

## 4 Determinants of EU integration

The challenges facing the EU, as described in Chapter 3, will require political leaders and the European citizenry to follow through on the commitment made in the *Solemn Declaration of European Union* to produce “an ever closer union among the peoples and Member States.”<sup>1</sup> On the economic front, a deepening of integration will enhance the advantages of the EU’s internal market (yet to be completed) and protect its members against external and domestic shocks by creating symmetry across the regions. Politically, a deeper union will legitimize governance of a more united EU and bring its institutions closer to the people. Such deepening of political integration will also provide protection against nationalistic outlooks that favor a dissolution of the Union which became a potential reality with Britain voting to leave the EU. At the same time, political union will go a long way in legitimizing the EU as a true global actor.

One could argue that perhaps creating the Economic and Monetary Union prior to completion of the Common Market (Single Market) was premature, but external systemic challenges pushed European leaders to make that decision. Subsequent monetary union among some of the states further created division within the Union and created a two-track Europe. When we add to this the very slow pace of political union, the future of regional integration looks quite shaky. As some economists would say, “monetary union without a political union would not work.”<sup>2</sup> It only takes one major financial crisis to bring that monetary union down like a house of cards. The EU is currently working hard to ensure that will not happen by pushing ahead with new formulas for fiscal coordination that blend its supranational and intergovernmental decision-making mechanisms. Yet, ordinary citizens rarely possess ample information on the EU, its institutions, or its policies. In other words, while the EU knows a lot about its citizens through extensive surveys, the same cannot be said the other way around.

In light of these challenges, this chapter analyzes the determinants of European integration, from 1980 to the present, to determine which factors are important at which stage of integration. We also extend our analysis timeline to 2021 in an effort to determine what factors are needed, and to

46 what degree, for the EU to achieve further integration and perhaps full political  
 47 union. We will use the modified power transition theory developed in  
 48 Chapter 2. The theory predicts that integration will develop when there is  
 49 power asymmetry among regional partners that are also satisfied with the  
 50 status quo. We modified the theory by specifying the heart of the satisfaction  
 51 variable, namely value convergence, and introducing trust as an important  
 52 factor. The remainder of this chapter will describe the variable operational-  
 53 ization and test the hypotheses. Afterwards, we will use our model outcomes  
 54 to determine what degree of power asymmetry, value convergence, and trust  
 55 is needed for further integration.

## 57 Modeling

59 For our dependent variable, regional integration, we use the Integration  
 60 Achievement Score (IAS).<sup>3</sup> IAS provides a measure of deepening of integra-  
 61 tion in the EU and the data of 2016 are taken as constant until 2021. Given  
 62 Brexit, we also assume for estimation purposes that the UK will leave the EU  
 63 in 2019. The IAS codes the level of integration in a given year using six cat-  
 64 egories of institutionalized cooperation among two or more countries using  
 65 information found in the implemented treaties. Coding is sensitive to the fact  
 66 that obligations often take time to implement. Therefore, coders conduct a  
 67 yearly monitoring of actual implementation. The categories are liberaliza-  
 68 tion of trade in goods and services, degree of capital mobility, degree of labor  
 69 mobility, level of supranational institution importance, degree of monetary  
 70 policy coordination, and degree of fiscal policy coordination. Each category  
 71 has a value of 0 (low) through 5 (high) and is coded using a Guttman scale  
 72 (see [Appendix A](#) for explanation of variable measurement). When we look  
 73 at the level of integration in the EU, it is clear that this is a two-track process.  
 74 Those members that are in the Eurozone are more integrated than others  
 75 that are only in the economic union.

76 For the operationalization of the independent variables, we use hierarchy,  
 77 values convergence, and trust in the EU. As discussed in Chapter 2, for  
 78 power transition theory, hierarchy, which is based on the relative power  
 79 of each state, is an important variable for system stability and promoting  
 80 cooperation and integration. To approximate the degree of hierarchy within  
 81 the EU, we construct the following simple measure that scores the relative  
 82 impact of the dominant nation (Germany) on the largest members of the  
 83 integrated EU community:

$$84 \qquad \qquad \qquad \text{Hierarchy}_{EU} = \frac{\text{German GDP}}{\text{Sum of remaining EU member states' GDPs}} \qquad (4.1)$$

87 As [Figure 4.1](#) indicates, Germany has been the dominant nation but its sta-  
 88 tus has been on a steady decline over time as other members of the EU have  
 89 increased their relative power. However, one of the bigger factors in the  
 90 decline of German power asymmetry is the expansion of membership. The

