Are Voters Benchmarking the Economy? An Experimental Test on Evaluation and the Attribution of Responsibility During the 2014 Congressional Elections*

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Abstract

A number of recent publications in the field of economic voting argue that voters benchmark the national economy in comparison to other countries. These studies suggest that voters punish incumbents who underperform comparatively, and reward incumbents if the national economy is outperforming compared to other countries. Being informed not only about the national economy but also about the state of the economy in other countries, however, requires high levels of sophistication. Therefore, previous work suggests that voters rely on pre-benchmarked economic information when comparatively evaluating the state of the national economy. The current paper examines how such information has an impact on citizens' economic evaluations as well as on their attribution of responsibility for economic conditions. To this end, we make use of a survey-experiment that was implemented in the 2014 Collaborative Congressional Election Study (CCES) in the United States. Our analyses indicate that pre-benchmarked information does significantly affect respondents' economic attitudes, and this effect is not moderated by partisanship or levels of political sophistication.

Keywords: economic voting; benchmarking; economic evaluation; attribution of responsibility

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A rich and growing literature offers strong indications that the economy matters in elections and that voters take into account the state of the economy when casting a vote (Duch & Stevenson, 2008; Lewis-Beck & Stegmaier, 2000). The foundations of the economic voting paradigm can be found in the work of Key (1966). In essence, it is claimed that voters reward incumbents for good economic performance but vote them out of office when the economy is deteriorating. As a result, the presence of mechanisms of economic voting suggests that voters are holding incumbents accountable for how they perform when in office, which is considered a key element for the functioning of representative democracy (Przeworski, Manin & Stokes, 1999). The occurrence of economic voting, however, requires at least two conditions. First, voters need to have information about how the economy is indeed performing. Second, they need a criterion to make the decision about whether this condition qualifies as 'good' or 'bad'. These conditions lead to the research question how citizens obtain information about the economy, and how exactly they evaluate economic performance.

A number of recent publications argue that evaluating economic conditions will depend on a comparison with the economic performance of other countries (Hansen, Olsen & Bech, 2015; Jérôme, Jérôme-Speziari, & Lewis-Beck 2001; Kayser & Peress, 2012). It is claimed that voters take into account international economic conditions when evaluating the state of their own national economy. Kayser and Peress (2012, p. 661) state *"Voters (...) benchmark national economic growth against that abroad, punishing (rewarding) incumbents for national outcomes that underperform (outperform) an international comparison."* Their claim, therefore, is that voters evaluate the economy not just based on objective criteria, but also on a comparison with the information they receive about countries and that they will use to benchmark their own national economy.

Kayser and Peress (2012) furthermore investigate how and where voters obtain the necessary information to perform this kind of international benchmarking, as most voters are unlikely to regularly consult reliable comparative indicators of the economy. They find indications that the media pre-benchmark economic information, so that voters simply are being guided by this kind of information they receive. Thus, the crucial mechanism allowing international benchmarking in economic voting lies in voters receiving economic information that already is comparative and voters do not have to seek any additional information. According to

Kayser and Peress (2012), this kind of media information is effective, whether or not an explicit reference point is being mentioned ("our country is doing worse than country X"), or not ("our country is doing better than most other countries"). Almost self-evidently, the first comparison is much more explicit, while the rather vague standard that is present in the second kind of message is rather close to general economic information (Tilley & Hobolt, 2011).

To fully understand how voters exactly benchmark their own economic conditions with an international comparison point, more information is needed on how individuals process such pre-benchmarked messages and whether these messages affect their attitudes. Building on previous studies on economic voting, we expect that pre-benchmarked economic information could affect citizens' attitudes in two distinct ways: 1) it could change their *evaluations* of the state of the national economy and, 2) it can alter *attributions* of responsibility for the economy (Tilley & Hobolt, 2011). In this study, our goal therefore is to investigate the effect of this kind of information on both evaluation and attribution of responsibility.

We present evidence from a survey experiment embedded in the Cooperative Congressional Election Study (CCES), which was in the field in the context of the 2014 midterm elections in the United States. We randomly assigned respondents to receiving different explicit pre-benchmarked messages on the state of the national economy. Our results indicate that voters do react to receiving this kind of economic information, but only when the impact on evaluations and the attribution of responsibility is combined. If only one of these attitudes is looked at, we do not observe a significant effect. Our results hence validate the suggestion made in earlier research: pre-benchmarked economic information affects citizens' attitudes, indicating that the impact of benchmarked economic conditions on voting behaviour can indeed – at least partly – be explained by voters taking into account the comparative performance of the national economy, but this effect only seems to occur if both evaluation and attribution are taken into account. In contrast to some previous research in the field of economic voting, furthermore, we find no evidence of individual-level heterogeneity. The effects of our experimental conditions does not seem to be vary as a result of party identification or level of political sophistication.

Benchmarking the economy: the mechanism

Previous research

If we assume that economic voting occurs, it is important to understand how exactly voters arrive at a judgement about the state of the national economy. Two separate strands of literature lead to the suggestion that this judgement will always be the result of an explicit or implicit comparison with other economic systems. In what is labelled 'social comparison theory', social psychologists point out that people compare themselves to others and that they evaluate their own performance relative to that of other people (Festinger, 1954; Suls & Wheeler, 2013). Second, empirical research focussing on sub-national levels of governance shows that voters compare tax rates between neighbouring states or municipalities and punish incumbents for comparatively high tax levels (Besley & Case, 1995; Dubois & Party, 2010; Vermeir & Heyndels, 2006). Combined, these literatures suggest that a judgement on the economy on one's country, inevitably will be the result of a comparison with how other countries perform. One of the reasons for this comparison might be that in the field of economics, there is no absolute yardstick to assess whether a specific level of economic growth is 'good', or whether a specific level of unemployment can be considered as 'healthy'. Judgements on the economy therefore often take the form of a ranking: doing better or worse than other countries do.

The first indications of benchmarking in voting for the incumbent were offered by Jérôme and his colleagues (2001). Investigating the determinants of the incumbent vote share in France and Germany they hypothesized that incumbents obtain a larger vote share if the national economy is in better condition than the economy in the neighbouring country. They did find indications of such a mechanism, but only in the French context. Kayser and Peress (2012) do, offer cross-national evidence about the role and the importance of benchmarking in economic voting. Making use of objective economic indicators and decomposing economic growth into a local and an international component, they argue that only the local component explains the vote significantly. This would mean that not the absolute level of economic growth is important, but only whether a country outperforms or underperforms compared with the general international trend. Their findings were robust to different model specifications and different approaches to decomposing the local and international components of economic growth.

