics. First, we see significant cross-national differences in countries' overall level of economic mood; for example, economic opinion is significantly more positive in Denmark than in Portugal. While Denmark and Portugal (along with Greece) are the countries with the best and worst economic moods, more generally there is significant variation across countries.

[Figure 1]

Second, and perhaps more importantly, economic opinion in Europe appears to have moved in three distinct phases. In Phase 1, all countries experienced a notable and almost simultaneous dip starting in the middle of 2007. Thus, by the time the U.S. government marked the Great Recession as having started in December 2007, consistent with the official definition of a recession as negative growth for two consecutive quarters, public opinion had already been expressing it. This decline in "economic mood" was markedly parallel across countries, and amounted to a decrease of about ten points in each case. This dip bottomed out in a very parallel fashion as well, in early 2009 (we would put it at February 2009).

While virtually all European states' economic moods bottomed out in early 2009, the next phase (Phase 2) was comprised of a parallel uptick in economic opinion through the end of 2009. Thus, during much of 2009, economic opinion recovered about half of what it had lost during the early months of the crisis. Finally, Phase 3 saw economic opinions diverge quite sharply. While the economic mood in countries like Germany and Belgium became significantly more positive and opinion in Denmark and the Netherlands modestly so throughout 2009 and into 2010 to pre-crisis or even above pre-crisis levels, it soured again in 2010 in several other states, including

most notably Portugal and Greece, but also the United Kingdom. In contrast, the economic moods of Italy, France, and Spain, economic opinion stagnated after early 2010.

Taken together, the three phases of economic opinion during the crisis reveal a uniform drop across countries and a brief if somewhat shallow recovery followed by a divergence in assessments of economic conditions across the European states investigated here. These patterns can also be seen very clearly on a country-by-country basis in Figure 2, which depicts each country's unique trajectory in economic opinions.

[Figure 2]

So what drives these opinions? And do their determinants vary across countries or change over time? Having briefly described the most notable trends in European economic opinions over the course of the crisis, we turn to answering these questions by examining more systematically the bases of those opinions.

### **The Impact of Economic Performance on Economic Opinions**

To establish the presence or absence of a link between economic performance and economic opinion in Europe during the Great Recession, we are primarily interested in whether commonly used indicators of macroeconomic performance—here, unemployment, growth, and inflation rates—predict economic opinions. Following the existing literature, we hypothesize that macroeconomic indicators would be significant determinants of economic opinions; but we also expected that these relationships would vary during times of crisis. Presumably, these relations would vary as a function of the contextual conditions of heightened crisis and as a function of people's varying ease or difficulty in deciphering their country's actual economic conditions.

To investigate these relationships, we collected monthly economic performance indicators to match the public opinion data for each country. (Details appear in Appendix C.) Modeling the relationships among these variables using aggregate time-series data first requires identification of the underlying dynamic properties of the public opinion series. Specifically, we conducted a set of formal diagnostic tests to investigate whether the series are stationary or have a unit root. Unit root (Dickey Fuller) and stationarity (KPSS) tests revealed each country's series to have a unit root. Therefore, the appropriate multivariate modeling strategy involves differencing the dependent variable to make it stationary.

As a next step, we estimated a series of multivariate regressions with changes in public opinion as the dependent variable and the main economic aggregates as the independent variables. Because diagnostic tests showed the times series to be cointegrated, we estimated a single equation error correction model, which estimates both contemporaneous and long-term relationships between the independent and dependent variables with the help of differenced and lagged independent variables (DeBoef and Granato 1997; DeBoef and Keele 2008). In an error correction model, we can interpret the coefficients on the differenced independent variables as estimates of the contemporaneous relationship with the dependent variable. For example, a negative and significant coefficient on the differenced unemployment rate indicates that an increase in joblessness results in an immediate decrease in economic mood. In contrast, the coefficients for the lagged independent variables estimate the long-term effect of a variable, where a significant long-term effect implies that the independent and dependent variables move in equilibrium. Thus, a negative and significant coefficient on the lagged unemployment rate would suggest that, when the unemployment rate changes, the long run equilibrium will, over several time periods, reflect a change in the economic mood (see Enns 2010 for an application).

We begin by reporting the results for a baseline model against which subsequent results can be compared. In this baseline model (Model 1 in Table 1), we estimated the effect of economic variables on economic opinions for all countries over the entire period for which we have data, from 1985 to 2011. In addition to the economic variables, this model included a dummy variable for the crisis (scored 1 from July 2007 onwards). In addition, we estimated an identical pooled model of economic opinions for a shorter time frame, from 2004 onwards (Model 2 in Table 1), to see if these results were dependent on the particular time period during which the data were collected.<sup>9</sup>

[Table 1]

The results for the first model in Table 1, covering the entire time period since 1985, reveal that unemployment has a negative contemporaneous effect on countries' economic moods. However, while an increase in joblessness resulted in an immediate decrease in economic mood, the insignificant coefficient for the lagged unemployment variable indicates that there is no perceptible long-run equilibrium relationship between unemployment and the economic mood of European publics. This is not altogether surprising, given the persistently high unemployment rates across a number of European states over the past thirty years (Bermeo 2002).

The results from Model 1 also show that growth and inflation had the expected contemporaneous effects on economic opinion. Growing economies improved the economic outlook of European publics, while rising prices led to a worsening in Europeans' economic moods. As well, the long-term effects of growth and inflation are readily apparent, as the coefficients on their lagged levels achieved high levels of statistical significance. Thus, both high

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<sup>9</sup> Using data from 2004 onward conveniently splits our pre-, post-sample roughly in half.

and rising inflation rates darkened Europeans' economic mood, while both high and rising growth rates cheered them up. Finally, the coefficient on the crisis variable indicates that, indeed, economic opinion dipped significantly during the course of the Great Recession—even beyond what would have been expected based on observed changes in unemployment, growth, and inflation, and even when considered in the context of a twenty-five year time series.

While this model of economic opinion change is very basic, including only a few key macroeconomic indicators and a period dummy for the crisis (along with cross-national intercept differences), taken together, the content of economic opinions in Europe over the 25 years covered by our data is unmistakably macroeconomic in nature. Economic opinion moves in predictable ways in tandem with economic performance, and the post-2007 period on average revealed a significant drop in Europeans' economic mood.

