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ABSTRACT

Financial Crises and Liberalization: Progress or Reversals?*

Financial crisis can trigger policy reversals, i.e. they can lead to a process of re- regulation of financial markets. Using a recent comprehensive dataset on financial liberalization across 94 countries for the period between 1973 and 2015, we formally test the validity of this prediction for the member states of the European Union as well as for a global sample. We contribute by (a) using a new up-to-date dataset of reforms and crises and (b) subjecting it to a combination of difference-in-differences and local projection estimations. In the global sample, our findings consistently confirm that crises lead to a reversal of liberal reforms, suggesting that governments react to crises by re-regulating financial markets. However, in a dynamic setting with impulse-responses, we also find that these new regulations are only temporary and a liberalization process restarts a few years after a financial crisis. One decade later, financial markets have returned to their pre-crisis level of liberalization. In the EU sample, however, we do not find sufficient evidence to support these observations.

JEL Classification: G01, G28, P11, P16

Keywords: financial reforms, financial crises, reform reversals, local projections

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1. Introduction

It is difficult to overestimate the economic and political turbulence in the aftermath of financial crises. What usually starts as a panic in a single financial market or institution usually propagates in a rapid pace to other agents of the economy and necessitates an urgent reaction from the policymakers. However, it is not easy to predict, a priori, whether the reaction of the policymakers to such news would be in the direction of further reforms; that is, the optimal policy change during/after a financial crisis may not necessarily aim to further liberalise the markets. As financial institutions and markets become dysfunctional in the midst of a crisis, governments may feel the urge to intervene in the sector, for instance bailing out the failed banks and/or increasing the ex-post efforts to better regulate the misbehaving institutions. This could be politically unavoidable especially when the cause of the crisis is commonly perceived to be the "free-markets" and the public sentiment turns against the financial industry as well as the bankers at its helm. On the other hand, such periods of instability may act as a catalyst for pushing forward the otherwise-impossible but necessary liberalisation agendas that might have been stuck due to private interests or lack of political enthusiasm. In that case, financial crises could open a window of opportunities to make sharp changes in policy space, in line with the more general crises-beget-reforms hypothesis (Drazen and Grilli, 1993; Drazen and Easterly, 2001).

The experience of the European Union in the last two decades suggests that the first argument might be closer to the truth. Using the latest indexes of financial reform from OECD, Figure 1 shows that the overall level of financial liberalization in EU countries had a slightly upward trend before the Global Financial Crisis (GFC), after which it reversed and had a sharp drop especially during/after the recent Eurozone debt turmoil. Hence, in 15 years and after 2 major financial crises, it appears that there has been no progress in Europe regarding financial liberalization as the region went back to the levels it had around 2000.

When the EU is separated into Euro and Non-Euro members, one observes in Figure 2 that the initial upward trend in liberalization efforts mainly came from the EU countries that were not part of the Eurozone during that period. This group is mostly comprised of East European countries which had to reform their economies to gain EU membership. However, once the convergence between these new members and the old ones was completed and the EU access was granted, new members started diverging again, the speed of which seems to have only accelerated with the Global Financial Crisis.

Better identifying the impact of the Eurozone debt crises on the liberalization process requires dividing the Eurozone sample further into the countries that were and were not struck by the crises. Figure 3 illustrates the evolution of the reform process in crisis-stricken

(GIIPS) and other (Non-GIIPS) Euro member states. It is obvious that both groups have been converging towards each other until 2008, which is what one would expect among the members of a financially-integrated currency union. However, when the global financial crisis struck, this convergence gradually stopped and both groups started de-liberalizing their financial markets. This negative trend continued later only in the countries experiencing debt crises, which led to further reform divergence within the currency union.

Are these experiences unique to Europe? Is there a case to be made that financial crises lead countries to deliberalize their financial markets? If so, are these policy changes temporary and aimed at curbing the imminent financial crisis or rather do they represent the long-term choices permanently changed by the policy equilibrium in the country? In this paper, we shed light on these questions and show that while financial crises lead to more government intervention (i.e., less liberalization) in the short-term; reform efforts kick in afterwards and countries gradually liberalize their financial markets again catching up with the others in the medium-to-long term.

What is special about financial liberalization? Why is it a particularly appropriate setting to test the crises-beget-reforms in general and in the EU specifically? We think this is a particularly appropriate setting because financial liberalisation changes relatively quickly. Other reforms (consider labour market reforms) respond much more slowly, with considerable implementation lags. This fast response allows us to disentangle short- from long-run effects (a subject that has gained huge importance as demonstrated by the voluminous literature surveyed by Loayza, Ouazad, and Rancire (2018)). Moreover, the financial reform-financial crisis combination yields a setting which is favorable to confirm the hypothesis. In other words, we should be extra confident if we don't find a strong positive effect from crisis to reforms in this setting. Additionally, contrasting the global sample with the EU is of interest in light of the literature that posits that the positive effect of financial integration on the speed of convergence is indeed one of the factors that makes Europe different from the rest of the world (Friedrich, Schnabel, and Zettelmeyer, 2013).

We employ two strategies in our empirical framework. First, by using a quasi-difference-in-differences methodology in a panel setting, we compare the level of financial liberalization between the two periods immediately before and after a financial crisis, which helps us capture the causal impact of the financial crisis itself. Our findings suggest that, even though small on average in terms of their economic magnitude, all types of financial crises have a negative effect on the reform process. Moreover, we also find that reversals are strongest after the sovereign debt defaults followed by currency crises whereas banking crises seem to have a relatively more modest impact.

Second, we explore the dynamic relationship between financial (banking) crises and vari-

ous areas of financial reform by using a flexible methodology estimating the impulse-response functions via local projections (Jordà, 2005). On average, we find that a banking crisis leads to a rapid reduction in the degree of overall financial liberalisation in the first two years after the shock. However, after the second year, governments restart the reform efforts and fully catch up with other countries in a duration of 2-4 years, sometimes even ending up with a more liberalized financial market at the end of a 10-year-long window after a crisis.

This result is also obtained for various aspects of the reform process. We show that government ownership in the banking sector increases substantially as bailouts become necessary. Controls on the domestic credit as well as on the international capital flows are introduced in the very short-term, possibly to stop potential bank runs and restore confidence in the financial system. Moreover, negative public and policy sentiment during banking crises seem to spread even towards the alternative sources of finance as asset (security) markets also suffer from the de-liberalisation process. Nevertheless, in the medium-to-long-term, countries gradually catch up with the others and the initial effect of state interventionism disappears in each and every reform area.

These findings contribute to the literature by providing systematic evidence for the argument that financial crises might spur reform reversals using a new and up-to-date data set and a novel methodological approach. Thus, we conclude that crises often generate reform dynamics that change the current level of liberalization first by making the policymakers more likely to restrict the market activities in order to contain the crisis and then restarting the liberalization process to catch up with others.

The evidence here builds on the somewhat ambiguous and not always consistent- results provided by a long stream of papers in the literature. Bruno and Easterly (1996), in possibly the first empirical attempt to tackle the question of whether crises feed reforms,[1] show that countries experiencing high-inflation periods are more likely to undertake efforts for subsequent macroeconomic stabilisation. Perotti (1999) illustrates that fiscal adjustments are more likely to be successful during times of fiscal stress than in normal times. Although they fail to find consistent evidence for all types of economic underperformance, Drazen and Easterly (2001) point out that the positive relationship between high inflation (or black market premium) today and in the future turns negative in extreme cases which is consistent with the idea that only sufficiently high economic turbulence leads to subsequent corrections in macroeconomic policies. Alesina, Ardagna, and Trebbi (2006) analyse the interaction between crises and political environment and provide evidence that inflation and budget crises lead to better macroeconomic performance later, especially when the government has

[1]Earlier literature treating crises as a pre-condition for reform mostly depends on country-specific case studies. For seminal examples, see Nelson (1990), Krueger (1993) and Williamson (1994).

strong popular support.

Beyond the studies that investigate the stabilisation processes after difficult economic periods and simply treat such cases of adjustment as reforms, Lora (1998) is one of the first to construct actual policy indices in five main reform areas. Although his sample is limited in coverage (i.e., only Latin American economies), he finds some evidence that certain reform efforts respond to certain types of crises. Specifically, trade and labour reforms seem to be triggered by drops in growth and income whereas financial reforms are pushed by inflationary problems. Following a similar de jure policy measurement approach, Abiad and Mody (2005) construct a more granular index of financial reforms for a global set of countries and support the view that financial crises drive policy changes, though not always in the same direction. While balance-of-payment crises are likely to be pro-liberalization, banking crises turn out to act in the opposite way, encouraging reversals. However, using an instrumental-variables approach to deal with the potential reverse causality problem between crises and reforms, Pepinsky (2012) shows that currency crises lead developing countries to close their capital accounts as a form of self-help. In a recent contribution, Mian, Sufi, and Trebbi (2014) focus on the political fragmentation and how voters adopt more extreme ideological views in the aftermath of financial crises. In parallel with voter polarization and the resulting weak coalition governments, they argue that financial liberalization seem to experience a deadlock and rather reverse in most post-crisis episodes.

We add to these studies by providing robust evidence (for any crisis or reform type) that financial crises lead to policy changes, with more government intervention in the short-term and a gradual liberalization in the medium-to-long term. Hence, by taking a more nuanced view, we can try to reconcile the previous evidence in the literature and point out the relative importance of the time horizon in the crises-beget-reforms debate.

The paper proceeds as follows. The next section describes the construction of the dataset. Section 3 explains the methodology we employ. Section 4 presents the results alongside the related discussion. Section 5 concludes.

2. Data

The objective of this section is to describe how we assemble a most up-to-date and comprehensive data set of financial crises and financial reforms, respectively.

In the literature, the standard dataset on various areas of financial reform in the cross-country setting has been the one constructed by Abiad, Detragiache and Tressel (2010; henceforth, ADT), which in turn builds on the earlier and smaller set of observations compiled

by Abiad and Mody (2005).[2] ADT assesses 7 dimensions of financial policy in 91 countries over the years from 1973 to 2005. Specifically, it includes 5 indices directly related to the domestic banking sector (credit controls, interest rate controls, entry barriers, privatization, and supervision), 1 index on restrictions in international capital movements and 1 on asset markets (security market regulation). Each of these variables are constructed through a set of standardized questions for which responses can be coded discretely and then aggregated to represent the extent of liberalization in each reform area. They take values between 0-1, higher values implying more liberalization except the area of banking supervision where an increase implies more government intervention, and thus less liberalization. For this reason, we use the banking supervision index in the reversed form (1-x) in our estimations to make sure that our sign interpretations are consistent across different indices.[3]

One major setback in the empirical research after the Global Financial Crisis has been the fact that these indices have not been updated by the authors, preventing economists from analyzing the financial reform dynamics since 2005. Fortunately, Denk and Gomes (2017) have recently attempted to fill in this gap by extending the original ADT until 2015 (henceforth, DG). These authors follow the same methodological approach for the years from 2005 to 2015 and keep the original coding rules when aggregating responses to individual questions. One exception they make is to change the index on capital account restrictions where, instead of posing the original questions in ADT, they directly input the index built by Chinn and Ito (2006), which is probably the most widely used measure of capital account openness in the literature.[4] Compared to the original methodology of Abiad et al. (2010), DG also drops one question in the credit controls section, which is not a material change given that half of the observations for this question in the original ADT were missing in the first place.[5] Their data also goes 5 more years back in time to 2000 where the original ADT series already exist and they confirm that their scores are very comparable to the ones obtained in the original dataset. For the few cases in which there is little divergence, they keep their own scores for consistency.

As a result, DG is composed of 7 financial reform indices for the years from 1973 to 2015 for 43 countries. 38 of these already existed in the original ADT and 5 new countries were added by DG; hence the new ones only have observations for the years from 2000 to

[2]Some of the recent studies employing this dataset include Mendoza, Quadrini, and Rios-Rull (2009), Prati, Onorato, and Papageorgiou (2013) and Giuliano, Mishra, and Spilimbergo (2013).

[3]For the details on the specific questions used for each index, see Abiad et al. (2010).