This leads to the question what country, or what groups of countries, is being taken as a point of comparison. In a study on Denmark, Hansen et al. (2015) found evidence for the

occurrence of a benchmarking mechanism. Their experiment, however, showed that only a comparison with neighboring Sweden was considered as relevant. Not only is Sweden is the second trading partner of Denmark, but also culturally, linguistically and geographically it is very close to Denmark.

Another important question, however, is how exactly voters receive this kind of information and whether they have sufficiently high level of political and economic sophistication to process this information. Kayser and Peress (2012) acknowledge that being informed not only about national economic conditions but also about how the national economy performs internationally requires high levels of sophistication. This leads to a problem, because all research on political knowledge clearly suggests that electorates are fairly low politically sophisticated in general (Converse, 2000; Delli Carpini & Keeter, 1996). Then how to explain the presence of benchmarking in economic voting? Kayser and Peress (2012) suggest that it is sufficient that voters receive pre-benchmarked information on the economy. This would imply that voters do not make the comparison themselves (as this would require access to reliable statistics), but that they simply follow the lead they receive from the mass media. If the media pre-benchmark the national economy and voters rely on this information to evaluate the state of their own national economy, this would be sufficient to allow economic voting to occur. The observation of Kayser and Peress (2012) that the coverage of the UK economy in *The Times* is indeed pre-benchmarked (i.e., the tone of economic coverage correlates to the local component in economic variation), enhances the plausibility of their thesis. At least in the British case, it has been established that the economic information citizens are exposed to, often relies on a comparison with other countries.

In sum, previous research suggests that voters cast benchmarked economic votes. As a result, voters are not blaming national incumbents for a worldwide financial crisis, but take into account how their nation's economy is doing comparatively, given the background of such a global event (Kayser & Peress, 2012). The Polish 2011 election is exemplary in this regard, as it is assumed that the assessment of Poland performing economically better than most other E.U. countries has led to the incumbent government being re-elected – which happened for the first time since the fall of communism (Kotnarowski & Markowski, 2014). Similarly, Bélanger and Nadeau (2015) argue that in Canada, the incumbent Conservative government won the 2006 and 2008 elections because it succeeded in convincing voters that the Canadian economy was

performing better than other industrialised countries. In the remainder of this paper, we assume that it is because they are exposed to pre-benchmarked economic information, for example from the media, that citizens cast benchmarked economic votes, as Kayser and Peress (2012) claim. What we do not know from previous work, however, is how exactly pre-benchmarked information affects voters' evaluations and thus how it is that receiving pre-benchmarked economic information could affect the vote choice. To shed light on this question, we examine the impact of pre-benchmarked information on different elements within the causal chain that links economic conditions to the vote choice. Only if we find pre-benchmarked economic messages to affect attitudes towards the economy can we reasonably assume that voters can be benchmarking when casting a vote. It is important therefore, to situate the research question on the effect of benchmarked economic information into a broader theoretical approach toward economic voting.

Performance evaluations and attribution of responsibility in economic voting

Economic voting is based on a straightforward premise: voters reward or punish incumbents according to the state of the economy. The link between economic conditions and the vote, however, constitutes *"a long, and often unappreciated, causal chain connecting economic conditions to voter perception to voter attribution of responsibility, to the vote choice."* (Kayser, 2014, p. 121). The key elements connecting economic conditions to the vote are voters' perceptions of the economy and their attribution of responsibility for economic conditions. For examining how pre-benchmarked information affects economic voting at an individual level, we thus focus on its impact on these two assessments. Being exposed to this information could have an effect on evaluation of the economy, or on attribution of responsibility, or on both of these indicators simultaneously. The subsequent impact of these assessments on actual voting behaviour falls outside the scope of the current article.

First, pre-benchmarked information about the national economy could affect voters' *evaluation* of the state of the economy. We know from previous research that media coverage affects sociotropic evaluations of the economy: how citizens evaluate the state of the economy is influenced by the information they receive via the media (Boomgaarden et al., 2011; Hetherington, 1996; Mutz, 1992; Soroka, Stecula, & Wlezien, 2015). Admittedly, it has been claimed that media coverage is not always driven by objective economic indicators

(Hetherington, 1996) and scholars have noted a negativity bias in how the media cover economic issues (Soroka, 2006). Nevertheless, Kayser and Peress (2012) find indications that media coverage of the economy in the UK is pre-benchmarked, suggesting that a comparative assessment of how the national economy is doing is depicted in the media. We expect such coverage to affect how voters evaluate the state of the economy. More specifically, if the national economy is portrayed as outperforming other countries, citizens' evaluations of the state of the economy should become more positive. Alternatively, if in the coverage of the national economy it is highlighted that the national economy is underperforming compared to other countries, citizens' evaluations of the economy should become more negative. This leads to our first hypothesis:

H1: Pre-benchmarked information on the national economy significantly affects voters' evaluation of the national economy.

Second, not only economic evaluations, but also whom citizens think is responsible for the state of the economy could be affected by the information they receive. Even if citizens are discontented about the state of the economy, it can only have an effect on their voting decision if they hold the incumbent government responsible for this state of affairs. Comparative studies in the field of economic voting have argued that part of the instability in economic voting stems from differences in 'clarity of responsibility' (Hobolt et al., 2013a; Nadeau et al., 2002; Powell & Whitten, 1993). Basically, the argument is that the impact of the economy on voting behaviour is weakened when voters can identify less clearly who is responsible for the state of the economy. Individual-level studies within single countries as well have stressed the importance of citizens' attributions of responsibility to link economic evaluations to voting behaviour (Marsh & Tilley, 2010; Rudolph & Grant, 2002; Rudolph, 2003; Tilley & Hobolt, 2011). Rudolph and Grant (2002), for example, have shown that the economic vote in the 2000 U.S. presidential elections was dependent on voters attributing responsibility for the state of the economy to the president. Blame attribution is thus an important moderator between economic conditions and the vote and we know from previous research that attributions of responsibility are shaped by the information citizens receive (Hobolt, Tilley, & Wittrock, 2013; Newman, 2013). When thinking about how pre-benchmarked messages affect the economic vote, we therefore argue that these not only alter

citizens' evaluations of the economy, but also affect responsibility attributions. If there is a difference between one's own country and comparable cases, it is a straightforward idea that this difference is not due to some global economic trend, but rather to the policy being pursued in one's own country. In our second hypothesis, we therefore argue that being exposed to explicit pre-benchmarked economic information leads voters to attribute more responsibility for the state of the national economy to national actors:

H2: Information on the national economy diverging from international trends strengthens the extent to which citizens attribute economic responsibility to national actors.

