Dispelling the Shadow of Fiscal Dominance?

Fiscal and Monetary Announcement Effects for Euro Area Sovereign Spreads in the Corona Pandemic

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MOTIVATION

- In the pandemic, European monetary and fiscal policy have jointly been successful to prevent another “bad equilibrium” in euro sovereign bond markets.

→ Which of the two players (ECB or EU fiscal level) has been more important? Do we already see an emerging “Fiscal Union” that relieves ECB in its role as “sovereign lender of last resort”?

→ Which types of monetary instruments (PEPP versus others) and which types of fiscal instruments (Next Generation EU versus pure loan instruments) have been most effective?

→ This question is of substantial relevance for the “fiscal dominance” debate.

PRE-PANDEMIC LITERATURE SMP/OMT/PSPP

- Findings that SMP was successful in decreasing yields and the liquidity premium in the long-run: Eser and Schwaab (2016), Ghysels et al. (2017), De Pooter et al. (2018).

- Announcement of OMT reduced Italian and Spanish sovereign bond rates, but did not reduce Germany's or France's: Altavilla et al. (2016).

- Programmes are most effective for fiscally weaker countries; less solvent countries experience stronger sovereign bond yield reductions: Szczerbowicz (2015), Fratzscher et al. (2016), Fendel and Neugebauer (2020).

PRE-PANDEMIC LITERATURE FISCAL RULES / FISCAL NEWS / FISCAL FUNDAMENTALS

- Scarce literature that focuses at information effects from fiscal signals.
- Spreads increase if a country is put under the excessive deficit procedure: Afonso und Strauch (2007), Kalan et al. (2018).
- Credible fiscal rules can reduce spreads: Eyraud et al. (2018), Feld et al. (2017), Heinemann et al. (2014), Iara and Wolff (2014).
- Pamies et al. (2021): Impact of government debt on spreads mitigated by strong institutions and high growth potential.

FIRST STUDIES ON SPREADS IN THE PANDEMIC

- Hartley and Rebucci (2020): decrease of 15 basis points for Germany over a three-day window following the announcement of the program, does not cover euro periphery
- Jinjarak et al. (2020): CDS, synthetic control study. Covid-19 mortality matters; PEPP stopped spread widening; a broad EU announcement dummy misses significance.
- Fendel et al. (2021): very broad monetary and fiscal dummies – no differentiation e.g. between PEPP and other monetary measures.
- Delatte and Guillaume (2020): Broad approach including initial fiscal situation, healthcare capacity, monetary and fiscal announcements. PEPP announcement most powerful event, sample ends before political decision on NGEU.

- Our contributions: event analysis with systematic approach to study relative role of monetary and fiscal policies (*between* and *within*).

EVENTS

Monetary policy events

- Monetary policy decisions by the ECB from 2015 onwards (press statements)
- Including key interest rates and non-standard policy measures
- Included programs: PEPP, PSPP, and various longer-term refinancing operations (LTRO, TLTRO, PELTRO)

Fiscal policy events

- Commission timeline, supplemented by handpicked announcements of EU fiscal measures to fight the impact of the COVID-19 pandemic
- Focus on innovative instruments and new joint debt instruments
- Divided into:
  1. Relaxation of EU fiscal rules
  2. Combined fiscal corona packages (NGEU considered separately)

MONETARY POLICY EVENTS (EXAMPLES)

Monetary policy	PSPP expansion	22.01.2015	Introduction of PSPP
		03.12.2015	Extension of APP until March 2017 and inclusion of further debt instruments issued by regional and local governments in the list of eligible assets
		10.03.2016	Expansion of APP to €80 billion monthly
		12.09.2019	Restart of APP at a monthly pace of €20 billion
		12.03.2020	Addition of a temporary envelope of net asset purchases in the amount of €120 billion until the end of the year
	PEPP expansion	18.03.2020	Launch of PEPP with an envelope of €750 billion
		04.06.2020	Expansion of PEPP by €600 billion
	PSPP reduction	08.12.2016	Decrease of PSPP purchases to €60 billion monthly and decrease of the minimum remaining maturity for eligible securities in PSPP from two years to one year
		26.10.2017	Decrease of PSPP purchases to €30 billion monthly
		14.06.2018	Decrease of PSPP purchases to €15 billion monthly until the end of 2018 and then ending of purchases under APP