[4]As Denk and Gomes (2017) puts it, Chinn-Ito index is highly correlated with the original index in ADT (up to 2005) and other commonly used capital account indices in the literature

[5]Next section (Methodology) describes how we control for the possible biases that may arise due to these differences between the two datasets.

2015.[6] For our analysis, we first take the full panel created by DG and then merge it with the remaining (53) country-time-series from ADT. Hence, we obtain an unbalanced panel consisting of 96 countries over the period from 1973 to 2015. To our knowledge, this is the first study analyzing this most comprehensive and recent dataset of financial reforms.

Table 1 presents the summary statistics for the seven sub-indices as well as the overall financial reform variable, which is the simple average of these sub-indices.[7] Both the full sample at the global level and the subsample at the European Union level are shown. It is obvious that within our sample period in the full sample, there has been at least one country that was not liberalized at all (0) or fully liberalized (1) at some point for each reform area. This is a reassurance that policy questions composing the de-jure measures do not specify unachievable targets for liberalization. However, for the average financial reform, these extreme points have never been reached by any country, implying that there is no country in our sample that receives all 0s or 1s simultaneously at each dimension. On average, liberalization seems to have been highest in banking supervision, followed by entry barriers and interest rate controls. Privatization turns out to be the least liberalized area on average with significant state presence in domestic banking sectors. As expected, the overall financial liberalization in EU is much higher than the global average within our sample period.

For the dating of the financial crises, we resort to the classic dataset from the IMF (Laeven and Valencia, 2013) which has recently been updated by the original authors (2018). This includes the starting dates for three different types of financial crises, namely banking, currency and sovereign debt crises. Coverage is quite large compared to alternative datasets (such as Reinhart and Rogoff (2011)), covering 165 countries between the years 1970 and 2017. All types of crises are represented with a dummy variable taking the value of 1 in the initial year of the crisis and 0 for the rest (see Table 1). Hence, we are unable to trace the length of a crisis (or depth for that matter) in general. However, we can observe the end dates for the banking crises only, which helps us create a continuous dummy for this type and use it in the later part of the analysis with local projections.

In addition, for the EU sample, we update the IMF dataset by manually adding the following country-years for sovereign debt crises: Greece (2010, 2011, 2012, 2013, 2014, 2015); Cyprus (2012, 2013, 2014); Ireland (2010, 2011, 2012); Italy (2011, 2012); Portugal (2010, 2011, 2012); Spain (2011, 2012). Similarly, we add the following country-years in EU for the banking crises: Greece (2011, 2012, 2013, 2014, 2015); Cyprus (2012, 2013, 2014);

[6] These new countries are Iceland, Luxembourg, Saudi Arabia, Slovakia and Slovenia.

[7] Table is constructed only with the observations that remain in the analysis after merging the reform database with financial crises. Less than 2% of the full reform dataset is dropped after the merging process.

Ireland (2011, 2012); Italy (2011, 2012); Portugal (2011, 2012); Spain (2011, 2012).[8]

After merging financial crises with the reform database previously constructed by joining two separate datasets (ADT & DG), we end up with 105 banking, 121 currency and 38 sovereign debt crises within the global sample as well as 30 banking, 16 sovereign and 2 currency crises within the EU subsample.

3. Methodology

We are first interested in the causal impact of financial crises on the process of financial liberalisation, which is not an easy task to accomplish given the possible reverse causality in this kind of a relationship. It has long been suspected that liberalization processes themselves may lead to economic/financial crises, with many anecdotal examples especially from Latin American countries (Green, 1997). Another empirical problem is that countries experiencing crises may have a different reform pace (too fast or too slow) or they may be at a different stage of their liberalization process when they get hit by a financial crisis. If that is the case, one might accidentally capture the country-specific nature of the liberalisation process rather than the effect of the crisis itself.

Despite these possibilities, very few papers explicitly tackle the identification issue in a cross-country setting.[9] We attempt to solve this problem in three steps. First, we do not only estimate what happens to the reform process after a crisis; but we also check if the countries had any diverging reform trends before the crises struck so as to make sure that any pre-crisis trends are controlled. Hence, we obtain a quasi diff-in-diff estimate by directly comparing the countrys liberalization levels just before and after a financial crisis.

Second, we implicitly control for the pace of liberalization process specific to each country by including country-varying time trends in our estimations.

Third, we benefit from the high dimensionality of our dataset (with multiple reform areas) and include a full set of fixed effects with interactions across dimensions in order to non-parametrically control for potentially omitted variables.

[8]We use TARGET2 balances and government bond spreads to track down these specific county-year crisis observations.

[9]Two exceptions are Pepinsky (2012), who uses an instrumental-variables approach to analyse the impact of currency crises on capital account liberalisation, and Mian et al. (2014), who use a panel diff-in-diff setting similar to ours comparing the level of reforms before and after the crises.

Specifically, we estimate the following equation:

$$FinancialLiberalisation_{i,t,r} = \beta_1 \times POSTcrisis_{i,t} + \beta_0 \times PREcrisis_{i,t} + \sum_i \mu_i \times d_t + \delta_i + \alpha_t + \lambda_r + \varepsilon_{i,t,r} \quad (1)$$

where i represents country, t year and r specific reform index. μ_i is a dummy for each country and d_t is a linear time trend. In the baseline estimation, we include the basic set of fixed effects at the country (δ_i), year (α_t) and reform (λ_r) levels and saturate the specification at later estimations. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any crisis in the sample including the starting year itself. *PREcrisis* is a binary dummy for the 5 years immediately preceding the same financial crisis. Therefore, our diff-in-diff estimate (average treatment effect of a crisis) is given by the test of the following difference:

$$ATE = \beta_1 - \beta_0$$

Next our focus shifts to the dynamic aspects of the relationship between crises and reforms. Specifically, we would like to observe the persistence of the average treatment effect in the aftermath of financial crises. For this purpose, we utilise a flexible methodology, namely local projections (LPs), popularized by Jordà (2005).[10]

The main tenet of this method is to estimate the average treatment effect at changing horizons of interest rather than extrapolating it from a given model which heavily depends on the correct specification of the data generating process (as in VARs). Hence, local projections are more robust to misspecification and their analytic inference is simpler.

Formally, we run the following model to generate impulse response functions via LPs:

$$FL_{i,t+p} = \beta^p \times C_{i,t} + \sum_{k=1}^{4} \emptyset_k^p \times C_{i,t-k} + \sum_{k=1}^{4} \omega_k^p \times FL_{i,t-k} + \sum_i \mu_i^p \times d_t + \delta_i^p + \alpha_t^p + \varepsilon_{i,t}^p \quad (2)$$

where FL stands for financial liberalization index, C for crisis and p for changing horizons into the future. We reiterate the model up to 10 years after year t (p=[1..10]) and obtain the impulse-responses by plotting the β^p coefficients from each iteration.

Here, instead of using the post-crisis dummy as an independent variable of interest (as in Equation 1), we resort to the time-continuous variable of banking crises for which we can see the end-dates in Laeven and Valencia (2018) and thus can locate the exact length of the

[10] For recent papers making use of local projections, see Mian, Sufi, and Verner (2017), Ramey and Zubairy (2018) and Romer and Romer (2017; 2018).

crisis in time. This helps us avoid making assumptions regarding the length (persistency) of the average shock, which may distort our estimates for the dynamic relationship between crises and reforms.

4. Results

4.1. Panel difference-in-differences

Results from the estimation of Equation 1 on the global full-sample are reported in Table 2. The first column shows the baseline model with a set of fixed effects at country, year and reform levels. Our concern for the existence of diverging reform trends prior to the average financial crisis is confirmed here. However, contrary to the argument that crises themselves may be caused by the liberalisation process, the PREcrisis variable produces a significantly negative coefficient. Hence, the usual reverse causality issue in the literature (i.e, liberal reforms causing crises), which would predict a positive coefficient for PREcrisis, is not confirmed here and the difference between two coefficients before and after the financial crisis (PREcrisis vs. POSTcrisis) is estimated as approximately -0.02 at 8% significance level. On the other hand, these pre-trends still constitute a concern for identification since it is possible that crises only strike countries when they have low levels of liberalization or the countries that are too slow (or fast) reformers might experience financial crises with different probabilities.

In order to check whether the pace of reforms (or any unobserved country-level factor with a trend) could explain this pattern, we turn to the second column where we add country-specific linear time trends into the baseline specification. It turns out that the diverging pre-trends disappear after this addition, confirming our earlier concern that crises may be hitting the countries with a particular reform speed or level. The diff-in-diff coefficient is even stronger with an estimate lower than -0.03 at 0.1% significance level. Nevertheless, the magnitude of this average treatment effect is quite modest compared to the average financial liberalisation in the sample (which is 0.58, see Table 1). This constitutes our first evidence showing that policymakers react to financial crises by increasing government intervention in financial markets.

One more concern for our empirical strategy is the possibility of breaks in the data and how these may bias the estimates in one way or another, especially if the different authors preparing the two datasets had in mind different criteria when judging the countries liberalisation levels in the more subjective parts of the questionnaire. It is hard to imagine a test to check for such differential biases between the two datasets; however what we can do

is that, assuming that such biases would apply to all countries by the specific researchers, we could add fixed-effects at the interaction of reform types and years. This assures that any systematic bias in any index at any year (conditional on it being applied against or towards all countries for that reform-year) is taken into account. The third column in Table 2 reports the results with these fixed-effects and there does not seem to be any material change compared to the previous column, confirming that the combination of indices from two different sources has a minimal impact on our estimates.

The fourth and fifth columns in Table 2 add interacted fixed effects of country and reform dummies, meaning that any systematic component of liberalization that may have been missed or not captured constantly over time for a specific country and reform area would be subsumed by these dummies. The results again confirm that such potential mismeasurement issues do not seem to be important in our sample. Overall, we have sufficient evidence to conclude that the average effect of a crisis on financial liberalization is significantly negative.

An important additional investigation can be pursued by separating this average effect for different types of crises. Table 4 re-estimates the Equation 1 with separate dummies for banking, sovereign debt and currency crises in the full-sample. Again, our conclusions for different models are very similar to the ones discussed above. Diff-in-diff estimates turn out to be significantly negative for 14 out of 15 estimations, with the exception of the baseline model (column I) for banking crises which apparently suffers from the existence of diverging trends prior to the crisis events. In terms of economic magnitude, the largest effect comes from sovereign debt crises (0.064), followed by currency (0.036) and banking crises (0.021).

We repeat the above analyses on the EU sub-sample and report the corresponding results in Tables 3 and 5. Despite still being negative, the diff-in-diff estimates reported here are generally smaller and statistically indistinguishable from zero. Hence, it seems that we cannot obtain much evidence from the EU sub-sample regarding the relationship between crises and reforms. On the one hand, it is possible that the small sample size here prevents us from reaching statistical significance. On the other hand, EU, as an institutional anchor, might prevent its members from reducing market liberalization after financial crises, thus decreasing the size of the estimates in this sub-sample. A contributing factor could be the potentially large lobbying power of commercial banks in Europe since the banking sector composes a big chunk of the overall financial system in many European countries, a phenomenon called "bank-bias" in the literature (Langfield and Pagano, 2016). It is possible that a stronger banking sector might have more resources to resist potential government interventions in the aftermath of financial crises. More research will be necessary to confirm these hypotheses.

4.2. Baseline local projections

Impulse-responses of the level of financial liberalization to a banking crisis shock (Equation 2) are shown in Figure 4. The initial shock has a significantly negative contemporaneous effect on liberal reforms, the size of which (0.02) is similar to the diff-in-diff estimates reported in Table 4. The effect stays at approximately the same level for the next 3 years, after which a gradual re-liberalization process starts and countries catch up in 5-6 years with the liberalisation levels of the countries that did not experience a crisis. This illustrates that, on average, banking crises have sudden but short-term negative effects on financial market liberalization. Such evidence supports the view that these temporary interventions stem from the policymakers' efforts to curb the crisis; and once the crisis is over, reforms reverse back to their long term equilibrium.

