# Discussion Papers

## Delay Determinants of European Banking Union Implementation

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Comments and suggestions on the methods
and results presented are welcome.

## Editor

# Delay Determinants of European Banking Union Implementation*

## Abstract

To safeguard financial stability and harmonise regulation, the European Commission substantially reformed banking supervision, resolution, and deposit insurance via EU directives. But most countries delay the transposition of these directives. We ask if transposition delays result from strategic considerations of governments conditional on the state of their financial, regulatory, and political systems? Supervisors might try to protect national banking systems and local politicians maybe reluctant to surrender national sovereignty to deal with failed banks. Alternatively, intricate financial regulation might require more implementation time in large and complex financial and political systems. We therefore collect data on the transposition delays of the three Banking Union directives and investigate observed delay variation across member states. Our correlation analyses suggest that existing regulatory and institutional frameworks, rather than banking market structure or political factors, matter for transposition delays.

*Keywords: single rulebook, political economy, transposition delays*

*JEL Classification: C41, F30, F55, G15, G18*

## 1. Motivation

In June 2017, two events vividly illustrated the asynchronous pace with which dearly needed steps to establish the European Banking Union (EBU) are implemented amongst member states to rectify important deficiencies, such as nationally fragmented and regulated banking markets (Wyplosz, 2016) in a financial system that continues to rely on financial intermediaries rather than markets (Langfield and Pagano, 2016).

On the one hand, junior bondholders of the critically undercapitalized Spanish bank Popular were subjected to substantial haircuts by the new Single Resolution Mechanism (SRM) founded early in 2015 as part of the EBU. Related, the remaining equity was relegated to Santander, another Spanish bank, for the symbolic amount of 1€ (The Economist, June 2017). Thereby, the SRM enforced for the first time the new bail-in regime introduced under the Bank Recovery and Resolution Directive (BRRD) that aims to minimize the burden on tax payers after the horrendously expensive bank bail-out experiences in the wake of the Great Financial Crisis of 2007/2008.

On the other hand, the European Commission and the Italian government agreed on a state bailout of around 5.4 billion Euros in size to recapitalize the distressed bank Monte dei Paschi in the very same month. While *de jure* compliant with existing opt-out clauses from the BRRD (Deutsche Bundesbank, 2014), such a heterogeneous treatment of distressed banks clearly can undermine the credibility of enforcing future bail-ins in a financial system that is characterized by multiple (inter)national regulatory agencies, national governments, and internationally connected financial institutions. Bernard et al. (2017) show that in such highly connected networks the credibility of a central planer to abstain from bail-outs is necessary to incent banks to support subsidized bail-in deals, such as the one with Santander. Failure to establish this no bail-out credibility might, in turn, increase financial instability for the system as a whole.

Against this backdrop, the EBU is the legal manifestation of the political will to ensure the homogenous regulation and supervision of banks in the Eurozone and the European Union. It features uniform rules for bank supervision, restructuring, and a harmonized deposit insurance scheme. The success of the EBU to strengthen financial stability, diminish market fragmentation, and reduce bank bailout guarantees by establishing a (credible) resolution and restructuring scheme depends strongly on the timely and adequate implementation of the new regulatory framework across countries. But besides the use of opt-out clauses concerning the BRRD described by the example above, it has become obvious that European (Monetary) Union (E(M)U) member states also simply delay the transposition of the multiple EU directives that underlie the EBU into national law. Such delays may give rise to staggered timing of how banks are supervised and regulated across the EBU, which in turn can undermine the effectiveness of the financial reform, reduce credibility in the supranational policy-making process, and misalign the level playing field.

This paper therefore conducts a clinical exercise to systematically collect data on the speed with which European countries implement the directives underlying the formation of the EBU. First, we conduct simple correlation analyses of potential drivers of delays. Thereby, we seek to shed light on the question whether observable traits of the structure of banking systems, the regulatory and supervisory regime, or features of the political system and institutions in each member country determine transposition delays. Second, we examine if these three clusters of observable country characteristics affect the different directives that are part of the EBU differently.

Our empirical investigation relies on a sample of 28 EU member states, which have to implement the EU directives that are part of the Single Rulebook. The Single Rulebook establishes a set of harmonized regulatory rules for the EU financial sector and implements Basel III in Europe (EBA, 2016; European Commission, 2013a). Publication dates of these EU directives range from June 2013 to April 2014. The deadlines for transposition into domestic legislation by EU member states range from December 2013 to January 2016. We focus on all directives related to the Single Rulebook, that is, the Capital Requirements Directive IV (CRD IV), the Bank Recovery and Resolution Directive (BRRD), and the Deposit Guarantee Schemes Directive (DGSD). These three directives, in turn, underlie the three pillars of the EBU, with whom Euro Area countries are obliged to comply.

Our correlation results indicate quite clearly that transposition delays are mainly determined by the state of existing regulatory and institutional frameworks in each country. This result applies in particular to the implementation of the CRD IV, which entails detailed regulation on capital requirements and the like. Neither observable features of the banking system – such as the share of non-performing loans – nor traits of the political system and its institutions – like the political diversity or the rule of law – exhibit pervasive correlations with measured transposition delays. However, selected indicators do correlate significantly with one of the three directives investigated across a range of different estimators.

Our study relates to both the political science as well as the financial economics literature. The former commonly reports that the transposition of EU directives into national law is generally often delayed (Berglund et al., 2006; Kaeding, 2006; Mastenbroek, 2003). Transposition delays of EU directives increase with less intense supranational monitoring, a higher complexity of the directive, tighter transposition deadlines, interest group influence, as well as federalist or pluralist political structures (Borghetto et al., 2006; Kaeding, 2006; Koenig and Luetgert, 2009). Specifically with respect to EU directives that concern financial integration, Kalemli-Ozcan et al. (2013) argue that the transposition process is notoriously slow since it requires modifications of existing institutional infrastructure, the removal of previous regulations, and in many cases the establishment of new agencies and infrastructure. To gauge these aspects, we therefore specify proxies that approximate the capacities of the existing political and institutional apparatus to implement legal acts, which might drive observed delays.

With respect to the financial economics literature, we control for two main blocks of factors put forward in the literature that might be important to explain the cross-country variation in transposition delays. First, we specify indicators of the structure of the banking system and the role of the government therein. National authorities might strategically delay the transposition of certain directives to protect weakly or even undercapitalized banks. For example, Kroszner and Strahan (1999) analyse US states' decisions to deregulate bank branching. The strength of interest groups, representing possible losers and winners of the reform, affect the timing of the deregulation. Deregulation is more delayed in states with a higher share of smaller banks, which have been most likely to suffer from the reform. Lambert (2015) confirms that lobbying by the banking industry can drive supervisory decisions using data on US lobbying banks, which consequently received a preferential treatment by the supervisor. Rossi and Yun (2015) confirm the importance of interest group strength regarding US states' decision to reform the bankruptcy law for municipalities. Regarding the nexus between European banks and governments, highly indebted sovereigns relying on bank funding can have incentives to delay more restrictive regulation imposing constraints on national banks (see Brunnermeier et al., 2017). Large shares of government-owned banks might, in turn, entail inefficient credit allocation in an attempt to please politicians' constituencies (Sapienza, 2004; Englmaier and Stowasser, 2017). Our results provide some evidence that interest group effects are likely to be present (and successful) in delaying EBU directives given that a higher concentration in the banking sector correlates positively with delays. Likewise, more direct government dependence on and participation in the banking system reflected by a higher number of government-owned banks correlate positively with delays.

The second important financial economics perspective that inspires our correlation analysis relates to the existing regulation and supervision framework in place. Dating back to, at least, Benston et al. (1986) and Kane (1990), a rich literature discusses the virtues and pitfalls of rule-based versus discretionary approaches how to regulate and supervise banks. Much of this literature reports that the postponement of stern bailout and prudential decisions -- for example, by governments due to political concerns -- increases risk-taking, distorts competition, allocates credit inefficiently, and disturbs corporate investment decisions (Brown and Dinç, 2005; Gropp et al., 2011; Duchin and Sosyura, 2012, 2014; Liu and Ngo, 2014; Behn et al., 2015, Kick et al., 2017). More generally, a more stable banking sector due to stricter regulation lowers the risk of adverse risk spillovers to the sovereign as experienced during the recent financial crisis (Acharya et al., 2014). However, governments might strategically interact with the banking sector, for example, to refinance themselves (van Horen et al., 2016). In this case, a more restricted banking system also imposes constraints on the state and might induce the national authority to postpone the implementation of the directive into national law. Our paper seeks to provide indications if observable cross-country differences in regulatory and supervisory regimes also manifest themselves in significant transposition delay heterogeneity. As such, we complement these

important studies that consider differences and changes in regulation as exogenous shocks when investing micro-level responses in the cross-section of banks with a more macro view at potential determinants that help explain heterogeneity in regulation.