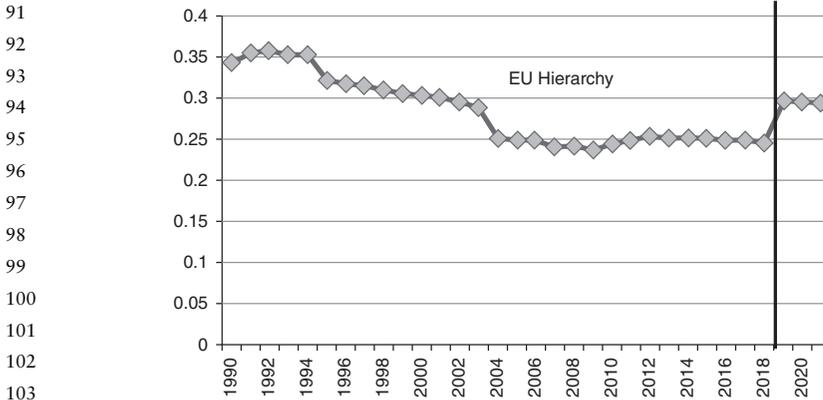


Figure 4.1 EU Hierarchy with German Leadership.

grand eastern enlargement in 2004 added eight new continental members of various sizes and two small Mediterranean islands. With Brexit, we project a slight increase in Germany's dominance in the hierarchy once again. The EU demonstrates that power preponderance is useful but not a precondition for stability – it is merely one condition for peace. Satisfied nations whose values are converging can maintain a lasting and profitable peace.

The second independent variable for integration is the convergence of social values. As previously explained (see Chapter 2), we use this variable as an indicator of satisfaction with the status quo. Given the role of Germany in the EU hierarchy, we measure convergence towards its values. As the largest economy, Germany has the ability to use its economic influence to direct the process and progress of integration. However, this capacity will be limited by how far its values are from those of the other member states. Therefore, we measure value convergence by calculating the distance of Germany's values from those of other EU member states based on I-W values indices. Recall that the I-W indices capture two value dimensions: materialist–postmaterialist values on one axis and traditional–secular on the other (see Chapter 2). All survey data used for calculating value convergence come from various years of World Values Surveys (WVSs). For 2017, we use estimates as the seventh wave of the WVS has not been completed. To do this, we used moving averages for previous survey years to project values for materialist–postmaterialist and traditional–secular values for each EU member state in 2017. We then took 2017–2021 as constant to estimate the values data to match estimates for hierarchy and trust in the EU.

The value convergence variable is calculated by using a Euclidean distance formula and measures the distance of materialist–post-materialist and traditional–secular values between two countries:

$$d = \sqrt{(X_a - X_b)^2 + (Y_a - Y_b)^2} \quad (4.2)$$

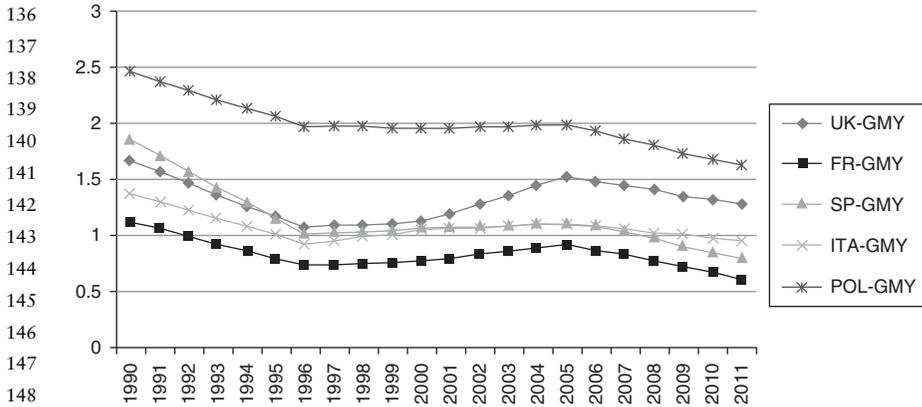


Figure 4.2 Values Convergence with the Regional Leader (Germany).

where; X represents the country’s value on the traditional–secular axis and Y represents the country’s value on the materialist–post-materialist axis.

The statistical model that is utilized in the analyses focuses on value convergence towards Germany. This variable centers on the value distances of all the EU countries towards Germany. The value convergence variable is abbreviated as “VcGer” in the formula(s) and is calculated using a modified version of [equation 2](#):

$$VcGer_{Ger,j} = \sqrt{(X_{Ger} - X_j)^2 + (Y_{Ger} - Y_j)^2} \tag{4.3}$$

Values generated by [equation 3](#) are high when values are *divergent*. Since the variable needs to measure *convergence*, and to better interpret the results of our statistical analysis, we need to transform the values by multiplying each by  $-1$ . The higher, transformed, values can now be interpreted as having higher convergence. Theoretically, when countries are closer to each other in terms of values (convergence), the level of cooperation or integration is expected to increase.

Value convergence with the regional leader and a select sample of member states is depicted in [Figure 4.2](#) using pre-transformed values: the larger the number, the less observed value convergence. According to this figure, among the major EU countries, France is the closest country to the leader in terms of values. After France, Spain and Italy have near values with Germany. Compared with these three, the UK and Poland fall farther away from the leader. Over time, we are witnessing greater convergence among the larger EU member states.