In the next step, our aim is to trace these dynamics in various sub-areas of financial liberalization. Figure 6 presents the results from the estimation of Equation 2 with various financial reform sub-indices as dependent variables. First, we find that credit controls are introduced in the same and the following year after a banking crisis; but later disappear, supporting the claim that this financial policy might be used for curbing the crisis in the immediate aftermath rather than being part of a long-term policy agenda.

Second, there is no evidence that interest rates are de-liberalized. Though the contemporaneous response seems to be negative, confidence bands are too large to be conclusive.

Third, there is some evidence that entry barriers to the domestic banking sector are temporarily increased, though not immediately but 2-3 years after the crisis. Out of the 4 questions that comprise this sub-index, it is likely that the effect comes from the restrictions on banks pushing them to engage only in banking activities rather than becoming universal.[11]

Fourth, additional capital controls stay in place up to 4 years after the shock, which could be due to the fear of capital flights even after the end of a crisis.

Fifth, privatization is the reform area where the initial de-liberalization process is the strongest. This sub-index is only comprised of the degree of government ownership in the domestic banking sector. Hence, the change of hands in the banking sector from private to state is clearly visible during the immediate aftermath of a banking crisis, possibility due to bailouts of the failing banks and government takeovers after the initial shock. However the liberal reform process seems to restart after 3 years and governments fully privatize in 6 years the additional banks they had acquired during the crisis. This tendency even goes a bit further in the other direction, meaning that countries struck by crises may end up with a more privatized banking sector in the long-term.

[11] The other 3 questions are on foreign bank entry, domestic bank entry and restrictions on bank branching (see Denk and Gomes (2017)).

An additional insight in Figure 6 comes from the observation that banking supervision does not seem to suffer much after a banking crisis. In fact, after the immediate insignificant negative response to the crisis, there is weak evidence that banking supervision is relaxed in the medium-term, possibly due to the lobbying power of the banking industry which may push for less regulation after the immediate harm of the banking crisis is forgotten in the public sphere.

Finally, security markets liberalization seems to be affected negatively by the shock. The lowest level is significantly reached after 4 years. This is a bit surprising given that security markets constitute an alternative to the traditional bank financing and thus would be expected to be liberalised further after a banking crisis so that the harmful effects of the bank failures on domestic lending could be eased. This does not seem to be the case in Figure 6, which leads us to think that the negative attitude and public distrust in the aftermath of a banking crisis pushes policymakers to reverse financial reforms even in distantly related areas, creating a sort of contagion effect across various policy dimensions.[12]

Again, we repeat the impulse-response estimations for the EU sub-sample and plot the results in Figures 5 and 7. As in the earlier section, the evidence here is almost always insignificant implying that the negative relationship between crises and financial reforms may not hold for European countries. The sample size is again a potential problem as confidence intervals seem to get wider at longer horizons in these plots. On the other hand, the estimates for the contemporaneous relationship are sufficiently close to zero, suggesting at least that the lack of evidence for the negative initial reaction to crises may not be due to sample size but because of the institutional factors relevant to the EU sample.

4.3. Robustness checks

For the panel analysis, we have done various robustness checks in the following way: (1) when defining the financial crises (POSTcrisis & PREcrisis), dummies are turned off for the start-dates and the years immediately before and after the start-dates in order to make sure that we do not pick up any temporary policy response to the crisis (see the appendix Tables A1 and A2); (2) in addition to the previous exclusion, we also exclude the years that fall within both PREcrisis and POSTcrisis periods (see the Tables A3 and A4); (3) as an alternative to the list of financial crises in Laeven and Valencia (2018), we try with the Reinhart and Rogoff (2011) dataset, which has a smaller country coverage (see the Table A5

[12]Part of the security market sub-index is composed of a question related to how well-developed security markets are and short-selling bans that are usually introduced around financial crises could affect this component. However, it is hard to argue that such temporary bans on short-selling can explain the persistence of the impulse-responses up to 4 years.

as well as Tables A6a and A6b).

For the local projections generating impulse-responses, we have tried (1) different lag structures (see the appendix Figures A1a, A1b,A2a andA2b); (2) dropping time trends (see Figures A3a and A3b); (3) clustering standard errors at the country level (see Figures A4a and A4b).

And in general, we have re-run the analysis only with the original financial reform dataset (from Abiad et al., 2010), which ends in 2005 and covers 91 countries (see the Tables A7 and A8 as well as Figures A5a and A5b).

None of these robustness checks implies qualitative changes in our findings.

5. Conclusion

The literature on the determinants of structural reforms generally suggests that turbulent periods should play a key role in changing the policy equilibrium and thus spurring liberal reforms. Despite various theoretical mechanisms that may support this prediction, the empirical evidence in the literature so far seems to have been mixed at best. Using a recent comprehensive dataset on financial reforms across 94 countries for the period between 1973 and 2015, we test the validity of this prediction for the financial sector specifically in the aftermath of financial crises.

We provide evidence that financial crises in general lead to reversals in financial market liberalization in the short-term; however countries struck by a crisis gradually catch up with the others in the long-term. In fact, such difference in the short-term vs long-term dynamics might be one of the underlying reasons why the evidence in the previous literature is so weak regarding the "crises-beget-reform" hypothesis.

Empirically we use two complementary approaches. First, by using a quasi-difference-in-differences methodology in a panel setting, we compare the level of financial liberalisation between the two periods immediately before and after a financial crisis, which helps us capture the causal impact of the financial crisis itself. Our findings suggest that, even though small on average in terms of economic magnitude, all types of financial crises have a negative effect on the reform process. These reversals are the strongest in the case of sovereign debt defaults followed by currency crises whereas banking crises seem to trigger relatively more modest reversals.

Second, we explore the dynamic relationship between financial crises and various areas of financial reform by using a flexible methodology estimating the impulse-response functions via local projections (Jordà, 2005). On average, we find that a banking crisis leads to a rapid reduction in the degree of overall financial liberalisation with the re-liberalisation

process kicking in after about 3 to 4 years and the overall negative effects gradually dying out in the long-term. This is also true for various aspects of the reform process. We show that government ownership in the banking sector increases substantially as bailouts become necessary. Controls on the domestic credit as well as on the international capital flows are introduced in the very short-term, possibly to stop potential bank runs and restore confidence in the financial system. Moreover, negative public and policy sentiment during banking crises seem to spread even towards the regulation of alternative sources of finance as asset (security) markets also suffer from the de-liberalisation process. All of these sub-areas of financial liberalization eventually recover from the initial state interventions and countries catch up with others 5-6 years after a financial crisis.

When repeated on the smaller EU sample, our analysis turns out to be less fruitful and we find a lack of evidence on the de-liberalisation process after crises. On the one hand, it is possible that the small sample size here prevents us from reaching statistical significance. On the other hand, the EU single market and common currency, as an institutional anchor, might prevent its members from reducing market liberalization after financial crises, thus decreasing the size of the estimates in this sub-sample. A contributing factor could be the potentially large lobbying power of commercial banks in Europe since the banking sector composes a big chunk of the overall financial system in many European countries. It is possible that a stronger banking sector might have more resources to be able to resist potential government interventions in the aftermath of financial crises. Lastly, since most of the countries in this subsample are democracies, it is possible that their policy reactions are structurally different than others, which may lead to the divergences we detect in this subsample. It could be an interesting endeavour for future research to investigate these potential channels within the EU context and understand their relative importance in determining policy responses after financial crises.

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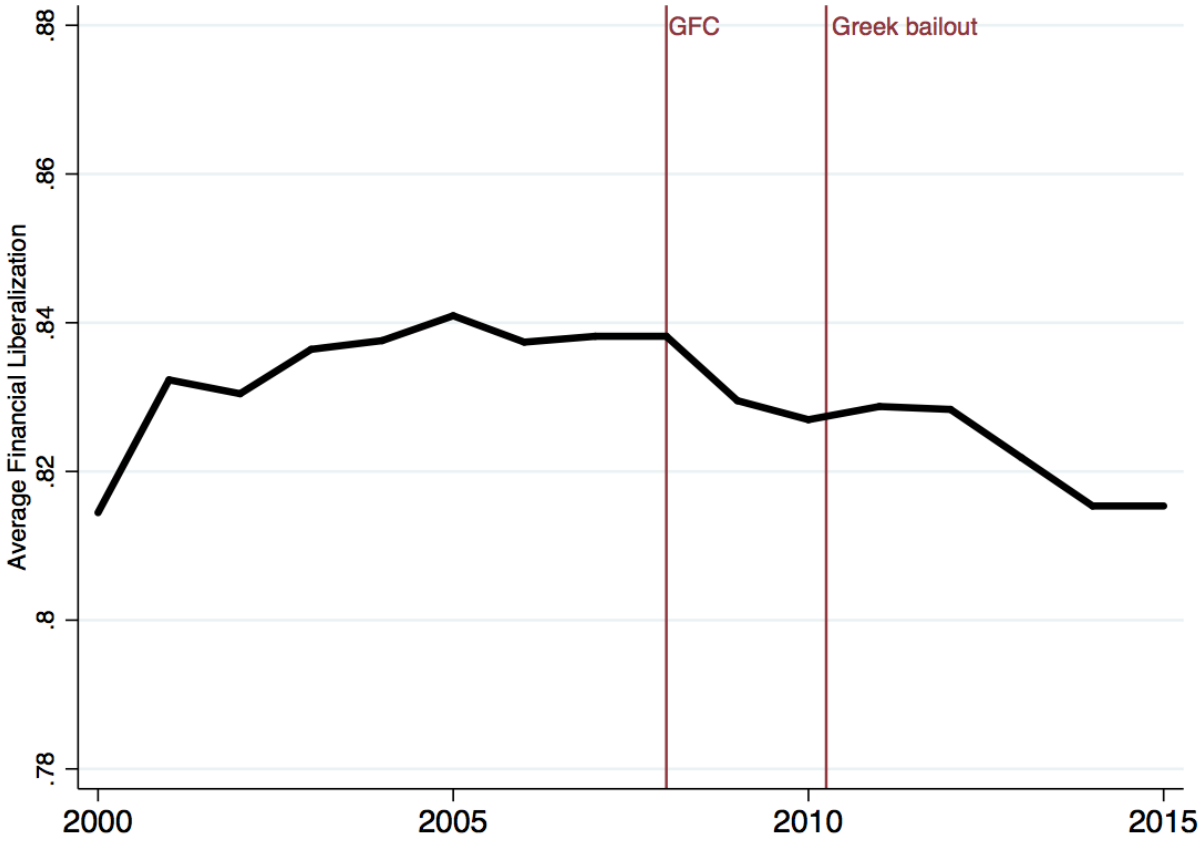

Fig. 1. **Average financial liberalization in EU countries between the years 2000 and 2015.** The figure shows the aggregate financial liberalization index averaged over the following 22 EU countries: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom. The first vertical line corresponds to the start of the Global Financial Crisis and the second to the announcement of the 1st bailout package for Greece. Liberalization data come from Denk and Gomes (2017).