The paper proceeds as follows. In Section 2, the regulatory framework and the underlying data are explained. In Section 3, the empirical approach to analyse determinants of transposition delays is described and results are presented. The final section concludes.

## 2. Data Description

### 2.1. The directives of the Single Rulebook

Following the financial and sovereign debt crisis in Europe, a new regulatory framework in the banking system has been implemented. Key element in the EU is the Single Rulebook. It seeks to establish harmonized rules for the financial sector across all EU countries (EBA, 2016). The contents of the Single Rulebook form the basis of the three pillars of the EBU, which is applicable to all Euro Area countries and voluntary for the remaining EU countries.[1] In a currency union, distress in financial and sovereign debt markets can impact the transmission of monetary policy. Thus, the European Commission has seen the need to implement additional and centralized rules for regulation and supervision on top of the Single Rulebook for Euro Area countries (European Commission, 2013a). The directives being part of the Single Rulebook are the CRD IV, the BRRD, and the DGSD.

#### 2.1.1. Capital Requirements Directive IV (CRD IV)

The first directive is the 2013/36/EU Directive "on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms" (CRD IV). The specified rules apply as of **31 December 2013**, while there will be a phase-in for some instruments included in the package. Full implementation is obligatory as of 1 January 2019. The main elements regulated in this directive are capital buffers (capital conservation buffer; countercyclical buffer; global systemic institution buffer; other systemically important institutions buffer and systemic risk buffer), corporate governance (risk-taking monitoring; board diversity and transparency of bank activity), remuneration (transparency and disclosure requirements and regulation of variable compensation), access to taking up/ pursuit of business, sanctions, exercise of freedom of establishment and free movement of services (European Commission, 2013b).[2] The CRD IV package implements key elements of Basel III.

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[1] The framework is visualized in the appendix, Figure 1.
[2] Note there is also a regulation, the Capital Requirements Regulation (CRR), which is more detailed and highly prescriptive compared to the corresponding directive (CRD IV). The regulation determines issues like capital in general, liquidity, leverage, counterparty credit risk, large exposures and disclosure requirements. In addition, the regulation establishes the Single Rulebook. In contrast to the CRD IV, the CRR directly applies to all member states to ensure fast implementation and uniform rules across member states. Other areas that have to be coordinated with national law and need more national flexibility are included in the directive (European Commission, 2013b).

### 2.1.2. Bank Recovery and Resolution Directive (BRRD)

The second directive we consider is the Bank Recovery and Resolution Directive (BRRD). Its contents are specified in the 2014/59/EU Directive. The directive imposes that member states adopt the instruments needed to implement the directive by **31 December 2014** and apply them from 1 January 2015 onwards. The directive contains rules on the recovery and resolution of banks in distress. For example, it foresees that first shareholders and creditors of a bank in distress have to bear losses before access to a resolution fund is granted. Therefore, a bail-in hierarchy is specified. In the Euro Area, the Single Resolution Board (SRB) as the resolution authority has been fully responsible since January 2016 for applying the contents of the BRRD.

### 2.1.3. Deposit Guarantee Schemes Directive (DGSD)

The third legislative act considered is the Deposit Guarantee Schemes Directive (DGSD). The contents are specified in the 2014/49/EU Directive. The main transposition deadline is **03 July 2015**. The directive aims at harmonizing deposit insurance regulation across EU countries. However, it does not establish a supranational deposit insurance. Key elements of the directive are the insurance of 100,000 Euro per depositor per bank and improved information of depositors about the protection of their deposits.

### 2.2. Transposition delays

Although the European Commission specifies transposition deadlines for the directives, implementation delays are common across member states. EU regulations become law immediately and in a uniform way across member states. In contrast, EU directives are legislative acts that become enforceable only after each EU member state passes domestic legislation adopting the directive. While directives are binding, member states can chose the type of legal instrument and the measures to implement the directive.[3] Depending on administrative or ministerial traditions, one legal instrument is preferred to the other. In Germany, for example, EU directives tend to be either implemented by law (*Gesetze*) or ministerial order (*Rechtsverordnungen*).

The European Commission, as "the guardian of the treaties", is responsible for the surveillance of the "secondary legislation", that is the timely and adequate implementation of the directive by each member state. In case of the Single Rulebook, the responsibility falls, amongst others, upon the Financial Stability, Financial Services and Capital Markets Union Directorate-General (DG). The **transposition deadline**, uniform across all member states, indicates the date, at which the directive has to be implemented into national law by the member states. In contrast, on the **notification date** the member state sends all national implementation measures (NIM) to the commission. A directive is fully notified when all awaited NIM are received. After this notification, the European

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[3] „A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods." Source: Article 249 EC Treaty.

Commission performs completeness checks followed by conformity checks. Completeness and conformity checks for complex directives, such as CRD IV, BRRD, and DGSD, are conducted by an external contractor and may take some time to be finished. If a member state fails in the notification process, infringement procedures can be initiated.

**To define a measure of transposition delay for each member state, we use two dates: the transposition deadline and the notification date.** Transposition deadlines are obtained from EURLEX and are as mentioned in Section 2.1: 31.12.2013 for the CRD IV, 31.12.2014 for the BRRD and 03.07.2015 for the DGSD.[4] The literature lacks an official and established measure of transposition date at the member state level (Koenig and Luetgert, 2009). We take the notification date as indicative of member states having implemented a directive into national law.[5] This information is obtained from the "Single Market Scoreboard" maintained by the Internal Market DG, European Commission and corresponds to the reporting status as of June, 24th 2016 when the data has been requested.[6]

Based on the notification date of each member state, we can then calculate the delay in the implementation relative to the transposition deadline. The larger the difference between a country's notification date and the transposition deadline of an EU directive, the more delayed is the member state in implementing the directive. Figure 2 gives an illustration of the timing of the transposition procedure. Member states B-D notified the European Commission about the implementation of the directive into national law after the transposition deadline but before the starting date of our analysis. Hence, this qualifies as a **transposition delay**. In our sample, except Belgium (CRD IV, BRRD and DGSD), Poland (BRRD and DGSD) and Slovenia (BRRD), all member states gave notification on the directives as of June 2016.[7]

Most member states notified the European Commission of their national measures being complete *after* the transposition deadline meaning that they delayed the transposition across the three directives and the EU has started infringement procedures. From Figure 3, it can be seen that there is substantial heterogeneity in the transposition delay of the directives after the transposition deadline. Belgium, Poland, and Slovenia obviously have the longest accumulated delay across the three directives. In contrast, Austria and Germany implemented the directives quickly after the deadline.[8]

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[4] Note that the DGSD has two transposition deadlines: 03.07.2015 and 31.05.2016. We consider the first one as representative, since the second deadline corresponds only to Article 8(4) in the 2014/49/EU Directive. All the remaining provisions should be implemented until 03.07.2015.

[5] However, it has to be noted that the notification date does not necessarily correspond with the entry-into force date, for example, if specific measures have a phase-in period. Additionally, Versluis (2007) shows for the Safety Data Sheets Directive that complete implementation by one member state did not result into uniform application across states, thus resulting in dissimilar practices across the four considered member states.

[6] It is to note that the EC updates notification dates every time a member state provides new information to the EC. Thus, the notification might not necessarily correspond to the first announcement of complete transposition by a member state. This applies in particular for information obtained the further away from the transposition deadline. Due to multiple requests over time, we can extract those changes with a high degree of precision.

[7] For these three countries, the transposition delay is computed as the difference between the transposition deadline and June 2016.

[8] As an alternative measure, we construct a harmonization index similar to Kalemli-Ozcan et al. (2010, 2013) and take its inverse to interpret a higher value as a longer time span until the transposition of *all EU directives* into national law. The pattern across countries is depicted in the appendix (Figure 4) and coincides with Figure 3. Also for this measure taking delays across all three directives into account, Belgium, Poland, and Slovenia have the highest values, Austria and Germany have the lowest.