While our hypotheses in principle are independent from one another, we will also investigate to what extent the evaluation and the accountability mechanism coincide, and might even strengthen one another. Doing so we obtain a better idea of how pre-benchmarked economic information could affect the vote choice, as the accountability-literature shows an interactive effect of attributions of responsibility and economic evaluations (Rudolph & Grant; Hobolt, Tilley, & Wittrock, 2013). To express it differently: only if voters arrive at a negative evaluation if the economy *and* if they hold the incumbent government responsible for this, can there be an effect on voting behaviour. If only one of the conditions is being met, economic voting will not occur. The cumulative character of these conditions, therefore, implies that both the evaluation and the attribution mechanism have to be present simultaneously.

In line with Kayser and Peress (2012) we examine benchmarking by distinguishing between outperforming and underperforming national economies. While this distinction is essential for examining the impact of pre-benchmarked information on evaluations of the economy (an outperforming economy should have a positive effect, an underperforming economy a negative impact), we also implement the distinction when assessing how pre-benchmarked information affects attributions of responsibility. Doing so allows for the possibility that effects are asymmetrical – with negative information being more pervasive compared to the impact of being informed about an outperforming national economy.

The possibility of an asymmetry is particularly relevant because it is expected that information on economic conditions comes from the media. Previous work on the impact of media messages has shown a negativity bias, with citizens giving more weight to unfavourable

information than to favourable information (Lau, 1985; Soroka, 2006). Furthermore, a number of studies in the economic voting literature have already pointed out that effects of the economy on the vote are asymmetric. Even though there still is considerable debate on this question (Lewis-Beck & Stegmaier, 2013), research has indicated that governments are punished more strongly for worsening economic conditions than they are rewarded for a good economy (Bloom & Price, 1975; Nannestad & Paldam, 1997). An aggregate-level study on economic voting in Western Europe even shows the impact of negative GDP growth on the incumbent vote share to be double the size of the impact of positive growth rates (Dassonneville & Lewis-Beck, 2014). Investigating benchmarking in Denmark, Hansen et al. (2015) found indications of a negativity bias as well. They found Danish respondents to care more about doing worse than Sweden than they cared about being better off than the Swedes. For all these reasons, we thus systematically assess the impact of information on the national economy underperforming and outperforming separately.

Experimental design

We examine the individual-level effects of pre-benchmarked messages by means of a survey experiment embedded in the Linkage-module of the 2014 Cooperative Congressional Election Study (CCES). The study was in the field in the context of the 2014 midterm elections in the United States and consisted of a pre- and post-electoral wave. The CCES is administered online by Yougov/Polimetrix among a nationally representative sample of over 50,000 US adults. Half of the questions that respondents received were part of the common content, while another half of the questions were specific for each of the subsamples within the CCES. Our survey experiment was implemented in the pre-electoral wave among a CCES-subsample of 1,000 US adults and ran between October 1 and November 3, 2014.[1]

No previous research has shown evidence of benchmarking of the national economy in the United States, although it is well-established that there is yardstick voting within the United States as well (Besley & Case, 1995). Interestingly, Kayser and Peress (2012) exclude the United States from their sample when examining the presence of benchmarking comparatively, arguing that 'it does not fit well with our assumption that incumbent governments are not responsible for global economic shocks' (Kayser & Peress, 2012: 666). When assessing the impact of pre-benchmarked frames on citizens' evaluations, and not the impact of objective economic indicators however, to what extent the incumbent government effectively impacts on the world

economy is of less importance. Nevertheless, we should probably consider an analysis of benchmarking in the United States a conservative test of this phenomenon.

An experimental design has a number of clear advantages. First of all, it allows us to control exactly what information respondents are exposed to. As a result, we can be certain that effects found are due to respondents having been exposed to this information. Second, the random assignment of different treatments allows us to make clear causal statements about the direction of effects (Druckman et al., 2006; Tilley & Hobolt, 2011). Survey experiments in particular, when implemented in representative surveys, have the additional advantage of offering external validity and allowing inferences on what are the processes that occur among the population at large (Gaines, Kuklinski & Quirk, 2007). Survey-experiments also come with an important disadvantage, however, that stems from the fact that in simulating the effect of a real-world context, they cannot exclude the impact of this real world outside of the survey setting. If in real life citizens are regularly exposed to what the survey experiment aims to simulate, the additional impact of the exposure is likely to be limited at best (Gaines et al., 2007).

For designing the experimental treatments, we closely followed the experimental approach that Tilley and Hobolt (2011) used to investigate the impact of negative and positive economic news among British voters. The negative and positive information they provided to respondents included a comparison to the state of the economy *'in most other countries'*. As a result, the information they exposed respondents to became pre-benchmarked. We follow their experimental design and construct similar treatments. Unlike what holds in France (Jérôme et al., 2001) or Denmark (Hansen et al., 2015), there is no reason to assume that US citizens would benchmark their economy against the economy of one country or set of countries in particular. And even though Kayser and Peress (2012) indicate that benchmarking is most evident when compared to a set of the most economically integrated states, they also find benchmarking effects when comparing to a median of the economic performance of all other OECD-countries. We hence feel safe that referring to *'most other countries'* is a good approximation of how, in reality, voters and media benchmark the economy.

In line with Tilley and Hobolt (2011), we refer to experts assessing how the national economy is doing comparatively and the national economy is portrayed as deteriorating in the experimental treatments. The question wording of the experimental treatments is the following:

Group 1: Underperforming condition

Experts say that not only have economic conditions deteriorated over the last year, the American economy is doing considerably worse than most other countries.

Group 2: Outperforming condition

Experts say that although economic conditions deteriorated over the last year, the American economy is doing considerably better than most other countries.

Group 3: Control

[respondents were not exposed to information]

The experimental conditions were followed immediately by a question gauging the extent to which respondents attributed responsibility for the economy to the incumbent administration. The control group received no information on the economic context and thus only received the attribution of responsibility question. The question wording used therefore was: 'How responsible would you say the Obama government is for economic conditions in the United States?' and respondents could indicate their response on a 0-10-scale (from 0 = 'not responsible at all' to 10 = 'completely responsible').[2]

Furthermore, we not only examine the impact of pre-benchmarked information on the attribution of responsibility, but also on how respondents evaluate the state of the economy. Therefore, a standard sociotropic retrospective measurement of the economy was included. Respondents were asked to evaluate how the nation's economy had changed over the past year (on a 5-point scale from 'gotten much worse' to 'gotten much better').

