ONLINE APPENDIX

The Effect of Austerity Packages on Government Popularity during the Great Recession

Abel Bojar[*], Björn Bremer[†], Hanspeter Kriesi[*‡], Chendi Wang[*]

July 2020

Table of Contents:

[*] European University Institute (EUI), Florence
[†] Max Planck Institute for the Study of Societies, Cologne
[‡] Laboratory for Comparative Social Research, National Research University Higher School of Economics, Russian Federation

APPENDIX A: DATA AND OPERATIONALIZATION

Appendix A-1: Polling sources by country

Country	Polling Agencies
Denmark	Epinion, Gallup, Greens, Megafon, Norstat, Ramboll, Voxmeter, Wilke, YouGov
Finland	Kantar TNS, Taloustutkimus, TNS Gallup
Austria	Akonsult, GfK, IMAS, Market, Matzka, OGM, Peter Hajek Research Affairs, Spectra, Unique Research
Germany	Allensbach, Emnid, Forsa, FSG, Forschungruppe Wahlen, GMS, INSA, Infratest
Ireland	Behavior & Attitudes, Ipsos MRB, Millward Brown, Red C, TNS-MRBI
Netherlands	De Stemming, GfK, Ipsos, I&O Research, Peil.nl, TNS NIPO
UK	ICM/Guardian, Ipsos MORI, ORB, YouGov
Greece	Alco, Bridging Europe, GPO, Kapa Research, Marc, Metrisi Metron Analysis, MRB, Palmos Analysis, PAMAK, ProRata, Pulse RC, , RASS, ypes
Italy	Datamedia, Demopolis, EKMA, Euromedia, IPR, Ipsos, Ixe, Lorien, Piepoli, Quorum, SWG, Tecne, Unicab
Portugal	Aximage, Eurosondagem, Intercampus, Marktest, Pitagorica, UCP-CESOP, Universidade Catolica,
Spain	Celeste-Tel, CIS, GAD, Gesop, Invymark, Ipsos-ECO, Metroscopia, Noxa, Opinion 2000, NC-Report Sigma-2, Simple Logica, TNS-Demoscopia
Hungary	Iranytu, Nezopont, Publicus, Republikon, Szazadveg, Tarki, ZRI
Latvia	Wikipedia (monthly aggregation of local polls)
Poland	CBOS, EstymatorGfK Polonia, Homo Homini IBRiS, MIllward Brown, PAS-PPollster, PBS DGA, SMG/KRC TNS
Romania	ARP, Avangard, CCSCC, CIADO, CSCI, IMAS, INSCOP, SOCIOPOL

Appendix A-2: Detailed list of policy decisions

Country	Month of decision	Label of decision	Short description
Denmark	2010-05	Austerity plan with unemployment benefit cuts	24 billion crowns of savings over three years are announced by the conservative government. In addition to a major downsizing of the public sector the measures also include a shorter eligibility period for unemployment benefits, cuts in child benefits and a delay in planned tax cuts.
Finland	2012-02	Budget cuts to maintain triple-A rating	2.7 billion euros austerity package announced including an increase in VAT and taxes on fuels and tobacco, a reduction in municipal government spending and cuts in the defense budget.
	2013-03	New austerity measures I	An extension of previous austerity measures announced by Finland's coalition government. In addition to revenue-raising measures including higher taxes on dividends, alcohol and electricity, the measures also include a cut in the corporate tax rate to soften the impact on the economy.
	2015-09	New austerity measures II	Finland's incoming government announces a new round of austerity measures including cuts to benefits, such as housing allowance for pensioners and overtime compensation and sick leave payments for employees.
Austria	2010-10	Austerity package with Bank Levy	Austerity measures announced to bring down deficit to 3 per cent of GDP. The measures are roughly evenly balanced between spending cuts and revenue increases, including a special bank levy, extra "sin" taxes.
	2012-03	Three-year budget balancing program	28 billion Euro austerity package aimed at balancing the budget by 2016 and regaining Austria's triple-A credit rating. The main measures include cuts in the pension system, civil service and state-run companies as well as significant increases in tax revenues.
Germany	2010-06	*Sparpaket* (domestic austerity)	After the first Greek bailout in May 2010, the German government also passed a domestic austerity package on 7 June 2010 aiming to save € 80 billion Euro from 2010 to 2014 through a variety of spending cuts.
	2012-11	Budget cuts	The German government agreed to a modest reduction in overall spending by 3.2 per cent. It resulted in a smaller projected deficit for 2013, leaving the government on course to meet the requirements of the German "debt-brake".

	2008-10	Cowen austerity I	The government brought forward the budget from December to 14 October 2008. It passed a budget that proposed significant tax increases deep cuts in government spending. The budget was commonly labeled "the toughest in decades".
Ireland	2009-04	Cowen austerity II (emergency budget)	On 7 April 2009, the Fianna Fail Finance Minister Brian Lenihan delivered an emergency budget, announcing significant tax rises and a decrease in public spending.
	2009-12	Cowen austerity III (2010 budget)	On 9 December 2009, Fianna Fail delivered the 2010 Irish budget, including the biggest cuts that Ireland experienced during the Great Recession.
	2010-12	EU/IMF bailout	On 28 November 2010, the Troika agreed with the Irish government on a three-year bailout program conditional on severe austerity. The Memorandum of understanding was signed on 16 December 2010.
	2011-12	Kenny austerity I (2012 budget)	On 5 and 6 December 2011, the Fine Gael/Labour government presented its first budget, which included tax increases and spending cuts worth 3.6 billion Euro for 2012.
	2012-12	Kenny austerity II (2013 budget)	On 5 December 2012, the Fine Gael/Labour government presented its second budget, which saw further tax increases and spending cuts for 2013.
	2013-10	Kenny austerity III (2014 budget)	On 14 October 2013, the Fine Gael/Labour government presented the 2014 budget. The budget included another round of tax increases and spending cuts worth 2.5bn Euro according to the finance minister.
Netherlands	2012-04	Austerity budget leading to government collapse	In the shadow of losing the country's triple-A credit rating, the Dutch coalition government pressed ahead with budget cuts. However, Geert Wilders' Freedom Party withdrew from the agreement last minute, bringing down the government and precipitating new elections.
	2012-10	Four-year spending cuts and budget balancing	The newly formed center-right coalition government presses ahead with spending cuts previously outlined before the elections. The most controversial aspects of the cuts are health care and mortgage overhauls.
	2013-09	Spending cuts and tax increases	Finance Minister Jeroen Dijsselboem announces a further 6 billion euros worth of budgetary saving for 2014. The measures include cuts in healthcare, social security outlays as well as tax rises, such as the extension of the previously implemented temporary crisis levy on public sector employees.

	2010-10	Spending Review	In the autumn budget statement, George Osborne lays out details of the austerity measures decided earlier. The measures include a new bank levy, local council funding and cuts to welfare payments.
UK	2010-11	Tuition fees increase	Soon afterwards, the government laid out its plans to allow universities to increase tuition fees up to 9000 pounds. The decision sparked a long wave of protest by student organizations.
	2011-12	2011 autumn statement (extension of austerity measures)	Government announces of extension of austerity measures, including caps to public sector pay increases and increase in the bank tax.
	2012-03	Welfare Reform Act	Large legislative package including changes to welfare payments, such as housing benefits, Council Tax support and Childcare tax credit, among others. The main change refers to the merger of different benefits into a single handout.
	2014-12	2014 autumn statement (new austerity measures)	New proposals are announced for cutting government deficits, shrinking government spending to 35 per cent of GDP: The measures include 55bn of further spending cuts.
Greece	2010-05	First bailout	Announced late April, signed into law early May. Main measures included privatization, limits to public salaries, rise in VAT and pension reform.
	2011-06	Mid-term adjustment	Results from deviation from the deficit target after the first year of austerity. Includes extra taxes for high earners as well as on property. Accompanied by the Greek indignados movement.
	2012-02	Second bailout	Yet more austerity in exchange for "haircut" to Greek debt, which has come to be known as "private sector involvement" (PSI). The most controversial measure was a 22 per cent cut to minimum wage.
	2015-07	Third bailout	In exchange for a third bailout package for Greece, the government adopts austerity measures including higher VAT on certain products, increase in the corporation tax and reforms to the Code of Civil Procedure.
Italy	2010-05	Berlusconi austerity I	Announcement of an austerity program to plug a forecast €25bn hole in the government budget by 2012.

	2011-06	Berlusconi austerity II	The government presents plans for additional cuts, but repeatedly puts off decisions, backtracks and continues the discussion throughout the summer. Eventually, the Berlusconi government proved unable to pass the required legislation to cool down the markets. When the Senate finally approved a package of austerity measures on November 12, Berlusconi stepped down and was replaced by the Monti government.
	2011-12	Monti austerity	Monti sails through his first austerity vote after he made concessions on pension payments and property taxes to be compensated by other revenues. After a week of stormy debates Monti's emergency measures are supported by a grand coalition of most major parties.
	2012-03	Monti labour-market liberalization	Monti present his proposals for the liberalization of the labour market, which are immediately met with opposition, a watered-down version is approved in June 2012.
	2014-10	Jobs act	Renzi's labour market reform enters in its 'hot phase', after the summer break. It was already announced earlier in 2014, and is eventually adopted in spring 2015.
Portugal	2010-03	PEC1	Government submits its austerity plan to the European Commission involving tax rises on high incomes, tax deductions as well as spending cuts (e.g., freeze to public sector pay).
	2010-05	PEC2	Another round of austerity measures leading to large-scale protests in Lisbon.
	2010-10	PEC3	another round of austerity measures including wage cuts for civil servants and freeze in public investment.
	2011-05	Troika bailout	Portuguese government agrees to a bailout package, leading to an early election a month later. In exchange, the government promised further deficit cutting including VAT increases, property tax increases, elimination of tax exemptions, rise in fees for health services, among others.
	2011-10	Post bailout austerity I	Another round of austerity measures including cuts in public sector wages as well as in healthcare and education budgets.
	2012-09	Post bailout austerity II	Yet another round of austerity measures including new capital and luxury property tax, new income tax surcharge and a financial transaction tax.