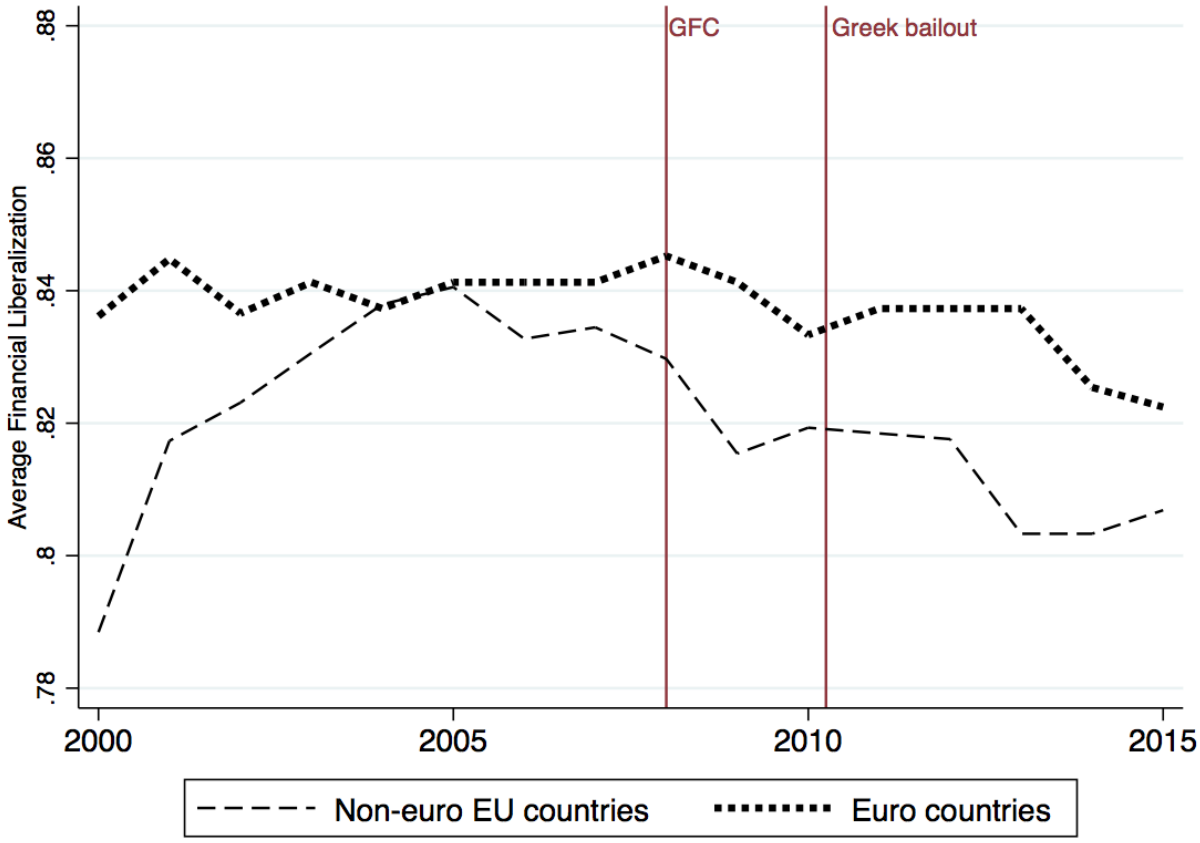

Fig. 2. **Average financial liberalization in Euro and Non-euro EU countries between the years 2000 and 2015.** The figure shows the aggregate financial liberalization index averaged over 12 Euro and 10 Non-euro EU countries. Euro sample includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. Non-euro EU sample includes Czech Republic, Denmark, Estonia, Hungary, Latvia, Poland, Slovakia, Slovenia, Sweden and United Kingdom. The first vertical line corresponds to the start of the Global Financial Crisis and the second to the announcement of the 1st bailout package for Greece. Liberalization data come from Denk and Gomes (2017).

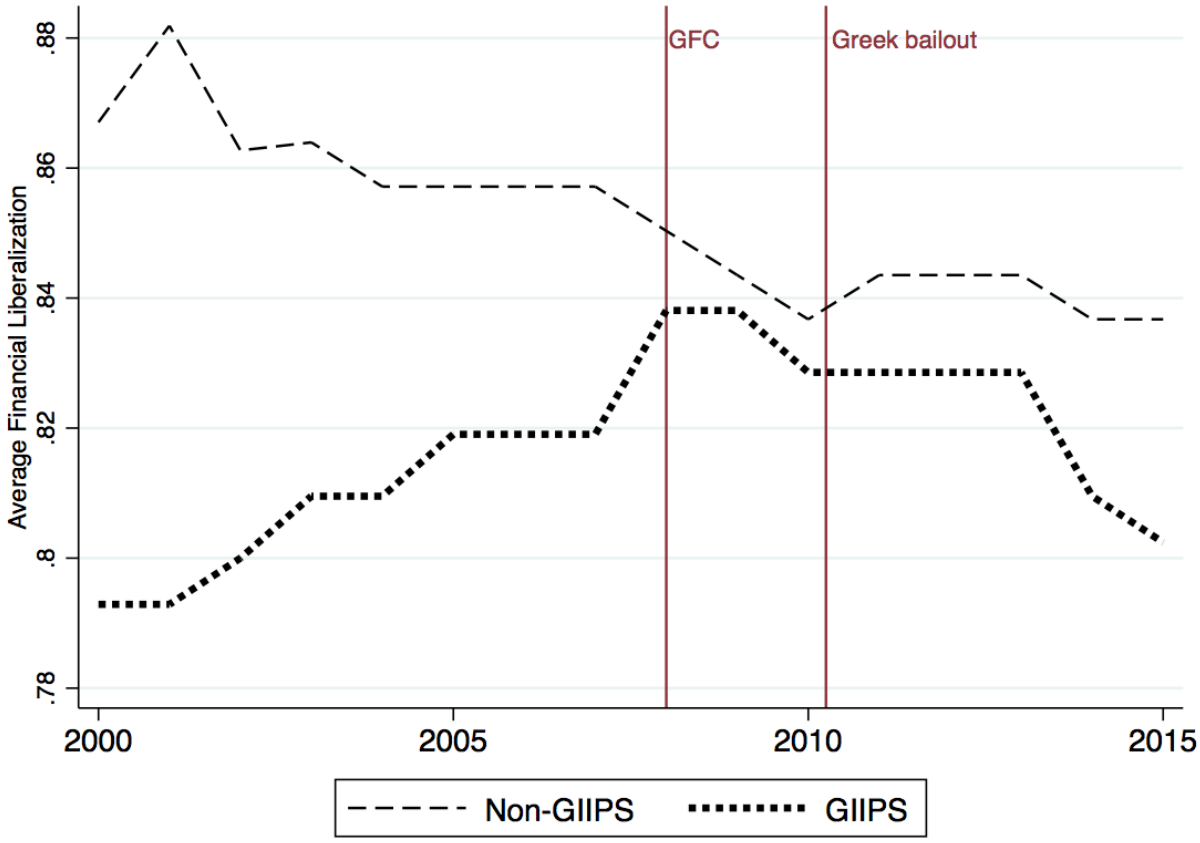

Fig. 3. **Average financial liberalization in GIIPS and Non-GIIPS Euro countries between the years 2000 and 2015.** The figure shows the aggregate financial liberalization index averaged over 5 GIIPS and 7 Non-GIIPS Euro countries. GIIPS sample includes Greece, Ireland, Italy, Portugal and Spain. Non-GIIPS Euro sample includes Austria, Belgium, Finland, France, Germany, Luxembourg and Netherlands. The first vertical line corresponds to the start of the Global Financial Crisis and the second to the announcement of the 1st bailout package for Greece. Liberalization data come from Denk and Gomes (2017).

Fig. 4. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock.** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

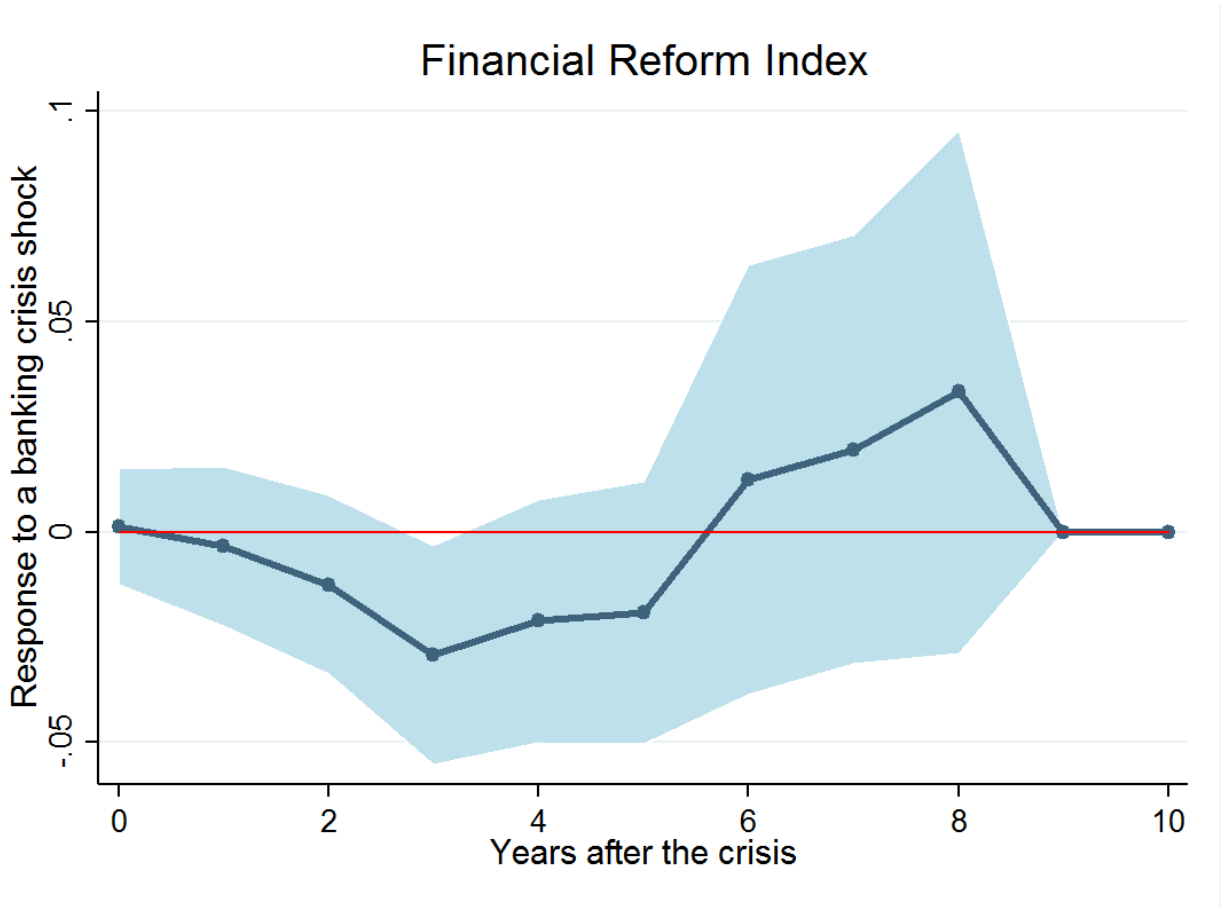

Fig. 5. **European Union sample: Impulse-response functions of average financial reform to a banking crisis shock.** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