While our experiment was in the field in the context of the midterm elections, our focus is on the national economy and attitudes towards the Obama administration – who did not run for election in 2014. As a result, we do not focus on the impact of our experimental treatments on the vote choice.

These experimental treatments hence allow us to examine the impact of explicit pre-benchmarked economic information on performance evaluations as well as attributions of responsibility for the economy. Self-evidently, the common content of the CCES-survey included a large number of socio-demographic and ideological variables, including partisanship, that allow verifying whether effects are homogeneous or particularly strong among specific subgroups.

Before examining the impact of the experimental conditions on respondents' attitudes, we review the actual economic situation at the time of the survey. At the time of the fieldwork, the fourth quarter of 2014, the GDP growth rate was at 2.5, while the unemployment rate was at 6.1 percent of the labor force.[3] These figures imply that by the time of the survey, the American economy had for the greater part recovered from the financial and economic crisis of 2008 and 2009 (see graphs 1 and 2 in Appendix 1). Furthermore, the US economy was doing better than the OECD-average (GDP growth rate of 1.8 and unemployment rate of 7.3). Objectively, thus, the American economy was outperforming at the time of the survey, though it is also clear that at the time of the survey, this improvement had not affected the personal economic situation of the average American citizen yet, as is evident information on median income levels over time (see figure 3 in Appendix 1). How did US citizens perceive the state of the economy at the time of the survey? The evaluation of the control group is insightful in this regard. Assessing the state of the national economy over the last year (on a scale from 1 to 5, with 1 = 'gotten much worse' and 5 = 'gotten much better'), the mean evaluation of the control group was 2.8. We can therefore conclude that overall, the national economy was evaluated as being in a somewhat worse condition than the middle option on the economic evaluation scale (3 = 'stayed about the same'). It can be concluded, therefore, that respondents in this survey have a slightly more negative view of the US economy than the key economic indicators would suggest.

Results

Main effects

Now we turn to the main question of how the experimental conditions affected respondents' attitudes. To that end, the plots in Figure 1 show the average treatment effects for each of the experimental conditions on how respondents evaluate the economy (left panel) and on the extent to which they hold the Obama government accountable for the state of the economy (right panel). For both variables of interest, we plot the difference in scores between each of the experimental conditions (i.e., information on the economy underperforming and outperforming respectively) and the control group.

In a first step (left panel), we evaluate the impact of the treatment condition on how respondents evaluate the national economy. Recall that the mean evaluation of the economy in

the control group was 2.8 (on a 1-5-sale). For both experimental conditions, effects are in expected directions. Providing respondents with information on the national economy underperforming comparatively leads to more negative evaluations, while informing respondents that the national economy is outperforming improves the evaluation. It is important to note that mean values for the underperforming and outperforming group differ significantly (p-value = 0.03) from each other, but the contrast between each group and the control group is not significantly different from zero. In contrast to what we hypothesized (H1), therefore, being exposed to explicit pre-benchmarked information does not appear to significantly affect in a direct manner how citizens evaluate the state of the economy.

[FIGURE 1 ABOUT HERE]

Next, we examine the impact of pre-benchmarked information on attribution of responsibility for the state of the economy (right panel). We expected that indicating how national economic conditions differed from the global economy would incite voters to attribute more responsibility for the state to the economy to the national incumbent. What we observe, however, is that both treatment conditions have a negative effect – indicating that after receiving information on how the national economy did compared to most other countries, respondents tended to attribute *less* responsibility for the state of the economy to the Obama administration than what holds for the control group. Here as well, however, neither of the effects is significantly different from zero (at $p < 0.05$). For attribution of responsibility as well, we hence do not observe a direct impact of being exposed to explicit pre-benchmarked information, which is in contrast to what we hypothesized (H2).

We find neither a significant impact of the experimental treatments on respondents' evaluation of the economy, nor on their assessment of the extent to which the Obama administration was responsible for economic conditions. Theoretically, however, the impact of the attribution of responsibility on economic voting lies in the fact that it moderates the effect of economic evaluations on the vote. In other words, evaluations of the state of the economy only have an impact on voting behaviour if the incumbent is considered responsible for economic conditions (Rudolph & Grant, 2002). Taking into account this theoretical perspective, in a next step we examine the impact of the experimental treatments on the interaction between economic

evaluations and the attribution of responsibility. This allows us to assess whether the information has an effect on the combination of attribution and evaluation. Only if we observe an impact of the treatment conditions on this combined scale, pre-benchmarked economic information could have an effect on vote intentions. We first transform the economic evaluation scale to ensure negative values for negative evaluations ('gotten (much) worse') and positive values for evaluations of improving economic conditions ('gotten (much) better'). This transformed variable still has a 5-point scale and runs from -2 to +2. To generate an interaction term, we multiply this variable by respondents' score on the attribution of responsibility scale (on a scale from 0 to 10). We thus obtain a new interaction variable, that runs from -20 to +20, and where at one extreme (a score of -20) respondents evaluate the economy as having 'gotten much worse' while attributing maximum responsibility to the Obama administration. At the other extreme (score + 20), respondents think the economy has 'gotten much better' and they too attribute maximum responsibility for this economic situation to the Obama administration. The middle position is obtained when respondents do not attribute responsibility to the federal administration, or when they have a middle position on the economic assessment, or if both elements are combined.

In Figure 2, we present the average treatment effects on this interaction scale. As evident from the results, effects of the two experimental conditions are in expected directions and unlike what was the case when assessing the impact on economic evaluations and the attribution or responsibility separately, effects reach a conventional level of statistical significance ($p < 0.05$). Furthermore, the mean score for both treatment groups differs significantly as well ($p < 0.000$). Assessing the effect of the experimental treatments on the interaction between economic evaluations and the attribution of responsibility for the economy, hence, we find indications that explicitly pre-benchmarked messages affect citizens' attitudes in a way that would explain the link between benchmarked economic conditions and the vote. More specifically, we observe that when exposed to information on the national economy underperforming comparatively, citizens move significantly towards a more negative evaluation of the economy that is simultaneously strongly attributed to the Obama administration. This group, hence, can be thought to have become more likely to punish the Obama administration for the worsening economy. When being informed that the national economy is outperforming, by contrast, attitudes move significantly towards a more positive evaluation of the economy that is attributed equally strongly to the national incumbent. Consequently, this group can be thought to have become more likely to

reward the Obama administration for improving economic conditions. In sum, while we find indications of voters reacting to pre-benchmarked economic information, our results also suggest that it is essential to take into account the interaction between economic evaluations and attributions of responsibility. Only if we do so, we find indications of a significant impact of pre-benchmarked information on citizens' economic attitudes.