Model 2 in Table 1 is a replication of Model 1, but covers a shorter time period, from 2004 to early 2011, in order to see if the content of economic opinions changed as a function of which historical period we investigate. The results indicate a fair amount of similarity in the estimates, despite the shorter time frame and the fact that European economies in the 2000s were very different structurally from the 1980s or 1990s.

Again, we see that the main economic aggregates correlate with economic opinion change in a manner suggested by traditional economic voting theories, though there are some differences. One notable difference from the results for the longer period is the much bigger coefficient on inflation levels. Short-term changes in inflation also seem to have mattered somewhat more in recent years, as have short-term changes in unemployment, while European publics seem to have become somewhat *less* sensitive to short-term changes in growth. As well, the impact of the crisis variable is much more pronounced for the shorter time series. However, tests show that the

only statistically significant differences between the two sets of coefficients are for the level of inflation and lagged economic mood, indicating that the relationship between inflation levels and economic opinion has changed over the period investigated here.

### **Did the Crisis Alter the Bases of Economic Opinions?**

The results presented so far lead us to conclude that macroeconomic aggregates—both in the long- and the short-term—are consistent determinants of changes in economic opinion in this set of European states. The next question, of course, is whether the determinants of economic opinions changed before and after the onset of the Great Recession. To test for this possibility, we divided the period since into pre- and post-crisis periods of equal length and estimated a model for the period before (Model 3) and a model for the period after the onset of the crisis (Model 4).

These results are shown in Table 2. They demonstrate a good deal of stability in the estimates. In particular, we did not uncover any changes in direction of the coefficients, or any kind of fundamental reorientation of public opinion about the economy during the Great Recession. However, the results do appear to show that European publics generally became more responsive to macroeconomic conditions after the onset of the crisis than they had been earlier.

[Table 2]

For example, the contemporaneous effects of unemployment and inflation were substantially larger in magnitude in the crisis period compared to the pre-crisis period (though the coefficients were statistically significant only at the .1 and .05 levels, respectively). Moreover, the coefficient on changes in growth rates was statistically highly significant during the crisis months, but not before. Another piece of evidence for the increased responsiveness of European economic

opinion to short-term changes in the economy can be found in the model's R-squared value; while the model explained 8% of the variance in the pre-crisis period from 2004 to mid-2007, it explained about three times as much (22%) in the mid-2007 to 2011 period. However, despite this apparent increase in sensitivity to the real economy, *t*-tests of differences in specific coefficients across the two models revealed that these differences were not large enough to indicate statistically significant differences in the effects of the real economy on economic mood in the pre- and post-crisis periods.

### **Welfare States as Buffers**

As our next step, we estimated similar models of economic opinion separately for two sets of countries included in this study, in order to investigate whether the content of economic opinion varies across countries with more and less extensive systems of social protection. Specifically, we hypothesized that the impact of macroeconomic performance on economic opinion should be less pronounced in countries with highly developed welfare states. After all, these systems are designed to insure against social risks, such as unemployment, poverty, and income loss, and thus should serve to cushion the harshest impact of the recession.

To investigate this hypothesis, we split our sample of countries in two, using the median level of overall social welfare spending (from OECD sources) as the cutoff, and estimating identical models to those presented in Table 2 separately for the two sets of countries.

Incidentally, this classification also groups most countries from the so-called PIIGS group<sup>10</sup>

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<sup>10</sup> Kriesi's list of PIIGS countries stands for Portugal, Iceland, Ireland, Greece and Spain.

(Kriesi 2011) together, since the set of countries with less extensive levels of social protection includes Greece, Ireland, Italy, Portugal, and Spain (along with the United Kingdom); the group with more extensive welfare states includes Belgium, Denmark, France, Germany, and the Netherlands.

The results are reported in Table 3. They show, first of all, that the long-run dynamics of opinion were generally similar in the two sets of countries, as evidenced by the similarly sized coefficient for the lagged dependent variable and for the lagged levels of unemployment, growth, and inflation. (Interestingly, longer-term levels of unemployment failed to affect economic moods in both sets of countries.) However, the results reveal a distinct divergence in the contemporaneous effect of macroeconomic aggregates on Europeans' economic mood. Specifically, we find that the short-term impact of changes in economic conditions was much more pronounced in countries with less extensive systems of social protection.

[Table 3]

This distinction is particularly notable with regard to unemployment and growth. The contemporaneous effect of changes in unemployment rates is sizable and statistically significant in countries with lower levels of social protection, indicating that rising unemployment levels brought on by the crisis were immediately reflected in the economic moods of those countries. However, this effect is completely absent in countries with more extensively developed welfare states, which typically include sizable spending on unemployment benefits and labor market policies.

Similarly, the results show clear evidence that short-term changes in countries' economic fortunes—as measured by changes in economic growth—had very strong contemporaneous effects on economic opinions in countries with lower levels of social spending. In stark contrast,

the estimates show no evidence of a parallel effect in countries with higher levels of social spending. (A *t*-test showed that this difference in coefficients between the two models was statistically significant.) As in the case of unemployment, *changes* in economic activity thus had a differential short-term impact across the two groups of countries, while the long-term effect of *levels* of economic activity on economic opinions was similar across the two groups of countries.

Finally, the results for inflation are suggestive and consistent with the results we see for unemployment and growth, as the coefficient on changes in inflation rates is negative and larger in countries that spend less on social welfare than in the countries that spend more. However, the coefficient is significant only at the  $p=.13$  level. Similarly, the coefficients for the lagged inflation variable are almost identical across the sets of countries; thus, the results for inflation do not contradict the results we see for the other macroeconomic indicators.

To further understand how welfare states can function as buffers during times of economic recession, we produced simulations demonstrating how economic opinion would shift if a country with a low level of social spending switched to having a high level of social spending and vice versa. Figures 3 and 4 simulate these counterfactual scenarios for Spain and Denmark, respectively. To construct our counterfactual series for Spain and Denmark, we calculated what opinion would have looked like given our coefficient estimates for both high and low social spending countries, as well as the observed levels of the economic variables in both countries. Specifically, for Spain, we added the effect of being a high social spending country, and subtracted the effect of being a low social spending country. We followed the reverse process for Denmark. (In both cases, we assumed that each country's observed levels of the economic variables would have remained the same in the other social spending regime.)

