

Online Appendix

Populism, Political Risk and the Economy: Lessons from Italy

by Balduzzi P., Brancati E., Brianti M. and Schiantarelli F.

April 28, 2020

1 Robustness checks

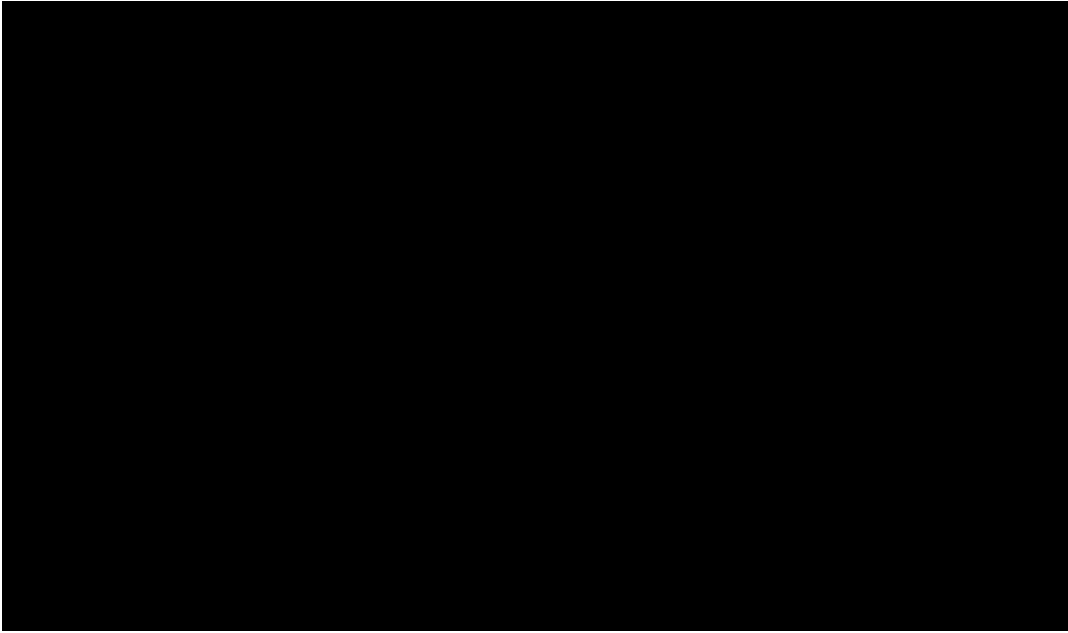
This section contains a series of robustness checks for the results presented in the paper both at a daily and a monthly frequency.

1.1 Daily frequency

At a daily frequency results remain unchanged if we allow for eight lags of the controls instead of four. Moreover, the domestic and international results remain robust to using either CDSITA03 or CDSITA14 as an instrument and indicator variable, denominated in euros or dollars. Domestic results are also robust to removing from the list of selected dates those for European elections and for the submission to the European Commission of the draft budget because they are common to all the euro-zone countries (the baseline results for the spillover effects { see Section 6.4 of the paper { are already derived by excluding those dates). In addition, as a robustness exercise for both the CDS spread and the 10-year bond yield spread relative to the Bund, we report results in which we have been more drastic in reducing the list of dates using in constructing our instrument. More specifically, we removed from our instrument all dates that fall in

a 2-sided window of seven days centered around election dates of other euro countries (47 events in total), the Brexit referendum and other key events in the Brexit process (32 additional events). The domestic daily results are also robust to this robustness exercise, but to limit the length of the Online Appendix, we have only included the results for the spillover effects. Furthermore, for all results at a daily frequency, the estimated impulse response functions are virtually unchanged if we employ a Cholesky identification strategy and order our instrument after the VIX and the first principal component of euro-zone countries' CDS spreads, and before the other financial variables. Finally, the domestic results at a monthly frequency are invariant to using the average of the last 5-days or the monthly average instead of the end of period observation.

Figure 1: Financial variables: impulse responses at a daily frequency, 8 lags



Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the

Figure 2: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, 8 lags

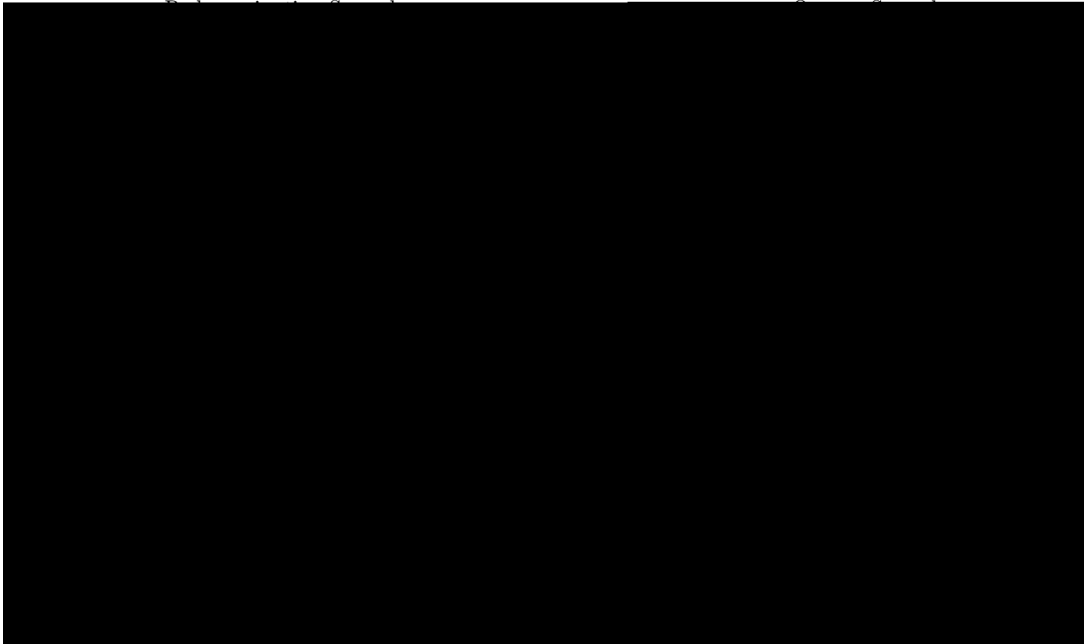
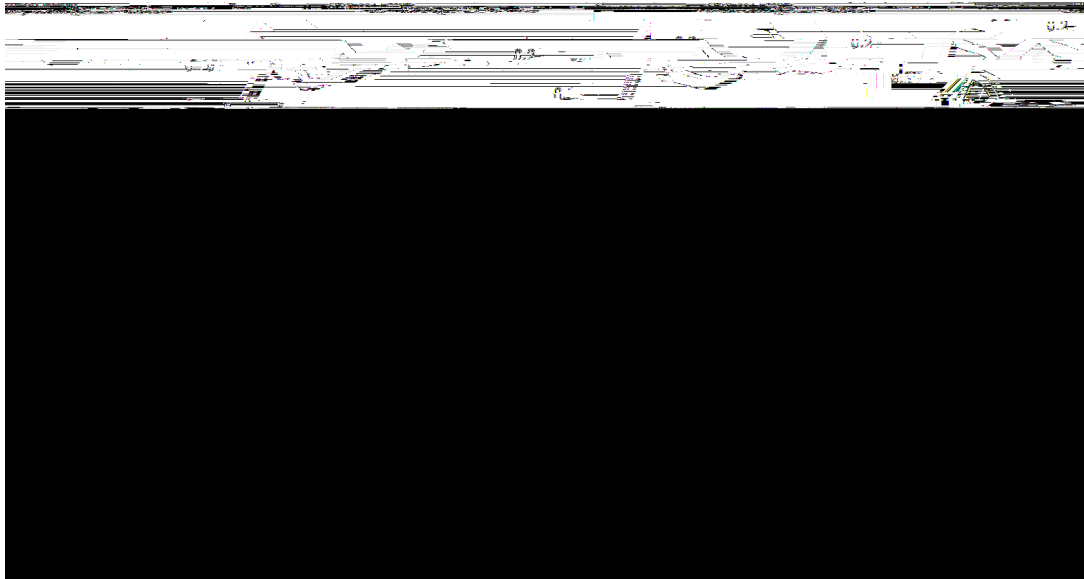
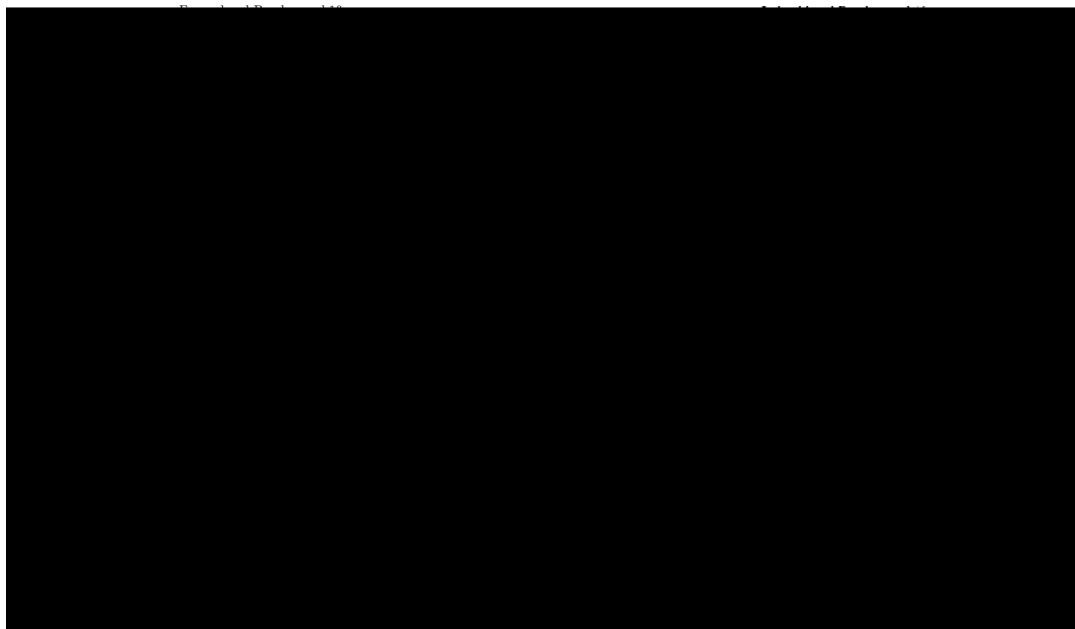