FISCAL POLICY EVENTS

Fiscal policy	Relaxation of EU fiscal rules		13.03.2020	Proposal for SGP escape clause
			20.03.2020	Decision to activate SGP escape clause
	EU fiscal support		13.03.2020	Mobilization of EU budget flexibility to increase cohesion spending
			01.04.2020	Proposal of SURE (Support to mitigate Unemployment Risks in an Emergency)
			09.04.2020	Agreement by EU finance ministers on 540 billion package including SURE, EIB and ESM
		NGEU	18.05.2020	German-French proposal that paved the way towards Next Generation
			27.05.2020	European Commission Proposal of Next Generation EU with various surprises compared to German-French model
			21.07.2020	Political agreement on Next Generation EU in the European Council

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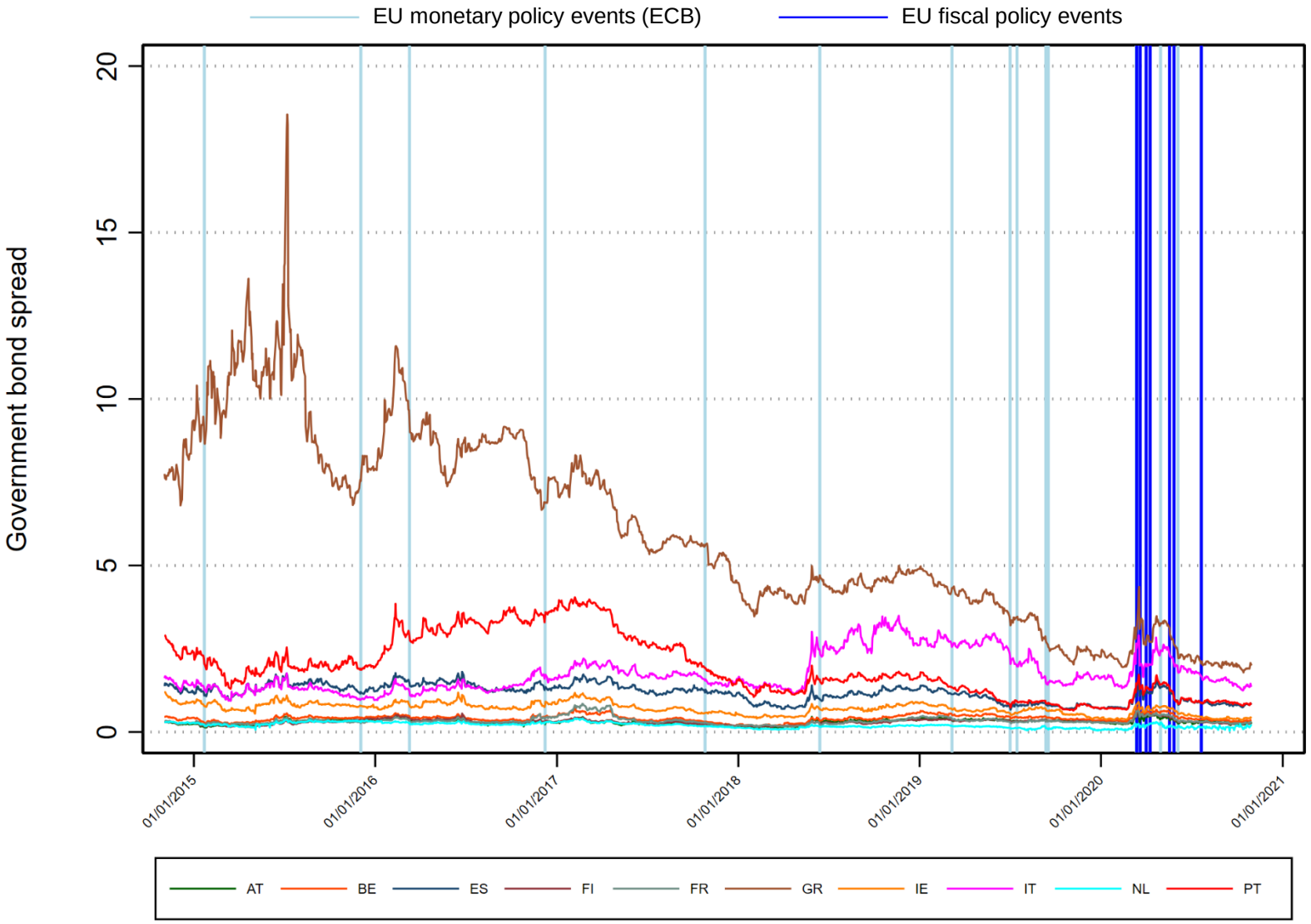
ANNOUNCEMENTS AND REACTIONS