The third independent is the amount of trust citizens of member states have towards the European Union. Like value convergence, this variable also helps us gauge the amount of member state satisfaction with status quo.

181 Data come from various years of the Eurobarometer surveys. The Euro-  
182 barometer survey responses are a rich source of information regarding EU  
183 citizen views on European integration because of the frequency of repeated  
184 questions. By aggregating the respondents' answers to the national level, we  
185 are able to follow trends in our timeframe.

186 Unfortunately, the survey series does not ask the ideal question, "How  
187 much trust do you have in the EU?" for the entire time series of our analysis.  
188 As a result, we selected questions that can best approximate this question  
189 and capture the latent value of trust in the EU. There are questions regarding  
190 trust in various EU institutions. We believe that the institution that is at the  
191 epicenter of European integration in the minds of citizens is the European  
192 Commission. It not only drives the enforcement of EU laws and regulations  
193 – thereby being the face of Europe – it also introduces the legislation for  
194 European Council and Parliament deliberations. The question that asks how  
195 much the respondent trusts the European Commission fills in the 2002–  
196 2016 data points.

197 The earlier data points (1973–2001) used another question, which we  
198 believe also approximates trust in the EU. The survey series asks the respon-  
199 dent if membership in the EU (or the European Community if it is an early  
200 survey) is a good thing, a bad thing, or neither good nor bad. This question  
201 has been used in various analyses that attempt to explain general support  
202 for European integration.<sup>4</sup> Public support for integration is highly corre-  
203 lated with trust because support for integration is generally perceived when  
204 trust is present.<sup>5</sup>

205 The only annual data points that are missing are country values for 1998.  
206 For this year, we linearly interpolate these values. For the countries that are  
207 extrapolated, these two measures correlate at 67 percent for the overlapping  
208 period. Adjusting commitment to the status quo by levels of trust to antic-  
209 ipate the degree of support for integration is a path we wish to follow to  
210 clarify intra-EU relations.

211 For the operationalization of trust variable in our model, we calculate the  
212 variable, Trust towards the European Commission (TrustEC), by a trend  
213 function which utilizes the least squares method to calculate the line of best  
214 fit for a supplied set of y- and x- values. We further estimated TrustEC for  
215 2017–2021 assuming high trust, a normal moving average, and low trust.  
216 Figures 4.3a–c display the trend of TrustEC using survey data points and  
217 extrapolation into the future using our normal, low trust, and high trust  
218 assumptions. The first figure (4.3a) plots the values for the French respon-  
219 dents only. The overall trend is negative. The optimistic scenario assumes  
220 an increase of 5 percent annually and the pessimistic scenario assumes a 5  
221 percent decline per year. The scenarios produce expected up-ticks in the opti-  
222 mistic scenario, flat-lining in the extrapolated moving average (or normal)  
223 scenario, and further dipping in the pessimistic scenario. The pessimistic  
224 is particularly alarming given that we estimate that approximately only a  
225 quarter of the French population will have trust in 2021.