Figure 3: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency, 8 lags



Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Local Projections - Instrumental Variables where the

Figure 4: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency, 8 lags

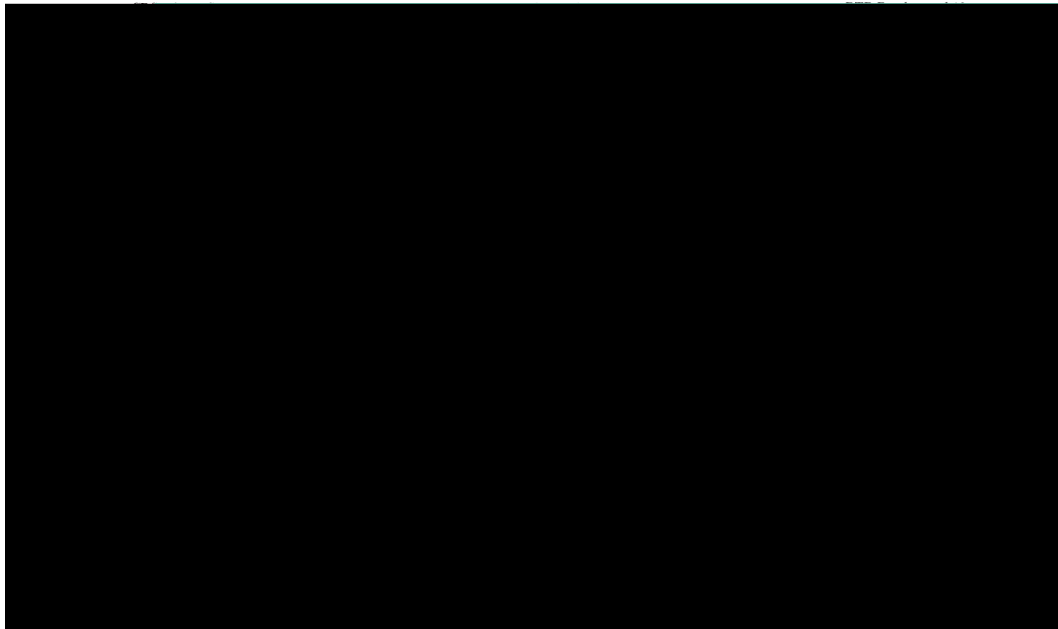


Impulse response functions of the difference between the 10-year sovereign bond yield and the 10-year bund yield of a series of euro-zone countries at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates and the indicator variable is CDSITA14, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 8 lags of the instrument and all the endogenous variables and the present together with 7 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

1.1.2 Dollar-denominated CDSITA03 as an alternative instrument

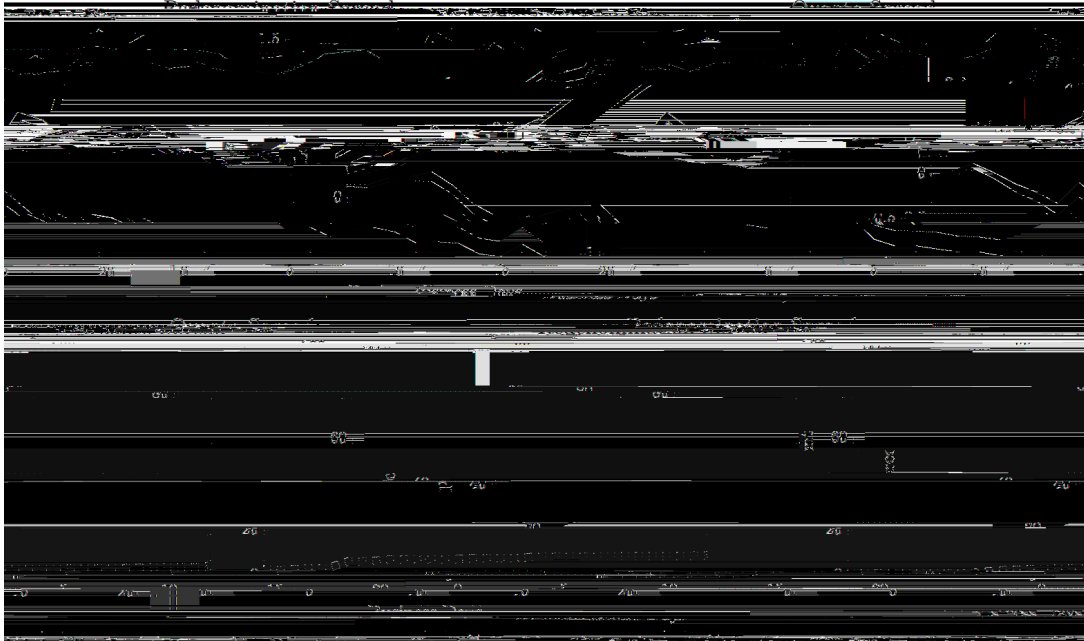
At a daily frequency, domestic and international results remain robust to using dollar-denominated CDSITA03 as an instrument (and indicator variable).

Figure 5: Financial variables: impulse responses at a daily frequency, CDSITA03 USD as an instrument



Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

Figure 6: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, CDSITA03 USD as an instrument



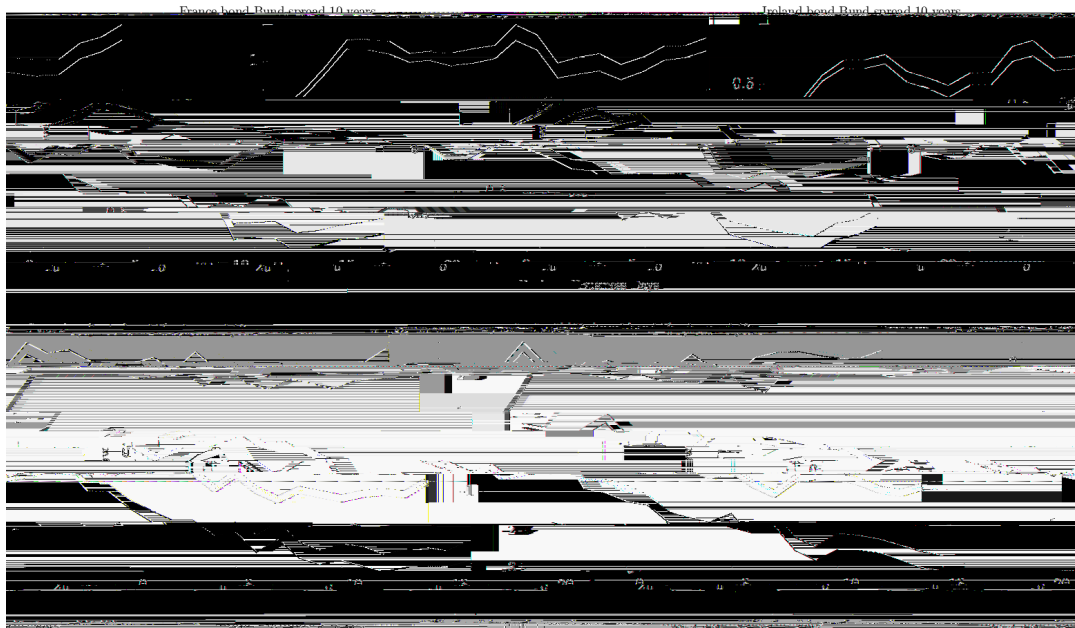
The first row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. The second row shows the lower bound of the variance of redenomination spread and quanto spread explained by political risk shocks.

Figure 7: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency, CDSITA03 USD as an instrument



Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous

Figure 8: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency, CDSITA03 USD as an instrument

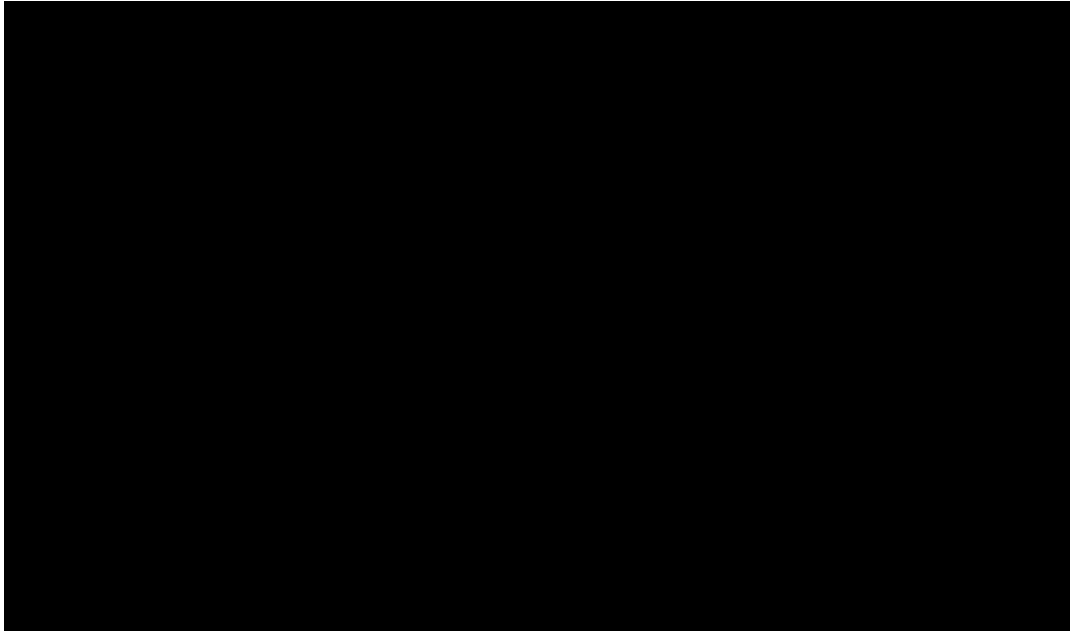


Impulse response functions of the difference between the 10-year sovereign bond yield and the 10-year bund yield of a series of euro-zone countries at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