	2010-06	Zapatero austerity I and labour market reform	On 12 May 2010, Zapatero, announced the first austerity measures (including 5 per cent cut in civil service pay) after he had initially denied that Spain was in trouble. The government agreed on the austerity measures on 20 May 2010. On 18 June 2010, the government also approved a Labour market reform, which was passed by Parliament on 9 September 2010.
	2010-10	Zapatero austerity II (2011 budget)	On 24 September, the Spanish government approved an austerity budget, including a tax rise for the rich and 8 per cent spending cuts.
	2011-02	Zapatero pension reform	At the end of January (27 January 2011), the government announced a pension reform that increases the retirement age from 65 to 67 years. It was part of a social pact that was singed on 2 February 2011. In parallel, Zapatero announced the plans to keep reducing deficit and introducing austerity measures.
Spain	2012-02	Rajoy austerity I and labour market reform	In December 2012, the new Rajoy government announced austerity measures. It first approved a Labour market reform on 2 February 2012 and passed an austerity budget on 30 March 2012.
	2012-06	Rajoy austerity II (EU bailout)	On 9 June 2012, it was decided at an Eurogroup emergency group meeting that the ESM would provide up to €100 billion to the Spanish government. The Spanish government would then be able to inject the necessary amount to the respective Spanish banks in order to recapitalize and re-structure the Spanish banking sector.
	2012-10	Rajoy austerity III	The Rajoy government announced new austerity measures with its 2013 budget, including tax increases, spending cuts and structural reforms. Among other things the budget included a 12 per cent average cut in ministerial spending, a freeze in public sector pay, and the liberalization of many professions.
Hungary	2008-11	IMF bailout	As a non-eurozone member, Hungary was forced to turn to the IMF for a sovereign bailout upon the collapse of the Hungarian forint and the drying up of foreign lending and capital flight. In return, the left-wing government announced austerity measures including cuts to social benefits and public wages.
	2009-04	"Bajnai package"	Upon the resignation of Prime Minister Ferenc Gyurcsany, a new technocratic government is formed under the leadership of Gordon Bajnai. Charged with the sole task of stabilizing the country's finances, he immediately announces a set of austerity measures

			including the withdrawal of the highly symbolic "13th month pension" for the elderly, rise in the pension age and further cuts to public wages and social benefits (e.g., sick leave).
	2010-11	Pension nationalization	Upon coming to power with an unprecedented electoral landslide, the right-wing Fidesz party resorts to a rather unusual way to reduce public debt: renationalizing the country's private pension scheme. Though people could opt-in the stay in the private system an overwhelming majority decided to relinquish their savings.
	2011-03	Szél Kálmán Plan 1.0	The government puts forward its first comprehensive austerity package, carefully avoiding labeling it as such. It includes highly controversial measures vis-a-vis its European partners, such as an extension to a previously introduced "temporary" levy on banks. It also includes plans to cut early retirement benefits and a revamping of the public works scheme.
	2012-05	Szél Kálmán Plan 2.0	Further austerity measures to reduce government deficit. Most controversial measures include cuts to municipal spending, freezing of social benefits, cuts to state financed university places and cuts to pharmaceutical subsides.
	2014-11	Internet tax	Upon re-election with another supermajority, the government's first highly controversial measure was the planned introduction of a special tax on internet providers. Facing an unexpected wave of protest making its way to the Western media, the government ultimately backtracked from the plan.
Latvia	2008-10	Austerity budget	Government adopts budget: The number of employees in state administration will be reduced by 10 per cent by the end of next year, which means that 2,419 jobs in civil service will be cut.
	2009-01	Bailouts accompanied with austerity	IMF approves Latvia's loan deal, which envisages the country keeping the Latvian currency pegged to the euro. Latvia's parliament agrees to cut expenditure and bring down public sector wages by 15 per cent in 2009, and to reduce the budget deficit to less than five per cent of gross domestic product.
	2009-06	New austerity package	The new government announced new cuts in March 2009, in particular also wage cuts for public employees. These cuts are adopted in an extraordinary meeting on June 16 of the Saeima (Latvian Parliament) in amendments to the law which envisage slashing 500 million lats (711.43 million euros) from national budget expenditures. The move, which followed heated discussions, is a bid to win

			further aid payments from the International Monetary Fund (IMF) and other lenders.
	2009-12	Austerity budget	Saeima adopts the budget bill. The budget has been debated under a stiff negotiating position from the IMF-led coalition of the willing international lenders, leaving the government little choice but consolidate the budget by the demanded 500 million lats (714 million euros).
	2011-01	Austerity budget	The Latvian parliament passes next year's budget with a vote of 54-38. The controversial budget received harsh criticism from opposition parties. It entails numerous tax hikes and consolidation measures that are aimed at appeasing international lenders and helping pull the country out of the ongoing economic crisis.
Poland	2008-10	Early retirement reform	The cabinet approves bill on early retirement (bridge pensions), and president Kaczynski vows to veto the bill.
	2009-04	Anti-crisis package (Tusk austerity I)	Government approves job-rescue plan proposed by unions and employers. The Government gave the go-ahead for a series of thirteen anti-crisis measures drafted and largely agreed upon in the tripartite commission of unions, employers and government. Sejm adopts this Crisis Bills on July 3. This is the first big reaction to the economic crisis. It did probably not have a large impact and was not very much used by companies but it did contain a flexibilization of labour contracts very similar to the later 2013 labour code reform.
	2011-03	Pension reform	Changes to Pension System. Poland will cut the premium on wages sent to the privately organized second pillar from 7.2 per cent to 2.3 per cent. The difference will be paid to a sub-account in the public social insurance board ZUS, where the funds will be written to individual savings accounts. The reason for this measure: a reduction of the contributions to the private pillar amounts to a reduction of the budget deficit, because payments to the private pillar are counted as government expenditures. Signed into law by President in early April
	2011-11	Tusk austerity II	Tusk announces an austerity package in his government declaration immediately after the elections of October 2011. It contains several measures, among which the rise of the pension age from 65 to 67 was the most contested one. But there

			were also liberalizing measures that concerned different professions, e.g., taxi drivers.
	2013-09	Pension/labour market reform	The government adopts labour code amendments introducing 'junk contracts', giving greater flexibility to employers and providing no security to the employees. Reform of private pension funds is announced, with 120bn zlotys ($37bn) in government bonds held by the 14 funds being transferred to the government pension scheme and cancel-led, which will reduce public debt by about 8 percentage points from its current 55 per cent of GDP.
Romania	2009-03	IMF bailout	Romania turns to the EU, IMF and World Bank for a bailout of 18.5 billion euros, becoming the third country in the crisis to ask for such assistance. In exchange, the government promises to lower its deficit by corrections on both the expenditure and the revenue side. The most controversial part of the package, announced in May, was the introduction of a lump sum tax on small businesses.
	2010-05	Austerity measures	In order to comply with its bailout program, the government announces double-digit cuts to public salaries and pensions, triggering massive protests on the streets.
	2011-12	Healthcare reform	Government announces healthcare reform, including privatization of hospitals and clinics as well as the introduction of private insurance as well as copayment obligation for patients. Facing large resistant in the winter of 2011/2012, the government withdrew the proposal.

APPENDIX B: CHRONOLOGICAL VISUALIZATION OF VOTE INTENTION AND COUNTRY-SPECIFIC EVENTS AND COUNTRY-BYCOUNTRY TIME SERIES RESULT

The graphs below show the chronological development of support for the government based on monthly vote intentions from 2005 to 2015 in each country included in our sample. All graphs also show the events that we identified from the international press (blacked dashed lines) and national parliamentary elections that occurred during the period of study (red dotted lines).

Appendix B-1: Northern Europe

Figure B-1: Denmark
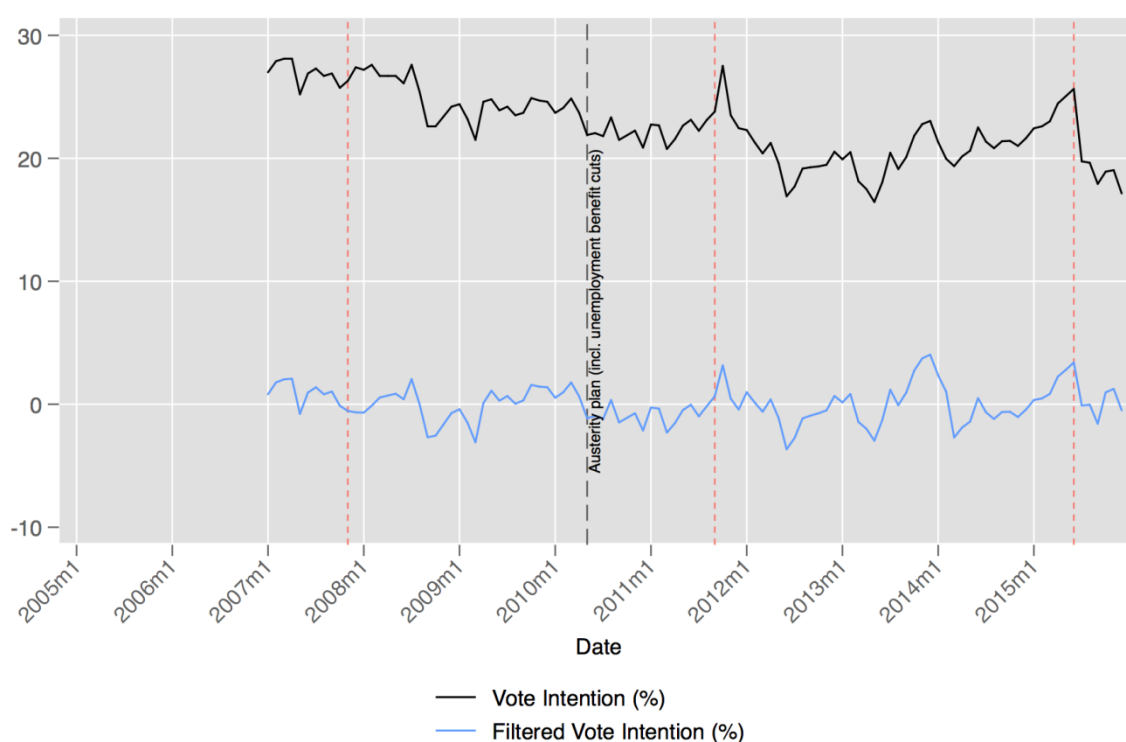
Figure B-2: Finland
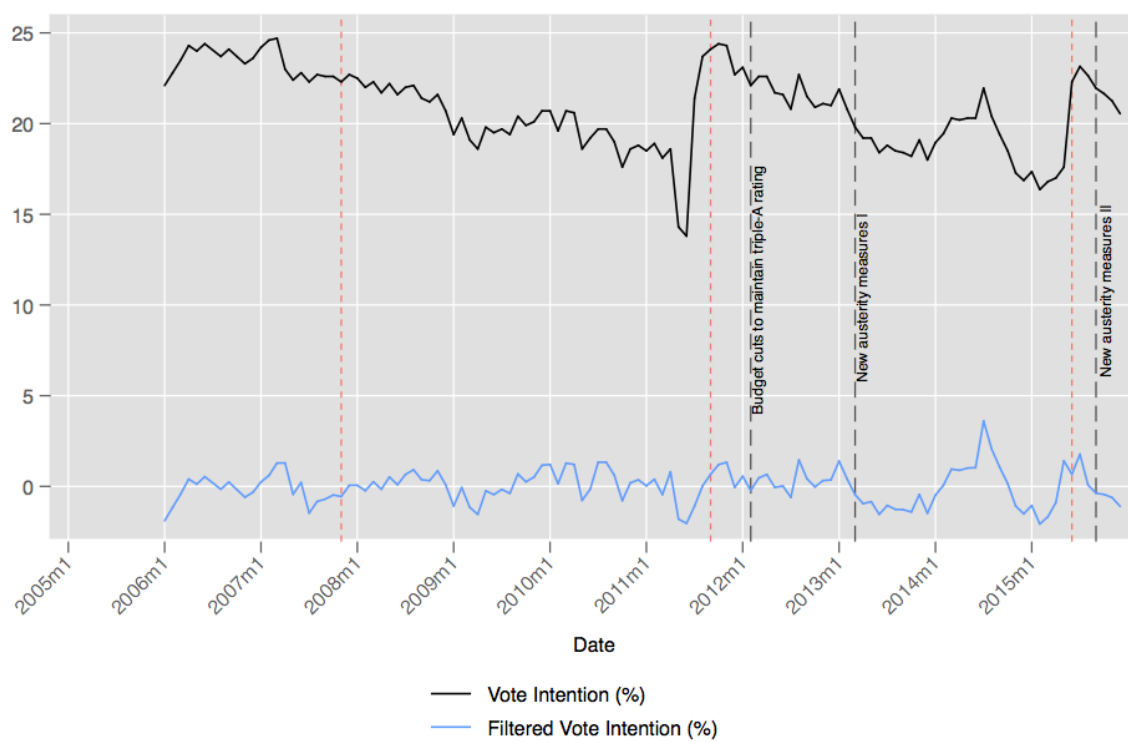
Appendix B-2: Anglo-Saxon Europe