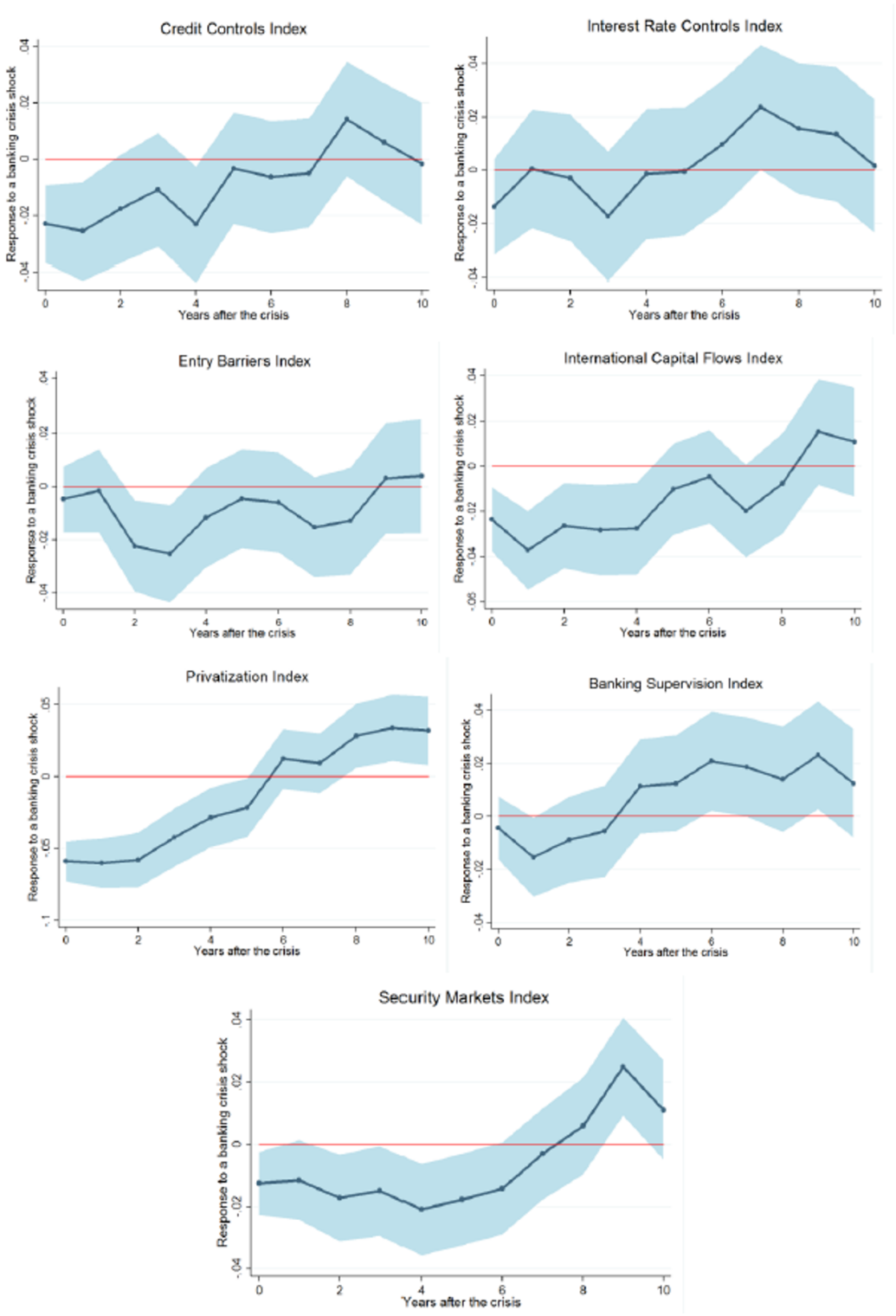

Fig. 6. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock.** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

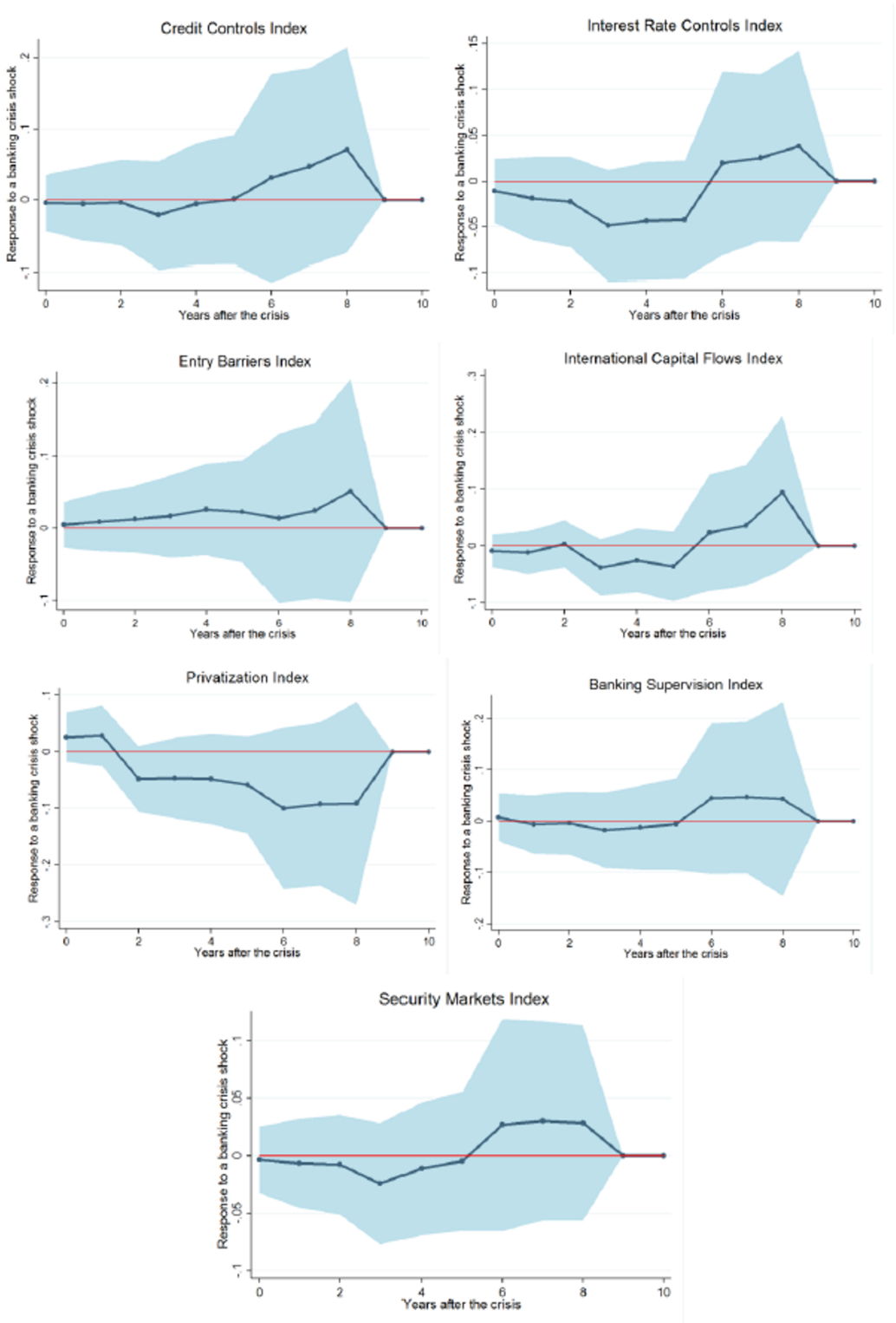

Fig. 7. **European Union sample: Impulse-response functions of financial reform areas to a banking crisis shock.** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

Fig. A1a. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock (with 3 lags on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. Up to 3 lags are used both for the exogenous and endogenous variables. The shaded area represents the 90% confidence intervals.

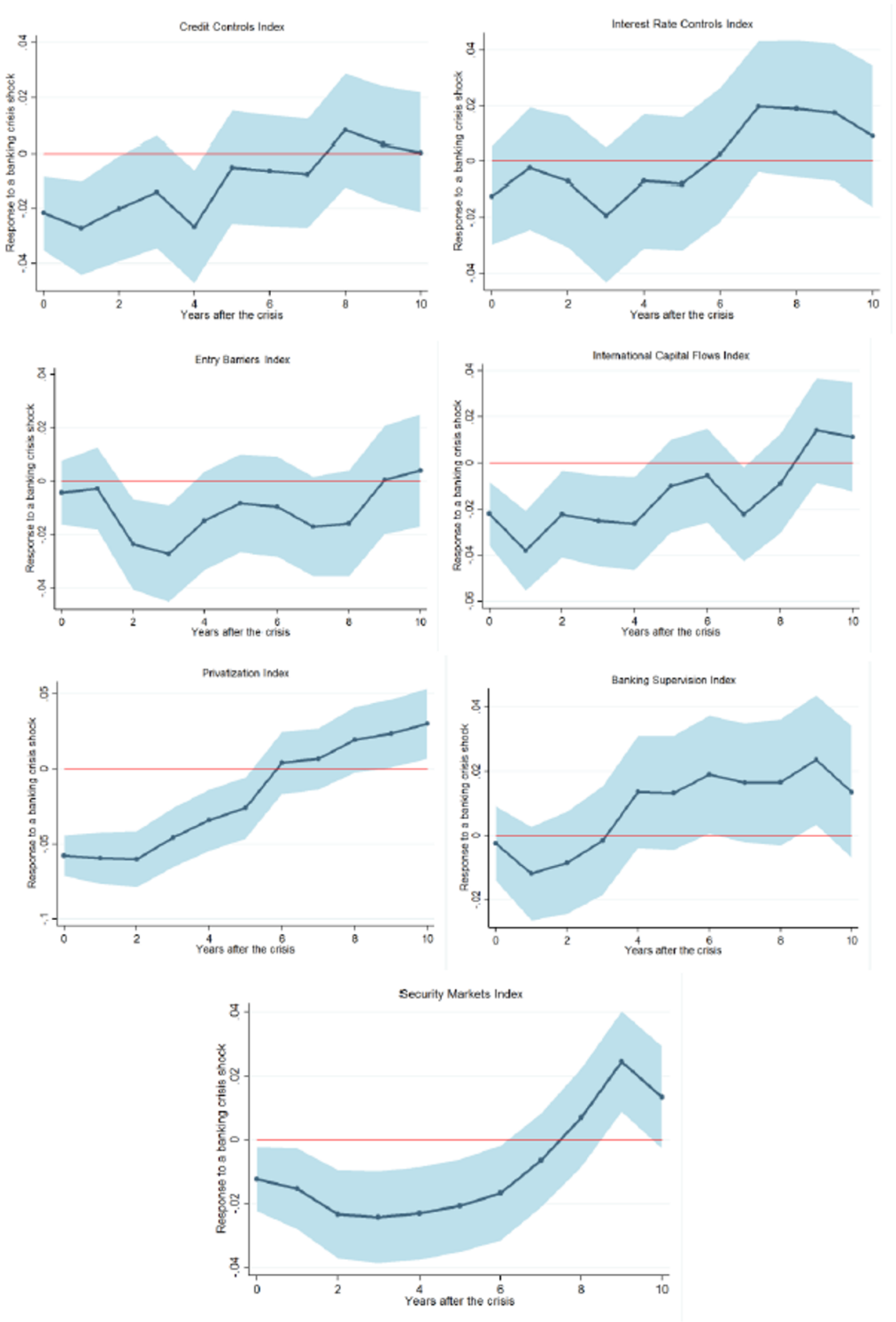

Fig. A1b. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock (with 3 lags on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. Up to 3 lags are used both for the exogenous and endogenous variables. The shaded area represents the 90% confidence intervals.

Fig. A2a. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock (with 5 lags on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. Up to 5 lags are used both for the exogenous and endogenous variables. The shaded area represents the 90% confidence intervals.