[Figures 3 and 4]

Figure 3 presents the results for Spain. The simulation reveals that a higher level of social protection would have done relatively little to change the country's economic mood during the crisis. Specifically, Spain's economic mood would have been, on average, about one point per period higher if it possessed a generous welfare state similar to that of Belgium, Denmark, France, Germany, or the Netherlands. The results for Denmark are more dramatic, however, as shown in Figure 4. For Denmark, we simulated what economic mood would have looked like if Denmark had a welfare state similar to that of Greece, Ireland, Italy Portugal, Spain, or the United Kingdom. As can be seen in the figure, economic mood would have been, on average, about two and half points per period lower if Denmark possessed a less generous welfare state.

These results provide further support for the notion that generous welfare states have the capacity to act as a kind of buffer during periods of economic downturn. As institutions designed to insure individuals against social risks, it appears that the safety net provided by welfare states also shapes how citizens respond to shifts in their country's macroeconomic performance. At the same time, these are hardly radically different worlds of economic opinion.

### **Someone Has To Be Responsible: Left Parties and the Great Recession**

As a final step, we wanted to evaluate how a country's political context might shape economic opinions on the recession. In particular, we were curious whether left party control of government changed individuals' sensitivity to changes in the macroeconomy. Prior research suggests that citizens are especially unforgiving of left parties and politicians when the economy takes a turn for the worse. The logic underlying this so-called "luxury model" is that voters turn away from left parties during periods of recession because they are less willing to tolerate high levels of public spending as economic conditions deteriorate (Durr 1993; Stevenson 2001).

However, when the economy improves, voters' inclination to support left parties and greater public spending increases. Hence, support for left parties can be seen as a kind of "luxury" good for voters.

We bracket for this analysis the extent to which there actually were clear and detectable differences in policy content between left and right parties during this period differed. While some scholars have made note of economic policy convergence during this period (e.g. Evans and Tilley 2012), the luxury model merely requires that left parties be symbolically distinct from right parties in the minds of voters, a condition other scholars have found empirical support for in recent years (Ellis and Stimson 2012; Popp and Rudolph 2011). For our purposes, the luxury model suggests that public skepticism of left party control during periods of economic downturn should heighten the sensitivity of citizens to changes in the macroeconomy in countries with high levels of left party control<sup>11</sup>. To see if this was indeed the case during the Great Recession, we coded the percent of a government's cabinet controlled by left parties with the help of the Comparative Political Data Set constructed by Klaus Armingeon and his colleagues.<sup>12</sup> We then split our sample to investigate the responsiveness of citizens' economic mood under high and low levels of left party control of government. The results of this analysis are shown in Table 4.

[Table 4]

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<sup>11</sup> To be clear, this does not imply that left parties were punished to a greater extent during the crisis than right parties. As Bartels (Chapter 7) and Kriesi (Chapter 10) demonstrate, parties of all ideological stripes came under fire as economic circumstances in their countries deteriorated. Rather, the luxury model simply posits that citizens living under left party control will react more strongly to changing economic conditions than citizens living under right party control. This is due to citizens' support for more generous (i.e. costly) social programs being contingent on a strong economy characterized by high incomes and lower levels of economic insecurity (e.g. Durr 1993; Kayser 2009).

<sup>12</sup> Armingeon et al.'s full dataset can be accessed at:  
[http://www.ipw.unibe.ch/content/team/klaus\\_amingeon/comparative\\_political\\_data\\_sets/index\\_ger.htm](http://www.ipw.unibe.ch/content/team/klaus_amingeon/comparative_political_data_sets/index_ger.htm).

The table reveals that individuals living under governments controlled by left parties were indeed more responsive to changes in the macroeconomy than individuals whose governments were controlled by non-left parties. With the exception of long-term unemployment, the coefficients for all other macro-economic variables indicate that governments controlled by left parties induced heightened sensitivity amongst the public to macroeconomic shifts. The results for both contemporaneous and long-term inflation are of particular note, as they suggest that the public's economic mood tends to sour to a much greater degree when inflation rises under left governments than under right governments. (A *t*-test revealed that the differences in the effect of contemporaneous inflation were highly significant.) These results provide some evidence that individuals may be quicker to find fault with left parties and politicians than with those on the right when the economy takes a turn for the worse.

### **Conclusions: Economic Opinions in the Great Recession**

The Great Recession of 2008 seemed to come as a surprise to political elites and economists, and for average citizens it meant the sudden imposition of economic uncertainty—including income and job insecurity—as well as actual economic hardship. Although it emanated from the United States outward, the European economies were hardly spared from the financial and banking crisis and experienced the most pronounced economic downturn since the 1970s. Ironically, while elites may have been blindsided by the crisis, our analysis of public opinion data collected in eleven European states showed that publics across Europe felt and expressed the recession—in fact, even before it was officially designated as such. Thereafter, economic opinion recovered somewhat, only to diverge significantly across countries over the course of 2010.

We investigated the sources of economic opinions to see whether they are, as many would expect, a reflection of economic outcomes. We found that, indeed, they are, and in ways that were in fact sensible, especially over the long run. However, our analyses also revealed that there are important discontinuities in the short run. Specifically, we found that European publics became more sensitive to macroeconomic outcomes during the crisis than they had been prior to its onset. Our examination of cross-national differences also showed that the connection between real and perceived economy appears to have been stronger in countries with less extensively developed systems of social protection. Thus, extensive welfare states and their associated programs insuring labor market and income risks appear to have cushioned the blow dealt by the economic crisis.