EXPECTATIONS

1. Expansionary monetary policy announcements will compress spreads (more so for countries with higher public debt)

2. European fiscal packages & transfers similarly reduce sovereign spreads (more so for countries with higher public debt)

3. Relaxation of EU fiscal rules: no clear sign prediction (higher flexibility good for growth versus negative information signal)

DATA

- Daily data on sovereign bond spreads (third-order polynomial yield curve, maturity of 10 years, source: Datastream)
- Spreads are calculated as the difference to the German yield curve
- Ten euro area countries: Austria, Belgium, Finland, France, Greece, Ireland, Italy, the Netherlands, Portugal, Spain

Sample period

- Spread data until Oct 2020
- Monetary policy events: sample starts in Nov 2014
- Fiscal policy events: sample starts in Dec 2019

CAVEATS

Are the events really surprising? Our arguments:

- Environment of an unfolding pandemic is an unexplored territory that makes it hard to predict political actions
- Crucial actors fundamentally changed their positions within a short time span:
  - ‘Lagarde gaffe’ in March 2020
  - Merkel from firm rejection of ‘Corona bonds’ to French-German initiative
- Controversial negotiations on Next Generation EU up to the last hours of the European Summit July 2020 (‘frugal four‘ with veto power)

Sequence: PEPP first – NGEU second, difficult to draw conclusions for counterfactual with a reversed order. Our arguments:

- We have seen the reversed order 2010/2012 – the pattern was the same: fiscal instruments did not suffice, ECB did the job
- Still meaningful to explore relative effects of instruments within fiscal and monetary policy arsenal

VARIABLES

Events

- Dummy variables capture all events of a certain event group (instead of a separate dummy for each announcement)

Control

- Government bond spreads with lag of one day
- Citi Bank Economic Surpise Index (CESI)
- Corporate bond spread (difference between BBB and AAA rated corporate bond yields)

- We use first differences of the variables due to non-stationary

SPECIFICATIONS

Baseline: Panel regression:

$$\Delta y_{i,t} = \alpha + \beta_1 Event_t + \beta_2 \Delta y_{i,t-1} + \beta_3 \Delta CESI_t + \beta_4 \Delta Corp\_spread_t + \alpha_i + \alpha_d + \varepsilon_{i,t}$$

Extension: Effects for every single country:

$$\Delta y_t = \alpha + \beta_1 Event_t + \beta_2 \Delta y_{t-1} + \beta_3 \Delta CESI_t + \beta_4 \Delta Corp\_spread_t + \alpha_d + \varepsilon_t$$

- α_i= country FE
- α_d= working-day FE
- Robust standard errors

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BASELINE: PANEL REGRESSIONS

	Dependent variable: government bond spread								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Monetary policy events						Fiscal policy events		
			PSPP and PEPP				EU fiscal corona packages		Relaxation of EU fiscal rules
	Interest rate decrease	(T)LTRO	Expansion (combined)	PSPP expansion	PEPP expansion	PSPP reduction	All packages	Next Generation EU	
Event	-0.0066	0.0150	-0.0112	0.0133	-0.0657***	0.0212**	-0.0066	-0.0266***	0.0315*
	(0.0130)	(0.0155)	(0.0145)	(0.0183)	(0.0164)	(0.0089)	(0.0076)	(0.0087)	(0.0171)
Lagged government bond spread	0.0598	0.0599	0.0579	0.0599	-0.0014	0.0598	-0.0114	-0.0141	-0.0055
	(0.0587)	(0.0587)	(0.0587)	(0.0587)	(0.0641)	(0.0587)	(0.0620)	(0.0616)	(0.0622)
Economic surprise index (CESI)	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Corporate bond spread	0.5711***	0.5742***	0.5711***	0.5750***	0.5147***	0.5730***	0.5122***	0.5069***	0.5055***
	(0.0758)	(0.0752)	(0.0753)	(0.0755)	(0.1069)	(0.0751)	(0.1095)	(0.1089)	(0.1088)
Constant	-0.0006	-0.0007	-0.0006	-0.0007	-0.0005	-0.0007	-0.0010	-0.0009	-0.0015
	(0.0007)	(0.0007)	(0.0007)	(0.0007)	(0.0012)	(0.0007)	(0.0011)	(0.0011)	(0.0011)
Observations	15,650	15,650	15,650	15,650	2,180	15,650	2,400	2,400	2,400
Adjusted R-squared	0.0193	0.0194	0.0193	0.0193	0.0378	0.0194	0.0285	0.0306	0.0304
Country fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Working-day fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Results correspond to Equation (1). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