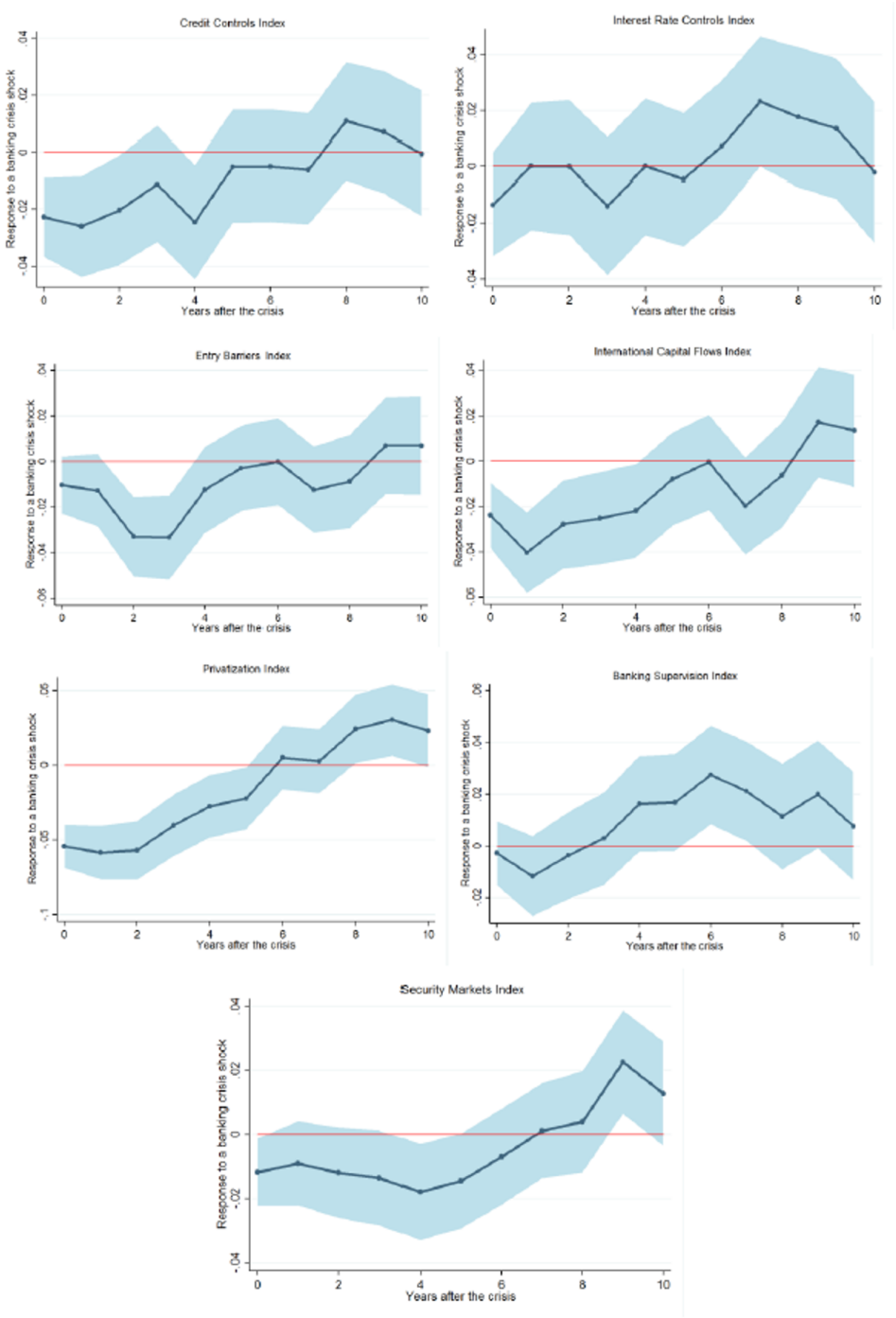

Fig. A2b. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock (with 5 lags on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. Up to 5 lags are used both for the exogenous and endogenous variables. The shaded area represents the 90% confidence intervals.

Fig. A3a. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock (with no country-specific time-trends on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

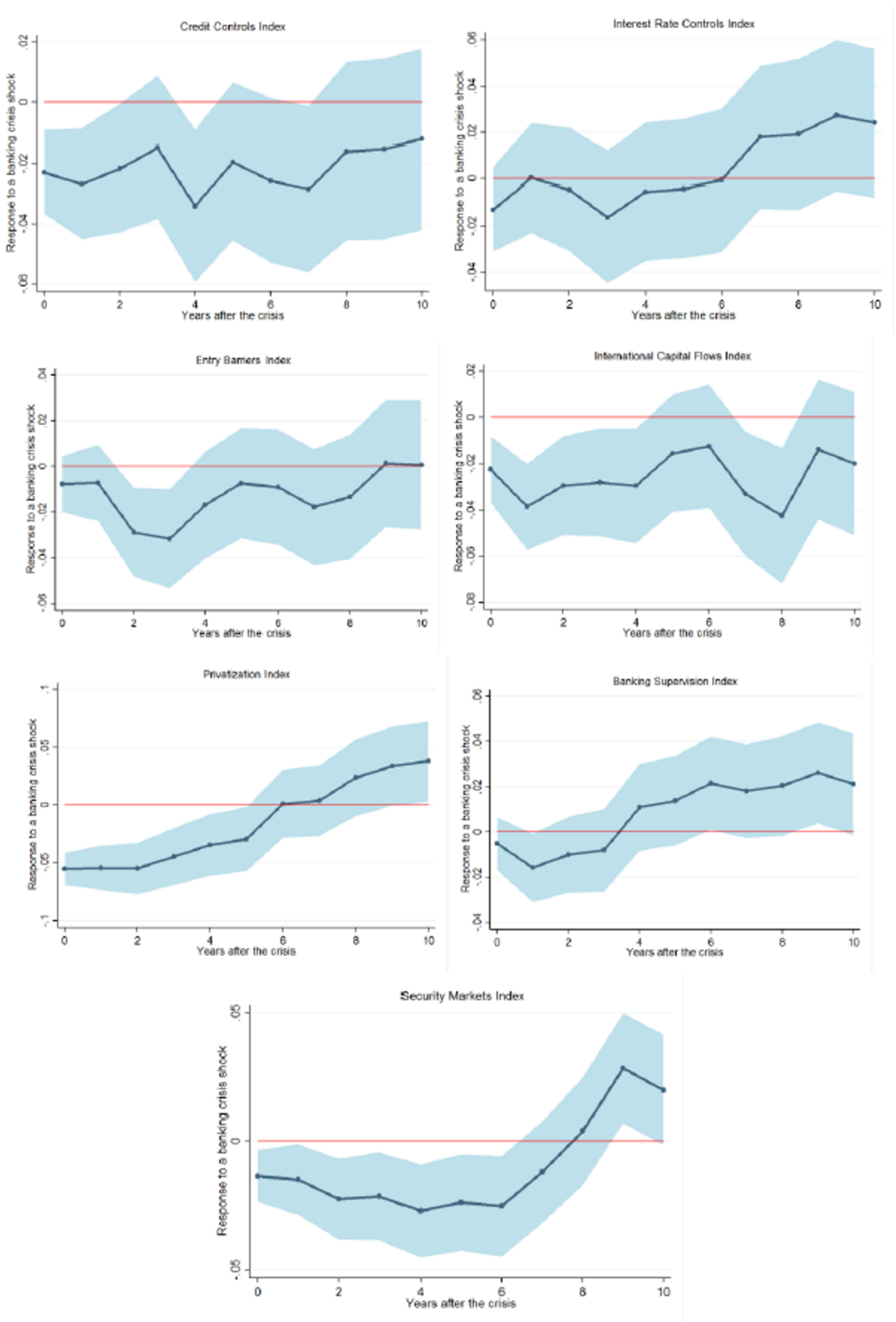

Fig. A3b. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock (with no country-specific time-trends on the right-hand-side).** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

Fig. A4a. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock (with standard errors clustered at country-level).** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

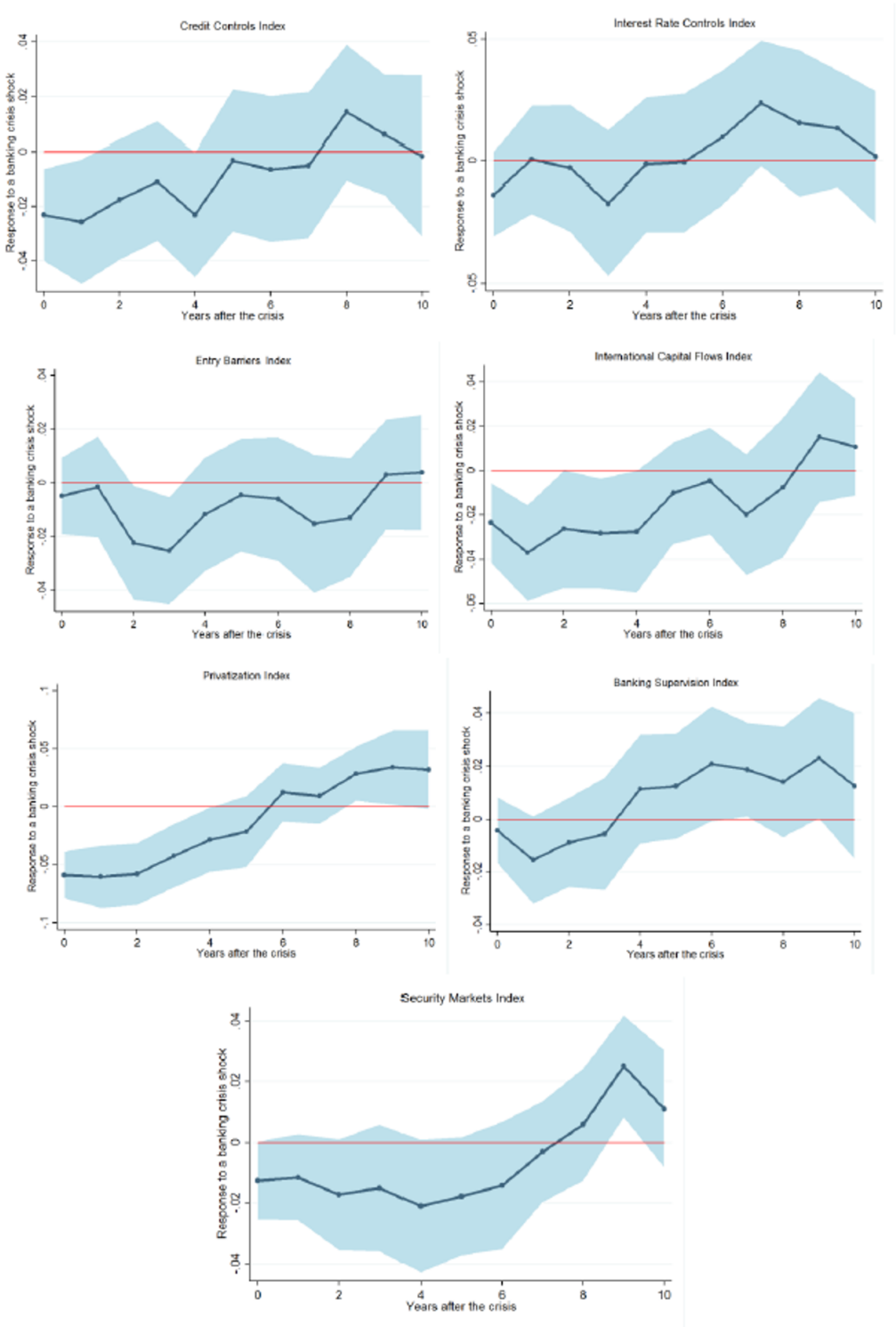

Fig. A4b. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock (with standard errors clustered at country-level).** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

Fig. A5a. **Global sample: Impulse-response functions of average financial reform to a banking crisis shock (only with the original dataset from Abiad et al. (2010)).** The figure shows the estimated LPs from Equation 2 using the average financial reform as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