Figure B-3: Ireland
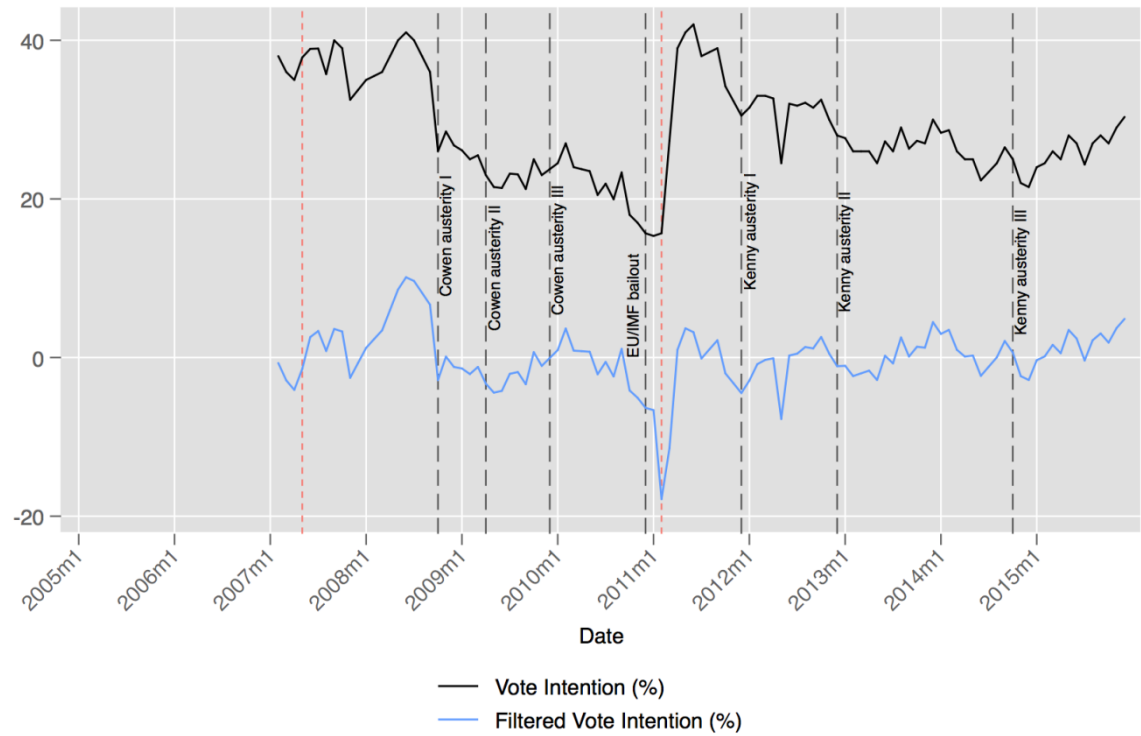
Figure B-4: United Kingdom
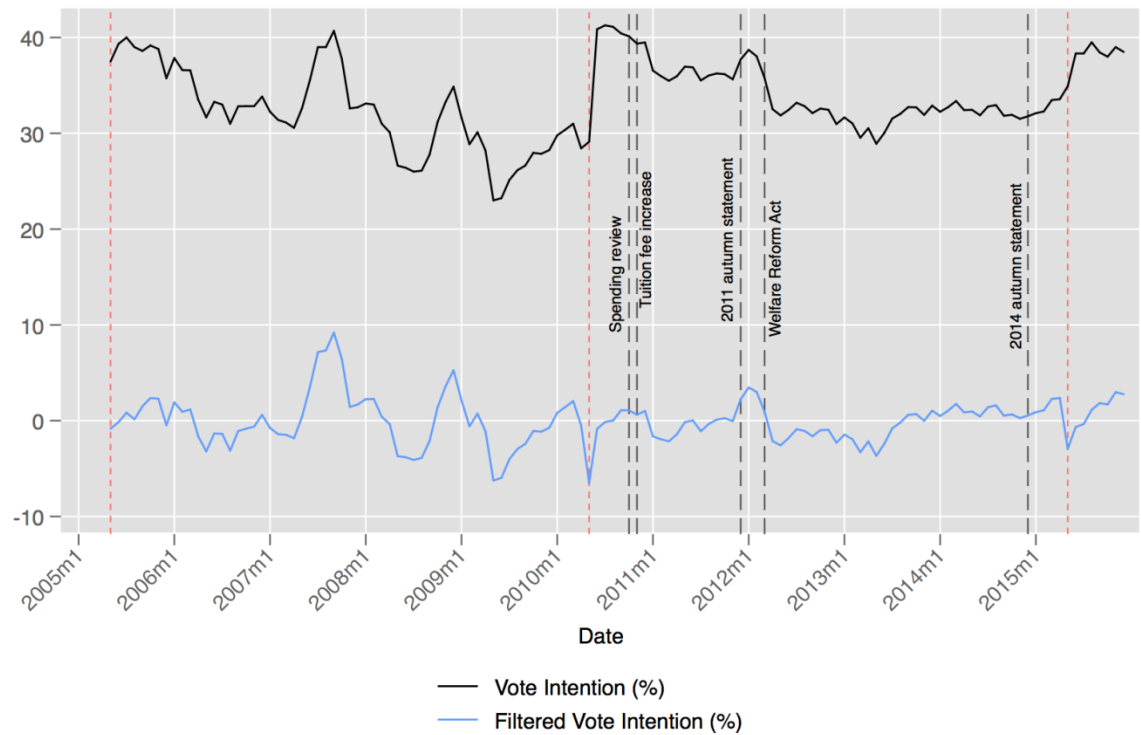
Appendix B-3: North-Western Europe

Figure B-5: Austria
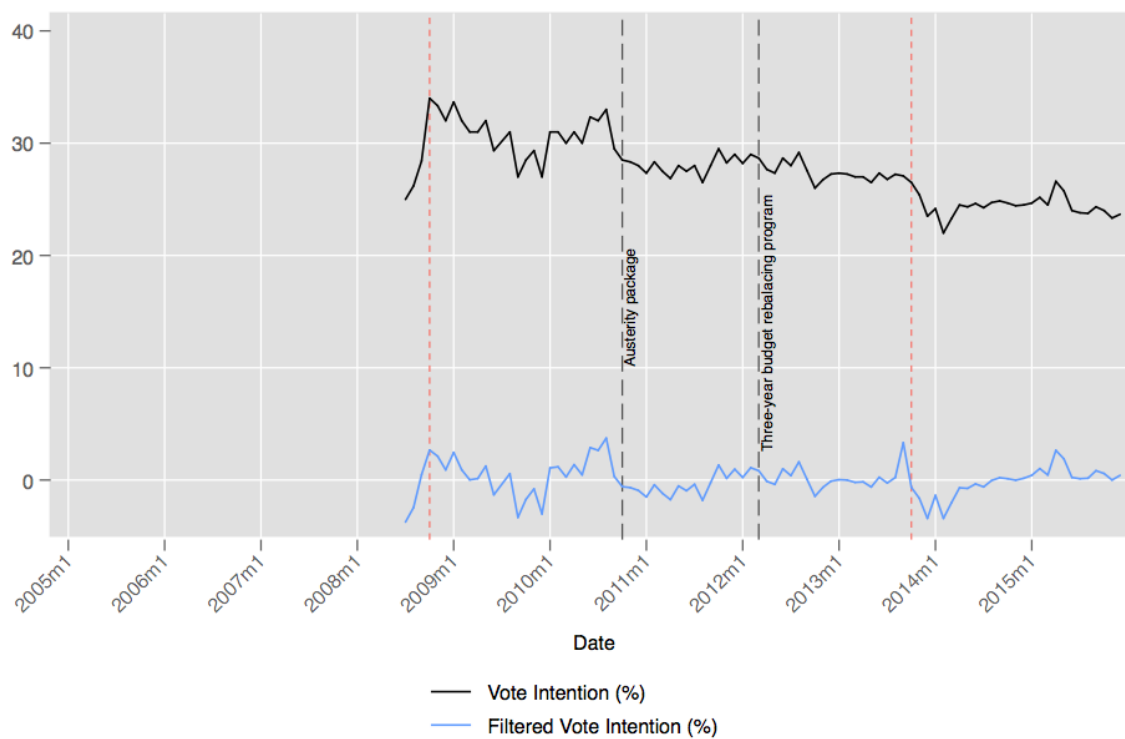
Figure B-6: Germany
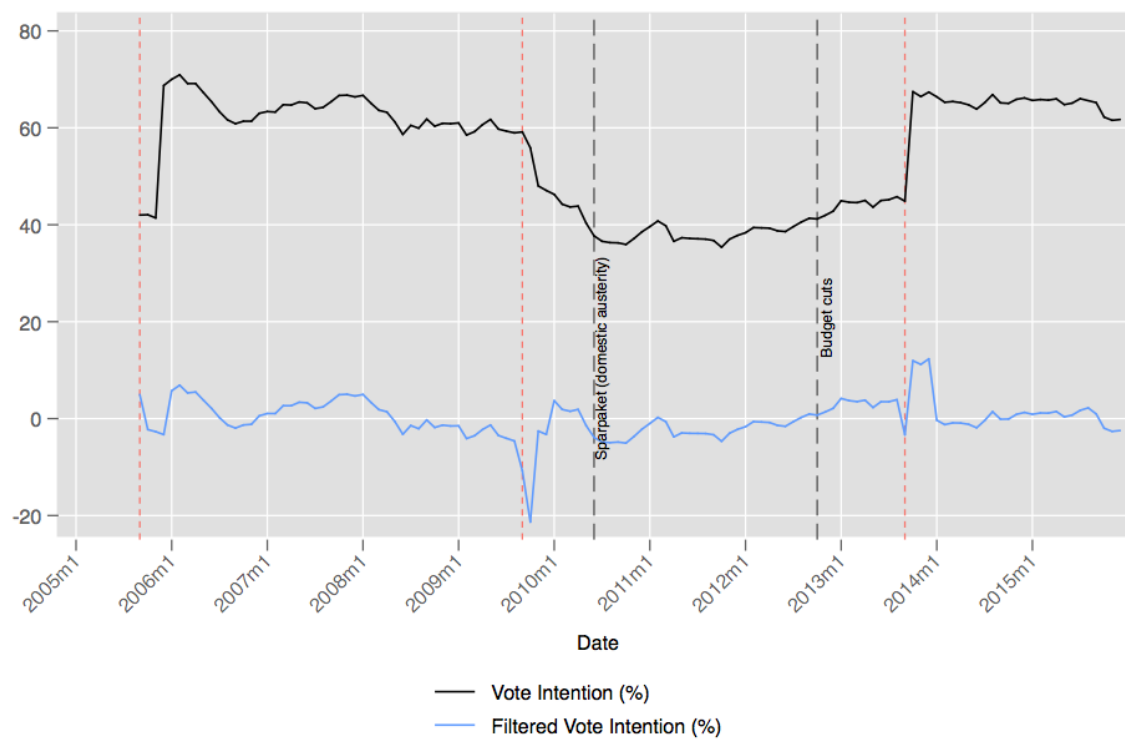
Figure B-7: Netherlands
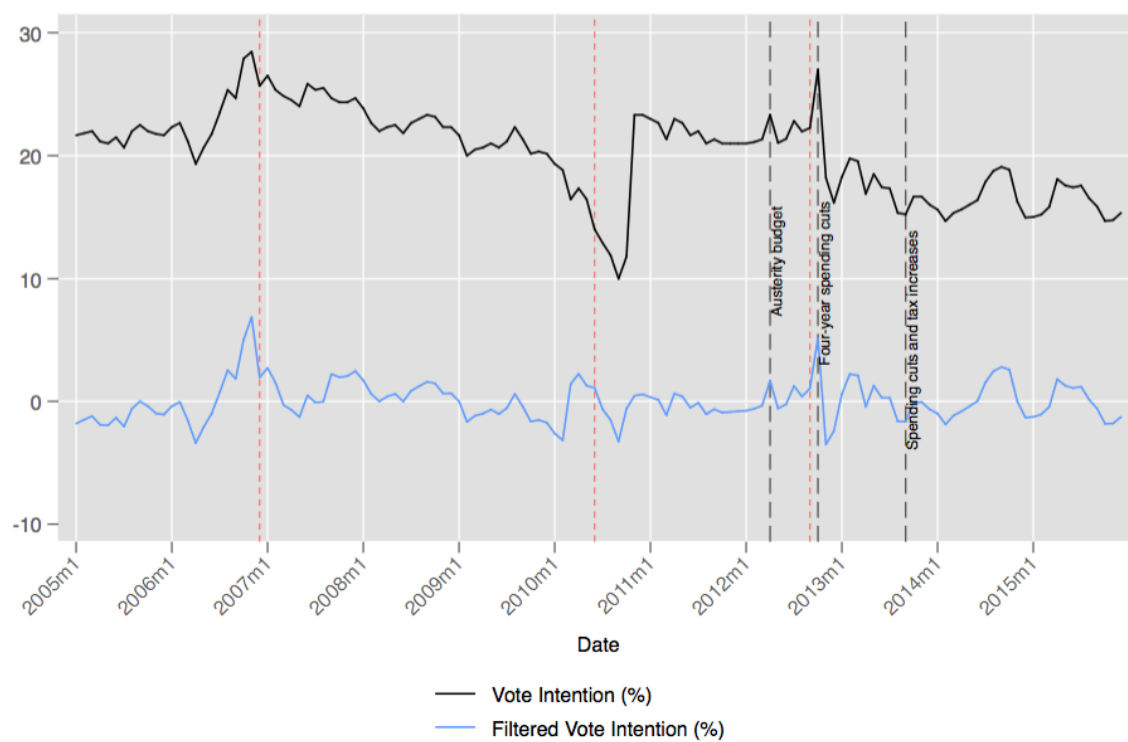
Appendix B-3: South-Western Europe