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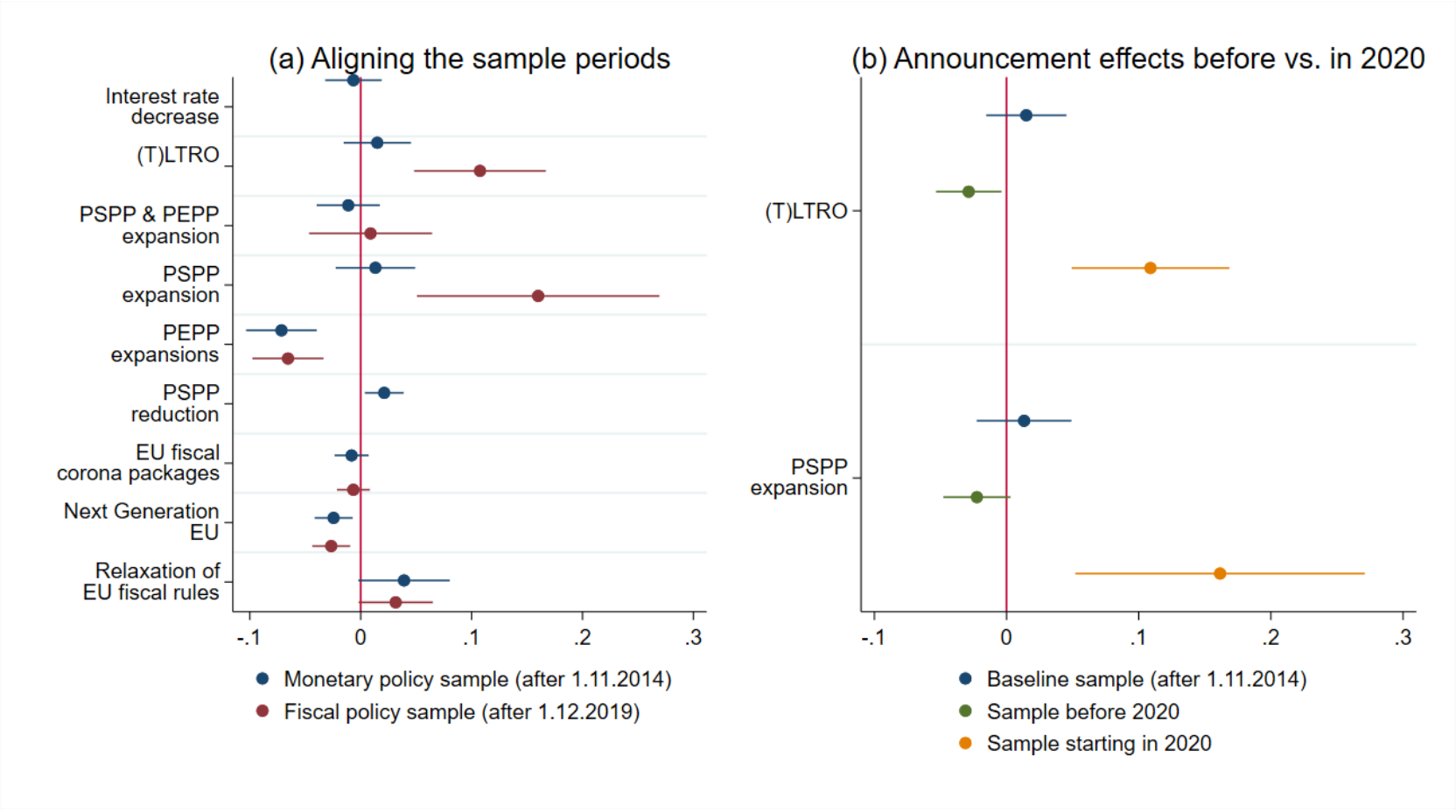
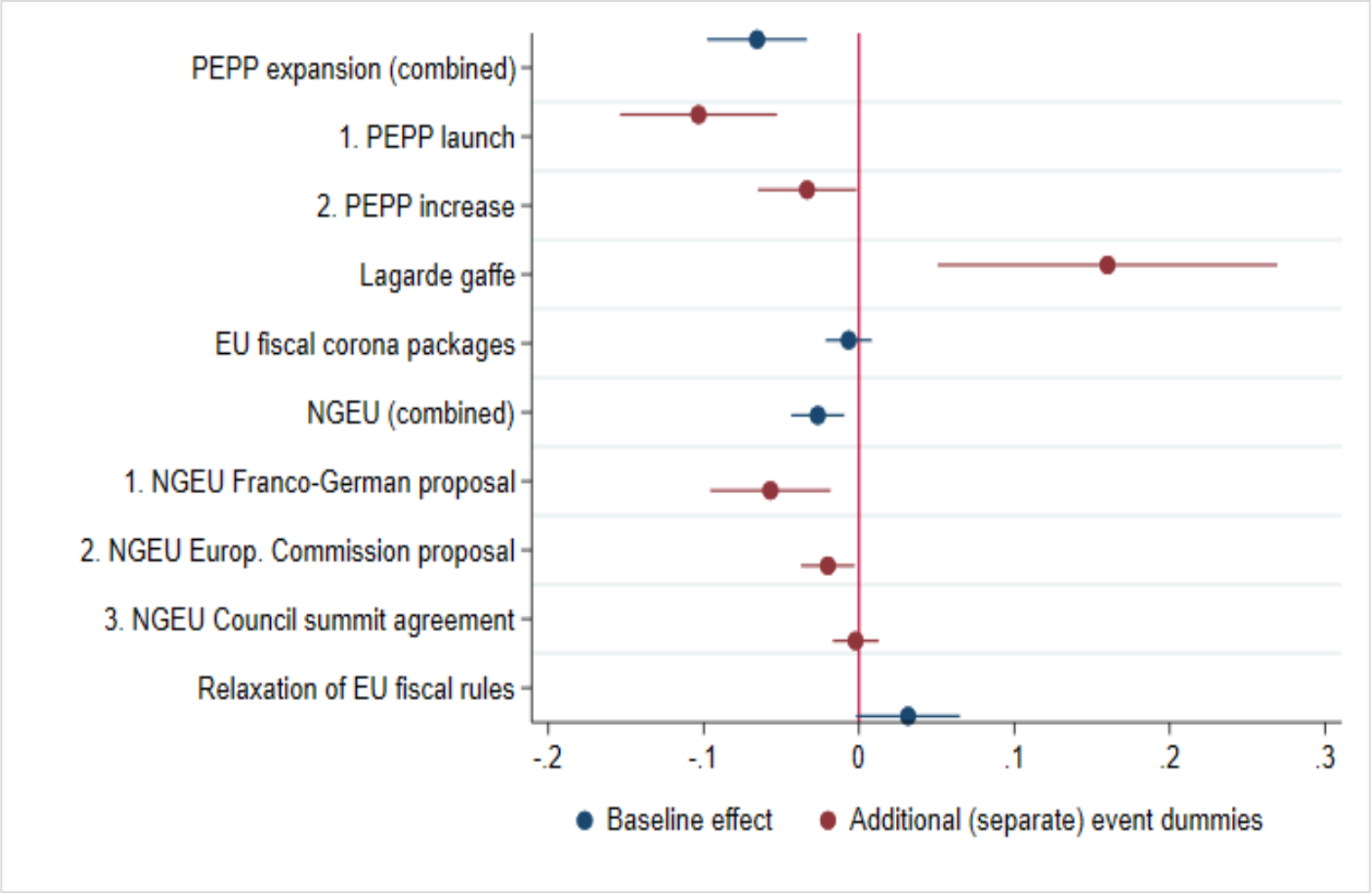