1.1.3 Euro-denominated CDSITA14 as an alternative instrument

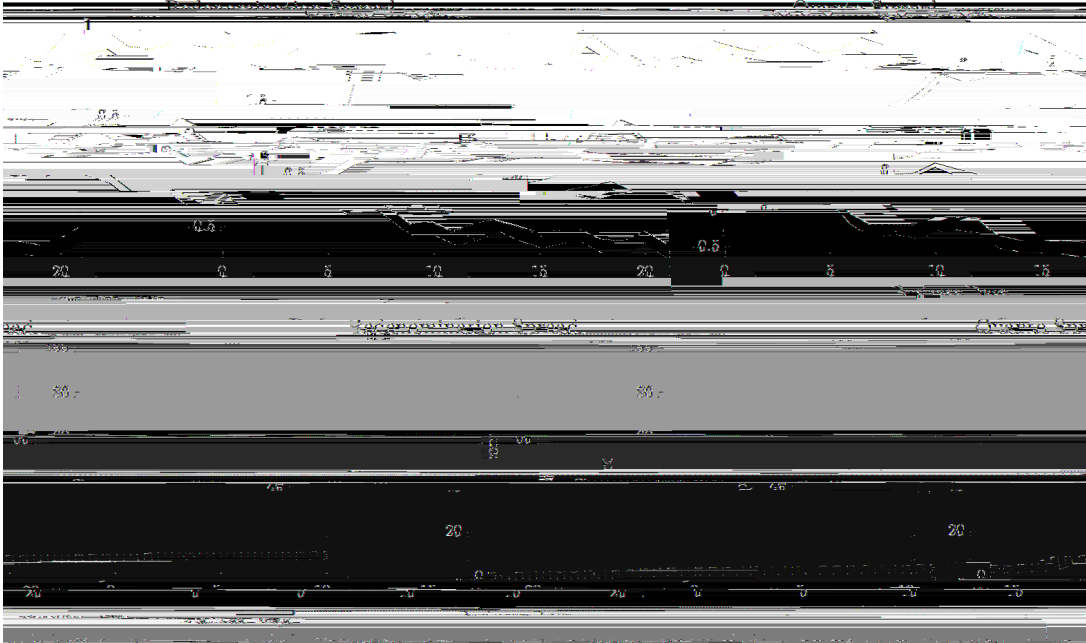
At a daily frequency, domestic and international results remain robust to using euro-denominated CDSITA14 as an instrument (and indicator variable).

Figure 9: Financial variables: impulse responses at a daily frequency, CDSITA14 EURO as an instrument



Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates and the indicator variable is CDSITA14, denominated in euros. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

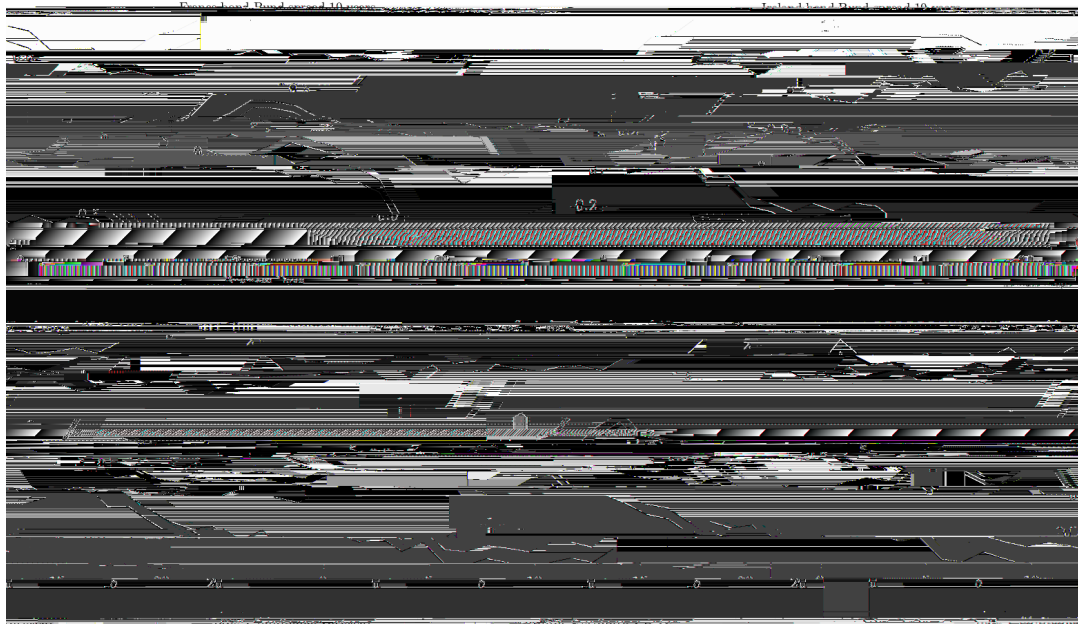
Figure 10: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, CDSITA14 EURO as an instrument



The first row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates and the indicator variable is CDSITA14, denominated in euros. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. The second row shows the lower bound of the variance of redenomination spread and quanto spread explained by political risk shocks.

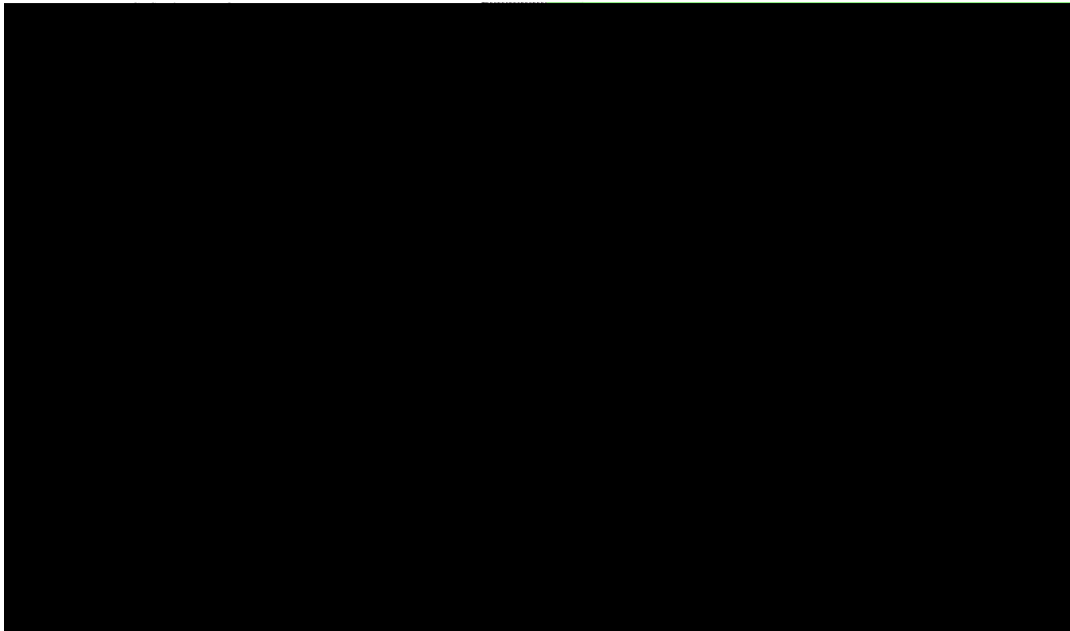
Figure 11: Spillover effects on sovereign CDS spreads for euro-

Figure 12: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency, CDSITA14 EURO as an instrument



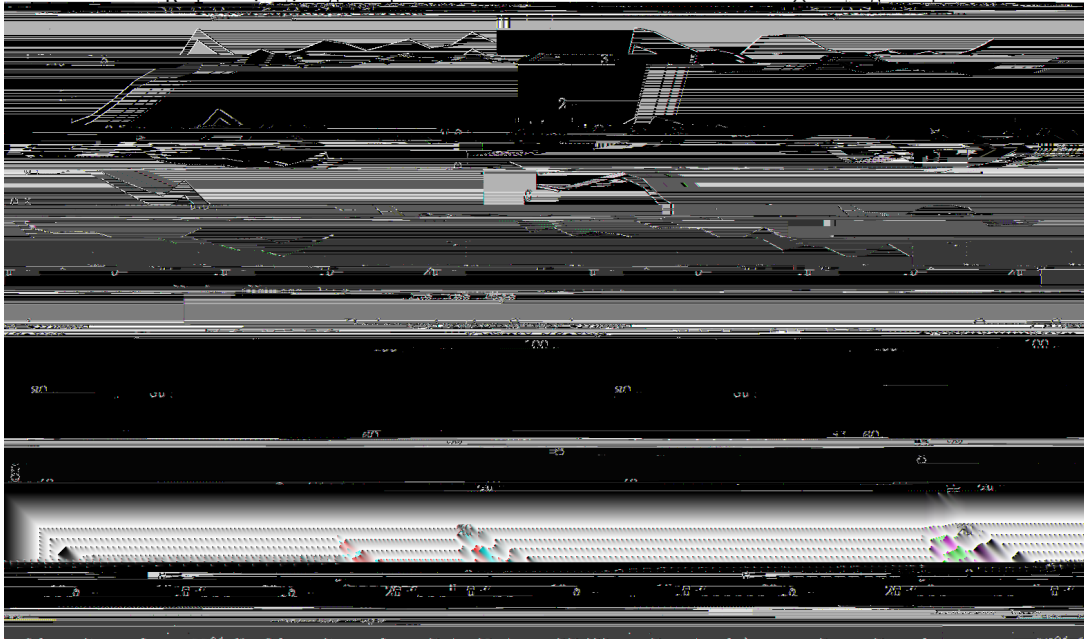
Impulse response functions of the difference between the 10-year sovereign bond yield and the

Figure 13: Financial variables: impulse responses at a daily frequency, CDSITA03 EURO as an instrument



Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the

Figure 14: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, CDSITA03 EURO as an instrument



The first row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in euros. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. The second row shows the lower bound of the variance of redenomination spread and quanto spread explained by political risk shocks.