### 2.3. Explanatory variables

Several factors can explain the timing of transposition delays of EU directives being part of the Single Rulebook. First, we expect that **banking market structure** traits might matter. The reason is that all three directives of the Single Rulebook aim at harmonizing rules in the banking sector across EU member states. This, at the same time, implies that existing national regulation is overruled and banks face additional constraints. Consequently, there might be forces at the national level aiming at delaying the switch to the new regulatory framework, for example, if supra-national regulation limits the scope of national politicians to directly influence national banks. As another example, a banking system with many banks of very different size and business models might simply be more complex and thus requires more time to adapt to new regulatory standards. In sum, creating a uniform level playing field might take place at different speed across countries depending on the state and structure of the banking system and the sovereign.

To proxy for structural characteristics and the health of the banking and sovereign sector, we include variables like the number of credit institutions, the market share of the five largest banks (bank concentration), the capital to assets ratio, the share of non-performing loans, the share of private credit, the number of government owned banks and the share of government debt. We hypothesize that countries with less stable banks or governments should face more lobbying to slow down the implementation of the new regulatory setting. Additionally, lobbying by the banking industry might be more successful if the largest banks have more weight and thus jointly more lobbying power.

Second, the existing stance of **financial regulation and supervision** can impact the transposition of directives. If countries already maintain stringent regulation and supervision, adopting the new (and stricter) regime should be facilitated. To give an example, if restructuring or official supervisory power is already high in a country, the implementation of the BRRD does not constitute a substantial change. As concerns the CRD IV, stricter and extended capital regulation should be easier to implement if countries had ex ante a more stringent capital regulation. A higher share of deposit insurance funds to total assets might facilitate the adherence to the DGSD. Thus, we make use of the database by Barth et al. (2013) and control for existing regulatory and supervisory power of financial authorities. We add more general controls like the stance of regulatory quality and financial freedom.

Finally, the **political and institutional setting** has been shown to play a crucial role in previous analyses of transposition delays. Pluralist systems with more actors involved in the decision-making process can lower the strength and effectiveness of the government to significantly influence the timing of the transposition process. The regulator's transposition ability can also depend on the general political environment and we include an indicator for political stability and freedom from corruption. Efficient institutions help to cope with the burden of implementing complex and extensive directives. If a member state faces a high number of previous EU directives

to be implemented, institutions might still be occupied and fewer resources are available to adopt the EU directives pertaining to the Single Rulebook. Thus, we include controls like the number of open infringement cases and the time required to enforce a contract to capture administrative efficiency. We further add variables that approximate the strength of the legal system (rule of law, strength of legal rights, property rights).[9]

A detailed list of all variables with their definitions and sources is in the appendix. We average explanatory variables over the period 2011-13, that is, over a time period before the first transposition deadline. Due to data availability, we cannot compute average values for some variables. In such cases, we use the latest available value before the transposition deadline.[10] Alternative definitions of the explanatory variables, such as changing the calculation period of averages, did not change our main results. Summary statistics can be found in Table 1.

## 3. What Determines Delays?

### 3.1. Empirical analysis

An important challenge that we face in the empirical analysis is the low number of observations. Per directive, we observe the delay for less than 30 countries. Therefore, we proceed as follows. We start by looking at simple correlations between the transposition delay per directive and the covariates across EU countries, which are visualized in Figure 5. To validate the conclusions drawn from the correlation coefficients, we then conduct simple regressions and estimate the following equation to explain the determinants of transposition delays:

$$Delay_{ij} = \alpha + \beta_1 Covariate_i + \epsilon_{ij} \qquad (1)$$

where the dependent variable is the transposition delay of directive $j$ (in months) in country $i$ as described in Section 2.2. The explanatory variables denoted by $Covariate$ are measured at the country level and $\beta$ is the parameter to estimate. Given that the time span during which transposition delays took place is not larger than 30 months and because our explanatory variables are measured annually, we opt for a non-dynamic model with time constant covariates. The model is estimated with robust standard errors.

Our preferred specifications are *univariate* ordinary least square (OLS) models (Table 2). In Table 3, we show two alternative estimation methods to validate our results. The first are Cox proportional hazard regressions (Cox, 1972) with the delay measured in months specified as the dependent variable.[11] A positive coefficient implies that the probability to observe a "failure" increases, that is, the transposition takes place sooner. A positive coefficient in the Cox model is

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[9] In robustness tests, we included various controls to gauge a member state's **economic strength** (GDP growth, GDP per capita, inflation, unemployment, current account, real effective exchange rate, stock returns). These variables did not exhibit significant relationships with the transposition delay. Results are available upon request.

[10] Few variables, such as the number of open cases, have not been available for all EU member states. This lowers the number of observations, for which correlation coefficients are calculated or univariate regressions are conducted in Section 3.

[11] Using a Cox model to explain the timing of financial reform is similar to Kroszner and Strahan (1999) and Rossi and Yun (2015). Compared to an OLS model, the hazard model has the advantage that it controls for the non-normality of the error distribution. However, given the low number of observations in our sample, an OLS model is more efficient.

therefore commensurate with a negative OLS coefficient. Third, we estimate probit models, in which the dependent variable is one if a country exhibits a transposition date in the highest quartile of the delay distribution and zero otherwise.

## 3.2. Results

The results reveal that variables primarily relating to the existing regulation and supervision matter the most to explain the variation of observed transposition delays. The set of relevant variables is largely consistent across directives. This becomes visible in Figure 5 when visualizing the correlation coefficients across directives. Additionally, the direction of the relationship of an explanatory variable and the transposition delay is the same irrespective of whether simple correlations (Figure 5) or univariate regressions results (Table 2 and Table 3) are considered.

### 3.2.1. Banking market structure

Coefficients of variables classified as banking market structure factors tend to have the expected sign but are mostly insignificant. It is noteworthy though that a few selected covariates exhibit fairly consistent associations with observed transposition delays.

First, countries with larger banking systems -- as measured by the number of credit institutions -- transpose directives faster. This result emerges not only from the correlation coefficients, but also from significant parameter estimates in the univariate OLS regressions to explain CRD IV and BRRD delays (Table 2). Note also that the Cox proportional hazard model shown in Table 3 corroborates qualitatively both results. The effect is there also statistically significant for the CRD IV directive despite the arguably low power of these regressions. Paired with descriptive statistics shown in Table 1, the OLS results imply for an increase of the number of banks by one standard deviation in a country's banking system a reduction of transposition delays by 2.2 month (CRD IV) and 1.4 months (BRRD), respectively.

Second, the results for the average capitalization between 2011 and 2013 yield no statistically significant relationship with transposition delays in the OLS estimates reported in Table 2. But Table 3 highlights selected effects. Better-capitalized systems transpose the DGSD directive quicker according to the Cox estimations and are less likely to be amongst the tardiest implementers of the BRRD according to the Probit estimations. Whereas qualitatively identical but insignificant effect tend to emerge for all estimators across all three directives, these results therefore provide some statistically significant indication for the assumption that politicians might want to delay the transposition of directives to protect unhealthy banking systems struggling with low capital ratios.

Third, the estimated coefficients for the number of government owned banks correlate significantly positive with transposition delays of the BRRD and DGSD in Table 3. The result that the likelihood of a country being in the 75th percentile of the delay distribution is higher if direct

government ownership in the banking sector is more pervasive is consistent with the potential for agency conflicts in these countries that entail also sluggish surrendering of national powers.[12]

Finally, estimation results in Table 3 further indicate that a larger monetization of a country by means of private credit correlates with faster transposition. More bank-dependent economies with a relatively larger role played by the banking system to finance a nation's goods and services production might also be those systems that have the largest incentives to harmonize regulation and supervision in an increasingly integrated European market, thus being both more willing and more able to transpose the BRRD directive in the case of the Cox proportional odds model and the CRD IV directive in case of the Probit estimation.

Overall, however, the evidence that banking market structure factors are the main drivers of transposition delays pertaining to EBU directives is fairly limited.

### 3.2.2. Financial regulation

Although variables related to the stance of financial regulation show significant coefficients, the direction of the effect differs. Not obviously in line with expectations is that higher restrictions on banking activity as well as lower supervisory forbearance discretion ("higher values indicate less supervisory discretion", Barth et al., 2013) correlate positively with the transposition delay (Tables 2 and 3, Figure 5). This result is mostly significant for the CRD IV and might suggest that ex ante stricter supervision and regulation can impose trade-offs regarding the implementation of new regulation or trigger more lobbying activities regarding additional supervisory and regulatory standards given an already restrictive environment.