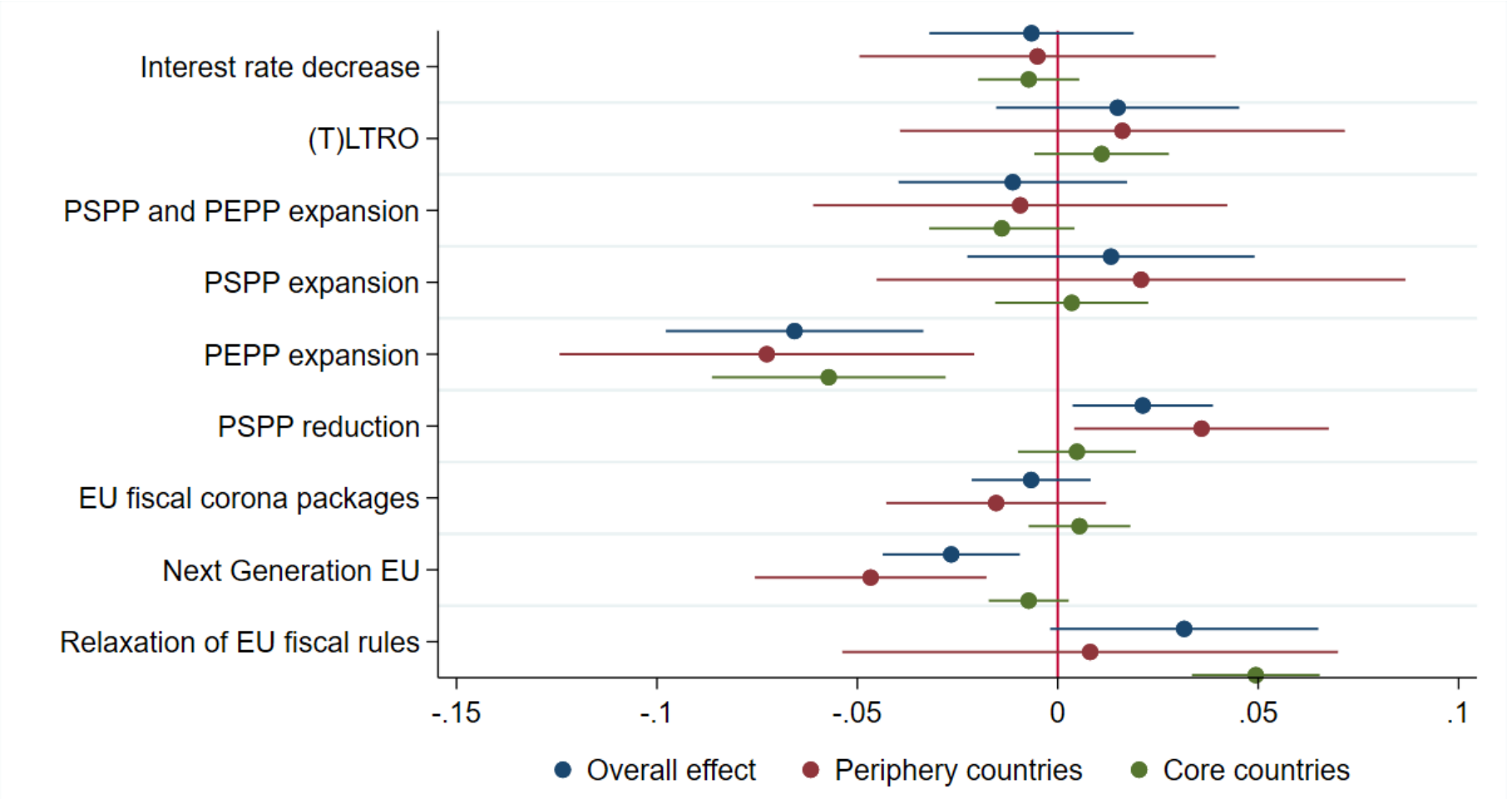
BASELINE - ROBUSTNESS CHECK I: ALIGNING THE SAMPLE PERIODS – PSPP MARCH 2020 DISAPPOINTMENT EMERGES