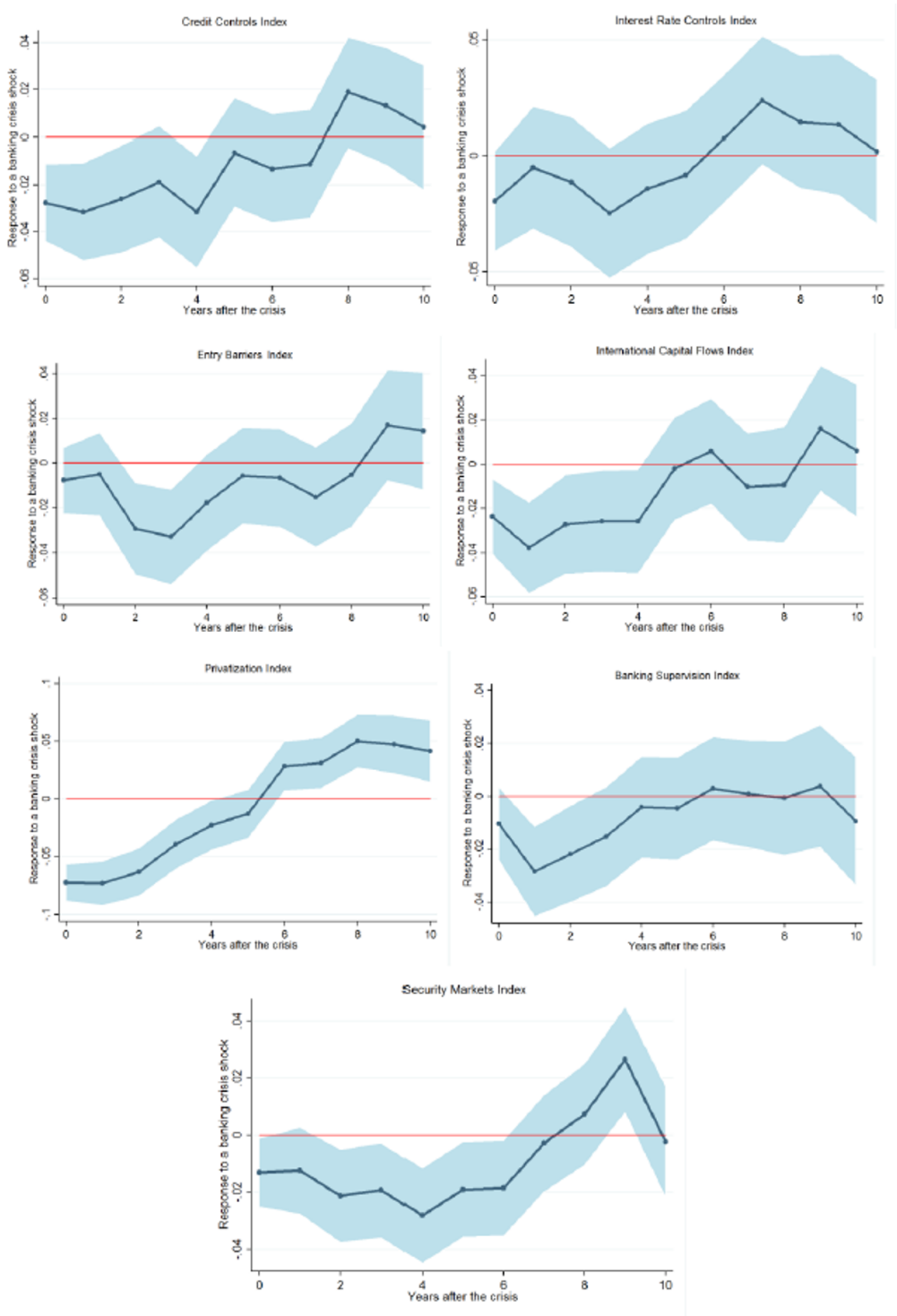

Fig. A5b. **Global sample: Impulse-response functions of financial reform areas to a banking crisis shock (only with the original dataset from Abiad et al. (2010)).** The figure shows the estimated LPs from Equation 2 using the financial reform sub-indices as the endogenous variable and banking crises as the exogenous shock. The shaded area represents the 90% confidence intervals.

	Variables	Mean	Median	Std. Deviation	Min	Max	Observations
Global Sample							
	Financial liberalization (Average)	0.59	0.63	0.23	0.14	0.96	3,046
	Credit controls	0.58	0.67	0.38	0.00	1.00	3,046
	Interest rate controls	0.65	1.00	0.43	0.00	1.00	3,082
	Entry barriers	0.65	0.67	0.39	0.00	1.00	3,082
	International capital controls	0.56	0.67	0.37	0.00	1.00	3,082
	Privatization	0.47	0.33	0.40	0.00	1.00	3,082
	Banking supervision	0.66	0.67	0.37	0.00	1.00	3,082
	Security markets	0.57	0.67	0.39	0.00	1.00	3,082
	Financial crises	0.08	0.00	0.27	0.00	1.00	3,082
	Banking crises	0.04	0.00	0.19	0.00	1.00	3,082
	Sovereign debt crises	0.02	0.00	0.13	0.00	1.00	3,082
	Currency crises	0.04	0.00	0.19	0.00	1.00	3,082
European Union Sample							
	Financial liberalization (Average)	0.77	0.81	0.14	0.27	0.95	600
	Credit controls	0.83	1.00	0.30	0.00	1.00	600
	Interest rate controls	0.92	1.00	0.22	0.00	1.00	604
	Entry barriers	0.88	1.00	0.25	0.00	1.00	604
	International capital controls	0.83	1.00	0.27	0.00	1.00	604
	Privatization	0.72	1.00	0.34	0.00	1.00	604
	Banking supervision	0.32	0.33	0.36	0.00	1.00	604
	Security markets	0.92	1.00	0.18	0.33	1.00	604
	Financial crises	0.06	0.00	0.23	0.00	1.00	604
	Banking crises	0.05	0.00	0.22	0.00	1.00	604
	Sovereign debt crises	0.03	0.00	0.16	0.00	1.00	604
	Currency crises	0.00	0.00	0.06	0.00	1.00	604

Table 1: **Summary statistics for main variables.** The table outlines the summary statistics for variables related to financial reforms and crises. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018).