In contrast, more stringency as concerns existing standards that relate to newly introduced regulation seem to facilitate the implementation of those directives. A higher degree of prompt corrective power is negatively and often significantly connected to the transposition delay (Tables 2 and 3). Also, a higher degree of restructuring power correlates negatively with the transposition delay of the BRRD (Figure 5). In particular relevant for the DGSD is that countries with more deposit insurance funds exhibit shorter delays, whereas factors mitigating moral hazard as concerns deposit insurance schemes are also negatively linked to delays (Table 2). This seems reasonable given that new rules should be easier to implement in countries with a higher existing amount of deposit insurance funds. The importance of this result is not only revealed by the relatively high correlation coefficients but also significant regression coefficients.

The more general proxies for the stance of regulation, such as regulatory quality or financial freedom, show expected signs but are not statistically significant. This finding discloses that it is regulatory standards specific to the sector going to be affected by the directives that matter.

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[12] Unreported results confirm that more state aid provided in the form of liquidity guarantees or capital support to the banking sector also correlates positively with the transposition delay of the BRRD, thereby fostering the impression of closer government-bank links leading to slower transposition of EBU directives.

### 3.2.3. Politics and institutions

Regarding the political and institutional system, a consistent result is that the more parliamentary parties in a country, the larger the delay tends to be. This result might reflect coordination problems and controversies about the introduction of new EU directives across political parties. All other variables relating to the political system do not turn out significant in the regressions as well as correlation coefficients are small.

Better and more efficient institutions mirrored by fewer open infringement cases, a lower time to enforce contracts, or a higher strength of legal rights are related to countries, which implement the directives earlier. While all of these variables show relatively high correlation coefficients (Figure 5), the variable "time to enforce contracts" turns out significant for the BRRD and DGSD (Table 2).

In sum, these results show that existing regulatory and institutional frameworks are mainly associated with transposition delays, a finding that is consistent across directives. To test for peer pressure, we have also correlated the transposition delay of a directive of one country with the transposition delay of this directive for the countries, with which it shares a border. However, correlations have not been significant and much smaller than the correlation among EBU transposition delays of all directives for one country. This finding suggests that country-specific, structural characteristics drive the implementation speed.

## 4. Conclusions

The speed with which European member states implement the European Banking Union (EBU) differs vastly. Excessive differences in the introduction of harmonized rules and regulation, in turn, are cumbersome since they might fuel concerns about the credibility of important mechanisms of the EBU that aim to enhance financial resilience and the efficient functioning of financial markets. The recent differential treatment of failed banks' owners and debt holders in Spain and Italy is a point in case.

We conduct a clinical study that collects systematically data on the time each member state took to transpose the three directives underlying the EBU into national law. These so-called transposition delays vary considerably across member states. We investigate first simple correlations with covariates that represent three potential drivers of delays: the structure of national banking systems, the supervisory and regulatory regime in place, and political and institutional traits.

Results clearly indicate that existing regulatory and institutional traits are the most important drivers of transposition delays. In particular, larger deposit insurance schemes correlate consistently across all three directives, the CRD IV, the BRRD and the DGSD, with shorter transposition delays. Countries with more efficient and effective institutions reflected by a lower amount of open infringement cases, reduced time to enforce contracts and a higher strength of legal

rights, tend to implement EBU directives faster. Whereas less often exhibiting statistically significant correlations, we also find individual results for selected covariates gauging banking market structure and political characteristics though. Notably, a larger number of government-owned banks is correlated with longer delays in the implementation of EBU directives. Thus, a more direct involvement of states' in the banking system appears to slow down the inception of the EBU, which obviously implies to surrender some national sovereignty to the European level. Related, political systems with a larger number of parties also tend to implement slower. This finding confirms political science research emphasizing that difficult and complex directive implementation requires more time – especially when more parties have to agree.

Given the lack of significant results of variables approximating in particular banking market structure but also political factors of countries' EBU implementation patterns, our findings might point into the direction that how the interest of the banking industry interacts and possibly enters the political process is relevant at earlier stages of the European Commission's decision process and not reflected in ex-post publically available, country-level data. For example, lobbying efforts by politicians and the banking system might take place during the drafting of the directive. Hence, at the time a directive is passed by the Commission, the national transposition depends mainly on the institutional capacity to transpose the directive as well as on the distance to the existing regulatory framework.

In sum, the observed heterogeneity in implementation speeds of the EBU correlates with a number of observable country traits, especially regulatory and institutional standards applying to national (banking) systems. Further research might now investigate the effects of the dissimilar introduction of the EBU across member states. Additional details and transparency on the nexus between the political and legislative process at the European level and the interaction with interest groups of the financial industries seems desirable.

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# DATA DESCRIPTION

| Variable name | Definition | Source | Year |
|---|---|---|---|
| ***Transposition delay*** | | | |
| CRD IV | Delay in months | European Commission | 2013 |
| BRRD | Delay in months | European Commission | 2014 |
| DGSD | Delay in months | European Commission | 2015 |
| ***Explanatory variables*** | | | |
| ***BANKING MARKET STRUCTURE*** | | | |
| Credit institutions | Number 2013 | EBA | 2013 |
| Bank concentration | Assets 5 largest banks in % | Barth et al. (2013) | 2011 |
| Capital | % of total assets | The World Bank | Average 2011-13 |
| Non-performing loans | % of gross loans | The World Bank | Average 2011-13 |
| Private credit | % of GDP | BIS | Average 2011-13 |
| Government owned banks | Number | Barth et al. (2013) | 2011 |
| Government debt | % of GDP | ESRB | Average 2011-13 |
| ***REGULATION AND SUPERVISION*** | | | |
| Regulatory stringency | Restrictions on banking activity (3-12); Denied entry into banking (0-1); Capital regulatory index (0-10); Supervisory power (0-14); Prompt corrective power (0-6); Restructuring power (0-6); Supervisory forbearance discretion (0-4); Private monitoring index (0-12); Deposit Insurance Funds-to-Total Bank Asset (ratio); Factors mitigating moral hazard (0-4) | Barth et al. (2013) | 2011 |
| Regulatory quality | -2.5 weak to 2.5 strong | WB Governance Indicators | Average 2011-13 |
| Financial freedom | 0 weak to 100 strong | The Heritage Foundation | Average 2011-13 |
| ***POLITICS & INSTITUTIONS*** | | | |
| Number of parliamentary parties | Number | Manifesto Project | Last election year before end 2015 |
| Effective number of parliamentary parties | Inverse HHI of seat share | Manifesto Project | Last election year before end 2015 |
| Political stability | -2.5 weak to 2.5 strong | WB Governance Indicators | Average 2011-13 |
| Freedom from corruption | 0 weak to 100 strong | The Heritage Foundation | Average 2011-13 |
| Political democracy | -10 strongly autocratic to 10 strongly democratic | Systemic Peace Database | Average 2011-13 |
| Political pluralism | ordinal scale, higher values indicate higher pluralism | CNTS | Average 2011-13 |
| Government effectiveness | -2.5 weak to 2.5 strong | WB Governance Indicators | Average 2011-13 |
| Open infringement cases | As of December | European Commission | Average 2011-13 |
| Time to enforce contract | In days | The World Bank | Average 2011-13 |
| Rule of law | -2.5 weak to 2.5 strong | WB Governance Indicators | Average 2011-13 |

| | | | |
|---|---|---|---|
| Strength of legal rights | 0 weak to 12 strong | The World Bank | 2013 |
| Property rights | 0 weak to 100 strong | The Heritage Foundation | Average 2011-13 |

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                              European Banking Union
                   Euro Area countries (voluntary opt-in for other EU countries)
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| **Single Supervisory Mechanism (SSM)** | **Single Resolution Mechanism (SRM)** | **Harmonized Deposit Insurance Rules** |
|---|---|---|
| ➢ Supervision of largest banks<br>➢ Since November 2014 | ➢ Unified rules for restructuring and resolution of banks<br>➢ Single Resolution Fund (SRF) financed by bank levies<br>➢ Since January 2016 | ➢ 100,000 Euro insured per depositor and bank<br>➢ European Deposit Insurance Scheme (EDIS) still discussed |