EXTENSION 1: SEARCHING FOR PARTICULARLY SURPRISING EVENTS



EXTENSION 2: CORE VS. PERIPHERY COUNTRIES



Core: Austria, Belgium, Finland, France, Netherlands

Periphery: Spain, Greece, Ireland, Italy, Portugal

EXTENSION 3: COUNTRY-SPECIFIC EFFECTS (PEPP)

	Dependent variable: Government bond spread									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Core countries					Periphery countries				
Country	Austria	Belgium	Finland	France	Netherlands	Spain	Greece	Ireland	Italy	Portugal
PEPP expansion	-0.0735**	-0.0802**	-0.0383***	-0.0787**	-0.0290	-0.0602***	0.0035	-0.0667***	-0.1685***	-0.0713***
	(0.0340)	(0.0398)	(0.0086)	(0.0353)	(0.0256)	(0.0201)	(0.0345)	(0.0226)	(0.0482)	(0.0183)
Constant	0.0143**	-0.0015	-0.0006	0.0021	-0.0104*	-0.0001	0.0157	-0.0002	0.0044	0.0023
	(0.0067)	(0.0025)	(0.0017)	(0.0023)	(0.0054)	(0.0055)	(0.0177)	(0.0030)	(0.0137)	(0.0062)
Observations	218	218	218	218	218	218	218	218	218	218
Adjusted R-squared	0.1430	0.1185	0.0875	0.1520	0.0610	0.0756	0.0527	0.1517	0.0457	0.0894
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Month*year fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Results correspond to Equation (2). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