Whether this latter finding—that the connection between economic reality and mass opinion can be weakened by public policy—is desirable in a democracy is a normative question we bracket for the moment. But we also believe that it is important to consider what the results do not show. They reveal that aggregate electorates did not panic in their reaction to the crisis. This is particularly impressive given the onslaught of negative attention that European economies received during this period, from politicians and pundits alike, concerning the need for these economies to better accommodate the demands of capital markets<sup>13</sup>. European publics resisted any urge to overreact, and instead responded in generally sensible manners to shifts in the macroeconomy. In those countries that weathered the crisis well, publics soon went back to business as normal. By zooming in on one country's example, we can clearly see this pattern. In Figure 5, we chart the most important issues in voters' minds in 2008 and 2009 from data

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<sup>13</sup> See for example:

<http://www.nytimes.com/2009/12/14/business/global/14deficits.html?ref=europeansovereigndebtcrisis>. The article highlights bond traders' capacity to place demand on indebted nations, with James Carville remarking that he would like to be reincarnated as a bond trader because "you can intimidate everybody."

collected by the Forschungsgruppe Wahlen. The graph shows that economic issues clearly topped the list of important issues, but not all of them were created equal in voters' minds. The 2008-2009 period saw significant changes in the economic priorities voters expressed in public opinion polls.

[Figure 5]

Among the most notable patterns in the data is the consistent mention of unemployment as one of the most important problems. Clearly, German voters were concerned about unemployment, while other issues (such as prices and wages) or the generic mention of the economy tended to be less common. But perhaps the most notable pattern to emerge from the graph is the significant change in *relative* priorities over the course of the year preceding the election. Specifically, 2008 was a year that jumbled Germans' economic priorities, which were focused on unemployment (by far) as well as prices and wages and the general economy at the beginning of the year. By the end of the year, however, unemployment as an issue had been eclipsed by the mention of the banking and financial crisis, which dominated opinion in the last quarter of the year, while the mention of unemployment and other issues declined.

As the year progressed, however, two things happened: the importance of the banking and financial crises gradually but continuously receded in the public mind, all the while, unemployment regained its importance as a political problem. By August, over 60% of Germans thought of unemployment as the most important problem, while only about 15% mentioned the banking crisis as the most important problem. And by early 2010, problems associated with the economy like unemployment (44%) and prices/wages (26%) were on the public mind, while the banking crisis was not even important enough to be mentioned by more than 5%. This

indicates a striking reversal compared to a year earlier (October 2008), when 49% mentioned the banking crisis, 32% unemployment and a mere 10% prices and wages.

Thus, on the whole, the exogenous shock of the global financial crisis and its impact on Germany's economy was in fact noticed by German voters and seen as a primary challenge to policymakers during the most difficult time of the crisis in 2008 (incidentally also the time of the presidential election in the United States). However, during the run-up to the German federal election in September 2009, the public's priorities shifted back to "business as usual" when it came to the economy, with unemployment reemerging as a primary concern. While unemployment was seen as even more pressing right before the 2005 election (with 85% mentioning it as the most important problem then and 56% mentioning it in 2009), the relative economic and political priorities in 2009 were largely similar to 2005 (with the exception of 14% mentioning the financial crisis).

When we zoom out from a single country and the very short term and instead consider the 2008 crisis in the context of economic opinion dynamics over the past 25 years more generally, a slightly different picture of the crisis emerges. Figure 6 shows the evolution of economic opinion in each of the countries investigated here since 1985. Here, we see that there surely was a downturn in Europeans' economic moods after 2007. At the same time, this downturn was not historic in proportions across countries, as the graph makes clear. In fact, when put in a broader historical context, the 2008 downturn was not historic in size, at least perceptually, in six of the eleven countries investigated here (Belgium, Germany, Denmark, France, Spain, or Ireland), and even in countries where 2008 revealed a nadir in economic mood, it was not off the chart, so to speak. Why some countries experienced a historic trough and others did not is difficult to say. While it may in part be a function of a kind of cushioning effect produced by the welfare state

(Belgium, Germany, Denmark, and France) we mentioned above, this cannot be the whole story, given Spain's or Ireland's relatively low spending.

[Figure 6]

Instead, and especially in the Southern European states—especially Greece, Italy, and Portugal, but also Spain—the numbers show a distinct long-term downward trend in economic opinions that started well before the crisis and in fact extends over the past two and a half decades. Given the historic problems faced by these countries in recent years, it almost appears as if public opinion was the canary in the coalmine presaging the structural, and heretofore unsolved, economic challenges these countries have faced, and now face with a vengeance in the context of fiscal austerity and the constraints of a common currency.

Certainly, paying attention to long-term trends in people's economic mood would have provided reason for caution in the southern European countries. Elsewhere in Europe, economic mood appears to follow a mean-reverting process, which our analysis suggests sensibly follows shifts in the macroeconomy. Absent the kind of historic economic problems faced by Southern European countries, the economic mood appears to cycle up and down alongside developments in the real economy. Taken together, these results indicate that economic mood is able to pick up on both shorter and longer-term economic trends, responding in a reasonable way to both.

These results also dovetail nicely with the findings of other research present in this volume. Bartels (Chapter 7) finds that economic retrospective evaluations did matter for election outcomes during the crisis. Electorates consistently punished governments in power during periods of economic slowdown, while also rewarding those who shepherded economies during periods of growth. Kriesi (Chapter 10) also finds that political incumbents were punished for subpar economic performances, with incumbents in majoritarian settings being punished most

severely due to the clarity of responsibility in such contexts. Combined, our chapters suggest that mass publics were able to translate information about the state of their respective economies into reasonable opinions and behaviors, which held elites accountable for economic outcomes without generating systemic panic.

Our results do leave a number of interesting questions unanswered. For example, they do not take into account political variables or cross-national differences beyond social protection and partisan control of the government. Nor were our analyses designed to pinpoint heterogeneous reactions among subgroups of the population—stratified by income, skill, or exposure to the world economy, for instance. The chapters in this volume by Duch and Sagarzazu and by Soroka and Wlezién compare trends in the economic opinions of different income groups in two of our countries, Germany and Britain. Differences of this sort in the dynamics of economic opinions will, we suspect, help to shape the lessons that citizens and policymakers draw from this particular crisis.

