# Trust, Values, Power Transition and the Future of the EU

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## Introduction

The challenges facing the EU 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." 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." 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 blends 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 paper analyzes the determinants of European integration, from 1980 to the present, to determine which factors are important at which stage of integration. We also extended our analysis timeline to 2021 in an effort to determine what factors are needed, and to what degree, for the EU to achieve further integration and perhaps full political union.

## Power Transition Approach to Regional Integration

There are several theories of regional integration that range from functionalism and neofunctionalism to neoliberal institutionalism.<sup>3</sup> In this paper we break tradition with the EU integration theorists and adopt a revised version of Power Transition theory that captures the entire continuum of interstate interaction from full integration to total war.

Power transition theory provides a systematic perspective to analyze conflict and cooperation concurrently. The theory is based on A. F. K. Organski's pioneering work that describes a hierarchical global system.<sup>4</sup> The theory has traditionally focused on the initiation of war because of the severe consequences of major wars, and the implications for integration were not the main focus of that work.<sup>5</sup> However, today the likelihood of major war has receded while the process of integration expands worldwide. Unlike realism that covers confrontation or neofunctionalism and supranationalism that covers integration, power transition provides a perspective on both processes within one general perspective.

We begin by providing an overview of the theory, as originally formulated. We then extend it to an explanation of integration with implications for the EU. Gaspare, Genna and Brian Efird first extended the theory into this less explored area of cooperation<sup>6</sup> and other work on integration shows that the same principles that account for conflict can be generalized to apply to cooperation among allies and integration. 7 Past research gives us a good starting theoretical structure to account for the ongoing dynamic changes experienced by the EU and forecast their longer-term implications. In doing so, we will bring in two major clarifications to the theory: how trust binds states to the status quo and the driving force behind status quo satisfaction – the convergence of social values. Critical components of power transition theory are hierarchy (determined by power), satisfaction of stake holders with the status quo, and how they determine conflict or cooperation between them.<sup>8</sup> While the original theory postulated by Organski focused on global confrontational interactions, Douglas Lemke in his careful empirical analysis shows that the same principles that hold at the global level define interactions within regional hierarchies determined by relative power of states; and Michelle Benson and Jacek Kugler further show that similar principles apply to civil war.<sup>9</sup> For power transition theory, power is viewed as the capacity of one nation to advance policy goals by altering the policy of another through persuasion or coercion. While the concept is transparent, its measurement is not simple. The perspective stresses economic, demographic, and political elements. The original conception focused on the intersection between demography and economics and politics was added later.

According to Power Transition theory, distributions of power set the preconditions of war and peace in the international system. The underlying assumption of global and regional

hierarchies rejects the neorealist notion of anarchy. Instead, all actions are conditioned by the distribution of power, the change in that distribution, and the relative commitment to the status quo. Power is the ability to compel opponents to conform to the prevailing status quo. Nations with high capabilities have the ability to persuade or impose their goals on less endowed entities. Unlike an idealized democratic domestic political system, the international environment is populated by the great powers with massive capabilities that they can transfer into a greater say; middle range powers that have less but still consequential influence; and the majority of nations whose capabilities have limited external impact. Finally, the critical triggering mechanism differentiating periods of war and peace is captured by commitment to the status quo. The status quo is defined as the rules and norms of the international/regional system. When the challenger state reaches parity with the hegemon, their relative satisfaction with the status quo would be a determining factor on whether or not the two sides will move towards confrontation or cooperation. Integration-Conflict continuum then is a function of hierarchy (power) and satisfaction with the status quo which we measure by two indicators trust and values convergence (explained below).

Figure 1 illustrates how our pieces fit together. Under massive power asymmetry a preponderant can maintain or impose peace. Although limited wars such as Korea 1950 or terrorist attacks by groups like Al Qaeda can take place as the dissatisfied opponents acquire sufficient capabilities they produce massive losses for the weak participants and pose a very low threat to the stability of the international system or its rules. At parity, conflicts that challenge a state's survival take place —as illustrated by the Austro-Prussia war — that become total severe conflicts — like World War I — as status quo satisfaction decreases, as does trust. Cooperation at

parity takes place when the overtaking challenger is reasonably satisfied with the existing status quo and has some trust for the dominant state. The condition produces alliances as illustrated by the US-British relationship. Critical to our work, regional integration is where the competing sides are highly satisfied, are mutually trusting, and disregard parity as a precondition for war. Under these conditions, like the ones characterized by German and French leadership, with the support of the US, EU integration took place. Since 1945, the world should have noticed that Germany overtook France and Britain, yet without the conflicts that characterized these states for generations. Clearly, the satisfactory integration agreements among European states had much to do with the persistence of peace and the evolution of a supranational entity.



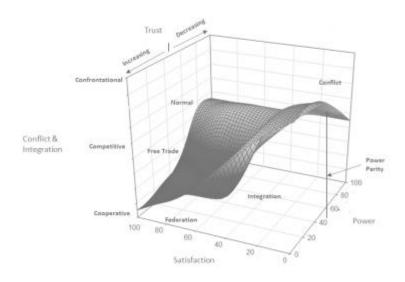


Figure 1 also illustrates, normal, competitive relations take place among states. This condition represents the majority of international interactions where nations seek to preserve

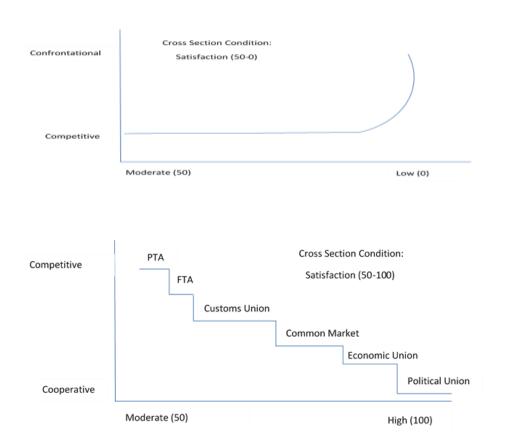
their identity and interests but are open to trade with other nations. In this area, states are somewhat trusting, satisfied with status quo, and under power asymmetry. Competitive states follow international rules and contracts but do not necessarily establish institutional structures to secure them. In this idealized competitive environment, nations depend on market forces to determine the quality and quantity of economic and social transactions within the confines of loosely defined international rules and non-binding international laws. Before 1900, the US was a state that fits this description – avoiding rigid alliances and pre-commitments – but still willing to support freedom of the seas by forcefully opposing piracy when it interfered with freedom of navigation and commerce.