EXTENSION 3: COUNTRY-SPECIFIC EFFECTS (NGEU)

	Dependent variable: Government bond spread									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Core countries					Periphery countries				
Country	Austria	Belgium	Finland	France	Netherlands	Spain	Greece	Ireland	Italy	Portugal
Next Generation EU	-0.0093	-0.0128	-0.0014	-0.0098	-0.0004	-0.0407**	-0.0534**	-0.0098	-0.0872	-0.0417**
	(0.0091)	(0.0105)	(0.0055)	(0.0081)	(0.0082)	(0.0163)	(0.0266)	(0.0107)	(0.0540)	(0.0172)
Constant	0.0135**	-0.0011	-0.0003	0.0019	-0.0097*	-0.0005	0.0123	-0.0006	0.0056	0.0015
	(0.0061)	(0.0022)	(0.0017)	(0.0022)	(0.0050)	(0.0048)	(0.0159)	(0.0028)	(0.0119)	(0.0054)
Observations	240	240	240	240	240	240	240	240	240	240
Adjusted R-squared	0.1218	0.0358	0.0458	0.0531	0.0558	0.0750	0.0569	0.0886	0.0316	0.0853
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Month*year fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Results correspond to Equation (2). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

EXTENSION 3: COUNTRY-SPECIFIC EFFECTS (SGP ESCAPE CLAUSE)

	Dependent variable: Government bond spread									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Core countries					Periphery countries				
Country	Austria	Belgium	Finland	France	Netherlands	Spain	Greece	Ireland	Italy	Portugal
Relaxation of EU fiscal rules	0.0662***	0.0368	0.0810***	0.0130	0.0667***	0.0000	0.1365*	0.0276	-0.0615	-0.0311
	(0.0070)	(0.0241)	(0.0115)	(0.0162)	(0.0065)	(0.0390)	(0.0785)	(0.0313)	(0.0486)	(0.0432)
Constant	0.0134**	-0.0013	-0.0005	0.0017	-0.0095*	-0.0014	0.0112	-0.0008	0.0035	0.0005
	(0.0061)	(0.0023)	(0.0017)	(0.0022)	(0.0049)	(0.0050)	(0.0159)	(0.0029)	(0.0125)	(0.0055)
Observations	240	240	240	240	240	240	240	240	240	240
Adjusted R-squared	0.1412	0.0507	0.2098	0.0534	0.0896	0.0659	0.0624	0.0965	0.0249	0.0804
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Month*year fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Results correspond to Equation (2). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

KEY RESULTS

European emergency measures have successfully contributed to shielding euro sovereign markets

Monetary versus fiscal policy:

Throughout all specifications, monetary policy more important than fiscal policy (but sequencing issue)

Fiscal policy announcements

- Loan instruments (SURE program, EIB, and ESM) have played no measurable role for spread reduction
- NGEU with its transfer element makes the difference
- Escape clause of the Stability and Growth Pact did not contribute to stabilization