Finally, we have not explored the political consequences of changes in economic mood – for instance, with regard to political mobilization and contention. The chapters in this volume by Bartels and Kriesi shed light on these processes, confirming our suspicion that economic downturns resulting from the crisis had significant political consequences. Indeed, in most of the countries included in our analysis, the largest party in government before the onset of the crisis in June 2007 lost power soon thereafter. Maintaining political power during a period of significant economic turmoil has proven to be quite a tall order.

## Appendix A: Question Wording of the Joint Harmonized EU Consumer Survey

**Financial Situation Household (Retrospective):** How has the financial situation of your household changed over the last 12 months? It has ... got a lot better; got a little better; stayed the same; got a little worse; got a lot worse; Don't know.

**Financial Situation Household (Prospective):** How do you expect the financial position of your household to change over the next 12 months? It will ... get a lot better; get a little better; stay the same; get a little worse; get a lot worse; Don't know.

**National Economic Situation (Retrospective):** How do you think the general economic situation in the country has changed over the past 12 months? It has ... got a lot better; got a little better; stayed the same; got a little worse; got a lot worse; Don't know.

**National Economic Situation (Prospective):** How do you expect the general economic situation in this country to develop over the next 12 months? It will ... get a lot better; get a little better; stay the same; get a little worse; get a lot worse; Don't know.

**Unemployment Expectations:** How do you expect the number of people unemployed in this country to change over the next 12 months? The number will ... increase sharply; increase slightly; remain the same; fall slightly; fall sharply; Don't know.

**Major Purchases Right or Wrong:** In view of the general economic situation, do you think that now it is the right moment for people to make major purchases such as furniture, electrical/electronic devices, etc.? Yes, it is the right moment now; It is neither the right moment nor the wrong moment; No, it is not the right moment now; Don't know.

**Personal Major Purchases (Prospective):** Compared to the past 12 months, do you expect to spend more or less money on major purchases (furniture, electrical/electronic devices, etc.) over the next 12 months? I will spend ... much more; a little more; about the same; a little less; much less; Don't know.

**Good or Bad Time for Savings:** In view of the general economic situation, do you think that now is ... ? A very good moment to save; a fairly good moment to save; not a good moment to save; a very bad moment to save; Don't know.

**Personal Savings (Prospective):** Over the next 12 months, how likely is it that you save any money? Very likely; fairly likely; not likely; not at all likely; Don't know.

### **Appendix B: Measuring Economic Mood**

Stimson's algorithm is analogous to conducting a factor analysis on aggregate time series data. Starting with changes over time in the marginal distributions for each survey question and calculating relative change scores for each individual survey question series, the algorithm then extracts the latent dimensions underlying the shared patterns of variance across these changes and produces the relevant number of summary series of public opinion. The algorithm is also equipped with an optional smoothing function, which we choose to employ in order to minimize the "noise" inherent in this kind of survey data. The algorithm uses exponential smoothing to account for sampling error because "one wishes to observe common movements in the evolution of issue series and not tailor a fit to particular zigs and zags that may be random variation around a deterministic process" (Stimson 1999, 135). As with any data reduction technique, the number of latent variables produced by the procedure is a function of the number of dimensions the data provide.

To examine consumer confidence in Europe both across countries and over time, we proceeded in several steps. We started by estimating the extent to which attitudes about a country's economy expressed in responses to a variety of different survey questions share an underlying, latent construct over time. Specifically, we first examined the dimensionality and

scores of the variables measuring economic opinions over time and across countries. To examine whether economic mood has one dimension or two (or more), we examined eigenvalues using all survey items available since 1985. As a first step, we assumed two dimensions of support to see if the items separate into more than one factor. The results revealed that eigenvalues were always greater than 1.0 on the first dimension—in some cases considerably so—and never close to 1.0 on the second dimension. However, as may be expected when there is only one real dimension, the loadings of the item did not line up very neatly along preconceived lines (e.g., personal and national or prospective and retrospective items), nor did all items load strongly on this dimension. Most items loaded very strongly across countries. Items that did not load consistently highly related to assessments of prices (retrospective and prospective) as well as whether the household was currently saving money. We chose to exclude this latter item in particular because it loaded very highly in a couple of countries but not at all highly in the others.

Moreover, the results showed that this first factor explained the vast majority of the variance in the opinion series and that the second factor contributes very little. Taken together the patterns of eigenvalues led us to conclude that, when considered over the long run of about 25 years for which we have survey data, aggregate public opinion about the economy is one-dimensional. (The full results are shown in Table A1.) Based on these analyses, we generated a measure of economic mood over the long run of 25 years for all eleven countries investigated here. This measure represents the dynamics of the latent construct over time.

[Table A1]

### **Appendix C: Macroeconomic Variable Descriptions**

**Inflation:** Coded as the percentage change in the Consumer Price Index between the month in question and the same month in the previous year. This calculation relies on CPI data taken from the OECD's Main Economic Indicators. Accessed from <http://stats.oecd.org/Index.aspx>.

**Unemployment:** Coded as the harmonized monthly unemployment rate. Taken from the OECD's Main Economic Indicators. Accessed from <http://stats.oecd.org/Index.aspx>.

**Year-On-Year Growth Rate:** Calculated by the OECD by dividing the figure for a given period  $t$  (a month or a quarter in relation to the frequency of the data) by the value of the corresponding period in the previous year (see OECD Glossary for Composite Leading Indicators). Taken from the OECD's Main Economic Indicators. Accessed from <http://stats.oecd.org/Index.aspx>.

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**Table 1: Macro-Economic Determinants of Economic Opinions in Eleven European Democracies: Pooled Models**

Ordinary least squares regression parameter estimates (with robust standard errors in parentheses).