**Single Rulebook**
Unification of regulatory framework in EU countries
➢ BRRD by European Commission
➢ CRR, CRD IV by European Commission (implementation of Basel III in EU)
➢ Directive on deposit guarantee scheme (DGSD)
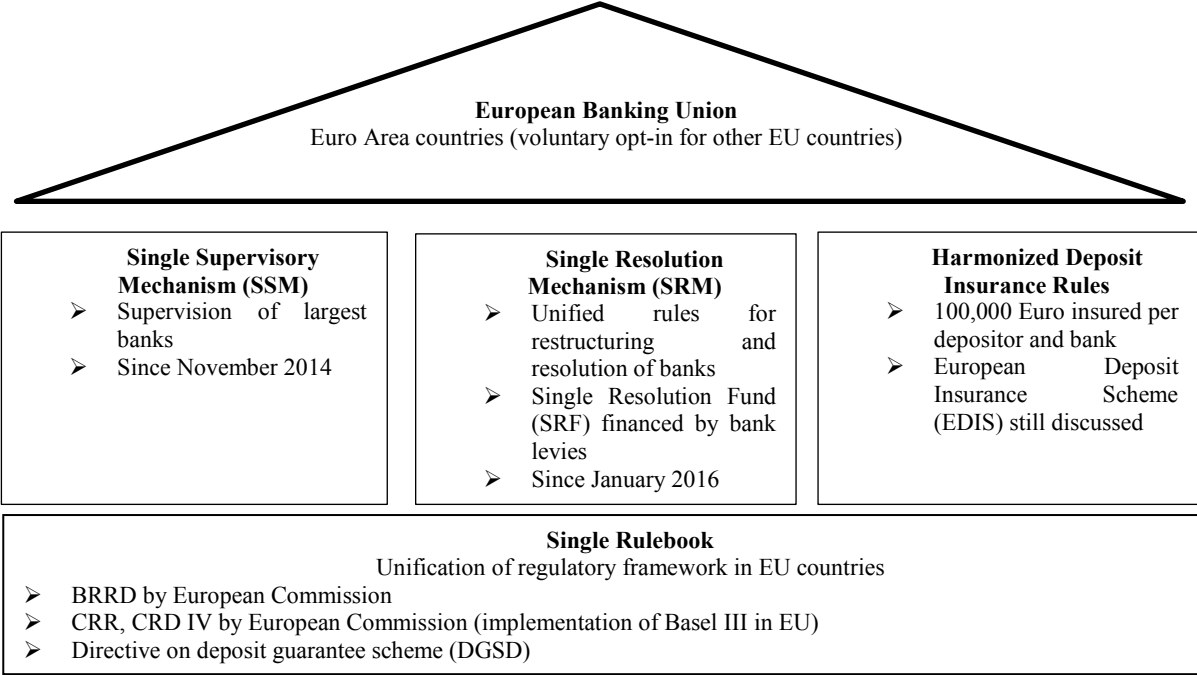
**Figure 1: New regulatory framework in Europe**

This figure shows the different pillars that form the basis of the new regulatory framework in Europe. The Single Rulebook applies to all 28 EU member states. The three pillars of the European Banking Union are obligatory for Euro Area countries and voluntary for the remaining EU member states. *Source*: Own illustration.
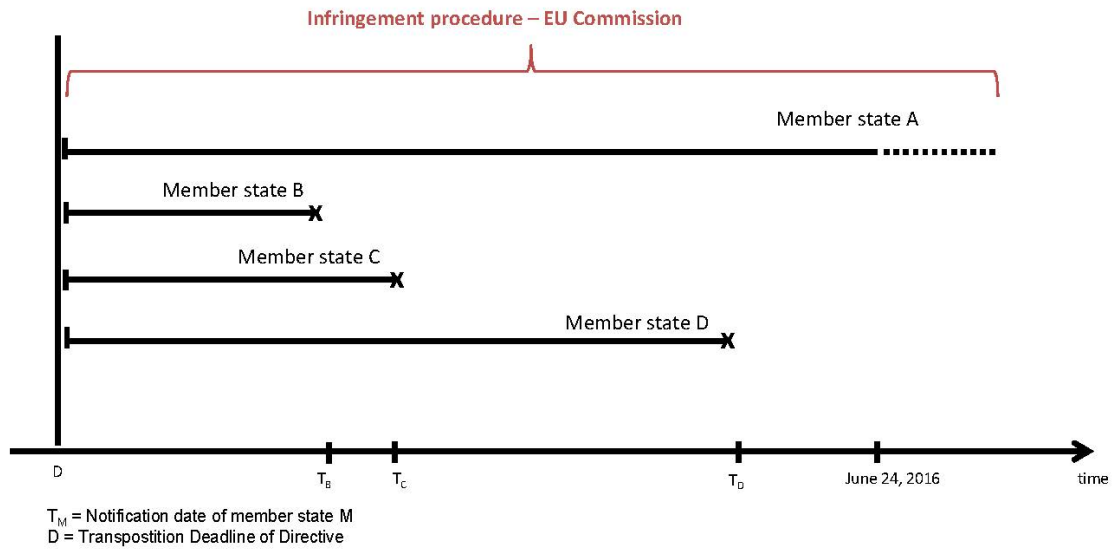
**Figure 2: Transposition delays of EU directives**

This graph illustrates the delayed transposition of EU directives into national law. The transposition deadline is given by D (vertical axis). All member states notify the European Commission after the deadline such that infringement procedures are initiated. Member states B, C, and D have notified before the end of our sample period (transposition delay). Member state A has not yet notified the Commission within the period of our study (notification failure). *Source*: Own illustration.
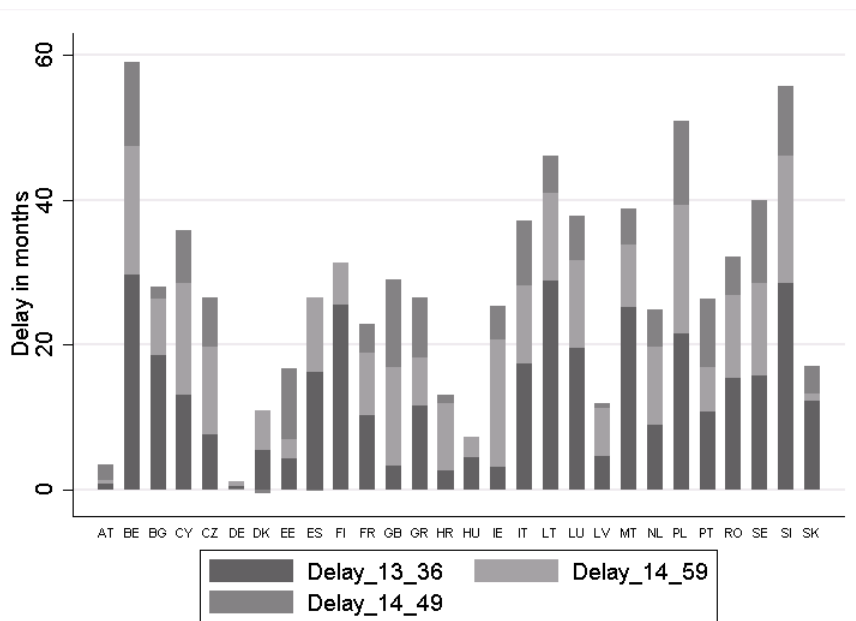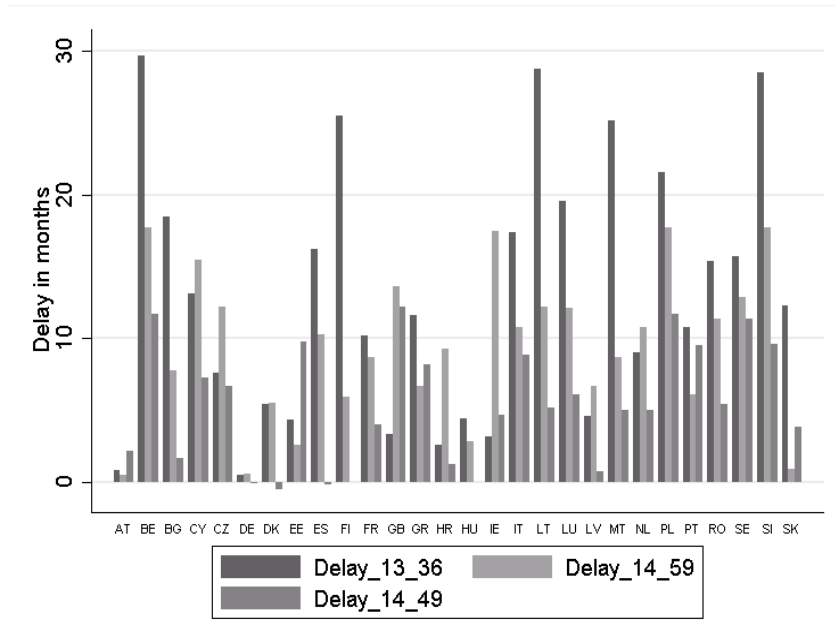
**Figure 3: Transposition delays**