[FIGURE 2 ABOUT HERE]

The average treatment effects presented in Figure 1 and Figure 2 show effects for the underperforming and outperforming conditions separately. As such, the graphs allow assessing whether effects are indeed asymmetric, with a stronger impact of information on the economy underperforming than what holds when the economy is outperforming. Visually assessing the graphs, it is evident that in contrast to what Hansen et al. (2015) found in the Danish context, there are no indications of such an asymmetry in the impact of pre-benchmarked economic information on citizens' attitudes in the United States. In this case, the effect of negative and of positive information is similar.

Robustness: multivariate model estimates

It could be claimed that controlling for a number of relevant variables would increase the efficiency of our estimates (Harbridge & Malhotra, 2011). Furthermore, one could argue that we have to take into account the categorical nature of our measure of respondents' evaluation of change in the national economy (5-point scale, from 'gotten much worse' to 'gotten much better').

To take into account such concerns, we also examine the effect of the treatments by means of multivariate regression models, in which we control for socio-demographic characteristics. We include controls for respondents' gender, their age (specified linearly) and race – distinguishing non-whites from whites. In addition we include measures of respondents' highest level of education[4], political interest[5], media consumption[6], political knowledge[7], as well as partisanship[8].

The results of these regression analyses are presented in Table 1, and confirm what we observed from assessing in a bivariate way the impact of the experimental conditions. First, for

evaluations of the state of the economy, effects are in expected directions for both experimental treatments, but do not reach a conventional level of statistical significance. Furthermore, the results of Model 1 in Table 1 indicate that two of the control variables are significantly related to economic evaluations. Higher levels of political knowledge significantly improve the evaluation of the national economy. Furthermore, as respondents move to the Republican end of the party ID-scale, their evaluation of the national economy worsens significantly. This is in line with expectations, as the incumbent president is a Democrat. Second, for the attribution of responsibility as well, the results of the multivariate analysis are in line with what we observed in Figure 1. Both experimental conditions are negatively associated with the extent to which the Obama administration is considered to be responsible for the national economy. Additionally, when controlling for relevant variables, the effect of the underperforming condition reaches statistical significance, note though that the p-value is 0.049. Furthermore, the results of Model 2 in Table 1 indicate that as respondents move to the Republican end of the partisanship-scale, they attribute significantly more responsibility for the economy to the Obama administration. Finally, the results of Model 3 indicate that the significant effects observed in Figure 2 are robust to controlling for a large set of socio-demographic and political variables. As can be read from Model 3, respondents that have been exposed to the underperforming condition score significantly lower on the interactive scale, implying that their attitudes shift towards evaluating the economy more negatively while attributing responsibility for the economy to the Obama administration. Respondents that were exposed to the outperforming condition, on the other hand, have a significantly higher score on the interactive scale. For the control variables, it can be observed that female respondents score significantly lower on the scale, while moving towards the republican end of the partisanship-scale leads to significantly higher levels on the 'economic evaluation x attribution of responsibility'-variable.

The results of these multivariate estimations thus confirm our bivariate approach to investigating the impact of pre-benchmarked information on respondents' attitudes. Being exposed to pre-benchmarked economic information does not significantly affect how respondents evaluate the state of the economy, while there are indications that it – contrary to what we hypothesized - negatively affects the extent to which they attribute responsibility for the economy to the Obama administration. When taking into account the *interaction* between economic evaluations and the attribution of responsibility, however, we do find indications of

benchmarking at an individual level. For this combined measure, effects on respondents' attitudes are in expected directions, with information on an underperforming economy being associated with a shift towards negative evaluations that are attributed to the Obama government. Information on an outperforming economy, on the other hand, is associated with a shift towards positive economic evaluations that are also attributed to the Obama administration. Furthermore, in line with the bivariate approach, the multivariate estimations offer no indications of an asymmetry in the impact of pre-benchmarked economic information on citizens' attitudes.

[TABLE 1 ABOUT HERE]

Individual-level heterogeneity

Our results offer some indications of pre-benchmarked information affecting citizens' attitudes, with no significant difference between positive and negative information. Before concluding that this evidence implies a fairly general mechanism, however, we should take into account established insights on the process we are interested in: information processing. Previous research suggests that citizens do not simply receive and accept the information they are exposed to. An important factor in this regard is partisanship, as Zaller (1992, p. 241) has claimed that *"people tend to accept what is congenial to their partisan values and to reject what is not"*. In the same vein, Bartels (2002) has shown that partisanship shapes citizens' perceptions of the political world, and Taber and Lodge (2006) have shown that part of the explanation why citizens process information in biased ways lies in the fact that they tend to consider congruent arguments as stronger. Applied to the study of economic voting, previous work has indicated that partisans perceive the economy and the incumbent's performance differently (Gerber & Huber, 2010; Tilley & Hobolt, 2011). Some authors even go as far to claim that it is party support that drives economic evaluations, not vice versa (Dickerson, 2015; Evans & Andersen, 2006). Focusing not on the economy in particular, other scholars have found that attributions of responsibility as well are shaped by citizens' party identification (Healy, Kuo & Malhotra, 2014). With respect to the economy more specifically, previous work offers indications that party attachments lead to biased attributions of responsibility – with the preferred party being credited for good economic conditions and opponents blamed for a deteriorating economy (Rudolph, 2006; Tilley & Hobolt, 2011). Taking into account this strand of the literature, in a next step we test the possibility that

partisanship moderates the impact of the experimental conditions on citizens' attitudes. More specifically, we expect messages of an outperforming economy to have a stronger impact on incumbent partisans' attitudes – as the message is in line with their partisan perceptions. Conversely, we expect messages of an underperforming economy to have a stronger impact on how partisans of the opposition party evaluate the economy.

Additionally, the economic voting literature has given some evidence of political sophistication moderating the extent to which economic evaluations affect the vote choice (de Vries & Giger, 2014; Gomez & Wilson, 2001). More specifically, it is claimed that economic voting is more pronounced among high sophisticates, as only they 'are able to link policy outcomes to government activity and adjust their ballots accordingly' (de Vries & Giger, 2014: 348). With respect to the pre-benchmarked messages as well, it could be claimed that high politically sophisticates are more likely to realize that a divergence between national and international economic is to be blamed on the national incumbent. Therefore, we expect to find stronger treatment effects among respondents with a high level of political sophistication.