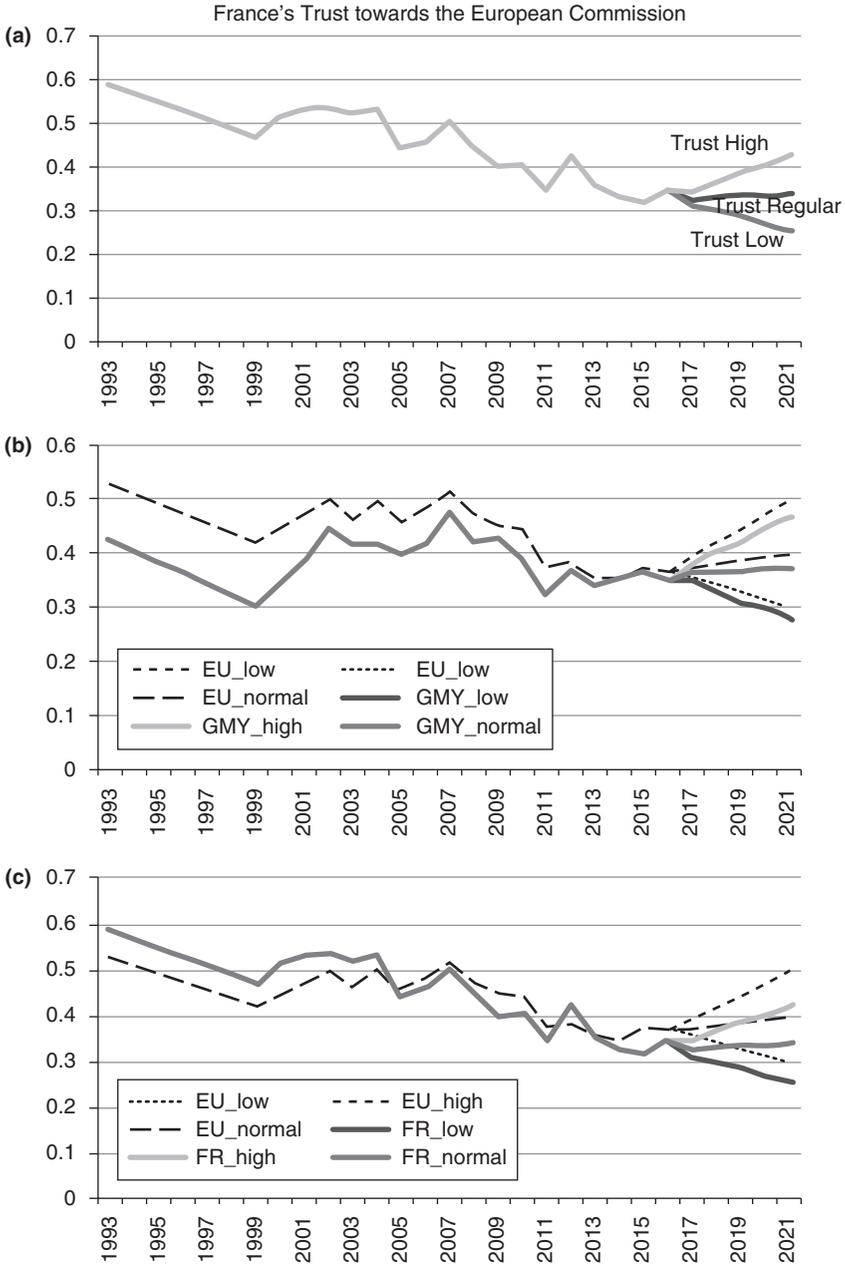


Figure 4.3 (a) Trust in the European Commission (French Respondents). (b) German and EU Average Trust in the European Commission. (c) French and EU Average Trust in the European Commission

271 **Figure 4.3b** displays the data for Germany, as well as the EU average. The  
 272 two trend together, while German values are lower and then converge over  
 273 the past four or so years. The overall trend shows steady values, relatively  
 274 speaking, in the first half the graph followed by a negative trend in the  
 275 second half. Our worst-case scenario show a decline to about a third of  
 276 the EU population voicing trust by 2021. The best case has about half the  
 277 population having trust, with the moving average inching a bit higher to  
 278 about 40 percent.

279 **Figure 4.3c** repeats the values of 4.3a and also includes the EU averages.  
 280 In the first half of the graph, the French were trending higher than the aver-  
 281 age but then converge in the early part of the twenty-first century. Unlike the  
 282 German case, the French case shows considerably lower values than the EU  
 283 average in each of our three scenarios. This may indicate stronger resistance  
 284 to further integration because even our optimistic scenario has trust levels  
 285 well below 50 percent in 2021.

286 In sum, it is apparent that the level of trust in the EU fell significantly  
 287 during and since the last financial crisis and recovered to its pre-crisis level  
 288 in 2015. However, the overall trend is a steady decline since 2003. This  
 289 raises another concern for EU integration, that of legitimacy. Several factors  
 290 can be identified that result in low democratic citizen trust: problems of  
 291 legitimacy, recession, mistrust, anti-EU propaganda of nationalist political  
 292 parties, and negative attitudes towards migration. It is true that European  
 293 integration has proceeded in a rather peculiar way, one characterized as an  
 294 elite exercise, by those often detached from their respective constituencies  
 295 in member states. As discussed in Chapter 3, developments on the ground  
 296 make it clear that it cannot continue this way. In the early years, the polit-  
 297 ical elites set the agenda. Big business elites joined them in the late 1970s  
 298 and 1980s as these powerful individuals lobbied the Delors Commission to  
 299 complete the Common Market. However, it was not until the Lisbon Treaty  
 300 that citizens' participation took the stage with the European Citizens Initia-  
 301 tive (see Chapter 1). In addition, referendums in France and the Netherlands  
 302 that failed to ratify the now defunct Constitutional Treaty clearly indicate  
 303 that ignoring and/or not positively influencing public opinion is a great cost  
 304 for present and future efforts to integrate.

305 We next analyze the relationship between integration and the three  
 306 independent variables to test the following hypotheses:

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 308  $H_1$ : Hierarchy is positively related with deepening of integration in  
 309 the EU.

310  $H_2$ : Convergence around regional leader's values leads to deepening of  
 311 regional integration.

312  $H_3$ : Trust in the EU is a determinant of regional integration. Higher trust  
 313 leads to more integration between member states.  
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316 The model we use considers three variations of Trust in the EC – normal,  
 317 low, and high trust assumptions, as discussed earlier in this chapter.