Figure B-8: Greece
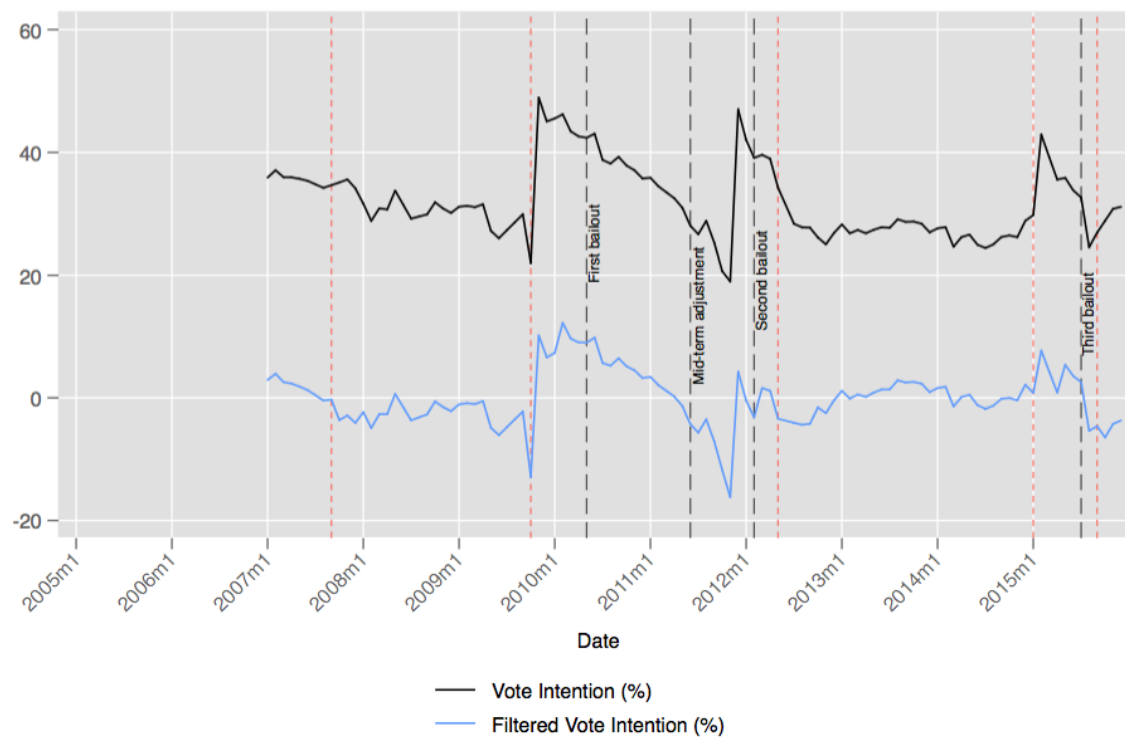
Figure B-9: Italy
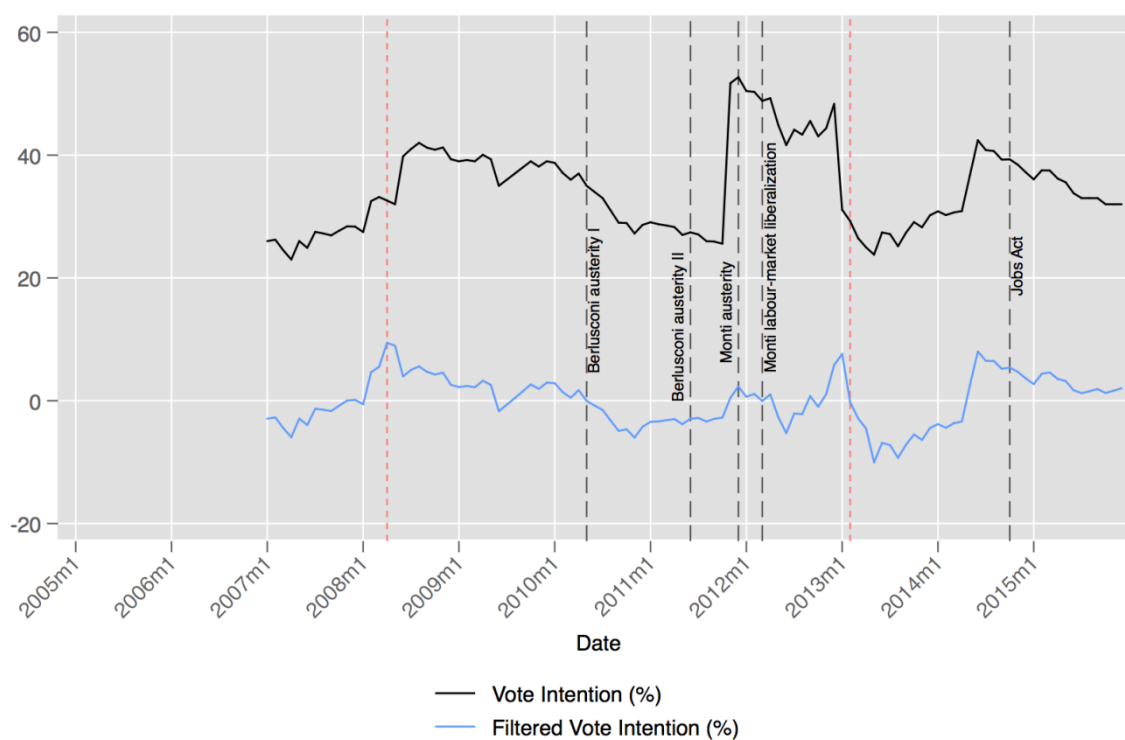
Figure B-10: Portugal
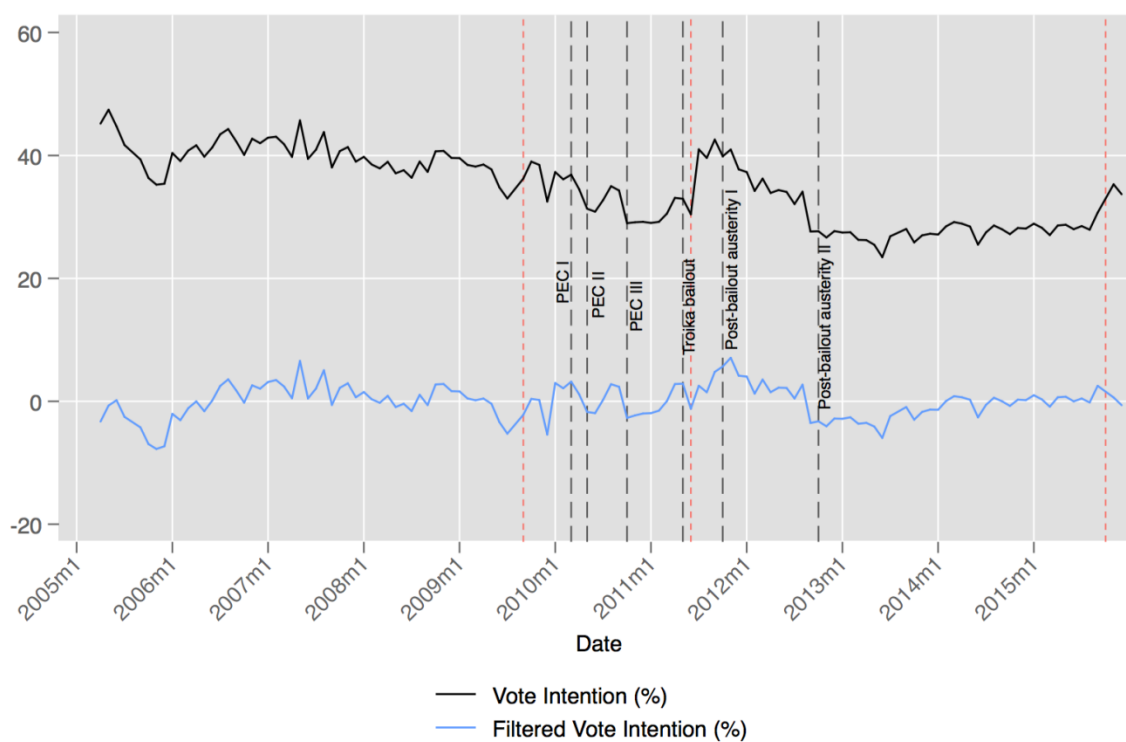
Figure B-11: Spain
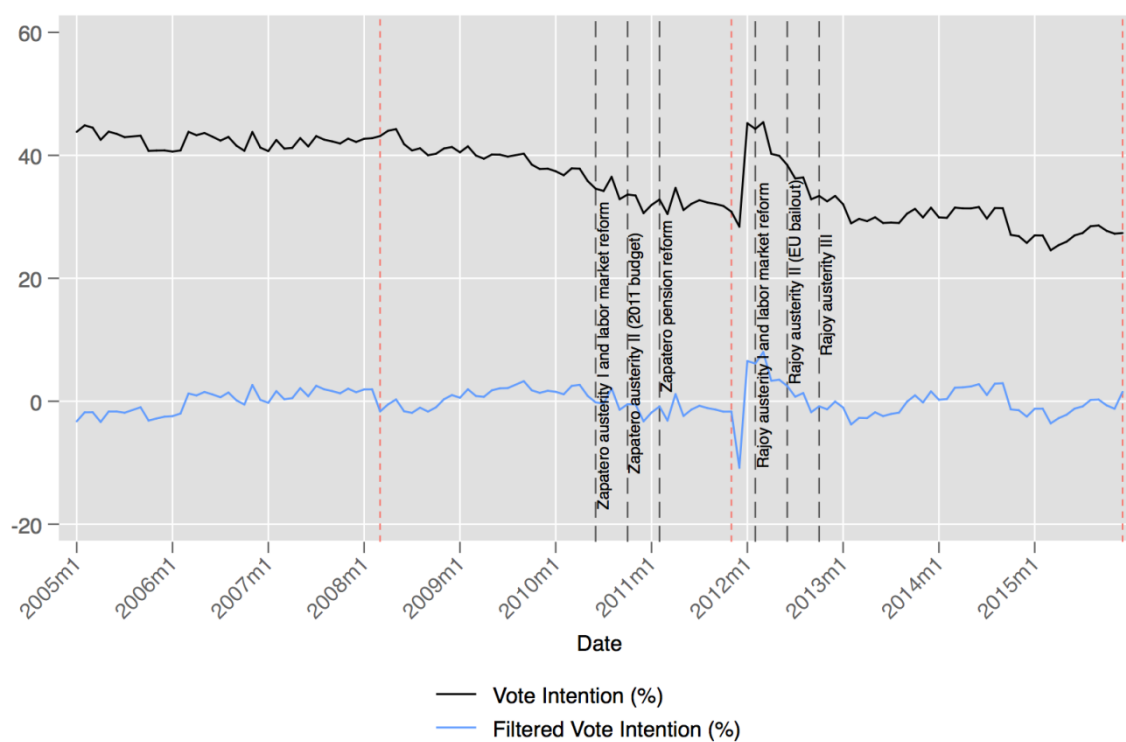
Appendix B-4: Eastern Europe