To examine the presence of a partisan bias we take the basic model presented in Table 1 (Model 3) and add interaction terms between the partisanship variable and each of the treatment conditions. We use a 7-point measure of partisanship, that varies between 1 (= strong Democrat) and 7 (= strong Republican). As a result, government partisans are at the lower end of the scale, while high values are associated with being an opposition partisan. Further, for investigating whether political sophistication moderates the impact of pre-benchmarked messages we take the core model (Model 3 in Table 1) and add an interaction between political knowledge and each of the treatment conditions.

The results of these analyses are presented in Table 2. Looking at the estimated effects of Model 1, we find no indications of a partisan bias – as both interaction terms (PID x underperforming and PID x outperforming) fall short of statistical significance. Additionally, the results of Model 2 indicate that respondents' level of political sophistication does not moderate the impact of pre-benchmarked economic information either. It seems thus that the main effect presented in Model 3 of Table 1 is indeed fairly general, and the extent to which one identifies with either the incumbent or the opposition does not introduce a bias.

[TABLE 2 ABOUT HERE]

Conclusion

Kayser and Peress (2012) have argued that citizens benchmark the economy across borders, and they find that incumbent vote shares as well as individuals' vote intentions are correlated to benchmarked economic indicators. While they observe the presence of benchmarking in economic voting, they are more uncertain on how exactly voters succeed in what seems a very sophisticated cognitive task. Kayser and Peress (2012) argue that this could be rendered possible either by means of explicit pre-benchmarked messages or in more subtle ways. In this paper we examined how explicit pre-benchmarked information affects respondents' economic evaluations and their attributions of responsibility for the state of the economy.

Importantly, our analyses come with a number of limitations, leading to some qualifications of our results but also stressing the need for further research on this topic. First, we build on previous work that has already shown general effects of economic information on citizens' economic evaluations and attributions of responsibility. It would be however worth investigating in a single experimental study how the impact of pre-benchmarked economic information compares to the impact of general information on the state of the national economy. Second, even though we relied on a high quality election study to implement our experimental design, we present a single case study, showing indications of benchmarking in the context of the 2014 midterm elections in the United States only. More research, in more elections and in different countries is needed before we can generalize our findings more broadly. At the same time, investigating the presence of benchmarking in the context of the United States could be considered a conservative test, as it the largest economy worldwide would probably be less prone to compare itself to other countries than would be the case in small economies that are more strongly dependent on international economic flows (Kayser & Peress, 2012). Finally, within the context of our survey experiment, we examine the impact of a single and short pre-benchmarked message on the economy. We assume, however, that citizens are regularly exposed to such messages in the media – which makes it hard to disentangle the impact of one additional item of information. The implication, here as well, is that we are potentially underestimating the extent to which pre-benchmarked messages have an impact.

Despite these limitations, our study offers an important contribution, as it is a first attempt to disentangle the individual-level mechanisms that explain the presence of benchmarking in

economic voting. In contrast to our expectations, our results offer no indications of a direct general effect of being exposed to pre-benchmarked economic information on citizens' evaluations of the state of the economy or their attributions of responsibility. This does not imply that pre-benchmarked messages do not affect citizens' attitudes, however. As we show, when taking into account the interrelatedness of economic evaluations and attributions of responsibility, it becomes clear that pre-benchmarked information affects citizens' attitudes in expected ways. Being told that the national economy is underperforming comparatively leads respondents to shift towards a position in which they evaluate the economy more negatively while at the same time attributing responsibility to the Obama administration. It is reasonable to assume, hence, that this shift would decrease the likelihood of voting for the ruling incumbent. Conversely, exposure to information on an outperforming national economy incites a shift towards a position in which the economy is evaluated more positively while at the same time crediting the national incumbent for these economic conditions. In all likelihood, thus, these respondents are more likely to reward the incumbent for the state of the economy. The key for understanding the mechanisms that explain how pre-benchmarked affects voting behaviour, therefore, lies in taking into account the theoretical connexion between economic evaluations and attributions of responsibility. The theoretical contribution of the current study, therefore, is that citizens' evaluation of the economy should not be considered as an isolated phenomenon: it is not sufficient that voters evaluate the economy in a specific manner, they also need to attribute the responsibility for this state of the economy to the incumbent government. When doing so, we observe a clear impact of explicit pre-benchmarked messages that is not asymmetrical and not subject to partisan interpretations either.

Exposing citizens to pre-benchmarked messages in which the national economy is compared explicitly to economic conditions in other countries, we find, is affecting citizens' attitudes – although we have to take into account the complexity of the causal chain that links economic conditions to voting behaviour. Our experimental results suggest that pre-benchmarked economic information appears to affect attitudes in expected ways. What we have established is that this information has a significant effect on the combination of evaluation and attribution. What we can learn from the economic voting literature is that exactly this combination of both indicator is essential, in order for economic voting to occur.

Notes

[1] . For an extensive discussion on the sampling methodology and validity of CCES-data, see Ansolabehere and Rivers (2013).

[2] . We thus measure the intensity dimension of attribution of responsibility. For an extensive discussion of approaches to measuring attribution of responsibility see Rudolph (2016).

[3]. Data as published on the OECD statistics database (stats.oecd.org)

[4] . Highest level of education, specified linearly, based on a 6-point scale, with answer options being: No high school; high school graduate; some college; 2-year; 4-year; post-grad.

[5] . Specified linearly, based on a 5-item scale with answer options being: not at all; not very much; some; quite a lot; a great deal.

[6] . Sum-scale of consumption of whether or not four different media outlets had been consulted during the past 24 hours (blog, TV news, newspaper (in print or online) and radio news program or talk radio).

[7] . A sum-scale of six political knowledge questions : party that has a majority in the house of representatives; party that has a majority in the senate ; party of the current governor in the respondent's state ; party of the two senators representing the respondent's state and party of the respondent's representative in the house of representative.

[8] . Relying on the 7-point ID scale, from strong Democrat to strong Republican.