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## Regression results

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Our dependent variable, level of European integration (IAS), is bounded by the values of zero through five, with calculations producing fractions. The nature of integration, however, produces long periods of several years when there are no changes in the IAS's value. The result is a stepwise plot where, for example, the EU would be a common market for many years before stepping up in its IAS score when it becomes an economic union. This is apparent in our historical overview of the EU's evolution (see Chapter 1 and Figure 2.8 in Chapter 2). As a result, the variable takes on the characteristics of a categorical variable.

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When the dependent variable is categorical, the ordinary least squares (OLS) method can no longer produce the best linear unbiased estimators; that is, OLS results will be biased and inefficient. Instead, the categorical dependent variable regression models (CDVMs) provide sensible ways of estimating parameters. Unlike the OLS, the CDVMs are not linear. This nonlinearity results in difficulty presenting the output of the CDVMs. In the CDVMs, the left-hand side (LHS) variable is neither interval nor ratio, but categorical. However, the right-hand side (RHS) could be linear function of independent variables as in the OLS. The CDVMs often depend on the maximum likelihood (ML) estimation method, whereas the OLS uses the moment-based estimation method.<sup>6</sup>

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The best choice would be to use the multinomial regression method. This method assumes categorical equivalency among the various stages of integration. The estimations, therefore, attempt to predict the likelihood of any one stage of integration given the levels of our observed independent variables. Below, we provide three different multinomial regression results for EU integration using the observed EU trust levels and our three sets of trust level projections (normal, low, and high). Both the observed and the projected values are the aggregations of European citizen beliefs in each member state.

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### *Model 1 estimate – with trust projected at normal trend levels*

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Model 1 tests the relationship between integration (IAS dependent variable) and value convergence on Germany, trust towards the EU, and regional hierarchy. Table 4.1 presents the results of the multinomial regression. We estimated projections for each variable until 2021 using forecasts for GDP, hierarchy, and trust. For trust in the EU we estimated post-2016 data points based on the moving average of time series data from 1980–2016 for each member state. The model gives a Cox and Snell pseudo-R<sup>2</sup> of 58.5 and Nagelkerke pseudo-R<sup>2</sup> of 64.1 percent respectively and the Likelihood Ratio

Table 4.1 Parameter Estimates for Model 1

<i>Integration Achievement Score (IAS)<sup>a</sup></i>	<i>Independent Variables</i>	<i>B</i>	<i>Std. Error</i>	<i>Wald</i>	<i>Sig.</i>	<i>Exp (B)</i>	<i>95% Confidence Interval for Exp (B)</i>
1.16 (Free Trade Area)	Intercept	-21.77	11.57	3.54	0.060		
	Value	0.018	0.019	0.83	0.361	1.02	0.980–1.06
	Convergence						
	TNormal Trust	-0.311	0.178	3.06	0.080	0.733	0.517–1.04
2.67 (Customs Union)	Hierarchy	1.147	0.431	7.07	0.008	3.15	1.35–7.33
	Intercept	-58.37	10.58	30.43	0.000		
	Value	0.005	0.010	0.202	0.653	1.01	0.99–1.03
	Convergence						
3.17 (Common Market)	TNormal Trust	0.177	0.038	22.08	0.000	1.19	1.101–1.29
	Hierarchy	1.758	0.370	22.59	0.000	5.80	2.81–11.97
	Intercept	-15.04	8.68	3.00	0.083		
	Value	0.015	0.007	4.90	0.027	1.02	1.00–1.03
3.50 (Economic Union)	Convergence						
	TNormal Trust	0.049	0.024	4.21	0.040	1.05	1.00–1.10
	Hierarchy	0.713	0.340	4.41	0.036	2.04	1.04–3.97
	Intercept	-27.19	8.97	9.18	0.002		
3.83 (EMU)	Value	0.019	0.008	5.71	0.017	1.02	1.00–1.04
	Convergence						
	TNormal Trust	0.105	0.031	11.40	0.001	1.11	1.05–1.18
	Hierarchy	0.983	0.345	8.11	0.004	2.67	1.36–5.26
3.83 (EMU)	Intercept	-6.14	8.69	0.499	0.480		
	Value	0.033	0.007	21.03	0.000	1.03	1.01–1.05
	Convergence						
3.83 (EMU)	TNormal Trust	0.039	0.024	2.73	0.099	1.04	0.993–1.09
	Hierarchy	0.480	0.340	1.99	0.158	1.62	0.83–3.15

Notes:

<sup>a</sup>The IAS reference category is 0.00.

Classification of each IAS category (denoted by the IAS number) is an approximation of the corresponding level of regional integration.