<i>Independent Variables</i>	<i>Δ Economic Opinion</i>	
	<b>1985-2011</b> (Model 1)	<b>2004-2011</b> (Model 2)
<b>Economic opinion (t-1)</b>	-.0299*** (.005)	-.0791*** (.0140)
<b>Δ Unemployment</b>	-.4395* (.213)	-.5331 (.3482)
<b>Unemployment (t-1)</b>	.0016 (.0111)	-.0538 (.0327)
<b>Δ Growth</b>	.2885*** (.0321)	.1977*** (.0523)
<b>Growth (t-1)</b>	.0560*** (.0064)	.0471*** (.0113)
<b>Δ Inflation</b>	-.2698*** (.0753)	-.3496* (.1481)
<b>Inflation (t-1)</b>	-.0246*** (.0131)	-.2677*** (.0575)
<b>Crisis</b>	-.1539* (.0754)	-.4861*** (.0998)
<b>Country Dummies</b>	Yes	Yes
<b>Constant</b>	1.3225*** (.2706)	4.3449*** (.7776)
<b>N</b>	3,030	893
<b>R<sup>2</sup></b>	.08	.16
<i>Note: †p&lt;.10, *p&lt;.05, **p&lt;.01, ***p&lt;.001.</i>		

**Table 2: Macro-Economic Determinants of Economic Opinions in Eleven European Democracies Before and After the Great Recession: Pooled Models**

Ordinary least squares regression parameter estimates (with robust standard errors in parentheses).

<i>Independent Variables</i>	<i>Δ Economic Opinion</i>	
	<b>2004-Crisis (Model 3)</b>	<b>Crisis-2011 (Model 4)</b>
<b>Economic opinion (t-1)</b>	-.0899** (.0286)	-.1027*** (.0191)
<b>Δ Unemployment</b>	-.2523 (.5562)	-.9236† (.4720)
<b>Unemployment (t-1)</b>	-.1661† (.0968)	-.0415 (.0423)
<b>Δ Growth</b>	.1942 (.1486)	.1765** (.0626)
<b>Growth (t-1)</b>	.0768* (.0396)	.0539*** (.0138)
<b>Δ Inflation</b>	-.0470 (.1916)	-.4776* (.2065)
<b>Inflation (t-1)</b>	-.2287† (.1185)	-.2882*** (.0773)
<b>Country Dummies</b>	Yes	Yes
<b>Constant</b>	5.4130*** (1.4908)	4.5776*** (.9841)
<b>N</b>	451	442
<b>R<sup>2</sup></b>	.08	.22
<i>Note: †p&lt;.10, *p&lt;.05, **p&lt;.01, ***p&lt;.001.</i>		

**Table 3: Macro-Economic Determinants of Economic Opinions in Eleven European Democracies during the Great Recession, by Level of Social Spending**

Ordinary least squares regression parameter estimates (with robust standard errors in parentheses).

<i>Independent Variables</i>	<i>Δ Economic Opinion</i>	
	<b>Low Social Spending<sup>a</sup></b>	<b>High Social Spending<sup>b</sup></b>
<b>Economic opinion (t-1)</b>	-.111*** (.0311)	-.092*** (.026)
<b>Δ Unemployment</b>	-1.238* (.605)	-.024 (.597)
<b>Unemployment (t-1)</b>	-.056 (.055)	-.024 (.087)
<b>Δ Growth</b>	.325** (.102)	.074 (.079)
<b>Growth (t-1)</b>	.048† (.027)	.059** (.017)
<b>Δ Inflation</b>	-.476 (.313)	-.356 (.250)
<b>Inflation (t-1)</b>	-.278* (.116)	-.266* (.110)
<b>Country Dummies</b>	Yes	Yes
<b>Constant</b>	5.011** (1.553)	3.545* (1.451)
<b>N</b>	225	217
<b>R<sup>2</sup></b>	.24	.22

*Note:* †p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001.  
a: Greece, Ireland, Italy, Portugal, Spain, United Kingdom.  
b: Belgium, Denmark, France, Germany, Netherlands.

**Table 4: Macro-Economic Determinants of Economic Opinions in Eleven European Democracies during the Great Recession, by Left Party Control**

Ordinary least squares regression parameter estimates (with robust standard errors in parentheses).

<i>Independent Variables</i>	<i>Δ Economic Opinion</i>	
	<b>Low Left Control<sup>a</sup></b>	<b>High Left Control<sup>b</sup></b>
<b>Economic opinion (t-1)</b>	-.1156** (.0411)	-.1184*** (.0234)
<b>Δ Unemployment</b>	.1306 (1.004)	-1.562** (.5340)
<b>Unemployment (t-1)</b>	-.0799 (.2609)	-.0511 (.0487)
<b>Δ Growth</b>	.2521 (.2323)	.1734* (.0741)
<b>Growth (t-1)</b>	.0245 (.0410)	.0612*** (.1049)
<b>Δ Inflation</b>	.4410 (.3322)	-1.005*** (.02576)
<b>Inflation (t-1)</b>	-.1906 (.1414)	-.2958** (.1088)
<b>Country Dummies</b>	Yes	Yes
<b>Constant</b>	6.368** (2.745)	5.314*** (1.624)
<b>N</b>	159	283
<b>R<sup>2</sup></b>	.22	.30

*Note:* †p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001.  
a: Left parties control less than 37.5% of cabinet seats.  
b: Left parties control more than 37.5% of cabinet seats.

**Table A1: Factor Loadings for Variables Constituting Cross-National Consumer Evaluation Series, by Country**

<b>Variable</b>	<b>BE</b>	<b>DE</b>	<b>DK</b>	<b>EL</b>	<b>ES</b>	<b>FR</b>	<b>IE</b>	<b>IT</b>	<b>NL</b>	<b>PT</b>	<b>UK</b>	<b>AVG</b>
HH Financial (Retrospective)	0.910	0.908	0.928	0.948	0.956	0.892	0.955	0.957	0.885	0.939	0.790	<b>0.919</b>
HH Financial (Prospective)	0.933	0.881	0.825	0.968	0.937	0.907	0.968	0.802	0.932	0.959	0.681	<b>0.893</b>
Nat. Economic (Retrospective)	0.846	0.930	0.810	0.937	0.945	0.971	0.965	0.927	0.853	0.968	0.955	<b>0.921</b>
Nat. Economic (Prospective)	0.758	0.873	0.569	0.931	0.904	0.894	0.810	0.632	0.518	0.948	0.626	<b>0.776</b>
Unemployment Expectations	0.700	0.754	0.771	0.824	0.849	0.747	0.914	0.075	0.746	0.881	0.808	<b>0.723</b>
Good Time to Make Major Purchases	0.659	0.664	0.526	0.717	0.854	0.844	0.911	0.795	0.947	0.934	0.793	<b>0.793</b>
Expect to Spend on Major Purchases	0.692	0.803	0.862	0.440	0.919	0.437	0.718	-0.06	0.721	0.823	0.870	<b>0.673</b>
Likely to Save Over Next Year	0.663	0.727	0.851	0.707	0.643	0.209	0.661	0.879	0.530	0.669	0.260	<b>0.626</b>
Eigen Estimate (Out of 9)	4.83	5.41	4.86	5.47	6.21	4.87	6.05	4.23	4.90	6.41	4.54	<b>5.293</b>
% Variance Explained	60.4	67.6	60.8	68.4	77.6	60.8	71.3	49.0	61.3	80.2	50.4	<b>65.6</b>