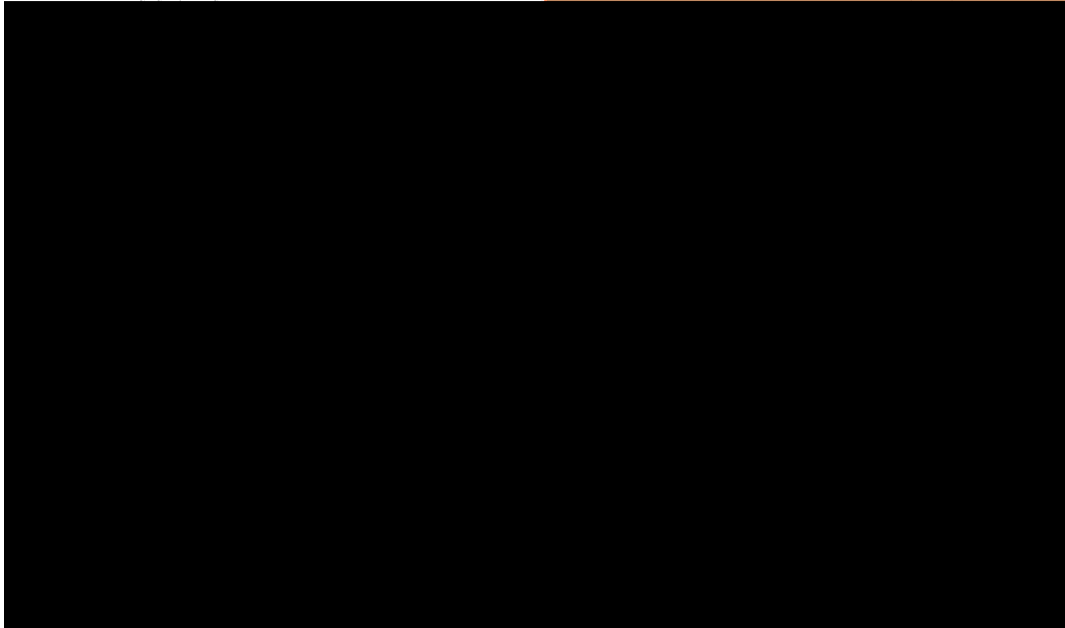
Figure 15: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency, CDSITA03 EURO as an instrument



Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in euros. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and

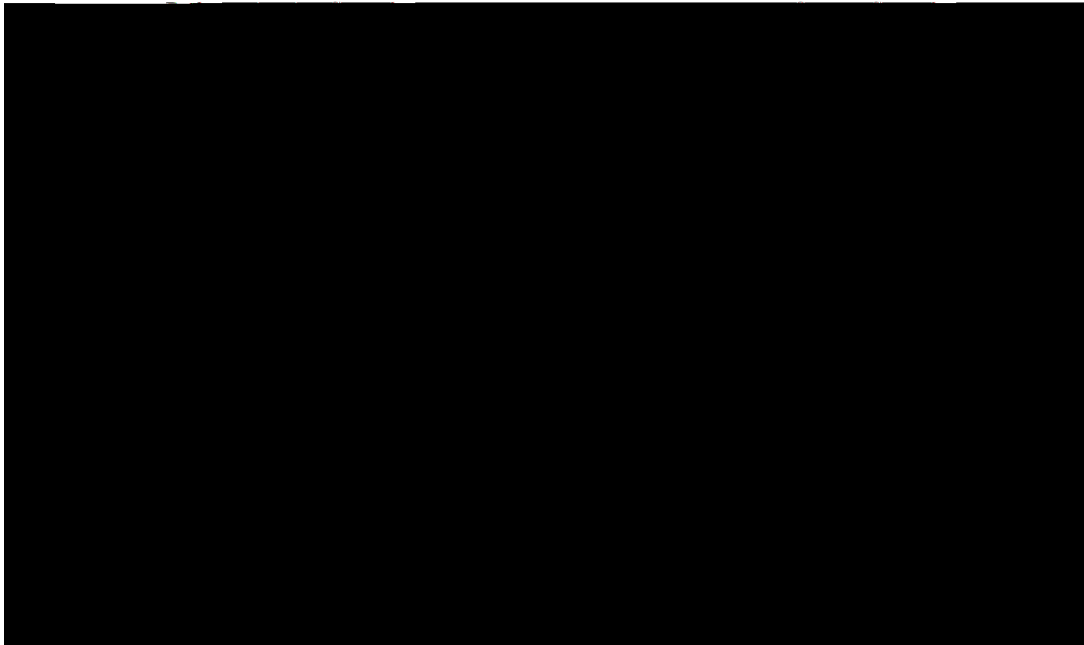
domestic daily results for Italy. To limit the length of the Online Appendix we have only included this robustness exercise for the spillover effects.

Figure 17: Financial variables: impulse responses at a daily frequency, excluding common EU dates



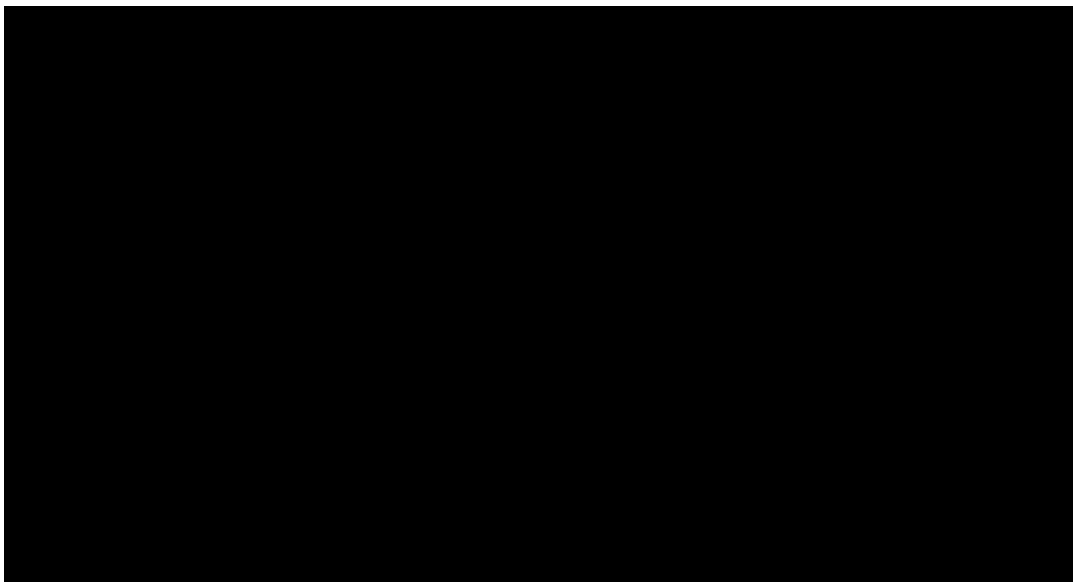
Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates minus eight dates common to the ones of other euro-zone countries and the indicator variable is CDSITA14, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

Figure 18: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, excluding common EU dates



The first row shows impulse responses of redenomination spread and quanto spread to a po-

Figure 19: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency, excluding those that are close to political dates for other European countries



Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates minus 15 dates that fall within a week-long 2-sided window around political dates for European countries. The indicator variable is CDSITA14, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

Figure 20: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency, excluding those that are close to political dates for other European countries

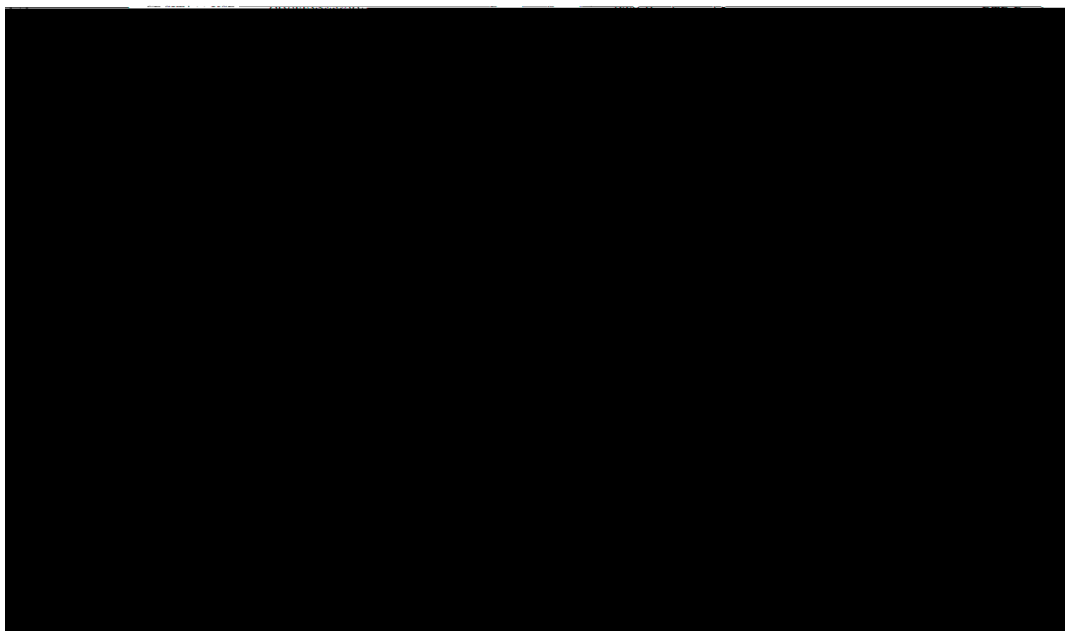


Impulse response functions of the difference between the 10-year sovereign bond yield and the 10-year Bund yield of a series of euro-zone countries at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on the selected dates minus 15 dates that fall within a week-long 2-sided window around political dates for European countries and the indicator variable is CDSITA14, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars.