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.046***	-0.035***	-0.035***	-0.035***	-0.035***
	[0.009]	[0.008]	[0.008]	[0.008]	[0.008]
PREcrisis	-0.028**	-0.004	-0.004	-0.004	-0.004
	[0.011]	[0.009]	[0.009]	[0.009]	[0.009]
Diff-in-diff	**-0.017***	**-0.031*****	**-0.031*****	**-0.031*****	**-0.031*****
P-value	0.075	0.001	0.001	0.001	0.001
N	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.177	0.200	0.474	0.534	0.746
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table 2: **Global sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization.** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any financial (banking, sovereign debt or currency) crisis in the sample including the starting year itself. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.023*	-0.022	-0.022	-0.022	-0.022
	[0.013]	[0.015]	[0.015]	[0.015]	[0.015]
PREcrisis	0.013	-0.005	-0.005	-0.005	-0.005
	[0.023]	[0.015]	[0.015]	[0.015]	[0.015]
Diff-in-diff	**-0.037**	**-0.017**	**-0.018**	**-0.018**	**-0.018**
P-value	0.219	0.223	0.237	0.229	0.244
N	4,224	4,224	4,224	4,224	4,224
Adj-R-sq	0.406	0.440	0.678	0.605	0.832
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table 3: **European Union sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization.** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any financial (banking, sovereign debt or currency) crisis in the sample including the starting year itself. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	-0.036***	-0.024***	-0.024***	-0.024***	-0.024***										
	[0.010]	[0.008]	[0.008]	[0.009]	[0.009]										
PREcrisis_banking	-0.026**	-0.001	-0.001	-0.001	-0.001										
	[0.011]	[0.009]	[0.009]	[0.009]	[0.009]										
POSTcrisis_debt						-0.066***	-0.040**	-0.040**	-0.040**	-0.040**					
						[0.019]	[0.015]	[0.016]	[0.016]	[0.016]					
PREcrisis_debt						-0.007	0.022	0.022	0.022	0.022					
						[0.021]	[0.016]	[0.016]	[0.016]	[0.016]					
POSTcrisis_currency											-0.056***	-0.044***	-0.044***	-0.044***	-0.044***
											[0.011]	[0.011]	[0.011]	[0.011]	[0.011]
PREcrisis_currency											-0.033**	-0.009	-0.009	-0.009	-0.009
											[0.012]	[0.011]	[0.011]	[0.011]	[0.011]
Diff-in-diff	**-0.010**	**-0.023****	**-0.023****	**-0.023****	**-0.023****	**-0.059*****	**-0.062*****	**-0.062*****	**-0.062*****	**-0.062*****	**-0.023****	**-0.035*****	**-0.035*****	**-0.035*****	**-0.035*****
P-value	0.314	0.015	0.016	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.030	0.001	0.001	0.001	0.001
N	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.175	0.199	0.473	0.533	0.745	0.175	0.199	0.474	0.533	0.746	0.177	0.200	0.474	0.534	0.746
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table 4: **Global sample: Difference-in-differences estimates for the effect of banking, sovereign debt and currency crises on average financial liberalization.** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on in the first 5 years after a financial (x=banking, sovereign debt or currency) crisis in the sample including the starting year itself. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	0.047	-0.017	-0.017	-0.017	-0.017										
	[0.027]	[0.013]	[0.013]	[0.013]	[0.013]										
PREcrisis_banking	0.070*	-0.014	-0.014	-0.014	-0.014										
	[0.038]	[0.014]	[0.014]	[0.014]	[0.015]										
POSTcrisis_debt						0.069*	-0.029	-0.029	-0.029	-0.029					
						[0.039]	[0.023]	[0.024]	[0.023]	[0.024]					
PREcrisis_debt						0.087*	0.000	0.000	0.000	0.000					
						[0.043]	[0.012]	[0.013]	[0.012]	[0.013]					
POSTcrisis_currency											-0.136**	-0.030	-0.031	-0.031	-0.031
											[0.053]	[0.030]	[0.031]	[0.030]	[0.031]
PREcrisis_currency											-0.196***	0.027	0.027	0.027	0.027
											[0.046]	[0.021]	[0.022]	[0.022]	[0.022]
Diff-in-diff	**-0.023**	**-0.003**	**-0.003**	**-0.003**	**-0.003**	**-0.018**	**-0.029**	**-0.029**	**-0.029**	**-0.029**	**0.061**	**-0.057***	**-0.057**	**-0.057**	**-0.057**
P-value	0.163	0.835	0.839	0.834	0.84	0.454	0.149	0.160	0.150	0.163	0.122	0.099	0.109	0.104	0.115
N	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224
Adj-R-sq	0.408	0.440	0.678	0.605	0.832	0.410	0.440	0.678	0.605	0.832	0.412	0.440	0.678	0.605	0.833
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table 5: **European Union sample: Difference-in-differences estimates for the effect of banking, sovereign debt and currency crises on average financial liberalization.** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on in the first 5 years after a financial (x=banking, sovereign debt or currency) crisis in the sample including the starting year itself. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.019***	-0.016***	-0.016***	-0.016**	-0.016**
	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]
PREcrisis	-0.010	0.008	0.008	0.008	0.008
	[0.008]	[0.006]	[0.006]	[0.006]	[0.006]
Diff-in-diff	**-0.009**	**-0.024****	**-0.024****	**-0.024****	**-0.024****
P-value	0.415	0.015	0.015	0.017	0.017
N	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.174	0.199	0.473	0.533	0.745
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table A1: **Global sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization (Excluding the crisis start-year and ±1 years).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any financial (banking, sovereign debt or currency) crisis in the sample excluding the crisis start-year and ±1 years around it. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis excluding the crisis start-year and ±1 years around it. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	-0.031***	-0.026***	-0.026***	-0.026***	-0.026***										
	[0.009]	[0.007]	[0.007]	[0.007]	[0.008]										
PREcrisis_banking	-0.024**	-0.002	-0.002	-0.002	-0.002										
	[0.010]	[0.008]	[0.008]	[0.008]	[0.008]										
POSTcrisis_debt						-0.060***	-0.041***	-0.041***	-0.041***	-0.041***					
						[0.015]	[0.013]	[0.013]	[0.013]	[0.014]					
PREcrisis_debt						0.006	0.029**	0.029**	0.029**	0.029**					
						[0.018]	[0.013]	[0.013]	[0.013]	[0.013]					
POSTcrisis_currency											-0.024***	-0.018**	-0.018**	-0.018**	-0.018**
											[0.008]	[0.007]	[0.007]	[0.008]	[0.008]
PREcrisis_currency											-0.007	0.012	0.012	0.011	0.012
											[0.009]	[0.008]	[0.008]	[0.008]	[0.008]
Diff-in-diff	**-0.007**	**-0.023****	**-0.023****	**-0.023****	**-0.023****	**-0.066*****	**-0.070*****	**-0.070*****	**-0.070*****	**-0.070*****	**-0.016**	**-0.029****	**-0.029****	**-0.029****	**-0.029****
P-value	0.548	0.036	0.037	0.039	0.040	0.000	0.000	0.000	0.000	0.000	0.174	0.014	0.014	0.015	0.015
N	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.175	0.199	0.473	0.533	0.745	0.175	0.199	0.473	0.533	0.745	0.174	0.199	0.473	0.533	0.745
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table A2: **Global sample: Difference-in-differences estimates for the effect of banking, sovereign debt and currency crises on average financial liberalization (Excluding the crisis start-year and ±1 years).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on in the first 5 years after a financial (x=banking, sovereign debt or currency) crisis in the sample excluding the crisis start-year and ±1 years around it. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis excluding the crisis start-year and ±1 years around it. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.025***	-0.017**	-0.017**	-0.017**	-0.017**
	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]
PREcrisis	-0.016*	0.007	0.007	0.007	0.007
	[0.009]	[0.007]	[0.007]	[0.007]	[0.007]
Diff-in-diff	**-0.008**	**-0.024****	**-0.024****	**-0.024****	**-0.024****
P-value	0.437	0.016	0.016	0.017	0.018
N	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.174	0.199	0.473	0.533	0.745
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table A3: **Global sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization (Excluding the crisis start-year, ±1 years and common years before and after a crisis).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any financial (banking, sovereign debt or currency) crisis in the sample excluding the crisis start-year and ±1 years around it. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis excluding the crisis start-year and ±1 years around it. Years that correspond to both pre- and post- episodes are also dropped. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	-0.037***	-0.030***	-0.030***	-0.030***	-0.030***										
	[0.009]	[0.007]	[0.007]	[0.008]	[0.008]										
PREcrisis_banking	-0.030***	-0.007	-0.007	-0.007	-0.007										
	[0.011]	[0.008]	[0.008]	[0.008]	[0.008]										
POSTcrisis_debt						-0.060***	-0.041***	-0.041***	-0.041***	-0.041***					
						[0.015]	[0.013]	[0.013]	[0.013]	[0.014]					
PREcrisis_debt						0.006	0.029**	0.029**	0.029**	0.029**					
						[0.018]	[0.013]	[0.013]	[0.013]	[0.013]					
POSTcrisis_currency											-0.027***	-0.020**	-0.020**	-0.020**	-0.020**
											[0.009]	[0.008]	[0.008]	[0.008]	[0.009]
PREcrisis_currency											-0.011	0.009	0.009	0.009	0.009
											[0.010]	[0.008]	[0.008]	[0.008]	[0.008]
Diff-in-diff	**-0.007**	**-0.023****	**-0.023****	**-0.023****	**-0.023****	**-0.066*****	**-0.070*****	**-0.070*****	**-0.070*****	**-0.070*****	**-0.016**	**-0.029****	**-0.029****	**-0.029****	**-0.029****
P-value	0.549	0.037	0.038	0.040	0.041	0.000	0.000	0.000	0.000	0.000	0.177	0.014	0.014	0.015	0.015
N	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538	21,538
Adj-R-sq	0.175	0.199	0.473	0.533	0.745	0.175	0.199	0.473	0.533	0.745	0.174	0.199	0.473	0.533	0.745
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table A4: **Global sample: Difference-in-differences estimates for the effect of banking, sovereign debt and currency crises on average financial liberalization (Excluding the crisis start-year, ±1 years and common years before and after a crisis).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on in the first 5 years after a financial (x=banking, sovereign debt or currency) crisis in the sample excluding the crisis start-year and ±1 years around it. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis excluding the crisis start-year and ±1 years around it. Years that correspond to both pre- and post- episodes are also dropped. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.024***	-0.021***	-0.021***	-0.021***	-0.021***
	[0.005]	[0.004]	[0.004]	[0.004]	[0.004]
PREcrisis	0.004	0.005	0.005	0.005	0.004
	[0.007]	[0.005]	[0.005]	[0.005]	[0.005]
Diff-in-diff	**-0.027*** **	**-0.026*** **	**-0.025*** **	**-0.025*** **	**-0.025*** **
P-value	0.003	0.000	0.000	0.000	0.000
N	15,000	15,000	15,000	15,000	15,000
Adj-R-sq	0.193	0.219	0.465	0.519	0.744
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table A5: **Global sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization (Crises dataset from Reinhart and Rogoff (2011)).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on during any financial (banking, domestic debt, external debt, currency, stock market or inflation) crisis in the sample. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Reinhart and Rogoff (2011). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	-0.010	-0.004	-0.005	-0.005	-0.005										
	[0.012]	[0.011]	[0.011]	[0.011]	[0.011]										
PREcrisis_banking	0.015	0.025**	0.025**	0.025**	0.025**										
	[0.012]	[0.010]	[0.010]	[0.010]	[0.010]										
POSTcrisis_domdebt						-0.083***	-0.085***	-0.085***	-0.085***	-0.085***					
						[0.028]	[0.023]	[0.023]	[0.023]	[0.023]					
PREcrisis_domdebt						-0.025	-0.005	-0.005	-0.005	-0.005					
						[0.025]	[0.019]	[0.019]	[0.019]	[0.020]					
POSTcrisis_extdebt											-0.056***	-0.042**	-0.042**	-0.042**	-0.042**
											[0.017]	[0.018]	[0.018]	[0.018]	[0.018]
PREcrisis_extdebt											-0.022	0.006	0.006	0.006	0.006
											[0.019]	[0.017]	[0.018]	[0.018]	[0.018]
Diff-in-diff	**-0.025****	**-0.029*****	**-0.029*****	**-0.029*****	**-0.030*****	**-0.058*****	**-0.080*****	**-0.080*****	**-0.080*****	**-0.080*****	**-0.034***	**-0.048*****	**-0.048*****	**-0.048*****	**-0.048*****
P-value	0.015	0.001	0.001	0.001	0.002	0.002	0.000	0.000	0.000	0.000	0.061	0.008	0.009	0.009	0.010
N	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Adj-R-sq	0.190	0.217	0.463	0.518	0.742	0.190	0.217	0.463	0.518	0.743	0.191	0.217	0.463	0.518	0.743
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table A6a: **Global sample: Difference-in-differences estimates for the effect of banking, domestic debt and external debt crises on average financial liberalization (Crises dataset from Reinhart and Rogoff (2011)).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on during a financial (x=banking, domestic debt and external debt) crisis in the sample. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Reinhart and Rogoff (2011). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_currency	-0.063***	-0.046***	-0.046***	-0.046***	-0.046***										
	[0.013]	[0.011]	[0.011]	[0.011]	[0.011]										
PREcrisis_currency	-0.040***	-0.020**	-0.020**	-0.020**	-0.020**										
	[0.011]	[0.009]	[0.009]	[0.009]	[0.009]										
POSTcrisis_stock						-0.025	-0.001	-0.001	-0.001	-0.001					
						[0.016]	[0.012]	[0.013]	[0.013]	[0.013]					
PREcrisis_stock						-0.013	0.010	0.010	0.010	0.010					
						[0.017]	[0.013]	[0.013]	[0.013]	[0.013]					
POSTcrisis_inflation											-0.086***	-0.070***	-0.070***	-0.070***	-0.070***
											[0.019]	[0.014]	[0.015]	[0.015]	[0.015]
PREcrisis_inflation											-0.066***	-0.043***	-0.043***	-0.043***	-0.043***
											[0.016]	[0.012]	[0.012]	[0.012]	[0.012]
Diff-in-diff	**-0.023****	**-0.026*****	**-0.026*****	**-0.026*****	**-0.026*****	**-0.012***	**-0.011***	**-0.011***	**-0.011***	**-0.011***	**-0.020**	**-0.026***	**-0.027***	**-0.027***	**-0.027***
P-value	0.017	0.004	0.004	0.004	0.005	0.088	0.053	0.057	0.055	0.059	0.205	0.065	0.066	0.068	0.070
N	14,986	14,986	14,986	14,986	14,986	11,661	11,661	11,661	11,661	11,661	15,000	15,000	15,000	15,000	15,000
Adj-R-sq	0.192	0.218	0.464	0.518	0.743	0.164	0.194	0.447	0.484	0.730	0.194	0.218	0.464	0.519	0.744
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table A6b: **Global sample: Difference-in-differences estimates for the effect of currency, stock market and inflation crises on average financial liberalization (Crises dataset from Reinhart and Rogoff (2011)).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on during a financial (x=currency, stock market and inflation) crisis in the sample. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is obtained by merging two subsets of observations from Abiad et al. (2010) and Denk and Gomes (2017). Data on financial crises is obtained from Reinhart and Rogoff (2011). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*
POSTcrisis	-0.048***	-0.043***	-0.044***	-0.044***	-0.044***
	[0.010]	[0.009]	[0.009]	[0.009]	[0.009]
PREcrisis	-0.031***	-0.006	-0.006	-0.006	-0.006
	[0.011]	[0.009]	[0.009]	[0.009]	[0.009]
Diff-in-diff	**-0.016**	**-0.037*** **	**-0.037*** **	**-0.037*** **	**-0.037*** **
P-value	0.147	0.000	0.000	0.001	0.001
N	18,430	18,430	18,430	18,430	18,430
Adj-R-sq	0.221	0.243	0.439	0.543	0.739
Clustering	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes		
Reform FE	Yes	Yes			
Year FE	Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes
Reform x Year FE			Yes		Yes

Table A7: **Global sample: Difference-in-differences estimates for the effect of a financial crisis on average financial liberalization (only with the original dataset from Abiad et al. (2010)).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. *POSTcrisis* is a binary dummy variable turning on in the first 5 years after any financial (banking, sovereign debt or currency) crisis in the sample including the starting year itself. *PREcrisis* is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for *POSTcrisis* and *PREcrisis* and p-values are reported underneath. Reform database is obtained from Abiad et al. (2010). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.

Dependent variables:	*Financial Liberalization*					*Financial Liberalization*					*Financial Liberalization*				
Models:	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
POSTcrisis_banking	-0.035***	-0.031***	-0.031***	-0.031***	-0.031***										
	[0.011]	[0.010]	[0.010]	[0.010]	[0.010]										
PREcrisis_banking	-0.026**	-0.004	-0.004	-0.004	-0.004										
	[0.011]	[0.010]	[0.010]	[0.010]	[0.010]										
POSTcrisis_debt						-0.074***	-0.044**	-0.044**	-0.044**	-0.044**					
						[0.017]	[0.017]	[0.017]	[0.017]	[0.017]					
PREcrisis_debt						-0.015	0.023	0.023	0.023	0.023					
						[0.020]	[0.016]	[0.016]	[0.017]	[0.017]					
POSTcrisis_currency											-0.054***	-0.049***	-0.049***	-0.049***	-0.049***
											[0.011]	[0.011]	[0.011]	[0.011]	[0.011]
PREcrisis_currency											-0.034***	-0.013	-0.013	-0.013	-0.013
											[0.013]	[0.011]	[0.011]	[0.011]	[0.011]
Diff-in-diff	**-0.009**	**-0.027*** **	**-0.027*** **	**-0.027** **	**-0.027** **	**-0.059*** **	**-0.066*** **	**-0.066*** **	**-0.066*** **	**-0.066*** **	**-0.021***	**-0.036*** **	**-0.036*** **	**-0.036*** **	**-0.036*** **
P-value	0.469	0.010	0.010	0.011	0.011	0.001	0.000	0.000	0.000	0.000	0.062	0.001	0.001	0.001	0.001
N	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430	18,430
Adj-R-sq	0.219	0.242	0.438	0.542	0.738	0.220	0.243	0.438	0.542	0.738	0.221	0.243	0.439	0.543	0.739
Clustering	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country	Country
Country FE	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes		
Reform FE	Yes	Yes				Yes	Yes				Yes	Yes			
Year FE	Yes	Yes		Yes		Yes	Yes		Yes		Yes	Yes		Yes	
CountryTime Trend		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Country x Reform FE				Yes	Yes				Yes	Yes				Yes	Yes
Reform x Year FE			Yes		Yes			Yes		Yes			Yes		Yes

Table A8: **Global sample: Difference-in-differences estimates for the effect of banking, sovereign debt and currency crises on average financial liberalization (only with the original dataset from Abiad et al. (2010)).** The table summarizes the estimation results with the specification in Equation 1. Dependent variable is *Financial Liberalization* varying over countries, years and reform areas. $POSTcrisis_x$ is a binary dummy variable turning on in the first 5 years after a financial (x=banking, sovereign debt or currency) crisis in the sample including the starting year itself. $PREcrisis_x$ is a binary dummy for the 5 years immediately preceding a financial crisis. Robust standard errors are clustered at the country level and standard errors are reported in brackets. Diff-in-diff estimates test the difference between the coefficients estimated for $POSTcrisis_x$ and $PREcrisis_x$ and p-values are reported underneath. Reform database is from Abiad et al. (2010). Data on financial crises is obtained from Laeven and Valencia (2018). *p<0.1, **p<0.05, ***p<0.01.