Tests are significant at 0.000 for all variables.

$$(Model\ 1) : IAS_{1980-2021} = VC_{Ger} + Trust_{EC\_normal} + Hier_{Ger} \quad (4.4)$$

These results show that at the earlier stage of integration, the only variable that is significant is German leadership (hierarchy). This is consistent with the power transition argument that a leader (regional or global) must be present to promote cooperation between the participating states. Hierarchy continues to be a significant factor until the deepening of integration reaches the level of EMU. At that point ( $IAS = 3.83$ ), which is deepest level of integration attained by some of the EU members thus far, hierarchy loses its effect on integration, indicating that it is now more important for the leader and other member states to project a collective effort to push for deeper integration (political union).

Convergence of values with Germany becomes significant around mid-level integration, the customs union, and continues to be an important factor

Table 4.2 Parameter Estimates for Model 2 (Low Trust in EU)

Integration Achievement Score (IAS) <sup>a</sup>	Independent Variables	B	Std. Error	Wald	Sig.	Exp (B)	95% Confidence Interval for Exp (B)
1.16 (Free Trade Area)	Intercept	-24.73	14.03	3.10	0.078		
	Value	0.014	0.018	0.610	0.435	1.01	0.979-1.05
	Convergence						
	Low Trust	-0.312	0.168	3.44	0.064	0.732	0.527-1.02
2.67 (Customs Union)	Hierarchy	1.20	0.513	5.47	0.019	3.32	1.22-9.08
	Intercept	-58.25	10.53	30.58	0.000		
	Value	0.005	0.010	0.229	0.632	1.01	0.985-1.03
	Convergence						
3.17 (Common Market)	Low Trust	0.167	0.036	21.34	0.000	1.18	1.10-1.27
	Hierarchy	1.78	0.367	23.52	0.000	5.92	2.89-12.14
	Intercept	-15.75	8.58	3.36	0.067		
	Value	0.015	0.007	4.82	0.028	1.02	1.00-1.03
3.50 (Economic Union)	Convergence						
	Low Trust	0.050	0.024	4.36	0.037	1.05	1.00-1.10
	Hierarchy	0.739	0.334	4.88	0.027	2.09	1.09-4.03
	Intercept	-27.35	8.85	9.54	0.002		
3.83 (EMU)	Value	0.019	0.008	5.55	0.019	1.02	1.00-1.04
	Convergence						
	Low Trust	0.101	0.030	11.38	0.001	1.11	1.04-1.17
	Hierarchy	0.999	0.340	8.65	0.003	2.77	1.40-5.29
	Intercept	-6.096	8.59	0.504	0.478		
	Value	0.032	0.007	20.85	0.000	1.03	1.02-1.05
	Convergence						
	Low Trust	0.030	0.024	1.56	0.212	1.03	0.983-1.08
	Hierarchy	0.494	0.335	2.18	0.14	1.64	0.851-3.16

Note:<sup>a</sup>Reference point for IAS is 0.00.

for deepening of integration. This is an important result since it suggests the need for value convergence to the regional leader as integration deepens over time.

Finally, trust in the EU becomes crucial as soon as integration moves from the early stage of trade agreement into the customs union. However, given the current steady decline in citizens' trust in the EU, the last stages of integration, EMU and beyond, do not show this variable being very significant (sig = 0.099). In other words, falling trust levels are not helpful for predicting the deepening of integration.

*Model 2 estimate – with trust projected at low level projection*

In Model 2, we look at how IAS would be affected if trust towards EU among citizens continues to decline (Low Trust). The results can be found in Table 4.2.

$$(Model2) : IAS_{1980-2021} = VC_{Ger} + Trust_{EC_{low}} + Hier_{Ger} \tag{4.5}$$

Table 4.3 Parameter Estimates for Model 3

<i>Integration Achievement Score (IAS)<sup>a</sup></i>	<i>Independent Variables</i>	<i>B</i>	<i>Std. Error</i>	<i>Wald</i>	<i>Sig.</i>	<i>Exp (B)</i>	<i>95% Confidence Interval for Exp (B)</i>
	Intercept	-21.54	10.94	3.88	0.049		
1.16 (Free Trade Area)	Value	0.020	0.021	0.913	0.339	1.02	0.979–1.06
	Convergence						
	High Trust	-0.285	0.175	2.65	0.103	0.752	0.534–1.06
	Hierarchy	1.16	0.410	7.98	0.005	3.18	1.43–7.11
2.67 (Customs Union)	Intercept	-58.11	10.73	29.32	0.000		
	Value	0.006	0.011	0.286	0.593	1.01	0.985–1.03
	Convergence						
	High Trust	0.154	0.035	18.92	0.000	1.17	1.09–1.25
	Hierarchy	1.78	0.377	22.37	0.000	5.95	2.84–12.46
3.17 (Common Market)	Intercept	-14.42	8.81	2.68	0.102		
	Value	0.016	0.007	4.97	0.026	1.02	1.00–1.03
	Convergence						
	High Trust	0.048	0.024	4.08	0.044	1.05	1.00–1.10
	Hierarchy	0.691	0.346	3.99	0.046	2.00	1.01–3.93
3.50 (Economic Union)	Intercept	-25.56	9.08	7.92	0.005		
	Value	0.020	0.008	5.90	0.015	1.02	1.00–1.04
	Convergence						
	High Trust	0.080	0.029	7.45	0.006	1.08	1.02–1.15
	Hierarchy	0.967	0.352	7.55	0.006	2.63	1.31–5.24
3.83 (EMU)	Intercept	-6.06	8.822	0.472	0.492		
	Value	0.033	0.007	21.24	0.000	1.03	1.02–1.05
	Convergence						
	High Trust	0.048	0.024	4.17	0.041	1.05	1.00–1.10
	Hierarchy	0.461	0.347	1.77	0.183	1.59	0.804–3.13