This figure shows the (accumulated) delay of the CRD IV (13/36), BRRD (14/59), and DGSD (14/49) directives (in months) for each EU member state as of June 2016. *Source*: European Commission and own calculations.
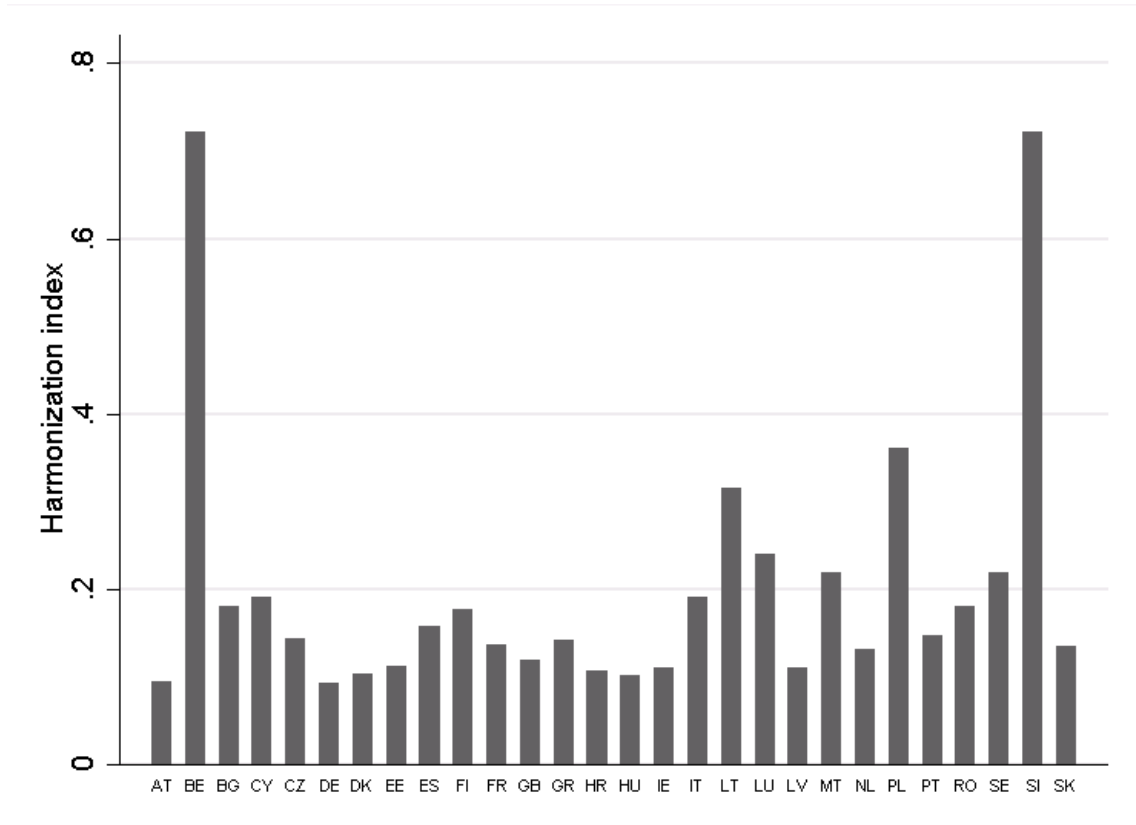
**Figure 4: Inverted harmonization index**

This figure shows the inverted harmonization index following Kalemli-Ozcan et al. (2010, 2013) for each EU member state. A higher value reflects a longer time span until the three EU directives have been implemented into national law. *Source*: European Commission and own calculations.

**Figure 5: Visualization of pairwise correlations**

This figure shows the pairwise correlations between the delay of the CRD IV (13/36), BRRD (14/59), and DGSD (14/49) directives (in months) for each EU member state as of June 2016 and one of the explanatory variables as defined in the data description. *Source*: See data description, own calculations.
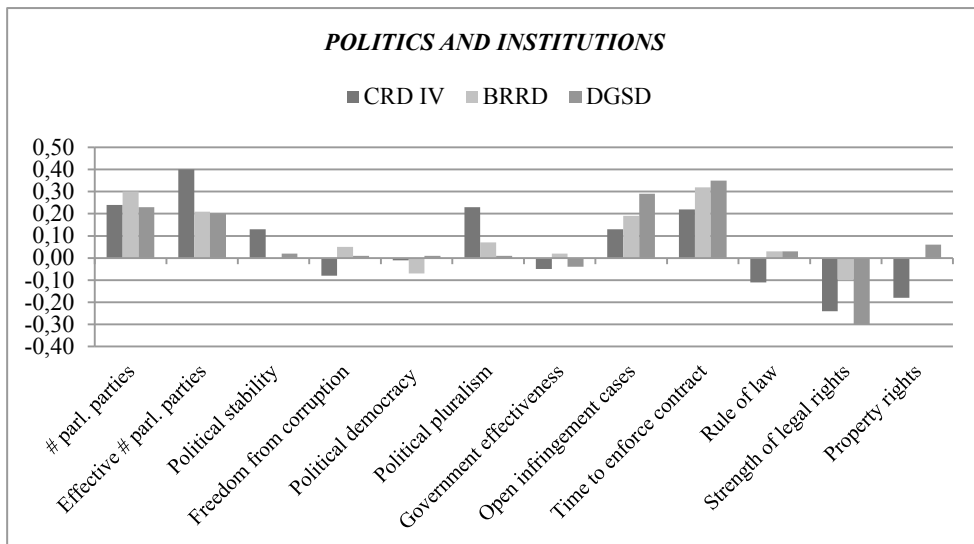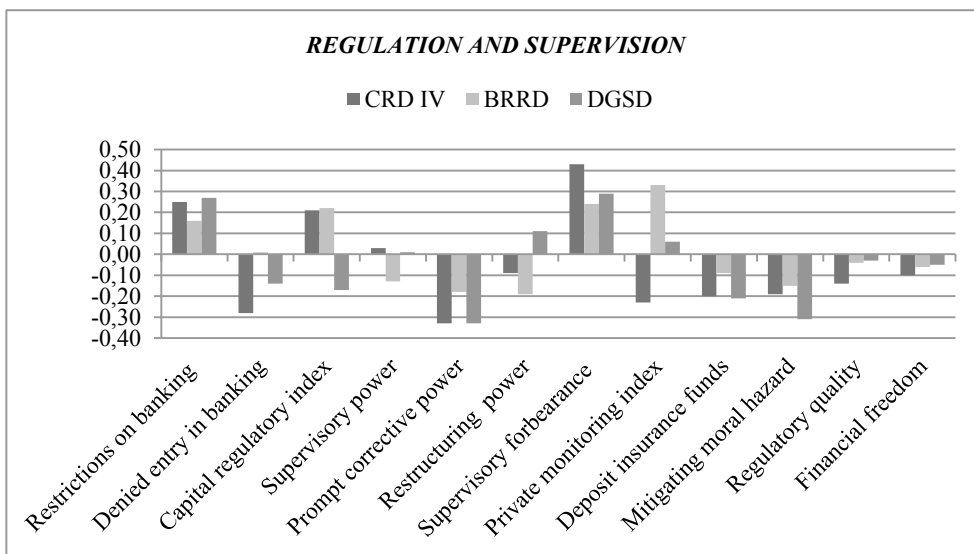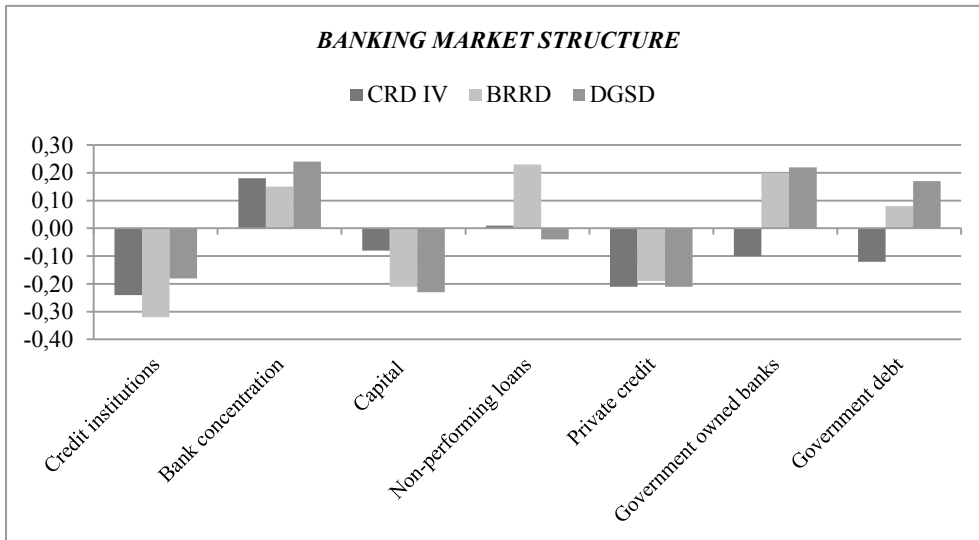
**Table 1: Summary statistics**