Figure B-12: Hungary
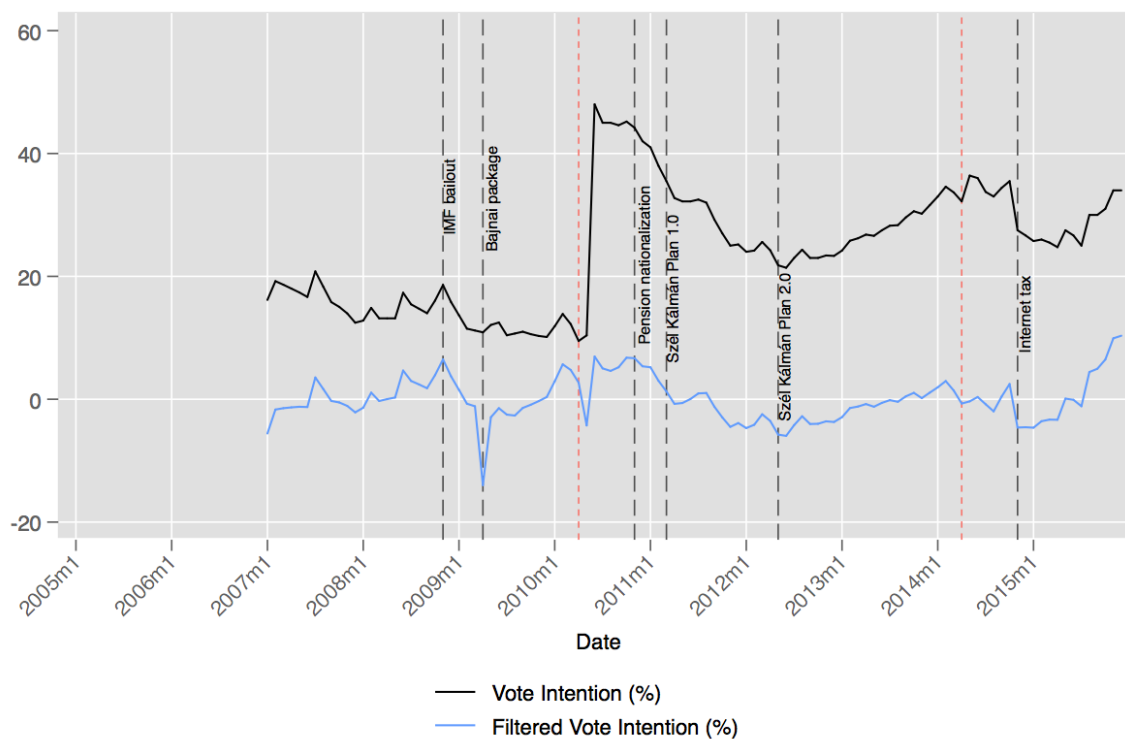
Figure B-13: Latvia
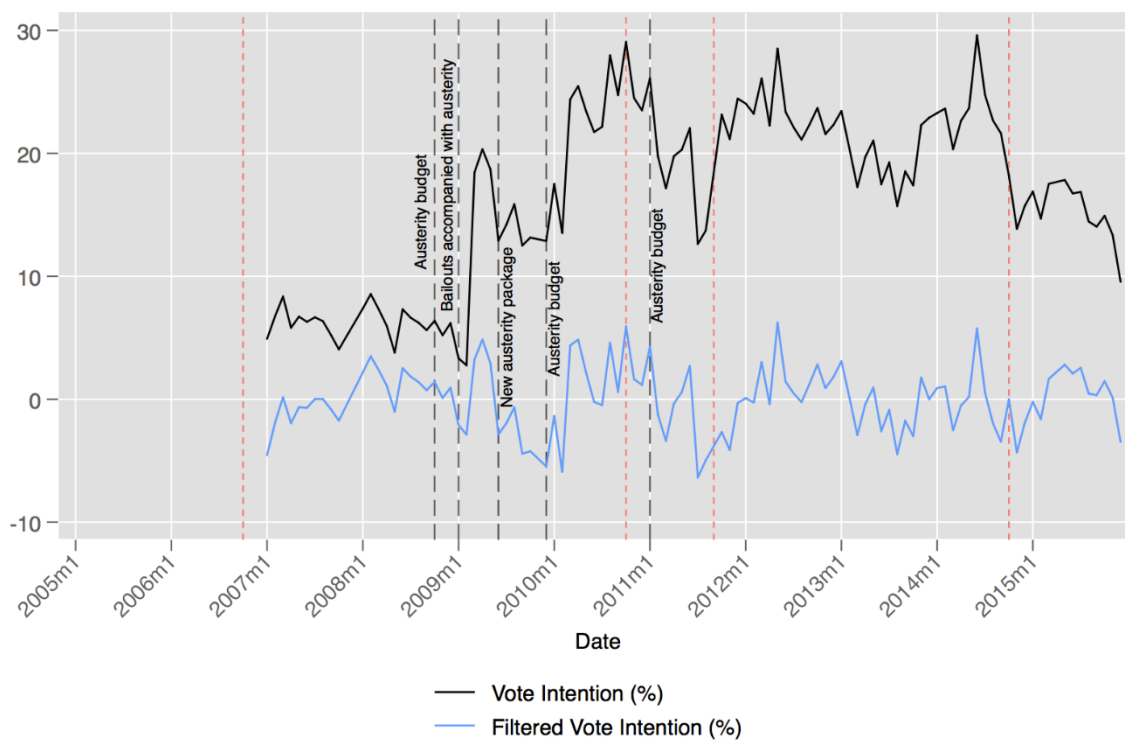
Figure B-14: Poland
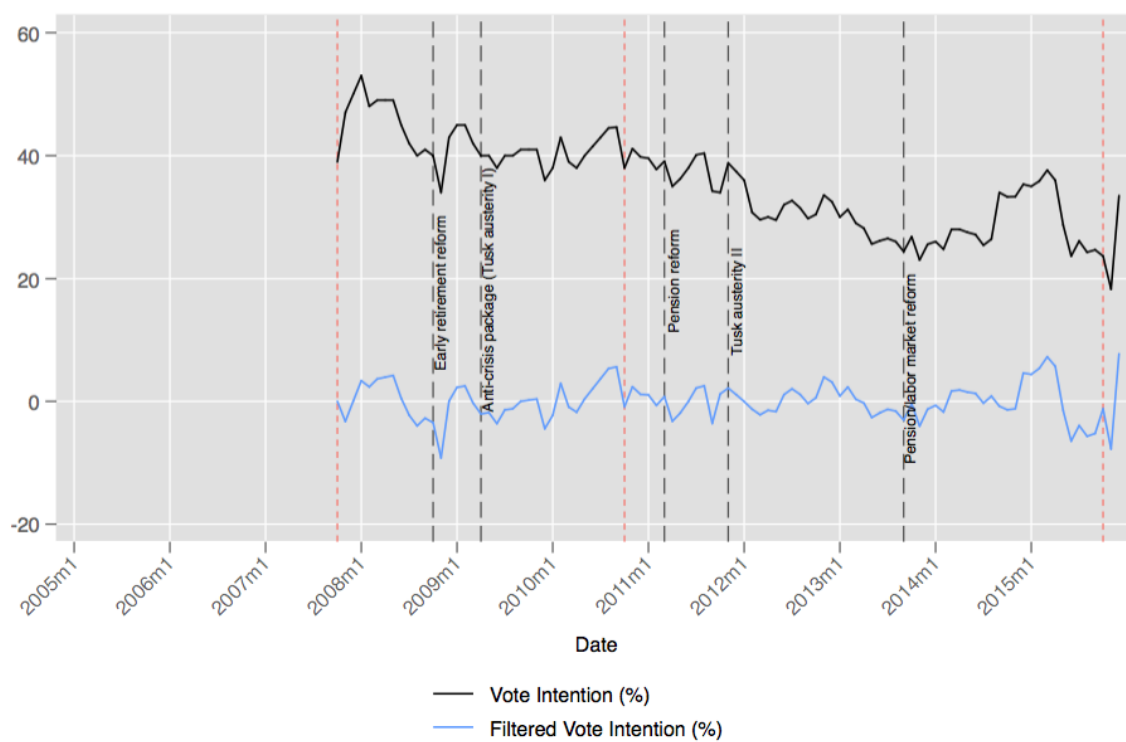
Figure B-15: Romania
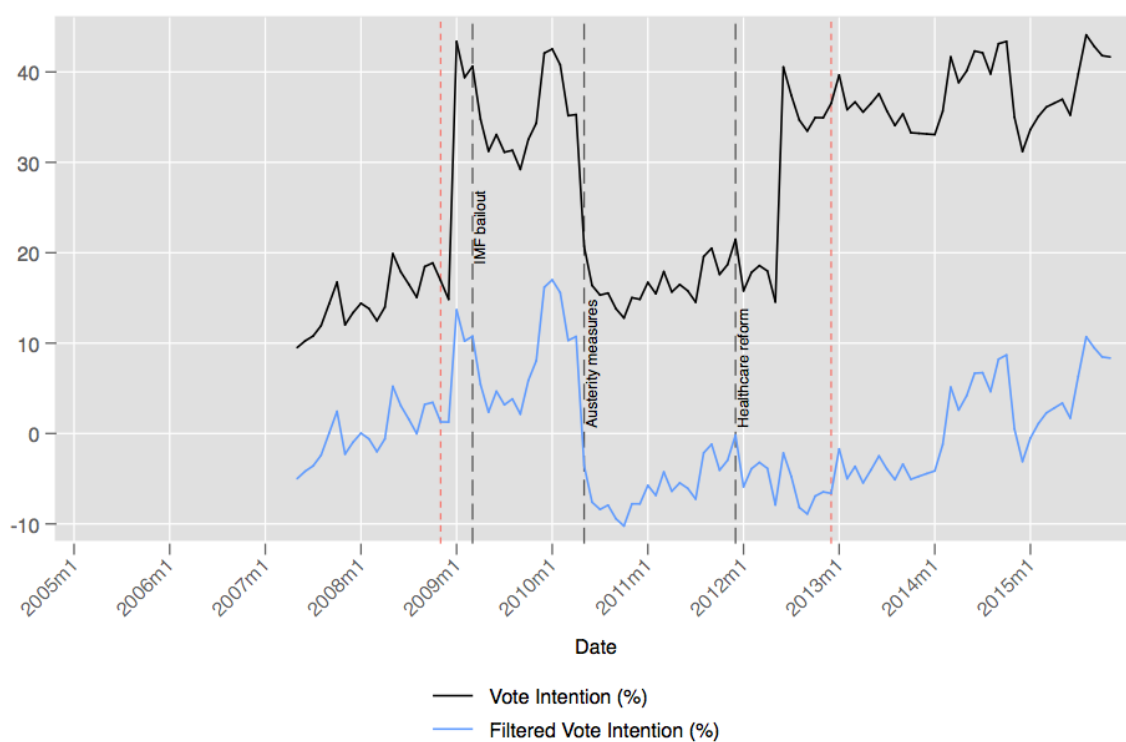
Appendix B-5: Country-by-country time series result

The figure below shows the regression coefficients of austerity dummy from country-by-country regressions (with controls), using the 6 months intervention window. 95% confidence intervals are also provided.