1.1.6 Cholesky identification

At a daily frequency, the estimated impulse response functions obtained with LP-IV are similar to those obtained by putting our instrument after the VIX and the first principal component of euro-zone countries' CDS spreads, and before the other financial variables, and using a Cholesky identification strategy.

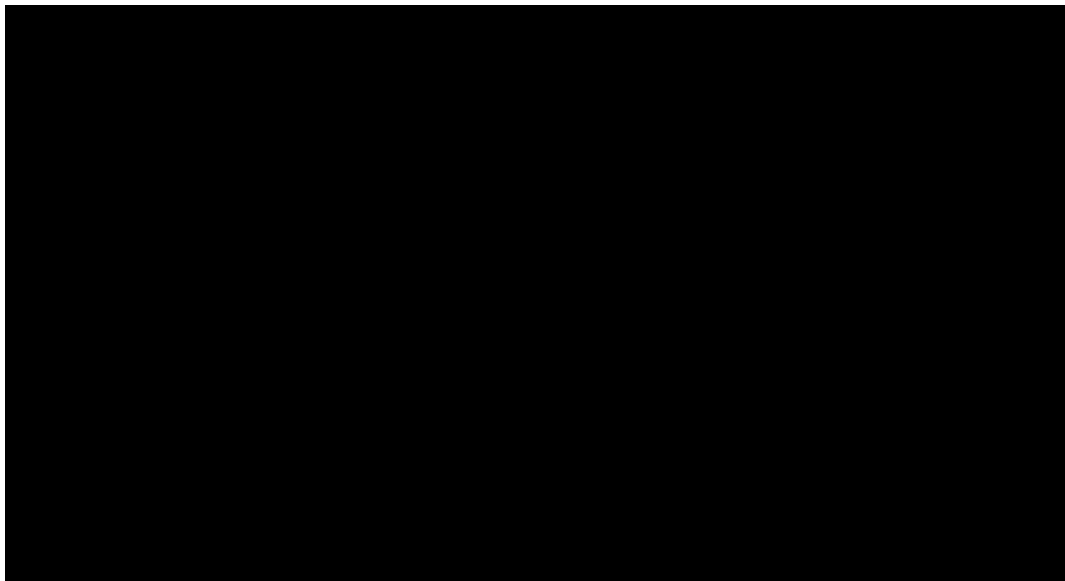
Figure 21: Financial variables: impulse responses at a daily frequency, Cholesky identification



Impulse response functions of domestic financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Cholesky where the order is: (i) the VIX, (ii) the first principal component of the change in the sovereign dollar-denominated CDS spread of the 2014-clause contract for euro countries, (iii) our instrument (the change in the CDS spread for the 2014-clause contract on the selected dates), (iv) the indicator variable (CDSITA14, denominated in dollars), and (v) the above endogenous variables. In the reduced-form VAR we control for 4 lags. Confidence bands are estimated with 2000 bootstrapped simulations. All the variables, except for the instrument enters, in the VAR in first differences. The estimated responses are then cumulated in the graph above.

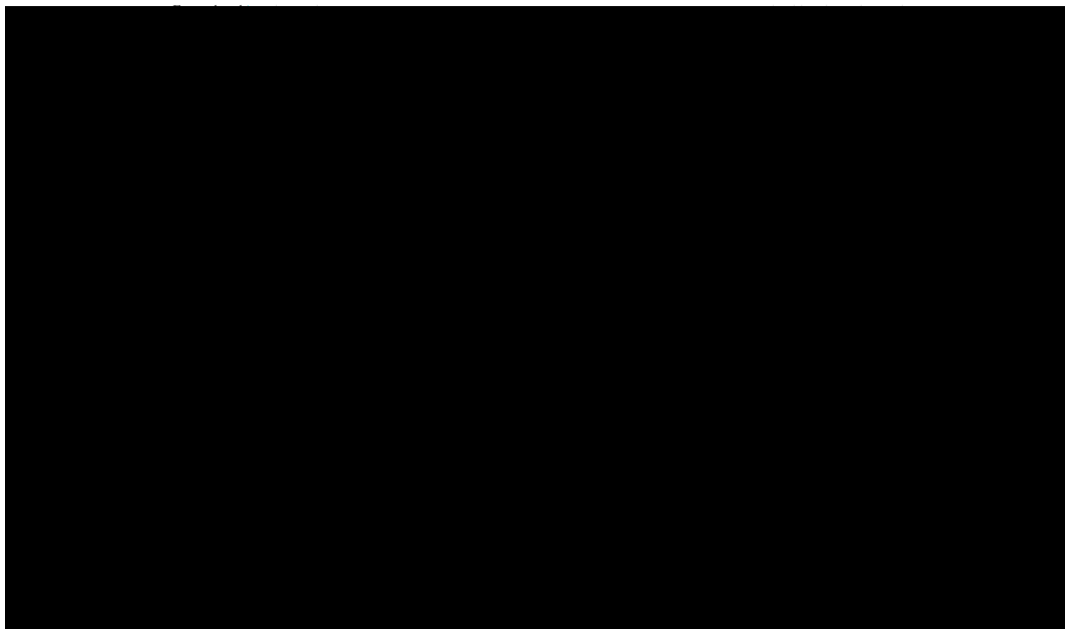
Figure 22: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency, Cholesky identification

Figure 23: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency, Cholesky identification



Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Cholesky where the order is: (i) the VIX, (ii) the first principal component of the change in the sovereign dollar-denominated CDS spread of the 2014-clause contract for euro countries, (iii) our instrument (the change in the CDS spread for the 2014-clause contract on the selected dates), (iv) the indicator variable (CDSITA14, denominated in dollars), and (v) the above endogenous variables. In the reduced-form VAR we control for 4 lags. Confidence bands are estimated with 2000 bootstrapped simulations. All the variables, except for the instrument enters, in the VAR in first differences. The estimated responses are then cumulated in the graph above.

Figure 24: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency, Cholesky identification

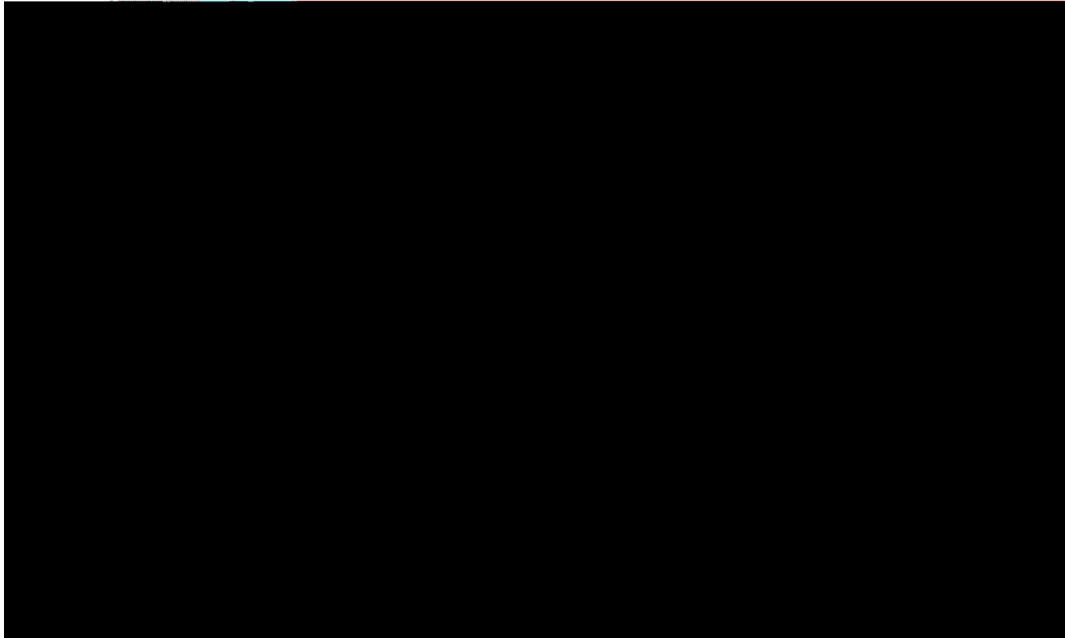


Impulse response functions of the difference between the 10-year sovereign bond yield and the 10-year bund yield of a series of euro-zone countries at a daily frequency. The solid black line is estimated via Cholesky where the order is: (i) the VIX, (ii) the first principal component of the change in the sovereign dollar-denominated CDS spread of the 2014-clause contract for euro countries, (iii) our instrument (the change in the CDS spread for the 2014-clause contract on the selected dates), (iv) the indicator variable (CDSITA14, denominated in dollars), and (v) the above endogenous variables. In the reduced-form VAR we control for 4 lags. Confidence bands are estimated with 2000 bootstrapped simulations. All the variables, except for the instrument enters, in the VAR in first differences. The estimated responses are then cumulated in the graph above.