| Variable | Mean | SD | Min | Max |
|---|---|---|---|---|
| ***Dependent variables*** | | | | |
| CRD IV | 13.06 | 9.04 | 0.50 | 29.70 |
| BRRD | 9.47 | 5.26 | 0.50 | 17.70 |
| DGSD | 5.40 | 4.15 | -0.50 | 12.20 |
| | | | | |
| ***Explanatory variables*** | | | | |
| ***BANKING MARKET STRUCTURE*** | | | | |
| Credit institutions | 227.43 | 358.70 | 15.00 | 1705.00 |
| Bank concentration | 68.37 | 18.09 | 24.93 | 96.40 |
| Capital | 7.41 | 2.55 | 4.20 | 13.89 |
| Non-performing loans | 9.05 | 7.07 | 0.25 | 23.20 |
| Private credit | 99.62 | 37.11 | 50.00 | 184.27 |
| Government owned banks | 9.19 | 12.44 | 0.00 | 51.12 |
| Government debt | 68.61 | 36.11 | 8.45 | 169.45 |
| ***REGULATION AND SUPERVISION*** | | | | |
| Restrictions on banking activity | 6.14 | 1.76 | 4.00 | 11.00 |
| Denied entry in banking | 0.06 | 0.14 | 0.00 | 0.63 |
| Capital regulatory index | 6.71 | 1.80 | 3.00 | 9.00 |
| Supervisory power | 10.75 | 2.14 | 5.00 | 14.00 |
| Prompt corrective power | 3.29 | 2.81 | 0.00 | 6.00 |
| Restructuring power | 2.36 | 0.83 | 0.00 | 3.00 |
| Supervisory forbearance discretion | 1.54 | 1.14 | 0.00 | 3.00 |
| Private monitoring index | 8.00 | 1.11 | 6.00 | 11.00 |
| Deposit insurance funds | 0.03 | 0.13 | 0.00 | 0.61 |
| Factors mitigating moral hazard | 1.21 | 0.79 | 0.00 | 3.00 |
| Regulatory quality | 1.18 | 0.45 | 0.47 | 1.90 |
| Financial freedom | 68.81 | 10.86 | 50.00 | 90.00 |
| ***POLITICS AND INSTITUTIONS*** | | | | |
| Number of parliamentary parties | 7.41 | 2.52 | 4.00 | 13.00 |
| Effective number of parliamentary parties | 3.86 | 1.47 | 1.94 | 8.31 |
| Political stability | 0.76 | 0.39 | -0.16 | 1.37 |
| Freedom from corruption | 62.29 | 18.90 | 35.67 | 93.33 |
| Political democracy | 9.63 | 0.63 | 8.00 | 10.00 |
| Political pluralism | 5.01 | 0.35 | 4.00 | 6.00 |
| Government effectiveness | 1.13 | 0.59 | -0.23 | 2.21 |
| Open infringement cases | 54.67 | 23.91 | 21.00 | 112.67 |
| Time to enforce contract | 562.49 | 257.89 | 300.00 | 1283.33 |
| Rule of law | 1.11 | 0.61 | -0.13 | 1.95 |
| Strength of legal rights | 5.54 | 2.24 | 2.00 | 10.00 |
| Property rights | 69.88 | 18.60 | 30.00 | 90.00 |

*Notes*: This table reports summary statistics for the dependent and explanatory variables for the cross-section of EU member states. All variables and their sources are explained in the data description. *Source*: See data description, own calculations.

**Table 2: Univariate regression results**

| Directive | CRD IV | | BRRD | | DGSD | |
|---|---|---|---|---|---|---|
| Explanatory variable | Coeff. | Std. error | Coeff. | Std. error | Coeff. | Std. error |
| ***BANKING MARKET STRUCTURE*** | | | | | | |
| Credit institutions | **-0.006*** | *0.003* | **-0.004**** | *0.002* | -0.002 | *0.002* |
| Bank concentration | 0.0895 | *0.102* | 0.0422 | *0.065* | 0.0544 | *0.042* |
| Capital | -0.266 | *0.746* | -0.418 | *0.350* | -0.374 | *0.274* |
| Non-performing loans | 0.0098 | *0.222* | 0.1720 | *0.140* | -0.022 | *0.099* |
| Private credit | -0.047 | *0.050* | -0.028 | *0.031* | -0.026 | *0.031* |
| Government owned banks | -0.073 | *0.222* | 0.0857 | *0.093* | 0.0719 | *0.063* |
| Government debt | -0.031 | *0.038* | 0.0111 | *0.025* | 0.0192 | *0.018* |
| ***REGULATION AND SUPERVISION*** | | | | | | |
| Restrictions on banking activity | **1.3010*** | *0.741* | 0.4760 | *0.663* | 0.6436 | *0.406* |
| Denied entry in banking | **-18.34**** | *6.557* | 0.1858 | *3.685* | -4.085 | *3.752* |
| Capital regulatory index | 1.0547 | *0.756* | 0.6369 | *0.575* | -0.388 | *0.487* |
| Supervisory power | 0.1221 | *0.956* | -0.313 | *0.502* | 0.0194 | *0.406* |
| Prompt corrective power | **-1.060*** | *0.571* | -0.335 | *0.351* | -0.488 | *0.296* |
| Restructuring power | -0.979 | *2.528* | -1.216 | *1.357* | 0.5317 | *0.836* |
| Supervisory forbearance discretion | **3.3787**** | *1.534* | 1.1019 | *0.918* | 1.0439 | *0.629* |
| Private monitoring index | -1.896 | *1.252* | **1.525**** | *0.684* | 0.2312 | *0.721* |
| Deposit insurance funds | **-13.55***** | *3.435* | **-3.663*** | *2.033* | **-6.858***** | *1.613* |
| Factors mitigating moral hazard | -2.170 | *2.188* | -0.994 | *1.356* | **-1.621*** | *0.849* |
| Regulatory quality | -2.877 | *3.704* | -0.488 | *1.855* | -0.238 | *1.910* |
| Financial freedom | -0.085 | *0.159* | -0.027 | *0.075* | -0.017 | *0.077* |
| ***POLITICS AND INSTITUTIONS*** | | | | | | |
| Number of parliamentary parties | 0.8469 | *0.607* | **0.6485*** | *0.327* | 0.3898 | *0.370* |
| Effective number of parliamentary parties | **2.4448**** | *1.032* | 0.7657 | *0.634* | 0.5612 | *0.571* |
| Political stability | 2.9995 | *3.519* | -0.009 | *1.975* | 0.1927 | *1.986* |
| Freedom from corruption | -0.038 | *0.083* | 0.0150 | *0.045* | 0.0010 | *0.044* |
| Political democracy | -0.102 | *3.546* | -0.563 | *1.711* | 0.0532 | *1.544* |
| Political pluralism | 6.0110 | *5.528* | 1.0180 | *3.606* | 0.1035 | *2.564* |
| Government effectiveness | -0.779 | *2.628* | 0.1505 | *1.364* | -0.284 | *1.377* |
| Open infringement cases | 0.0489 | *0.067* | 0.0419 | *0.035* | 0.0501 | *0.032* |
| Time to enforce contract | 0.0076 | *0.006* | **0.0066*** | *0.004* | **0.0056***** | *0.002* |
| Rule of law | -1.624 | *2.507* | 0.2970 | *1.425* | 0.2099 | *1.289* |
| Strength of legal rights | -0.977 | *0.646* | -0.240 | *0.339* | **-0.549**** | *0.255* |
| Property rights | -0.087 | *0.084* | -0.000 | *0.048* | 0.0128 | *0.041* |

*Notes*: This table reports univariate regression results of OLS models for each of the directives: CRD IV, BRRD, and DGSD. The dependent variable is the transposition delay of a directive in months. The explanatory variables are averaged across the years 2011-13 if possible and as defined in the data description. We report estimated coefficients and respective standard errors. Estimations are conducted with robust standard errors. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively. *Source*: Own calculations.