Figure B-16: Coefficient plot of austerity dummy from 15 single time series analysis

Country-by-country estimated immediate effect of the austerity dummy
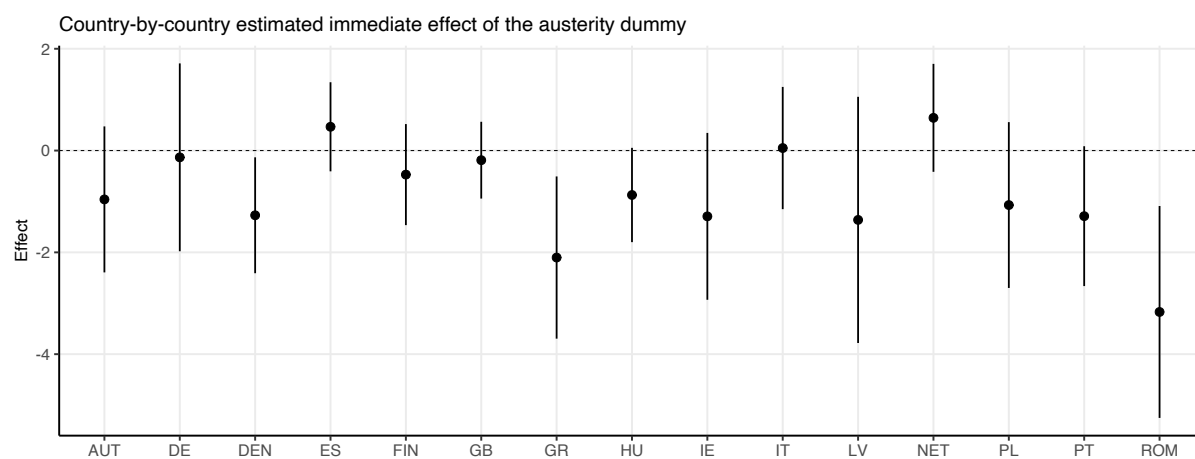
Appendix C-1: Distribution of the p-values for country-specific unit-root tests

The figures below show the p-values for specific unit-root tests before and after filtering. They indicate that we can reject the null hypothesis of non-stationary in all the series. This allows us to estimate a dynamic model with a lagged dependent variable.

Figure C-1: Distribution of the p-values before filtering
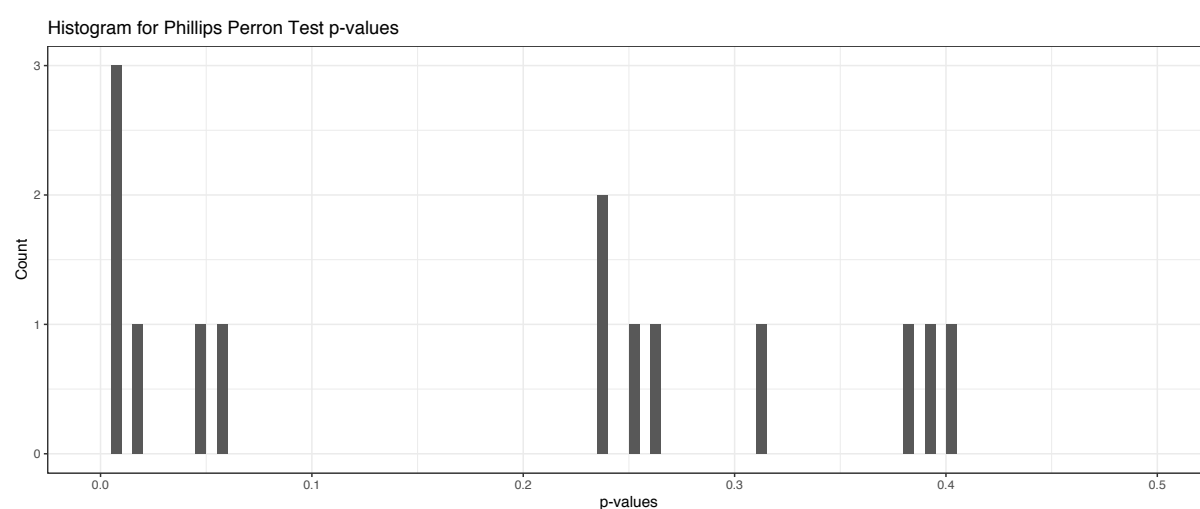
Figure C-2: Distribution of the p-values after filtering
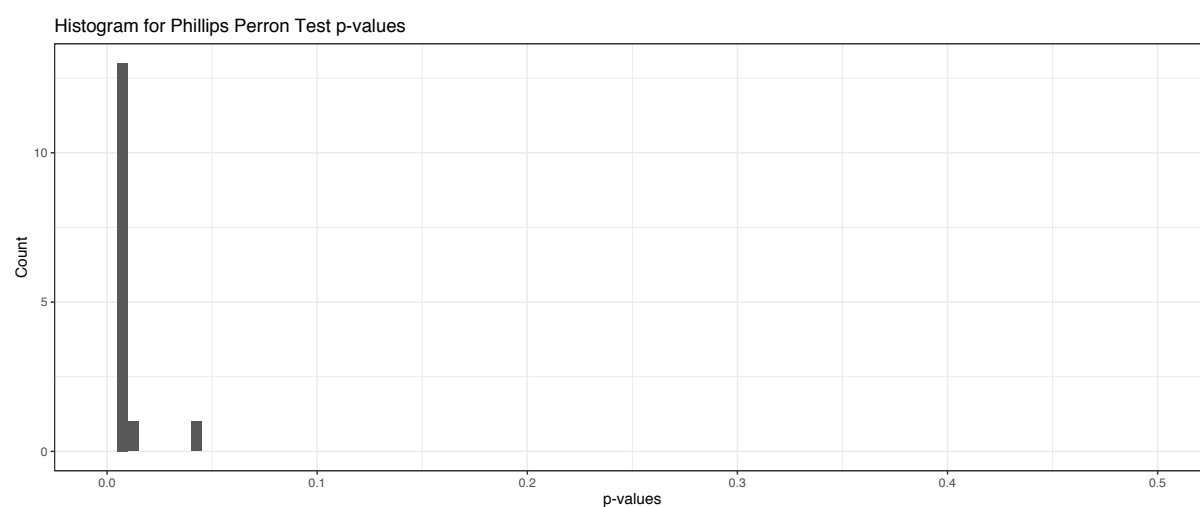
Appendix C-2: Impulse response functions of austerity

In our analysis, we allow the long-run multiplier to vary according to a random draw from a normal distribution. This enables us to also illustrate the impact at different country-specific LDV coefficients for different contextual variables. In the main analysis we presented the results of average AR parameter with unemployment; below we illustrate the impulse reponse functions of austerity with unemployment, when there are high (Hungary) and low (Romania) persistence in the dependent variable according to their country-specific LDV coefficients. We also repeat the analysis for the two other significant context-conditions: protest and external involvement.

Figure C-3: Impulse response functions of austerity under varying country-specific adjustment rates (α) at different quantiles of change in unemployment
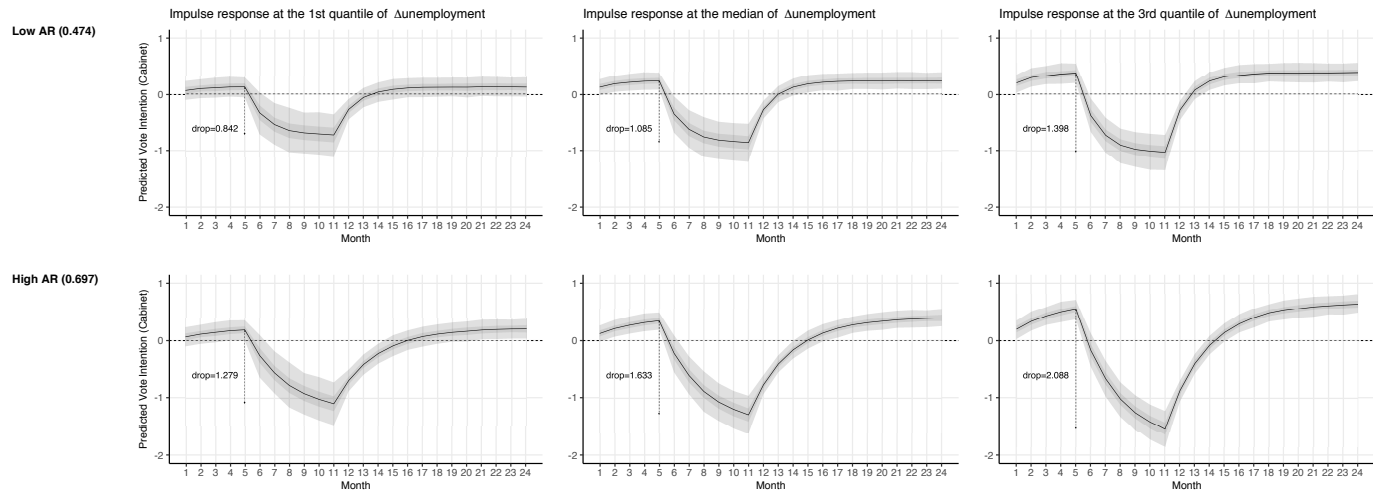
Figure C-4: Impulse response functions of austerity under varying country-specific adjustment rates (α) with and without external involvement
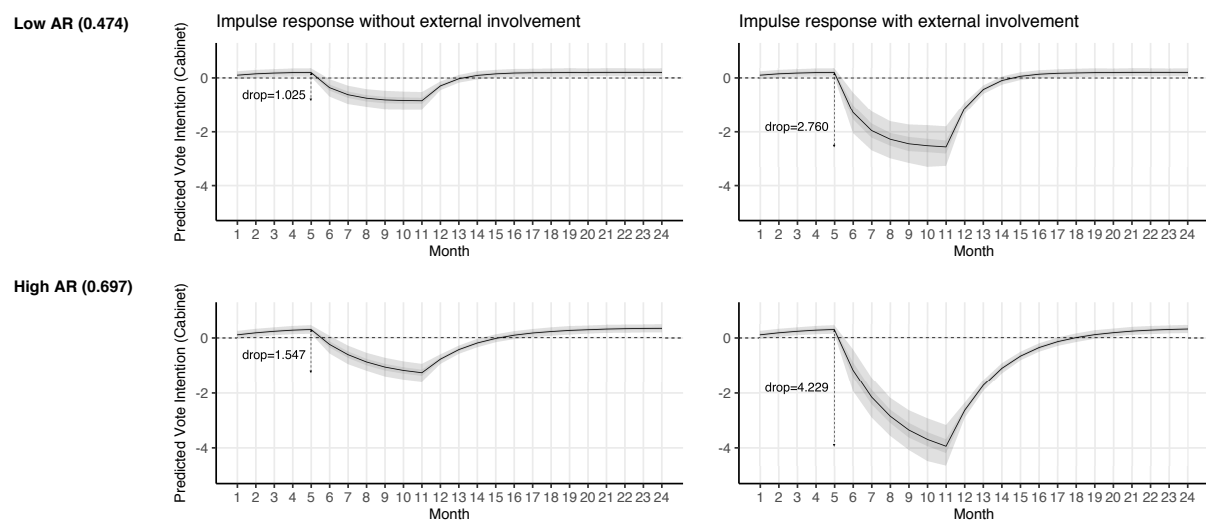
Figure C-5: Impulse response functions of austerity under varying country-specific adjustment rates (α) at different quantiles of protest frequency
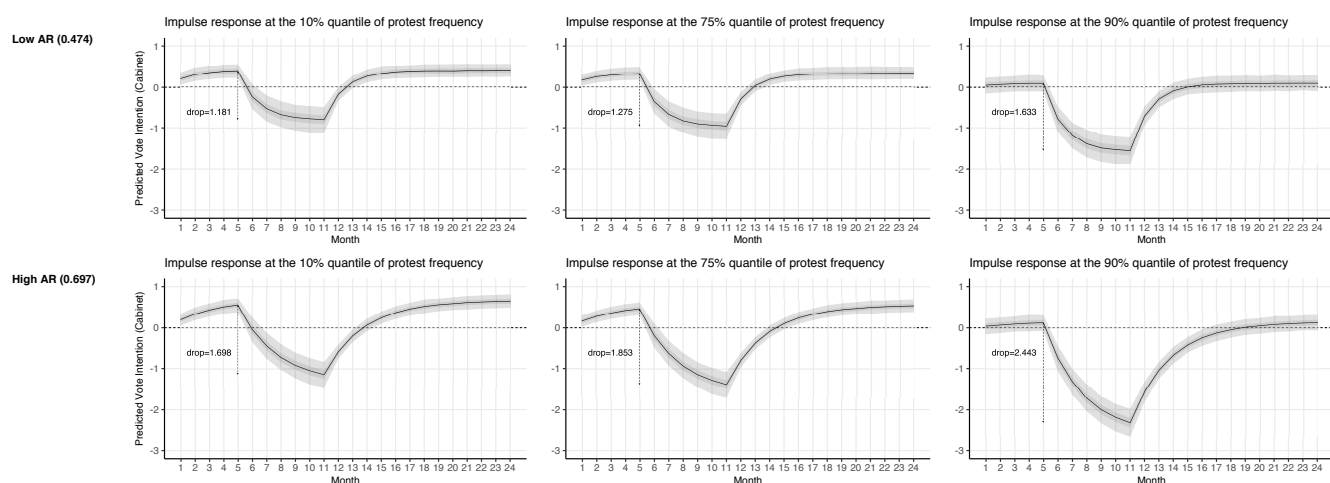
APPENDIX D: ROBUSTNESS TESTS