1.2 Monthly frequency

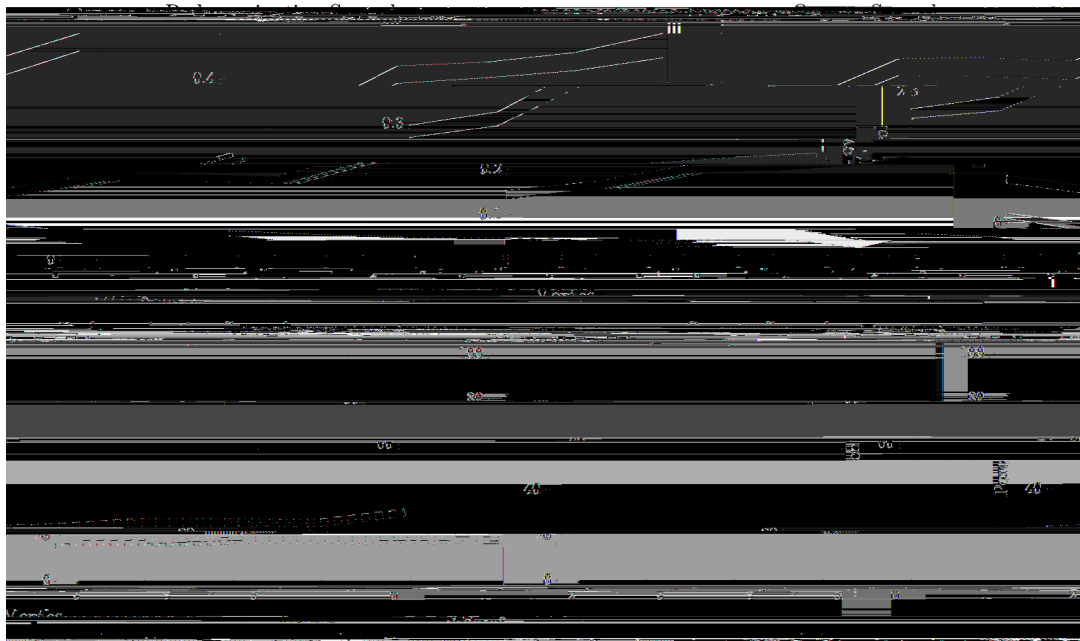
The domestic results at a monthly frequency are invariant to using the average of observations for the last 5-days of the month or the monthly average, instead of the end of the month observation for the endogenous variables.

Figure 25: Financial variables: impulse responses at a monthly frequency, mean of last 5 observations



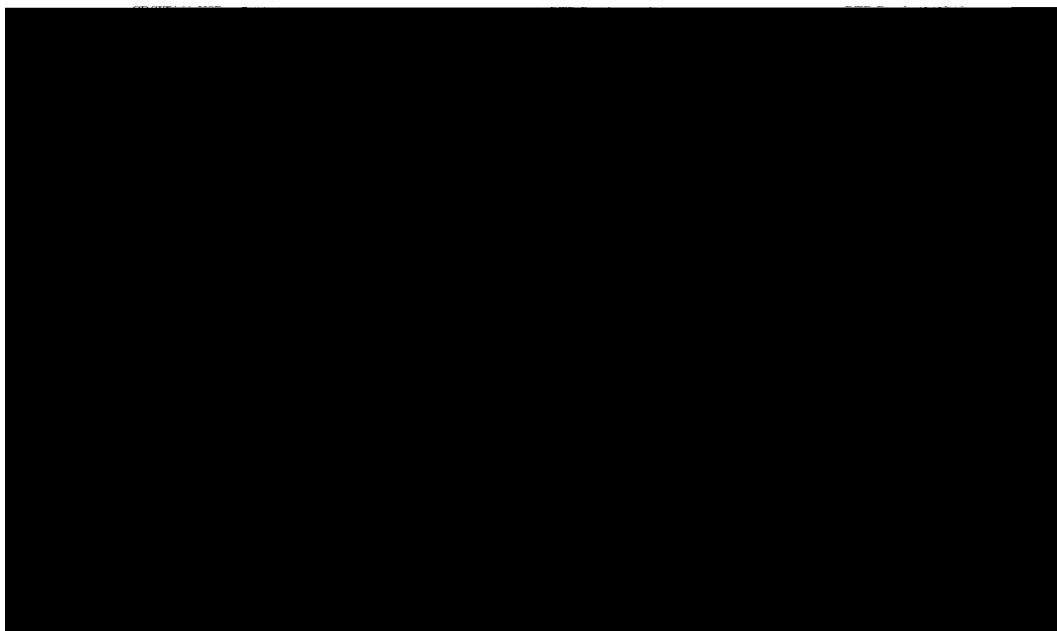
Impulse response functions of financial variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above.

Figure 26: Redenomination spread and quanto spread: impulse responses and variance decomposition at a monthly frequency, mean of last 5 observations



First row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. Second row shows the lower bound of the variance of redenomination spread and quanto spread explained by political risk shocks.

Figure 27: Financial variables: impulse responses at a monthly frequency, mean across the month



Impulse response functions of financial variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above.

Figure 28: Redenomination spread and quanto spread: impulse responses and variance decomposition at a monthly frequency, mean across the month



First row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on the selected dates and the indicator variable is CDSITA03, denominated in dollars. Confidence bands are estimated with 2000 block-bootstrapped simulations. Second row shows the lower bound of the variance of redenomination spread and quanto spread explained by political risk shocks.

2 Placebo test

In this section, we conduct a standard placebo test in which we apply our IV-LP procedure to a randomly selected set of dates equal in number to those include in our own original set. We then repeat this procedure 2000 times and present the 2.5th (5th) and 97.5 (95th) percentile for the impulse response functions obtained using the change of the CDS spread on the randomly selected dates as an external instrument in the same local projection context. The solid black line is the median. Both 90th and 95th confidence intervals include the zero at all horizons of the impulse response functions for all the variables, with one exception. The exception is the response of the change in the spread of the sovereign CDS on impact which is significant at the 10% level but not at the 5%. Note however, that the CDS is our indicator variable and by construction its coefficient on impact is normalized to be one and basically we are

Figure 29: Financial variables: impulse responses at a daily frequency; placebo



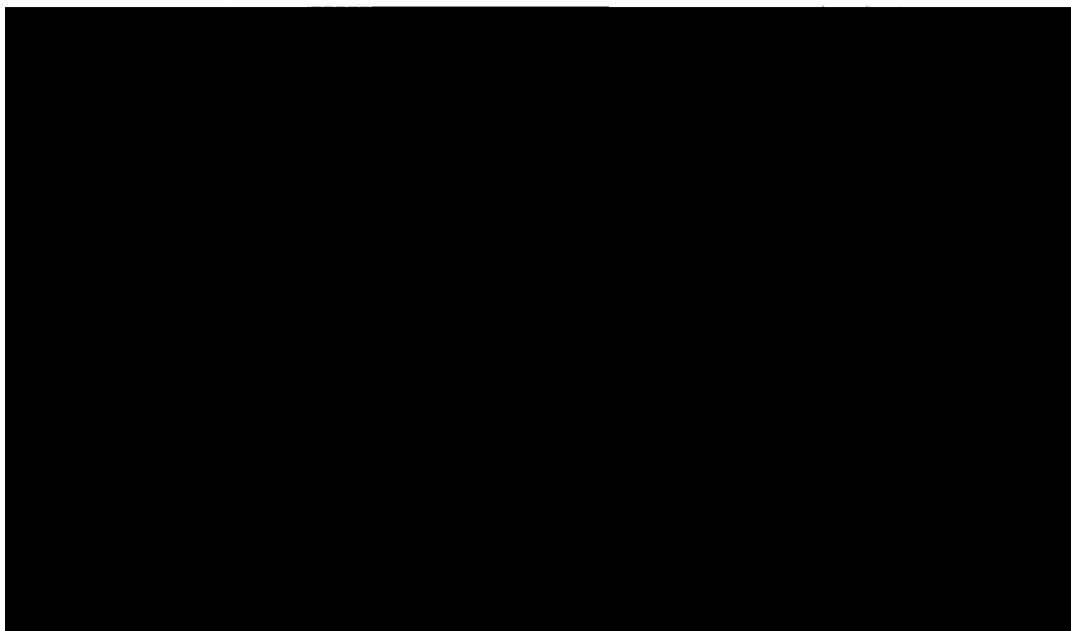
Impulse response functions of financial variables to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on random dates and the indicator variable is CDSITA14, denominated in dollars. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. The exercise is repeated 2000 times in order to select confidence interval and point estimate (median).

Figure 30: Financial variables: impulse responses at a monthly frequency; placebo



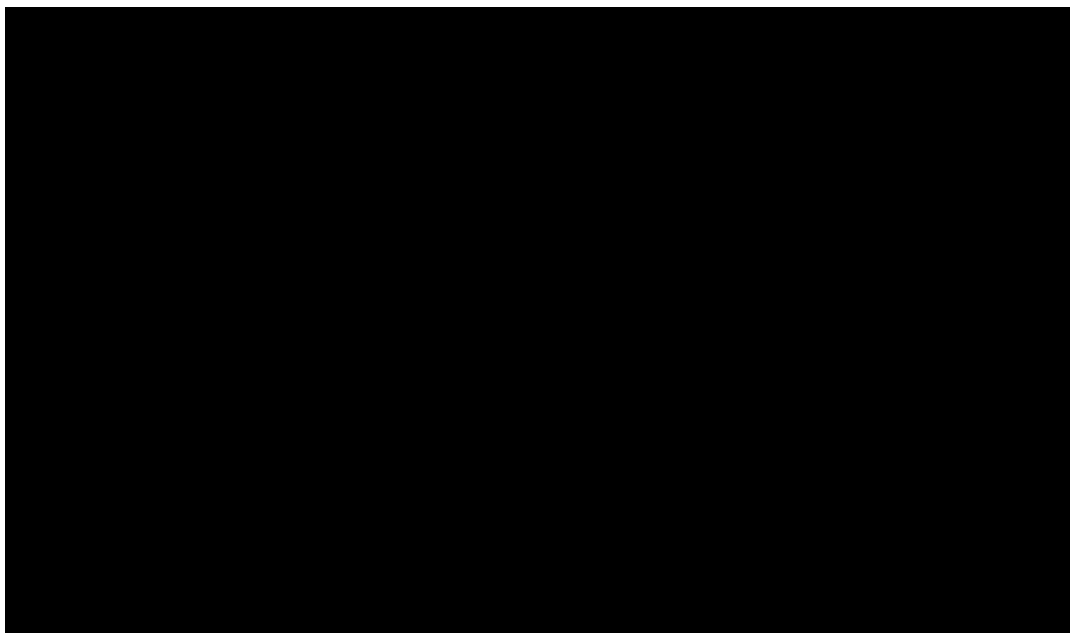
Impulse response functions of financial variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on random dates and the indicator variable is CDSITA03, denominated in dollars. The estimated responses are then cumulated in the graph above. The exercise is repeated 2000 times in order to select confidence interval and point estimate (median).