Note:<sup>a</sup>Reference point for IAS is 0.00.

Model 2 also has the Likelihood Ratio Tests significant at 0.000 for all variables and a Cox and Snell pseudo-R<sup>2</sup> of 59 percent and Nagelkerke pseudo-R<sup>2</sup> of 64.5 percent. The results are similar to findings in Model 1. Hierarchy is important in the early stages of integration and drops out at the EMU and beyond levels of integration. Convergence of values is a statistically significant factor in the mid-level of integration and continues to exert significant and positive effect on integration at higher levels of integration. On the other hand, if trust were to decline more than the current level seen (Model 1), it has no impact on integration. Without trust in the EU by their citizens, it would be terribly difficult for member states' political leaders to push for the deepening of integration and attain the next stages of political union.

### *Model 3 estimate – with trust projected at higher levels*

In Model 3, we reversed the projection in the previous model and estimated the improvement of member states' trust levels by 5 percent per year until

496 2021. This should show how the IAS might be affected if decline in trust  
 497 towards the EU is replaced by increased trust among citizens. Table 4.3  
 498 shows the results of the regression model.

$$499 \quad (\text{Model 3}) : IAS_{1980-2021} = VC_{Ger} + Trust_{EC\_high} + Hier_{Ger} \quad (4.6)$$

501 Model 3 has a Likelihood Ratio Tests that are significant at 0.00 for the  
 502 variables and Cox and Snell and Nagelkerke pseudo-R<sup>2</sup> of 57.8 and 63.3  
 503 percent respectively. Under these conditions, our findings show that hierar-  
 504 chy is important in the early stages of integration and phases out towards  
 505 the deeper stage of EMU and beyond – again consistent with the power  
 506 transition argument. Value convergence shows its impact at IAS of 3.17, at  
 507 the customs union stage, and continues to be an important factor at later  
 508 levels of integration. Unlike models 1 and 2, trust in the EU is significant  
 509 at the EMU stage. This indicates that an improved trust level is also very  
 510 important for achieving EMU and political union.

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### 513 Conclusion

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515 The findings of these models are quite telling. For the EU to move beyond  
 516 its current challenges and achieve stable and successful fiscal and political  
 517 union, trust in the EU must improve among the citizens. Convergence of val-  
 518 ues among Europeans also shows that there are indeed emergent European  
 519 values and that convergence on these values goes a long way in promoting  
 520 the deepening of integration in the EU. Finally, hierarchy is important in the  
 521 early stages of integration as a leader is essential in providing the guidance  
 522 and public goods for pulling everyone together. However, as power asymme-  
 523 try declines through either bringing in new members and/or improvements  
 524 in the member states' economies, hierarchy and the ability of the regional  
 525 leader to provide resources for public goods stops being a significant factor  
 526 for the deepening of integration. The regional leader is needed for the early  
 527 institutional construction to establish the framework of future integration.  
 528 As integration shifts to greater political cohesion, convergence of values and  
 529 trust are more necessary for further development of common policies and  
 530 the supranational quality of institutions.

531 With these results, we next turn our attention to examining how EU mem-  
 532 ber states compare in their preferences on key policy challenges and what  
 533 might be the potential outcome of their future negotiations over these issues.  
 534 This is followed by an analysis of how the EU fares in competition with  
 535 other giants on the world stage and an examination of what EU leaders  
 536 need to do if they want to make their Union a stable, strong, and capable  
 537 global power.