Appendix D-1: Vote intention for the prime minister's party and the finance minister's party as the dependent variable

For the main analysis we use the sum of vote intentions for all governing parties as the dependent variable. Following some of the existing literature, we also used support for the largest governing party only (i.e., the prime minister's party) as well as support for the finance minister's party as our dependent variable.

Table D-1: Baseline models for the unconditional effects of austerity (PM's party only)

Dependent variable: vote intention (PM party)

	Model A1	Model A2	Model A3	Model A4	Model A5	Model A6
vote intention (PM party)$_{t-1}$	0.593***	0.599***	0.606***	0.593***	0.598***	0.604***
	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)
austerity_12m	-0.549***			-0.531***		
	(0.114)			(0.121)		
austerity_6m		-0.654***			-0.611***	
		(0.132)			(0.139)	
austerity_3m			-0.831***			-0.752***
			(0.169)			(0.174)
Δunemployment				0.014	0.019	0.012
				(0.038)	(0.038)	(0.038)
retail growth				0.008	0.010	0.012
				(0.014)	(0.014)	(0.014)
IMF				0.177	0.131	0.095
				(0.179)	(0.178)	(0.177)
protest				-0.116**	-0.105*	-0.094*
				(0.043)	(0.043)	(0.043)
(Intercept)	0.198**	0.157**	0.118*	0.220**	0.175**	0.138*
	(0.063)	(0.058)	(0.055)	(0.068)	(0.063)	(0.061)
AIC	7356.137	7354.555	7354.389	7373.859	7373.537	7373.801
Num. obs.	1678	1678	1678	1678	1678	1678
Num. groups	15	15	15	15	15	15
LM test p-value	0.978	0.983	0.991	0.974	0.980	0.988
AR(1) Std Dev	0.157	0.157	0.157	0.158	0.158	0.159

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Table D-2: Interactive models accounting for context-conditions (PM's party only)

	Dependent variable: vote intention (PM party)		
	Model A7	Model A8	Model A9
vote intention (PM party)$_{t-1}$	0.599***	0.598***	0.599***
	(0.048)	(0.048)	(0.047)
austerity_6m	-0.504***	-0.416**	-0.508***
	(0.147)	(0.153)	(0.146)
Δunemployment	0.065	0.026	0.022
	(0.044)	(0.038)	(0.038)
retail growth	0.010	0.011	0.010
	(0.014)	(0.014)	(0.014)
IMF	0.135	0.462*	0.118
	(0.178)	(0.211)	(0.178)
protest	-0.090*	-0.093*	-0.015
	(0.043)	(0.043)	(0.060)
austerity_6m*Δunemployment	-0.131*		
	(0.060)		
austerity_6m*IMF		-0.985**	
		(0.336)	
austerity_6m*protest			-0.171*
			(0.078)
(Intercept)	0.167**	0.139*	0.143*
	(0.063)	(0.064)	(0.065)
AIC	7374.641	7367.321	7374.036
Num. obs.	1678	1678	1678
Num. groups	15	15	15
LM test p-value	0.979	0.979	0.982
AR(1) Std Dev	0.164	0.161	0.159

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

	Dependent variable: vote intention (PM party)			
	Model A7	Model A8	Model A9	Model A10
vote intention (PM party)$_{t-1}$	0.599***	0.598***	0.599***	0.599***
	(0.048)	(0.048)	(0.047)	(0.049)
austerity_6m	-0.504***	-0.416**	-0.508***	-0.356*
	(0.147)	(0.153)	(0.146)	(0.158)
Δunemployment	0.065	0.026	0.022	0.051
	(0.044)	(0.038)	(0.038)	(0.044)
retail growth	0.010	0.011	0.010	0.011
	(0.014)	(0.014)	(0.014)	(0.014)
IMF	0.135	0.462*	0.118	0.382†

	(1)	(2)	(3)	(4)
	(0.178)	(0.211)	(0.178)	(0.217)
protest	-0.090*	-0.093*	-0.015	-0.047
	(0.043)	(0.043)	(0.060)	(0.061)
austerity_6m*Δunemployment	-0.131*			-0.072
	(0.060)			(0.066)
austerity _6m*IMF		-0.985**		-0.759*
		(0.336)		(0.365)
austerity _6m*protest			-0.171*	-0.077
			(0.078)	(0.087)
(Intercept)	0.167**	0.139*	0.143*	0.129*
	(0.063)	(0.064)	(0.065)	(0.065)
AIC	7374.641	7367.321	7374.036	7375.313
Num. obs.	1678	1678	1678	1678
Num. groups	15	15	15	15
LM test p-value	0.979	0.979	0.982	0.979
AR(1) Std Dev	0.164	0.161	0.159	0.166

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{†}p < 0.1$

Table D-3: Baseline models for the unconditional effects of austerity (the finance minister's party only)

				Dependent variable: vote intention (FM party)		
	Model A10	**Model A11**	**Model A12**	**Model A13**	**Model A14**	**Model A15**
vote intention (FM party)$_{t-1}$	0.619***	0.624***	0.628***	0.618***	0.623***	0.626***
	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)
austerity_12m	-0.505***			-0.485***		
	(0.120)			(0.127)		
austerity_6m		-0.579***			-0.533***	
		(0.140)			(0.146)	
austerity_3m			-0.779***			-0.699***
			(0.178)			(0.183)
Δunemployment				0.023	0.026	0.021
				(0.040)	(0.040)	(0.040)
retail growth				0.008	0.010	0.011
				(0.014)	(0.014)	(0.014)
IMF				0.141	0.094	0.064
				(0.189)	(0.187)	(0.186)
protest				-0.128**	-0.118**	-0.108*
				(0.045)	(0.045)	(0.045)
(Intercept)	0.177**	0.134*	0.105†	0.207**	0.161*	0.133*
	(0.066)	(0.061)	(0.058)	(0.071)	(0.067)	(0.064)
AIC	7529.024	7529.085	7526.720	7545.896	7546.868	7545.179
Num. obs.	1678	1678	1678	1678	1678	1678
Num. groups	15	15	15	15	15	15
LM test p-value	0.996	0.997	0.998	0.995	0.996	0.997
AR(1) Std Dev	0.158	0.159	0.159	0.159	0.160	0.160

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Table D-4: Interactive models accounting for context-conditions (the finance minister's party only)

	Dependent variable: vote intention (FM party)		
	Model A16	**Model A17**	**Model A18**
vote intention (FM party) $_{t-1}$	0.623***	0.622***	0.623***
	(0.047)	(0.047)	(0.048)
austerity_6m	-0.478**	-0.379*	-0.411**
	(0.155)	(0.162)	(0.154)
Δunemployment	0.050	0.031	0.030
	(0.046)	(0.040)	(0.040)
retail growth	0.010	0.011	0.010
	(0.014)	(0.014)	(0.014)
IMF	0.097	0.355	0.080
	(0.187)	(0.222)	(0.187)
protest	-0.110*	-0.108*	-0.010
	(0.046)	(0.045)	(0.063)
austerity_6m*Δunemployment	-0.067		
	(0.064)		
austerity _6m*IMF		-0.776*	
		(0.354)	
austerity _6m*protest			-0.204*
			(0.082)
(Intercept)	0.157*	0.132†	0.123†
	(0.067)	(0.068)	(0.068)
AIC	7551.439	7544.323	7545.888
Num. obs.	1678	1678	1678
Num. groups	15	15	15
LM test p-value	0.996	0.996	0.997
AR(1) Std Dev	0.162	0.162	0.163

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Appendix D-2: First differenced raw vote intention as the dependent variable

Table D-5: Baseline models for the unconditional effects of austerity (first differenced raw vote intention as the dependent variable)

				Dependent variable: Δvote intention		
	Model A19	**Model A20**	**Model A21**	**Model A22**	**Model A23**	**Model A24**
Δvote intention $_{t-1}$	-0.075*	-0.077*	-0.077*	-0.077*	-0.078*	-0.077*
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)
austerity_12m	-0.547**			-0.647**		
	(0.211)			(0.222)		
austerity_6m		-0.811***			-0.879***	
		(0.245)			(0.256)	
austerity_3m			-1.062***			-1.040**
			(0.313)			(0.322)
Δunemployment				0.037	0.049	0.038
				(0.070)	(0.070)	(0.070)
retail growth				-0.020	-0.019	-0.016
				(0.025)	(0.025)	(0.025)
IMF				0.514	0.475	0.420
				(0.331)	(0.328)	(0.327)
protest				-0.294***	-0.280***	-0.266***
				(0.080)	(0.080)	(0.080)
(Intercept)	0.161	0.150	0.105	0.252*	0.218†	0.161
	(0.118)	(0.109)	(0.103)	(0.126)	(0.117)	(0.113)
AIC	9313.143	9308.604	9307.637	9319.847	9316.311	9317.182
Num. obs.	1660	1660	1660	1660	1660	1660
Num. groups	15	15	15	15	15	15
LM test p-value	0.537	0.524	0.574	0.464	0.454	0.510
AR(1) Std Dev	0.092	0.092	0.091	0.089	0.089	0.089