Monetary policy announcements

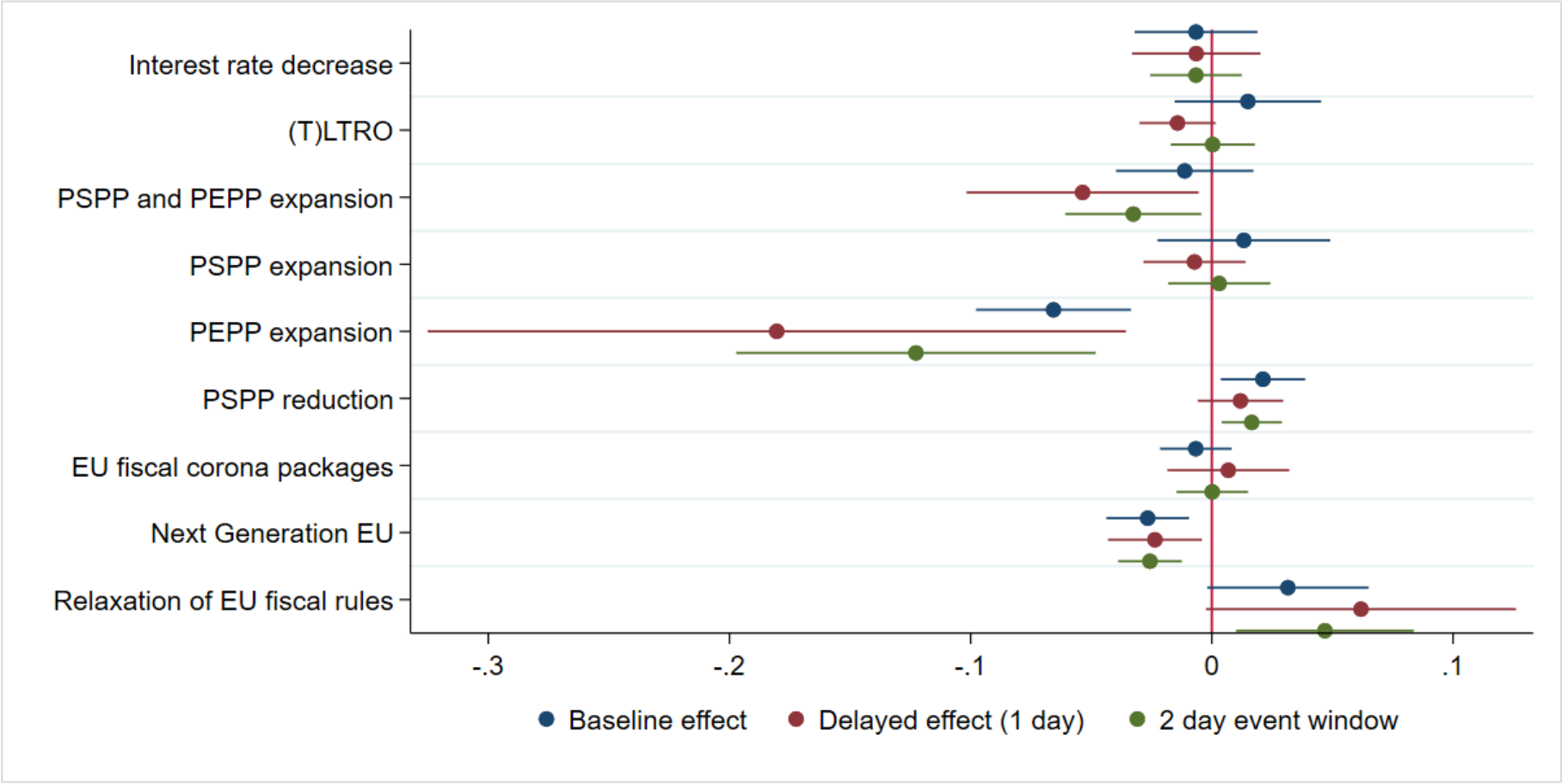
- PEPP with large robust effects – PSPP in March 2020 rather destabilizing

→ Findings are robust to alternative model specifications and extensions

RELEVANCE FOR FISCAL DOMINANCE DEBATE

- Results support the view that crisis stabilization crucially depends on ECB support.
- But with PEPP only the most flexible monetary policy instrument has worked (no ECB capital key orientation, no issue and issuer limits).
- Fiscal tools can support stabilization – but this can only be shown for NGEU that includes a transfer component.
- Message for the stabilization of severe solvency shocks: Europe seems to have a choice between a fiscal transfer system or an ECB moving further into a controversial area (Art. 123 TFEU).

BASELINE - ROBUSTNESS CHECK II: LONGER EVENT WINDOWS – PEPP EFFECT INCREASES



COUNTRY-SPECIFIC EFFECTS – EU FISCAL CORONA PACKAGES

	Dependent variable: Government bond spread									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Core countries					Periphery countries				
Country	Austria	Belgium	Finland	France	Netherlands	Spain	Greece	Ireland	Italy	Portugal
EU fiscal corona packages	-0.0075	-0.0028	0.0241	-0.0017	0.0120	-0.0195	0.0290	0.0022	-0.0616	-0.0268
	(0.0192)	(0.0104)	(0.0154)	(0.0094)	(0.0112)	(0.0168)	(0.0389)	(0.0153)	(0.0399)	(0.0209)
Constant	0.0135**	-0.0013	-0.0009	0.0017	-0.0100**	-0.0009	0.0103	-0.0009	0.0052	0.0013
	(0.0061)	(0.0023)	(0.0017)	(0.0022)	(0.0050)	(0.0048)	(0.0159)	(0.0029)	(0.0120)	(0.0055)
Observations	240	240	240	240	240	240	240	240	240	240
Adjusted R-squared	0.1219	0.0327	0.0943	0.0509	0.0592	0.0699	0.0560	0.0868	0.0312	0.0837
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Month*year fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Results correspond to Equation (2). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.