Figure 31: Redenomination spread and quanto spread: impulse responses and variance decomposition at a daily frequency; placebo



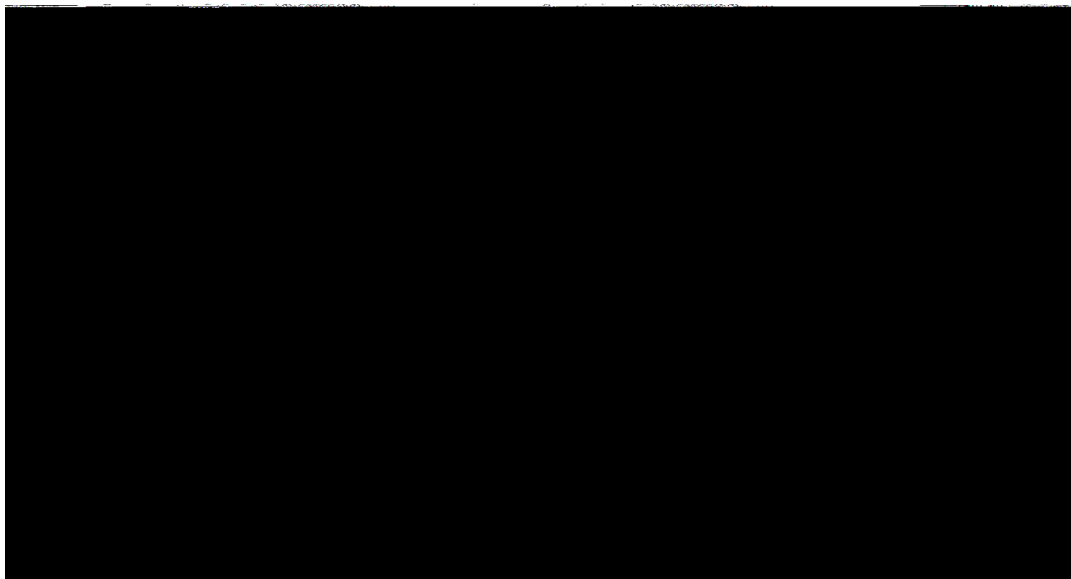
The first row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on random dates and the indicator variable is CDSITA14, denominated in dollars. We control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. The exercise is repeated 2000 times in order to select confidence interval and point estimate (median).

Figure 32: Redenomination spread and quanto spread: impulse responses at a monthly frequency; placebo



First row shows impulse responses of redenomination spread and quanto spread to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on random dates and the indicator variable is CDSITA03, denominated in dollars. The exercise is repeated 2000 times in order to select confidence interval and point estimate (median).

Figure 33: Spillover effects on sovereign CDS spreads for euro-zone countries: impulse responses at a daily frequency; placebo



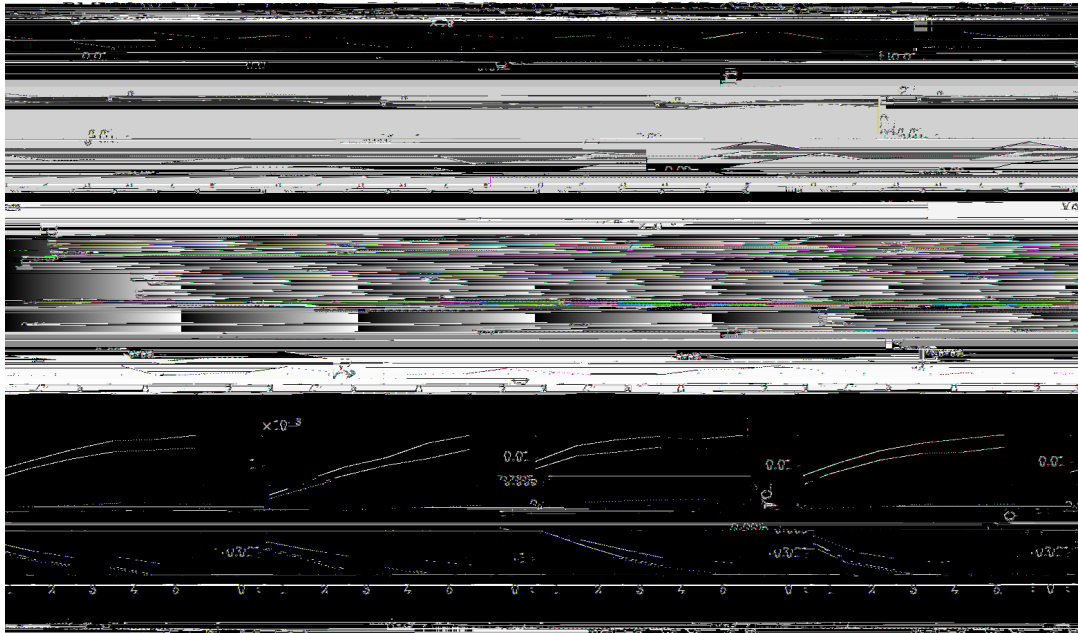
Impulse response functions of euro-zone country sovereign CDSs to a political risk shock at a daily frequency. All CDS contracts are denominated in dollars and use the 2014 clause. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on random dates and the indicator variable is CDSITA14, denominated in dollars. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for euro countries, denominated in dollars. The exercise is repeated 2000 times in order to select confidence interval and point estimate (median).

Figure 34: Spillover effects on gov. bonds yields relative to the Bund for euro-zone countries: impulse responses at a daily frequency; placebo



Impulse response functions of the difference between the 10-year sovereign bond yield and the 10-year bund yield of a series of euro-zone countries at a daily frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2014-clause contract (CDSITA14) on random dates and the indicator variable is CDSITA14, denominated in dollars. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. In each regression, we control for 4 lags of the instrument and all the endogenous variables and the present together with 3 lags of a measure of international volatility (VIX) and the first principal component of the change in the sovereign CDS spread of the 2014-clause contract for

Figure 35: Real variables: impulse responses at a monthly frequency; placebo



Impulse response functions of real variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the change in the CDS spread for the 2003-clause contract (CDSITA03) on random dates and the indicator variable is CDSITA03, denominated in dollars. The endogenous variables are the log-transformation of the Purchasing Manager Index of the manufacturing sector (PMI Manufacturing), the log-difference between the Italian PMI Manufacturing and the Global PMI Manufacturing, the level of the Composite Leading Indicator from OECD database (OECD CLI), and the log-transformation of a survey of firms' confidence (Firm Confidence). For more information on the sources and interoperability of those variables see Appendix A. Results are shown using different detrending techniques: (i)