$^{***}p < 0.001$, $^{**}p < 0.01$, $^*p < 0.05$, $^†p < 0.1$

Table D-6: Interactive models accounting for context-conditions (first differenced raw vote intention as the dependent variable)

	Dependent variable: Δvote intention		
	Model A25	**Model A26**	**Model A27**
Δvote intention $_{t-1}$	-0.079*	-0.080*	-0.079*
	(0.036)	(0.036)	(0.036)
austerity_6m	-0.794**	-0.667*	-0.778**
	(0.272)	(0.284)	(0.270)
Δunemployment	0.086	0.056	0.053
	(0.080)	(0.070)	(0.070)
retail growth	-0.019	-0.018	-0.019
	(0.025)	(0.025)	(0.025)
IMF	0.483	0.845*	0.463
	(0.328)	(0.391)	(0.328)
protest	-0.269***	-0.268***	-0.191†
	(0.081)	(0.080)	(0.110)
austerity_6m*Δunemployment	-0.105		
	(0.112)		
austerity _6m*IMF		-1.076†	
		(0.619)	
austerity _6m*protest			-0.170
			(0.145)
(Intercept)	0.211†	0.178	0.186
	(0.118)	(0.120)	(0.121)
AIC	9319.979	9314.414	9318.972
Num. obs.	1660	1660	1660
Num. groups	15	15	15
LM test p-value	0.426	0.418	0.441
AR(1) Std Dev	0.089	0.088	0.091

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Appendix D-3: Alternative specifications for economic conditions (growth in retail sales volume) and protest (instrumented)

To test the robustness of our results, we use a different operationalization for both protest and economic conditions. First, we address the concern that protest activity and government popularity may be driven by the same underlying features of austerity episodes. We implemented a two-stage least squares (2SLS) as explained in the main text (p. 13). We then use the instrumented frequency of protest in the analysis shown in the table below (Model A28-29). Second, we address the concern that unemployment may not be the appropriate economic measure to measure whether the effect of austerity on the popularity of governments is conditional on the economic context. To this end, we use growth in retail sales volume as the key variable in the analysis shown below, instead (Model 30).

Table D-7: Baseline and interactive models accounting for context-conditions (instrumented protest frequency and growth in retail sales volume)

	Dependent variable: vote intention		
	Model A28	**Model A29**	**Model A30**
vote intention $_{t-1}$	0.624^{***}	0.627^{***}	0.629^{***}
	(0.020)	(0.028)	(0.029)
austerity_6m	-0.801^{***}	-0.504^{**}	-0.643^{***}
	(0.182)	(0.192)	(0.173)
Δunemployment	-0.091	-0.002	0.035
	(0.075)	(0.046)	(0.047)
retail growth	0.010	-0.012	-0.024
	(0.024)	(0.016)	(0.017)
protest			-0.202^{***}
			(0.053)
IMF		0.039	0.213
		(0.223)	(0.213)
austerity_6m*retail growth			0.059^{***}
			(0.017)
protest (instrumented)	0.437	0.086	
	(0.363)	(0.098)	
austerity_6m*protest (instrumented)		-0.531^{*}	
		(0.211)	
(Intercept)	-0.006	0.124	0.227^{**}
	(0.161)	(0.085)	(0.076)
R^2	0.347		
Adj. R^2	0.345		
RMSE	2.702		
Weak instrument test p-value	0.000		
Wu-Hausman test p-value	0.039		
Sargen test p-value	0.552		
Num. obs.	1674	1674	1674
AIC		7972.413	7962.600
Num. groups		15	15
LM test p-value		0.524	0.492
AR(1) Std Dev		0.075	0.081

$^{***}p < 0.001, ^{**}p < 0.01, ^{*}p < 0.05, ^{\dagger}p < 0.1$

Appendix D-4: Replicating results from the main text with 12-month and 3-month windows

Table D-8: Interactive models accounting for context-conditions (with 12-month and 3-month windows)

| | | | | | Dependent variable: vote intention | |
	Model A31	Model A32	Model A33	Model A34	Model A35	Model A36
vote intention $_{t-1}$	0.621***	0.632***	0.622***	0.632***	0.623***	0.632***
	(0.029)	(0.029)	(0.029)	(0.029)	(0.028)	(0.029)
austerity_12m	-0.532***		-0.481**		-0.507***	
	(0.148)		(0.156)		(0.151)	
austerity_3m		-0.722**		-0.675**		-0.691**
		(0.228)		(0.238)		(0.222)
Δunemployment	0.095†	0.012	0.018	0.006	0.017	0.008
	(0.055)	(0.049)	(0.046)	(0.046)	(0.046)	(0.046)
retail growth	-0.019	-0.014	-0.016	-0.014	-0.019	-0.014
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
IMF	0.258	0.133	0.773*	0.199	0.239	0.130
	(0.214)	(0.213)	(0.307)	(0.229)	(0.214)	(0.213)
protest	-0.212***	-0.205***	-0.229***	-0.203***	-0.091	-0.175**
	(0.052)	(0.053)	(0.052)	(0.053)	(0.075)	(0.066)
austerity_12m*Δunem	-0.189**					
	(0.070)					
austerity_3m*Δunemp		-0.032				
		(0.085)				
austerity_12m*IMF			-0.946*			
			(0.392)			
austerity_3m*IMF				-0.353		
				(0.488)		
austerity_12m*protest					-0.245**	
					(0.095)	
austerity_3m*protest						-0.082
						(0.095)
(Intercept)	0.275***	0.173*	0.242**	0.166*	0.232**	0.162*
	(0.081)	(0.074)	(0.083)	(0.074)	(0.084)	(0.075)
AIC	7957.557	7969.135	7955.553	7965.268	7957.518	7968.327
Num. obs.	1674	1674	1674	1674	1674	1674
Num. groups	15	15	15	15	15	15
LM test p-value	0.426	0.512	0.434	0.499	0.498	0.520
AR(1) Std Dev	0.080	0.080	0.079	0.080	0.075	0079

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Appendix D-5: Replicating results from the main text with fixed-effects and random effects estimators

Table D-9: Replicating Table 1 from the main text with country fixed effects

					Dependent variable: vote intention	
	Model A37	**Model A38**	**Model A39**	**Model A40**	**Model A41**	**Model A42**
vote intention $_{t-1}$	0.619***	0.625***	0.629***	0.620***	0.625***	0.629***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
austerity_12m	-0.656***			-0.660***		
	(0.144)			(0.154)		
austerity_6m		-0.766***			-0.732***	
		(0.163)			(0.171)	
austerity_3m			-0.833***			-0.710***
			(0.207)			(0.213)
Δunemployment				0.004	0.011	0.001
				(0.047)	(0.047)	(0.047)
retail growth				-0.024	-0.021	-0.017
				(0.018)	(0.017)	(0.017)
IMF				0.098	0.030	-0.010
				(0.246)	(0.244)	(0.244)
protest				-0.287***	-0.280***	-0.274***
				(0.059)	(0.059)	(0.060)
R^2	0.400	0.400	0.398	0.409	0.409	0.406
Adj. R^2	0.394	0.395	0.393	0.402	0.402	0.399
Num. obs.	1674	1674	1674	1674	1674	1674
Num. groups	15	15	15	15	15	15
LM test p-value	0.464	0.550	0.578	0.464	0.542	0.551
Country FE	Yes	Yes	Yes	Yes	Yes	Yes

$^{***}p < 0.001, ^{**}p < 0.01, ^{*}p < 0.05, ^{†}p < 0.1$

Table D-10: Replicating Table 2 from the main text with country fixed effects

	Dependent variable: vote intention		
	Model A43	**Model A44**	**Model A45**
vote intention $_{t-1}$	0.624^{***}	0.627^{***}	0.626^{***}
	(0.019)	(0.019)	(0.019)
austerity_6m	-0.586^{**}	-0.575^{**}	-0.653^{***}
	(0.182)	(0.189)	(0.180)
Δunemployment	0.076	0.018	0.014
	(0.054)	(0.047)	(0.047)
retail growth	-0.022	-0.020	-0.021
	(0.017)	(0.017)	(0.017)
IMF	0.026	0.308	0.049
	(0.243)	(0.283)	(0.244)
protest	-0.263^{***}	-0.268^{***}	-0.198^{*}
	(0.060)	(0.060)	(0.083)
austerity_6m*Δunemployment	-0.180^{*}		
	(0.074)		
austerity _6m*IMF		$-0.793^{\dagger}$	
		(0.409)	
austerity _6m*protest			-0.137
			(0.098)
R^2	0.411	0.410	0.409
Adj. R^2	0.403	0.403	0.402
Num. obs.	1674	1674	1674
Num. groups	15	15	15
LM test p-value	0.516	0.541	0.548
Country FE	Yes	Yes	Yes

$^{***}p < 0.001, {}^{**}p < 0.01, {}^{*}p < 0.05, {}^{\dagger}p < 0.1$

Table D-11: Replicating Table 1 from the main text with country random effects

Dependent variable: vote intention

	Model A46	Model A47	Model A48	Model A49	Model A50	Model A51
vote intention $_{t-1}$	0.619***	0.625***	0.629***	0.621***	0.626***	0.630***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
austerity_12m	-0.586***			-0.623***		
	(0.137)			(0.144)		
austerity_6m		-0.723***			-0.721***	
		(0.159)			(0.166)	
austerity_3m			-0.809***			-0.731***
			(0.204)			(0.209)
Δunemployment				0.005	0.013	0.002
				(0.045)	(0.045)	(0.045)
retail growth				-0.019	-0.017	-0.014
				(0.016)	(0.016)	(0.016)
IMF				0.266	0.214	0.163
				(0.215)	(0.214)	(0.213)
protest				-0.234***	-0.222***	-0.212***
				(0.052)	(0.052)	(0.052)
(Intercept)	0.197*	0.157*	0.102	0.283***	0.229**	0.172*
	(0.076)	(0.071)	(0.067)	(0.082)	(0.076)	(0.073)
R^2	0.399	0.400	0.398	0.406	0.407	0.404
Adj. R^2	0.398	0.399	0.397	0.404	0.404	0.402
Num. obs.	1674	1674	1674	1674	1674	1674
Num. groups	15	15	15	15	15	15
LM test p-value	0.454	0.532	0.561	0.427	0.501	0.515
Country RE	Yes	Yes	Yes	Yes	Yes	Yes

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Table D-12: Replicating Table 2 from the main text with country random effects

	Dependent variable: vote intention		
	Model A52	**Model A53**	**Model A54**
vote intention $_{t-1}$	0.625***	0.627***	0.627***
	(0.019)	(0.019)	(0.019)
austerity_6m	-0.584***	-0.553**	-0.610***
	(0.176)	(0.184)	(0.175)
Δunemployment	0.072	0.019	0.017
	(0.052)	(0.046)	(0.045)
retail growth	-0.016	-0.016	-0.017
	(0.016)	(0.016)	(0.016)
IMF	0.225	0.503*	0.201
	(0.213)	(0.254)	(0.213)
protest	-0.203***	-0.212***	-0.124†
	(0.052)	(0.052)	(0.072)
austerity_6m*Δunemployment	-0.168*		
	(0.072)		
austerity _6m*IMF		-0.843*	
		(0.403)	
austerity _6m*protest			-0.185*
			(0.094)
(Intercept)	0.217**	0.197*	0.194*
	(0.076)	(0.078)	(0.078)
R^2	0.217**	0.197*	0.194*
Adj. R^2	(0.076)	(0.078)	(0.078)
Num. obs.	0.408	0.408	0.408
Num. groups	15	15	15
LM test p-value	0.477	0.503	0.521
Country RE	Yes	Yes	Yes

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$