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Table 1. Multivariate regression models examining the impact of pre-benchmarked economic information

Dependent variable	Model 1 Economic evaluation		Model 2 Attribution of responsibility		Model 3 Economic evaluation x Attribution of responsibility	
	b	s.e.	b	s.e.	b	s.e.
Underperforming (ref: control)	-0.245	0.211	-0.603*	0.306	-1.719	0.758
Outperforming (ref: control)	0.267	0.193	-0.230	0.319	1.805*	0.764
Female (ref: male)	-0.214	0.174	0.490	0.252	-1.166	0.656
Age	-0.005	0.007	0.003	0.009	-0.038	0.020
Non-white (ref: white)	0.001	0.211	0.610	0.313	0.109	0.809
Education	0.074	0.067	0.043	0.088	-0.006	0.235
Political interest	-0.158	0.126	0.297	0.214	-0.015	0.395
Media consumption	0.169	0.089	0.052	0.121	0.424	0.343
Political knowledge	0.114*	0.058	-0.139	0.084	0.161	0.204
Party ID (7-point)	-0.357***	0.040	0.295***	0.064	-1.253***	0.158
Constant			4.217	0.717	4.600	1.848
/cut1	-0.357	0.040				
/cut2	-3.650	0.520				
/cut3	-1.914	0.498				
/cut4	-0.272	0.488				
(Pseudo)-R^2	0.068		0.069		0.166	
N	893		914		889	

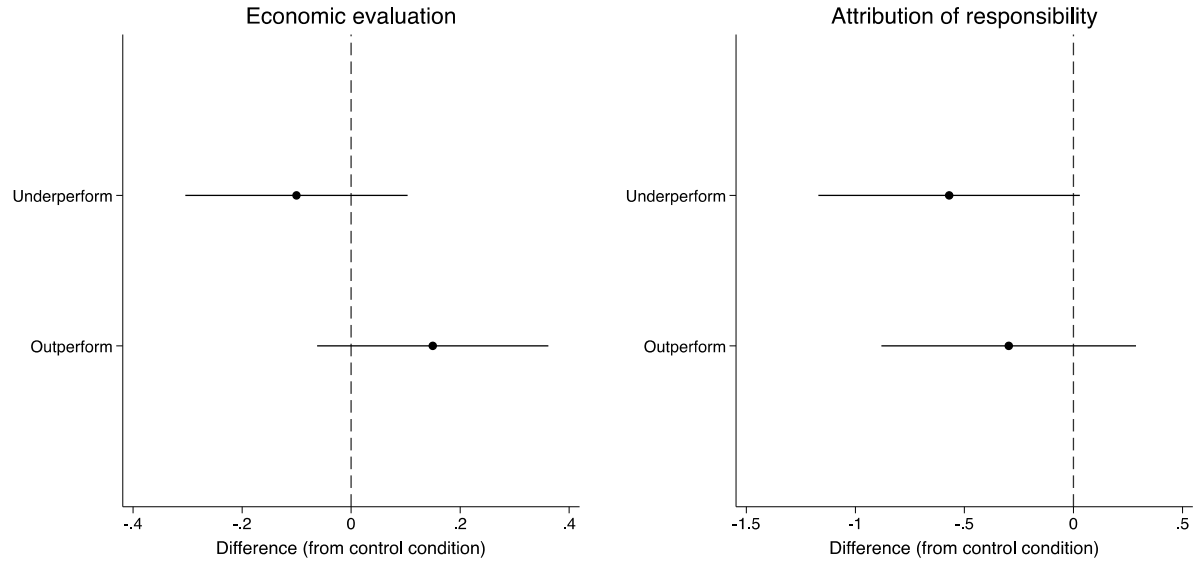
Note: Unstandardized coefficients and standard errors of an ordered logit regression (Model 1) and OLS estimations (Model 2 and Model 3). Weights applied to ensure that the CCES subsample reflects the demographic composition of the United States. Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 2. Multivariate regression model examining the impact of pre-benchmarked economic information – Moderating impact of partisanship

Dependent variable	Economic evaluation x Attribution of responsibility		Economic evaluation x Attribution of responsibility	
	b	s.e.	b	s.e.
Underperforming (ref: control)	-0.548	1.510	-1.917	1.670
Outperforming (ref: control)	2.744	1.656	1.052	1.635
Female (ref: male)	-1.173	0.655	-1.193	0.661
Age	-0.038	0.020	-0.039	0.020
Non-white (ref: white)	0.119	0.803	0.101	0.810
Education	0.005	0.234	-0.009	0.236
Political interest	0.008	0.400	-0.022	0.396
Media consumption	0.402	0.346	0.409	0.345
Political knowledge	0.159	0.204	0.092	0.275
Party ID (7-point)	-1.071***	0.274	-1.258***	0.158
Underperforming x PID	-0.310	0.375		
Outperforming x PID	-0.248	0.388		
Underperforming x knowledge			0.049	0.370
Outperforming x knowledge			0.189	0.356
Constant	3.831	2.077	4.985*	2.056
R^2	0.164		0.166	
N	912		889	

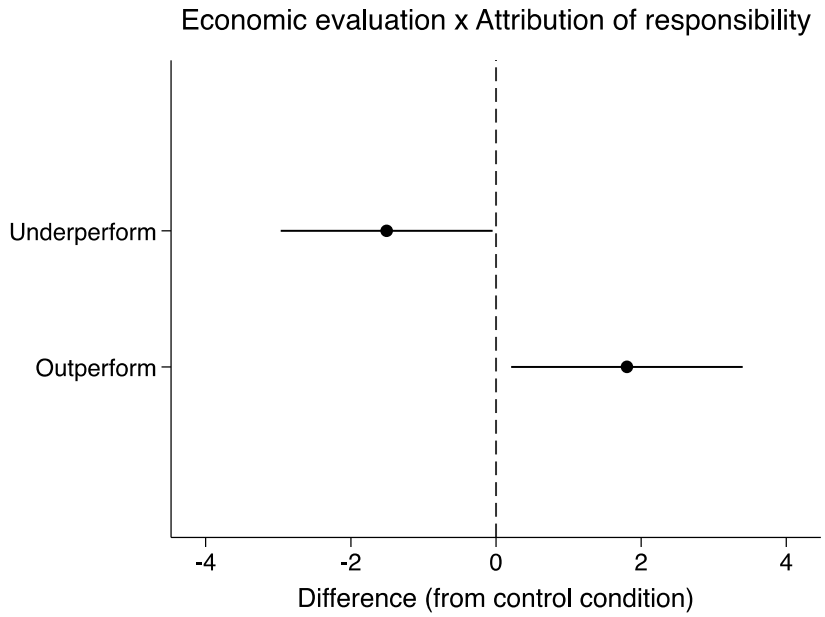
Note: Unstandardized coefficients and standard errors of OLS estimations. Weights applied to ensure that the CCES subsample reflects the demographic composition of the United States. Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Figure 1. Average treatment effects: economic evaluation and attribution of responsibility



Note: Average treatment effects calculated as the difference between each treatment condition (worse or better economy compared to most other countries) and the control condition. The left panel indicates respondents' evaluation (retrospective over the last year) of the national economy (on a 5-point scale). The right panel indicates respondents' attribution of responsibility for the economy to the Obama government (on a 0-10 scale). Horizontal lines represent 95% confidence intervals. Weights applied to ensure that the CCES subsample reflects the demographic composition of the United States.