3 Other

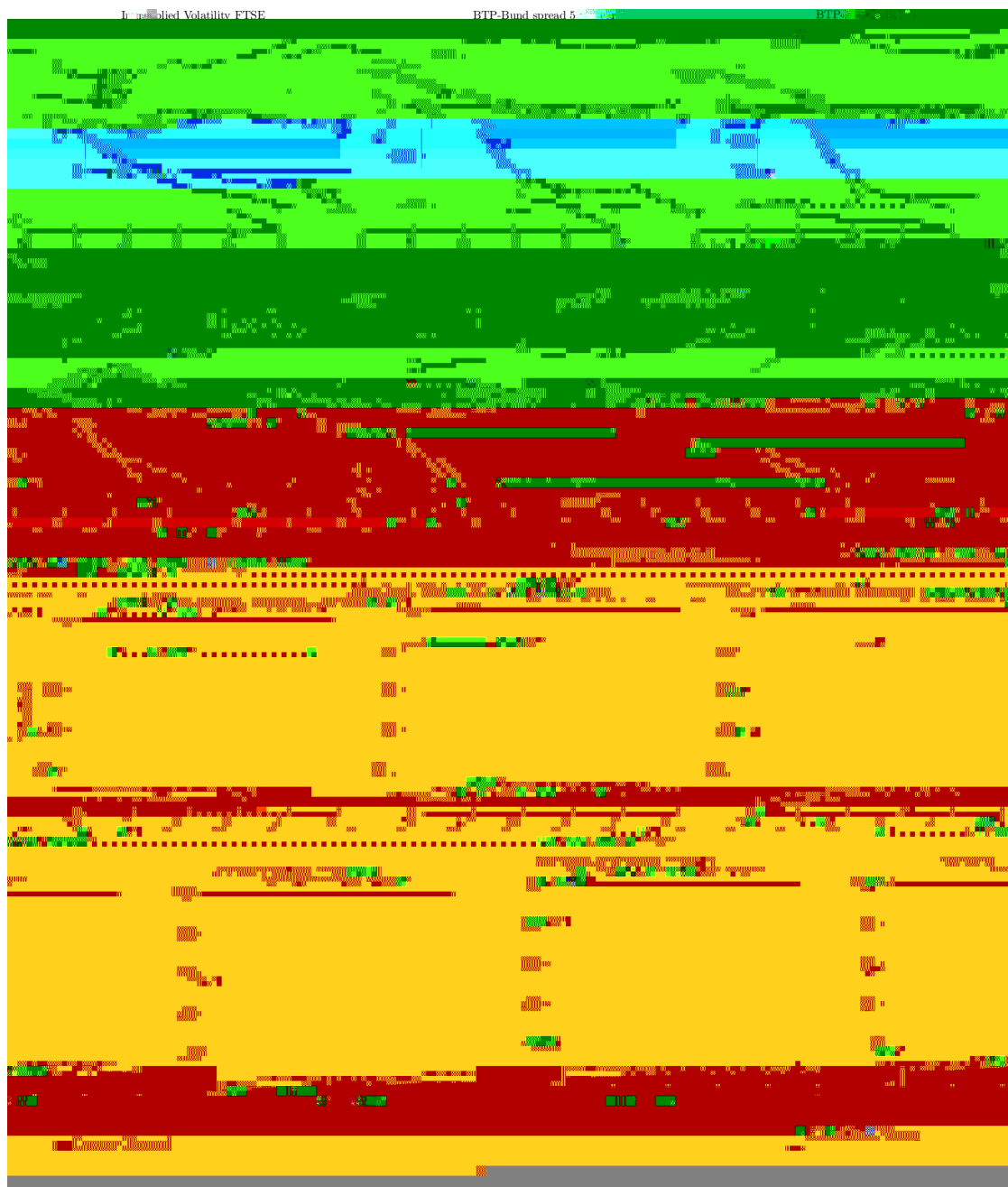
Table 2: First stage regressions

Table 1: International comparison

	Real GDP	Nominal GDP	Debt	Surplus	Primary Surplus	Interest Payment	Multifactor Product.
All (2002-2018)	Germany	1.30	70.0	-1.08	1.12	2.21	0.62
	Ireland	4.69	64.1	-4.74	-2.56	2.18	1.03
	Greece	-0.12	130	-6.90	-2.27	4.63	-0.72
	Spain	1.52	329	-4.08	-1.72	2.36	-0.34
	France	1.23	255	-3.95	-1.51	2.44	-0.11
	Italy	0.11	182	-3.09	1.44	4.52	-0.04
Portugal	0.55	246	-5.26	-1.72	3.55	0.34	
Pre-Crisis (2002-2007)	Germany	1.29	64.3	-2.60	0.22	2.82	0.82
	Ireland	5.29	835	0.97	2.07	1.10	0.98
	Greece	4.04	736	-6.90	-2.08	4.82	1.14
	Spain	3.36	740	0.73	2.70	1.97	-0.51
	France	1.87	396	-3.20	-0.43	2.77	0.02
	Italy	0.99	363	-3.10	1.67	4.77	-0.16
Portugal	1.08	437	-4.73	-1.98	2.75	0.65	
Crisis (2008-2012)	Germany	0.77	76.4	-1.72	0.80	2.52	0.21
	Ireland	-1.42	-225	-14.8	-12.0	2.74	1.08
	Greece	-5.31	-375	-11.1	-5.42	5.72	-3.62
	Spain	-1.28	-81	-9.16	-7.02	2.14	-0.82
	France	0.37	150	-5.52	-2.88	2.64	-0.43
	Italy	-1.36	015	-3.68	1.00	4.68	-0.18
Portugal	-1.36	-80	-7.78	-4.14	3.64	-0.35	
Post-Crisis (2013-2018)	Germany	1.76	335	0.97	2.30	1.33	0.81
	Ireland	9.17	113	-2.10	0.68	2.78	1.08
	Greece	0.05	-54	-3.37	0.17	3.53	-0.04
	Spain	2.01	261	-4.65	-1.72	2.93	0.24
	France	1.29	201	-3.40	-1.45	1.95	0.07
	Italy	0.45	140	-2.58	1.57	4.15	0.31
Portugal	1.61	326	-3.70	0.57	4.27	0.60	

Real GDP is the growth rate of GDP at chain linked prices (2010), Nominal GDP is the growth rate of GDP at current prices, Debt is the government debt to GDP ratio, Surplus is the total government surplus to GDP ratio

Figure 37: Financial variables: impulse responses and forecast error variance decomposition at a monthly frequency using Implied Volatility FTSE as an instrument



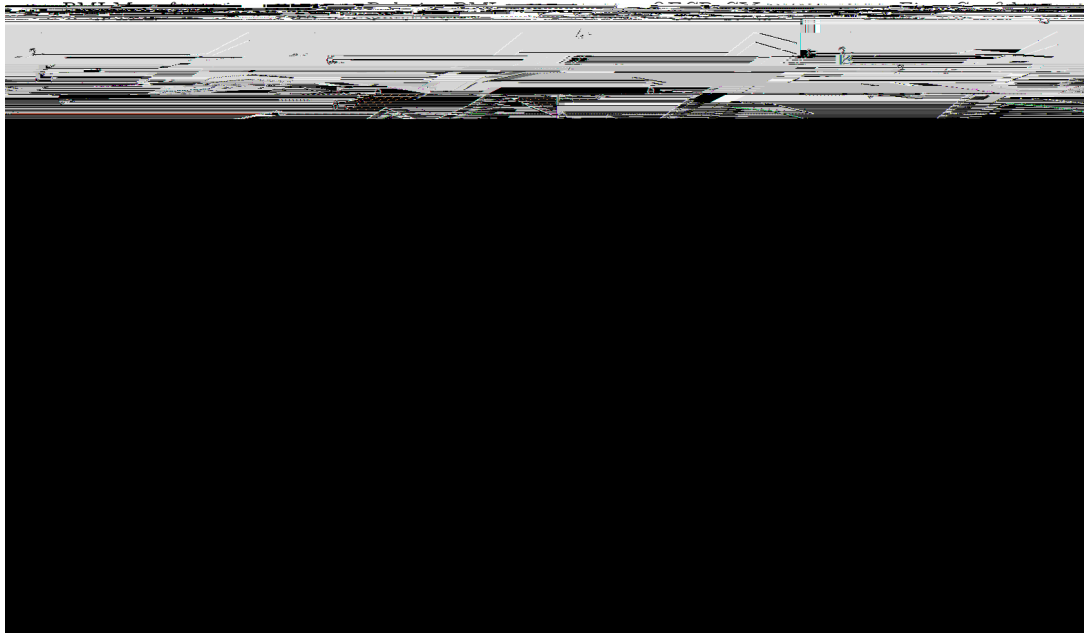
First two rows show impulse response functions of financial variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the log-change in the implied volatility of the FTSE on the selected dates and the indicator variable is the implied volatility of the FTSE. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. Third and fourth show the respective forecast error variance decomposition.

Figure 38: Financial variables: impulse responses and forecast error variance decomposition at a monthly frequency using FTSE as an instrument



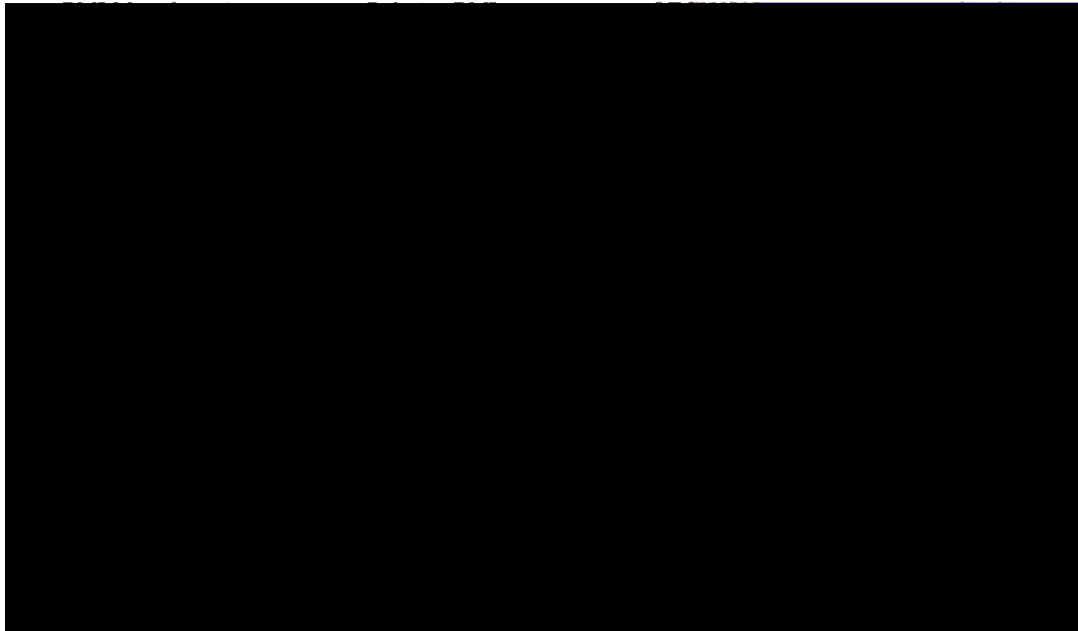
First two rows show impulse response functions of financial variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections - Instrumental Variables where the instrument is the log-change in the FTSE on the selected dates and the indicator variable is the FTSE. Confidence bands are estimated with 2000 block-bootstrapped simulations. All the variables enters in the LP-IV regressions in first differences. The estimated responses are then cumulated in the graph above. Third and fourth show the respective forecast error variance decomposition.

Figure 39: Real variables: impulse responses at a monthly frequency using Implied Volatility FTSE as an instrument



Impulse response functions of real variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections{Instrumental Variables where the instrument is the log-change of Implied Volatility of the FTSE on the selected dates and the indicator variable is Implied Volatility of the FTSE. The endogenous variables are the log-transformation

Figure 40: Real variables: impulse responses at a monthly frequency using FTSE as an instrument



Impulse response functions of real variables to a political risk shock at a monthly frequency. The solid black line is estimated via Local Projections{Instrumental Variables where the instrument is the log-change of the FTSE on the selected dates and the indicator variable is the FTSE. The endogenous variables are the log-transformation of the Purchasing Manager Index of the manufacturing sector (PMI Manufacturing), the log-difference between the Italian PMI Manufacturing and the Global PMI Manufacturing, the level of the Composite Leading Indicator from OECD database (OECD CLI), and the log-transformation of a survey of firms' confidence (Firm Confidence). For the sources and definitions of those variables see Appendix A. In each regression, we control for one lag of the endogenous variable under consideration and one lag of the instrument. Results are shown using different detrending techniques: (i) *BP Filter* is the High Pass Filter removing periodicities above 24 frequencies; (ii) *Quadratic Trend* is a standard time quadratic trend; (iii) *Level* is variables without being treated and controlling for the past value of the dependent variable in each regression. Confidence bands are estimated with 2000 block-bootstrapped simulations.