**Table 3: Univariate regression results - Alternative estimation methods**

| Directive | Cox estimation | | | | | | Probit estimations | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CRD IV | | BRRD | | DGSD | | CRD IV | | BRRD | | DGSD | |
| Explanatory variable | Coefficient | Std. error | Coefficient | Std. error | Coefficient | Std. error | Coefficient | Std. error | Coefficient | Std. error | Coefficient | Std. error |
| *BANKING MARKET STRUCTURE* | | | | | | | | | | | | |
| Credit institutions | **0.0012*** | *0.001* | 0.0008 | *0.001* | -0.000 | *0.001* | -0.000 | *0.001* | -0.000 | *0.001* | -0.000 | *0.001* |
| Bank concentration | -0.012 | *0.012* | -0.003 | *0.012* | -0.010 | *0.013* | -0.001 | *0.016* | 0.0108 | *0.014* | 0.0217 | *0.017* |
| Capital | 0.0233 | *0.078* | 0.0710 | *0.080* | **0.2308*** | *0.100* | -0.005 | *0.109* | **-0.208*** | *0.120* | -0.094 | *0.111* |
| Non-performing loans | 0.0066 | *0.029* | -0.014 | *0.027* | 0.0478 | *0.031* | -0.046 | *0.038* | 0.0166 | *0.039* | **-0.074*** | *0.040* |
| Private credit | 0.0096 | *0.007* | **0.0135*** | *0.008* | 0.0058 | *0.009* | **-0.026**** | *0.012* | -0.007 | *0.009* | -0.002 | *0.009* |
| Government owned banks | 0.0046 | *0.012* | -0.020 | *0.015* | -0.018 | *0.017* | 0.0092 | *0.022* | **0.0402*** | *0.022* | **0.0405*** | *0.022* |
| Government debt | 0.0023 | *0.006* | -0.002 | *0.006* | -0.003 | *0.006* | -0.008 | *0.007* | 0.0052 | *0.007* | -0.001 | *0.008* |
| *REGULATION AND SUPERVISION* | | | | | | | | | | | | |
| Restrictions on banking activity | -0.078 | *0.123* | -0.080 | *0.098* | -0.031 | *0.103* | 0.1864 | *0.137* | 0.0681 | *0.160* | 0.0700 | *0.155* |
| Denied entry in banking | **4.3845**** | *2.020* | 0.7068 | *1.626* | **3.9285*** | *2.055* | **-15.15*** | *7.970* | -1.600 | *2.149* | **-7.619**** | *3.834* |
| Capital regulatory index | -0.185 | *0.137* | -0.092 | *0.107* | 0.1828 | *0.127* | 0.1291 | *0.109* | 0.0000 | *0.159* | -0.172 | *0.146* |
| Supervisory power | -0.016 | *0.084* | 0.0115 | *0.088* | 0.1191 | *0.120* | 0.0413 | *0.147* | -0.146 | *0.134* | 0.0195 | *0.125* |
| Prompt corrective power | 0.1181 | *0.073* | 0.0563 | *0.071* | **0.2379**** | *0.096* | -0.119 | *0.097* | -0.103 | *0.096* | **-0.278**** | *0.122* |
| Restructuring power | 0.0753 | *0.240* | 0.0877 | *0.240* | 0.0158 | *0.371* | -0.078 | *0.336* | -0.402 | *0.318* | 0.3229 | *0.310* |
| Supervisory forbearance discretion | **-0.341**** | *0.167* | -0.121 | *0.162* | -0.177 | *0.202* | 0.3917 | *0.271* | 0.1117 | *0.238* | 0.2997 | *0.251* |
| Private monitoring index | 0.3043 | *0.225* | -0.186 | *0.175* | -0.109 | *0.199* | -0.225 | *0.229* | **0.4785*** | *0.266* | -0.100 | *0.288* |
| Deposit insurance funds | 2.0374 | *1.851* | 1.0888 | *1.810* | 8.7597 | *6.088* | -1.913 | *1.166* | -2.879 | *2.072* | **-2.377*** | *1.340* |
| Factors mitigating moral hazard | 0.3226 | *0.303* | 0.3625 | *0.282* | 0.3732 | *0.323* | -0.310 | *0.308* | -0.520 | *0.350* | **-0.751*** | *0.408* |
| Regulatory quality | 0.1892 | *0.450* | 0.1096 | *0.462* | -0.620 | *0.540* | 0.3763 | *0.576* | 0.5256 | *0.590* | 0.2151 | *0.595* |
| Financial freedom | 0.0034 | *0.018* | 0.0100 | *0.019* | -0.023 | *0.021* | 0.0016 | *0.025* | -0.001 | *0.023* | 0.0016 | *0.025* |
| *POLITICS AND INSTITUTIONS* | | | | | | | | | | | | |
| Number of parliamentary parties | -0.114 | *0.089* | -0.077 | *0.087* | **-0.200*** | *0.110* | 0.0339 | *0.093* | 0.0605 | *0.099* | 0.0605 | *0.099* |
| Effective number of parliamentary parties | **-0.423**** | *0.177* | -0.145 | *0.129* | -0.097 | *0.138* | **0.4820***** | *0.186* | 0.1336 | *0.173* | 0.1883 | *0.171* |
| Political stability | -0.446 | *0.500* | -0.409 | *0.575* | -0.026 | *0.618* | **2.4712***** | *0.846* | 0.5421 | *0.603* | 0.4283 | *0.583* |
| Freedom from corruption | 0.0007 | *0.011* | -0.005 | *0.012* | -0.021 | *0.014* | 0.0107 | *0.013* | **0.0232*** | *0.013* | 0.0165 | *0.012* |
| Political democracy | 0.2052 | *0.318* | 0.0843 | *0.287* | -0.128 | *0.300* | 0.0683 | *0.502* | 0.1734 | *0.507* | -0.115 | *0.433* |
| Political pluralism | -0.930 | *0.959* | -0.113 | *1.066* | 0.3191 | *1.177* | 0.9445 | *0.770* | -0.095 | *0.515* | -0.095 | *0.515* |
| Government effectiveness | -0.052 | *0.323* | -0.073 | *0.360* | -0.453 | *0.405* | 0.4701 | *0.437* | 0.6755 | *0.456* | 0.3406 | *0.405* |
| Open infringement cases | -0.005 | *0.008* | -0.008 | *0.009* | **-0.018*** | *0.011* | -0.004 | *0.012* | 0.0068 | *0.010* | 0.0081 | *0.011* |
| Time to enforce contract | -0.000 | *0.001* | -0.001 | *0.001* | -0.000 | *0.001* | 0.0001 | *0.001* | 0.0011 | *0.001* | 0.0004 | *0.001* |
| Rule of law | 0.0638 | *0.341* | -0.110 | *0.363* | -0.613 | *0.433* | 0.4243 | *0.392* | 0.6430 | *0.407* | 0.4182 | *0.374* |
| Strength of legal rights | 0.0907 | *0.086* | 0.0390 | *0.092* | 0.0217 | *0.104* | -0.169 | *0.120* | 0.0562 | *0.108* | -0.066 | *0.113* |
| Property rights | 0.0058 | *0.012* | -0.002 | *0.012* | **-0.024*** | *0.014* | 0.0083 | *0.013* | 0.0208 | *0.014* | 0.0158 | *0.013* |

*Notes*: This table reports univariate regression results of Cox and probit models for each of the directives: CRD IV, BRRD, and DGSD. The dependent variable is the transposition delay of a directive in months. For the probit estimations, the dependent variable is defined as a dummy variable that equals one if a country's delay lies in the 75th percentile of the delay distribution across all sample countries. The explanatory variables are averaged across the years 2011-13 if possible. We report estimated coefficients and respective standard errors. Estimations are conducted with robust standard errors. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively. *Source*: Own calculations.

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