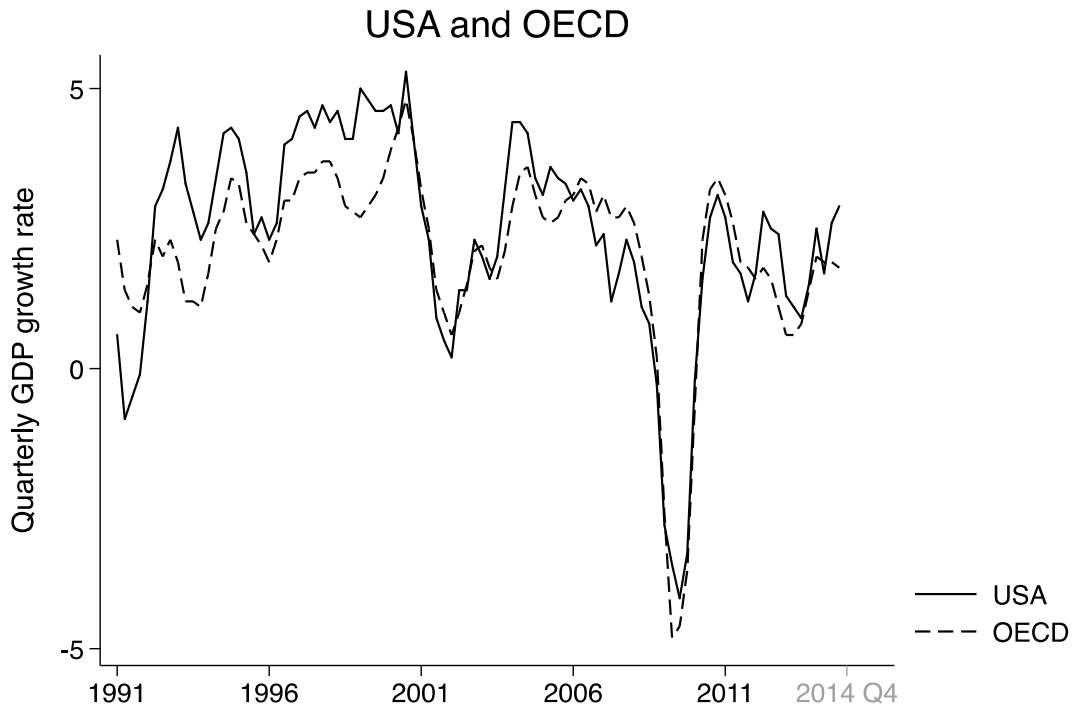
Figure 2. Average treatment effects: Interactive effect



Note: Average treatment effects calculated as the difference between each treatment condition (worse or better economy compared to most other countries) and the control condition. The variable of interest is the interaction between economic evaluations (5-point scale from -2 to +2) and the attribution of responsibility (0-10-scale). Horizontal lines represent 95% confidence intervals. Weights applied to ensure that the CCES subsample reflects the demographic composition of the United States.

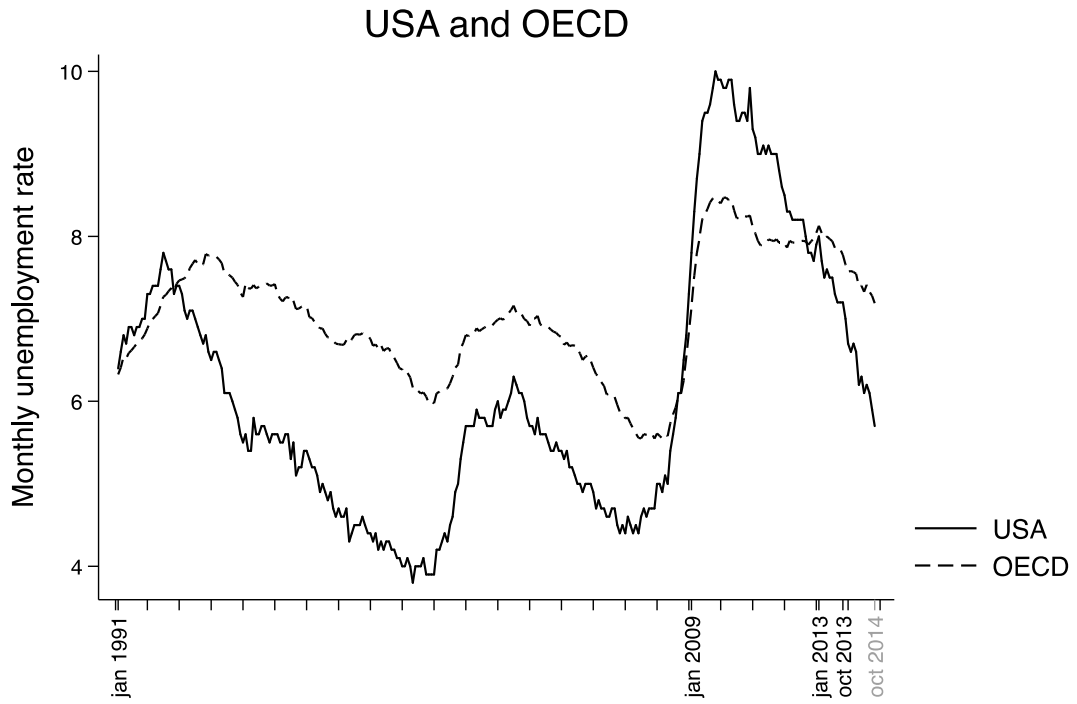
Appendix 1. Economic indicators at the time of the survey

Figure 1. GDP growth rates



Note: Quarterly GDP growth rates over time in USA and in OECD (average). Time of the survey (fourth quarter of 2014) is marked grey. Source: oecdstat.org.

Figure 2. Unemployment rates



Note: Monthly unemployment rates over time in USA and in OECD (average). Time of the survey (October 2014) is marked in grey. Source: oecdstat.org.

Figure 3. Median income levels, 1967-2014



Note: Median income in 2014 CPI-U-RS adjusted dollars. Source: United States Census Bureau, https://www.census.gov/hhes/www/income/data/historical/inequality/Table%20IE-1.pdf