Source: Joint Harmonized EU Program of Business and Consumer Surveys. Note: Number of observations per country, per month are as follow-s: BE = 1600; DE = 2000; DK = 1500; EL = 1500; ES = 2000; FR = 3300; IE = 1300; IT = 2000; NL = 1500; PT = 2100; UK = 2000

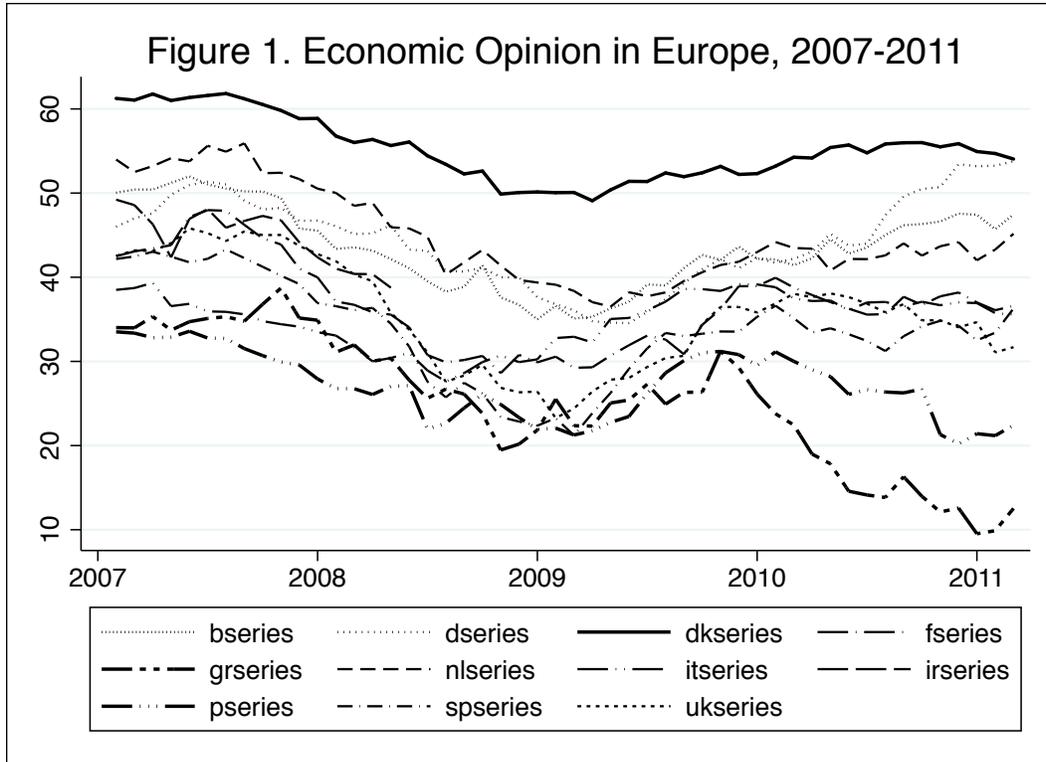
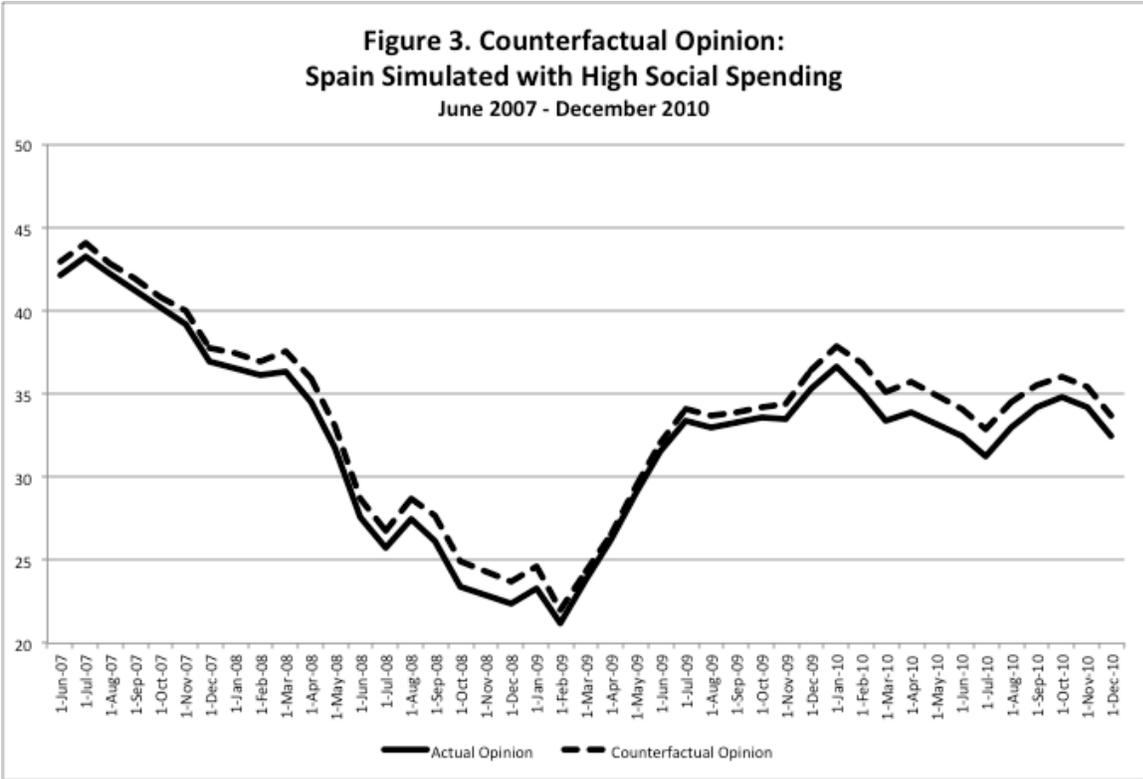
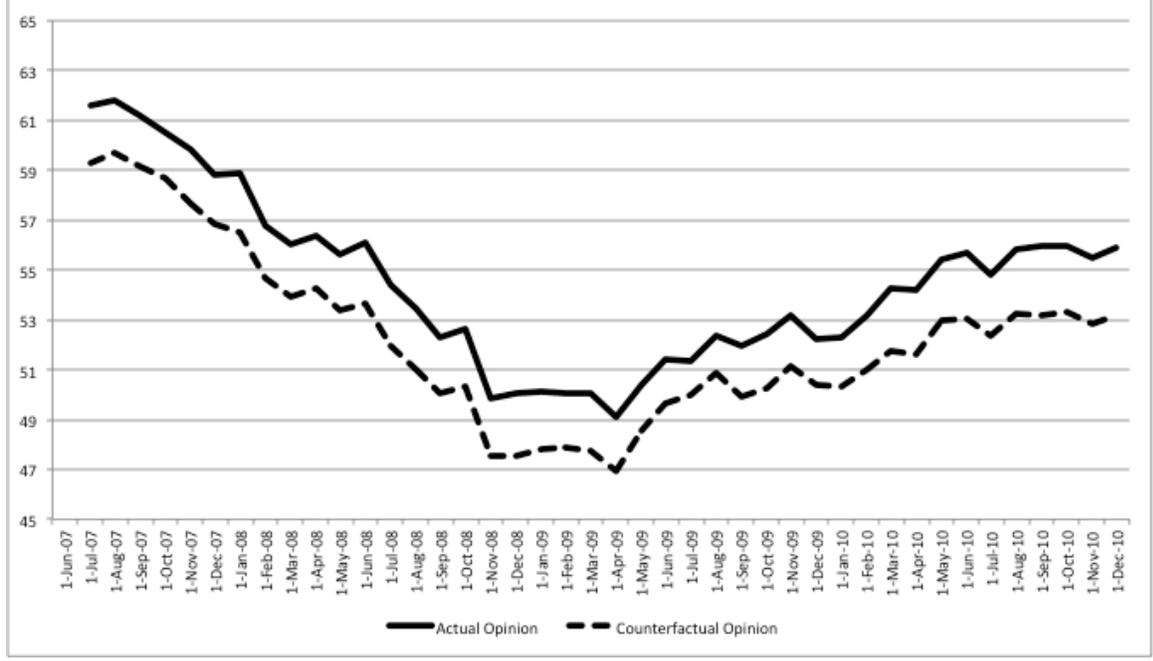