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541 **Appendix A**

542 **A. *Integration Achievement Score (coding system)***

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544 **1. *Trade in Goods and Services***

545 0 = No agreements made to lower tariffs and non-tariff barriers

546 1 = Preferential Tariff Agreement

547 2 = Partial Free Trade Area

548 3 = Full Free Trade Area

549 4 = Customs Union (Common External Tariffs)

550 5 = No barriers between member countries

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553 **2. *Degree of Capital Mobility***

554 0 = No agreements made to promote capital mobility

555 1 = Foreign Direct Investment allowed in limited form

556 2 = Capital withdrawal allowed

557 3 = Full access for foreign investment and capital withdrawal, except  
558 for national government procurement

559 4 = Full capital mobility expect for large-scale mergers and acquisitions

560 5 = Full capital mobility without restriction

561  
562 **3. *Degree of Labor Mobility***

563 0 = No agreements made to promote labor mobility

564 1 = Right of movement granted for select professions

565 2 = Full right of movement

566 3 = Transferability of professional qualifications granted

567 4 = Transferability of pensions and other retirement devices

568 5 = Full freedom of movement

569  
570  
571 **4. *Level of Supranational Institution Importance***

572 0 = No supranational institutions

573 1 = Establishment of nominal institutions

574 2 = Information gathering and advisory role

575 3 = Ability for institutions to amend proposals

576 4 = Ability for institutions to veto proposals

577 5 = Supranational institutions operate as primary decision node

578  
579 **5. *Degree of Monetary Policy Coordination***

580 0 = No monetary policy coordination

581 1 = Consultation regarding policy

582 2 = Commitment to maintain parity

583 3 = Coordinated interventions

584 4 = Regional Central Bank establishment

585

586 5 = Single currency

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588 6. *Degree of Fiscal Policy Coordination*

589 0 = No fiscal policy coordination

590 1 = Consultation regarding policy

591 2 = Commitments regarding deficit spending and taxation

592 3 = Sanctions regarding breaking commitments

593 4 = Uniform tax code

594 5 = Single budget

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596 Each category has a value of 0 (low) through 5 (high) along a Guttman

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Each category has a value of 0 (low) through 5 (high) along a Guttman scale:

$$IAS = \frac{\sum_{i=1}^6 C_i}{6}$$

603 **B. Hierarchy**

Hierarchy is one of the independent variables used in the multinomial regression model. This variable measures the difference between the relative power of a regional leader and of other states in the EU. We take Germany as the regional leader of the European system. Consequently, Hierarchy variable points out the relative power difference between Germany and the rest of the member states of the EU. We take the GDP (in purchasing power parity) of states and calculate hierarchy in the following way:

$$Hierarchy = \frac{GMY}{EU_{rest} \text{ (from the date they joined)}}$$

Data for Hierarchy comes from the International Monetary Fund, World Economic Outlook Database (April 2016). The higher the Hierarchy, the higher the capability of the regional leader over the other states in the region. If Hierarchy declines, it is an indication that the power gap between the regional leader and other countries is decreasing.

621 **C. Value Convergence**

The distance of values between two countries is called "value convergence." This variable is calculated by measuring the Euclidean distance between the points on the values vectors, which can be seen on the values map. The X-axis represents the Traditional–Secular Values, and the Y-axis displays the Materialist–Postmaterialist Values on the map. Value Convergence (value distance) of Country a and Country b is calculated as follows:

$$Value\ Convergence_{a,b} = \sqrt{(X_a - X_b)^2 + (Y_a - Y_b)^2}$$

	trust_low	trust_high
2014	.	.
2015	.	.
2016	.	.
2017	= trust_normal × 0.95	= trust_normal × 1.05
2018	= trust_normal × 0.90	= trust_normal × 1.10
2019	= trust_normal × 0.85	= trust_normal × 1.15
2020	= trust_normal × 0.80	= trust_normal × 1.20
2021	= trust_normal × 0.75	= trust_normal × 1.25

The statistical model that is utilized in the analyses focuses on value convergence towards Germany. This variable centers on the value distances of all the EU countries towards Germany. This value convergence indicator is abbreviated as “VcGer.” Value Convergence towards Germany (VcGer) is calculated as follows:

$$VcGer_{Ger,j} = \sqrt{(X_{Ger} - X_j)^2 + (Y_{Ger} - Y_j)^2}$$

Value Convergence data is multiplied by  $-1$  after being calculated. Since this variable is about distances between value points, when countries are closer to each other in terms of values, the level of cooperation or integration is expected to increase. Therefore, the value distance between countries and the level of integration have an inverse relationship. This inverse relationship would create a negative coefficient for Value Convergence in statistical tables and can be confusing for the audience when interpreting the results. As a result, Value Convergence calculations are multiplied by  $-1$ ; the meaning of the conception is preserved: the higher the level of value convergence between countries, the higher the level of cooperation/integration. Multiplying the calculation results of Value Convergence has no effect on the weight of the variable. Therefore, this procedure does not affect the coefficients of the statistical results. It only changes the sign of VcGer to (+) from (-).

#### ***D. Trust Estimation***

There are three estimation variables for Trust after 2016. These are trust\_normal, trust\_low, and trust\_high. Trust\_normal is calculated via Excel’s Trend function. The Trend function is adjusted to take into account the previous four years of data for every estimated year. The other two estimations are based on trust\_normal; trust\_low and trust\_high are calculated in Excel as follows:

Trust\_low and trust\_high calculations are designed to create an opening fork around the normal estimation to capture any fluctuation in future Trust.

## Notes

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