Figure 2. Economic Opinion in Europe, By Country  
2007-2010





**Figure 4. Counterfactual Opinion:  
Denmark Simulated with Low Social Spending**  
June 2007 - December 2010



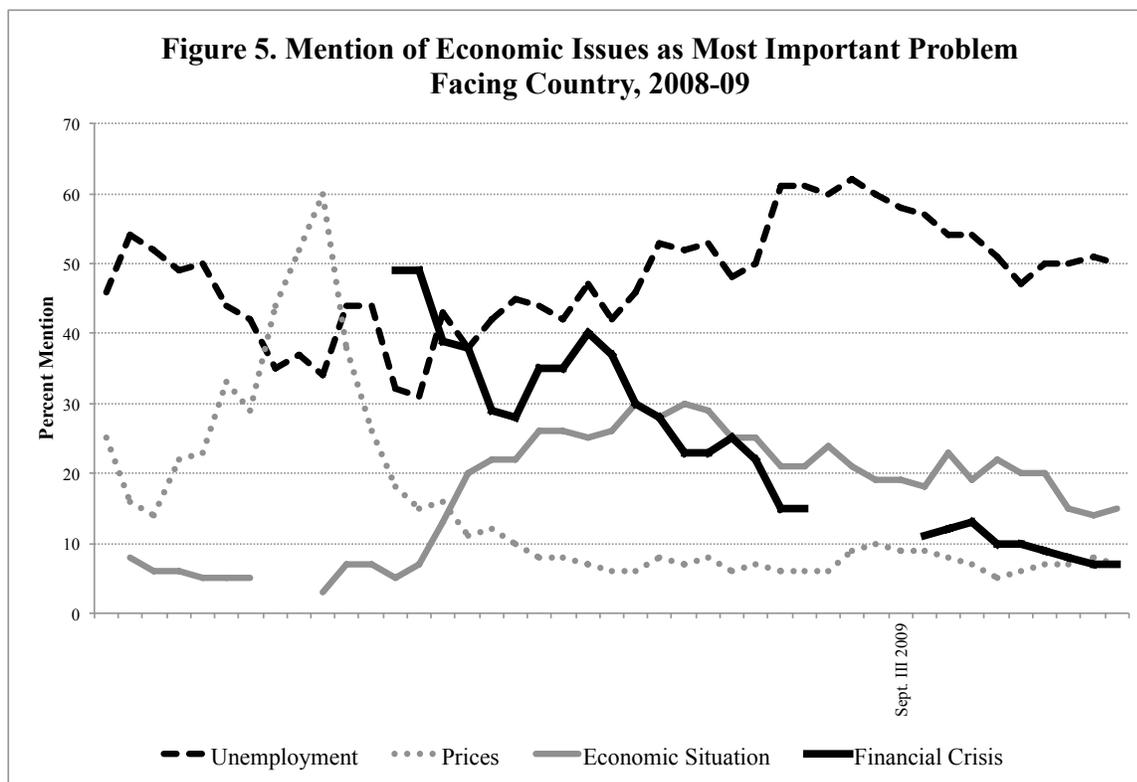


Figure 6. Trends in Economic Opinion in 11 European Countries  
1985-2010