Normal interstate interactions also take place when the key actors in the hierarchy support the existing status quo and do not increase their levels of trust. Reagan's famous restatement of a Russian old proverb "trust but verify" suggests animosity but no expectation that commitments made will necessarily be complied with. For this reason, when satisfaction drops, completive interactions become confrontational and severe wars can be waged among contenders that reach parity since each expects to change the rules in their favor following the war. This aspect of the original theory shows that global and regional severe wars are waged at parity and are initiated by the dissatisfied challenger seeking to alter the status quo. <sup>10</sup> This book is concerned with the far less visited deductions that anticipates the possibility of free trade agreements, integration, and possibly federation/political union between sovereign states.

Figure 2 is one cross section of Figure 1 that illustrates how satisfaction conditions regional relationships. The top section provides the traditional power transition explanation: as satisfaction moves from moderate to low levels, competitive relations move to confrontational

ones. Note that there is a strong arc upwards after a seemingly plateaued competitive set of relations. In other words, a state would need to be extremely dissatisfied before choosing confrontation, which can lead to war.

Figure 2. Process of Confrontational and Cooperative Integration



The bottom section of Figure 2 illustrates the stepwise movement towards deeper cooperation as satisfaction improves. While at a moderate state of satisfaction, states choose preferential trade agreements (PTAs) because such agreements liberalize some trade while protecting some economic sectors. The condition is still competitive since states have not fully decided that trade will result in mutual benefit. A free trade agreement (FTA) provides a special

set of norms and rules relating to trade and financial transactions across societies. Based on arguments regarding the effectiveness of free trade and the benefits of economies of scale connected to large markets, trading nations can choose to join agreements that regulate their trade. Such agreements seek to attain a stable joint optimal outcome that are superior to gains nations can attain individually (Pareto optimal vs. Nash equilibrium). A number of bilateral trade agreements and some multilateral trade agreements (i.e. NAFTA; WTO) follow this pattern. Trade liberalization agreements restrict tariffs, limit domestic subsidies and control dumping to gain market size. Such agreements restrict national sovereignty minimally and are frequently overridden when domestic demands surface.

As we move towards higher levels of satisfaction, we start to see integration developing. Integration is a process where nations agree to not only liberalize trade, but also encourage financial transactions and joint financial ventures, harmonize roads, power grids and transportation systems connecting communities across national borders, reduce border restrictions eventually allowing labor mobility that recognizes levels of human capital achieved and adopt a common currency. Experience has shown that this process usually starts with economic coordination at the lowest possible level such as preferential trade agreement, then moves to infrastructural synchronization, removal of border constrains on trade and labor culminating in monetary policy harmonization. Further integration includes securing a common border and creating a common military unit led not by national but by union representatives. Beyond this point a federation emerges. These are the steps categorized by forming a customs union, common market, economic union, and then a political union. Each step also requires satisfaction among the member states that the institutions created by the integration agency

will enhance the common good. We now turn to the two components trust and value convergence that reflect commitment to the status quo. At present, the EU is distinct form other regional integrations because in this region – regardless of power overtaking – the commitment to the status quo exceeds levels found in any other region. The free movement of money, labor, and trade is permitted by most members and security arrangements are shared. EU policy encourages the maximization of opportunity to exploit the economic theories of liberal exchange and mobility. Figure 3 shows different membership levels and commitments of EU countries. The establishment of a Schengen region is an important step in establishing a deeper level of regional integration. States that accept the Schengen norms, trade agreements, labor mobility, and adopt the euro as their currency have crossed the border between nation state sovereignty and a supranational community. While not a federation or a full political union - Schengen member states have adopted rules and norms established by monetary transactions and removed borders so individuals can travel freely and seek employment. This arrangement approximates a federated community. It is therefore unsurprising that the move towards monetary integration, which moves away from the common market category that accommodates labor mobility, is the point at which member states begin to fear the process of integration because such a deepening may lead to a confederation and eventually a federation.

Let us now move to the connection between power dynamics and changes in the status quo to explain the likelihoods of conflict and cooperation. According to Power Transition theory, distributions of power set the preconditions of war and peace in the international system. The underlying assumption of global and regional hierarchies rejects the neorealist notion of anarchy. Instead, all actions are conditioned by the distribution of power, the change

in that distribution, and the relative commitment to the status quo. Power is the ability to compel opponents to conform to the prevailing status quo. Nations with high capabilities have the ability to persuade or impose their goals on less endowed entities. Unlike an idealized democratic domestic political system, the international environment is populated by the great powers with massive capabilities that they can transfer into a greater say; middle range powers that have less but still consequential influence; and the majority of nations whose capabilities have limited external impact. Finally, the critical triggering mechanism differentiating periods of war and peace is captured by commitment to the status quo. Again, the status quo is defined as the rules and norms of the international/regional system. As will be explained later, we postulate two indicators of satisfaction based on citizens' trust towards the EU, as our unit of analysis is European integration, and convergence of values between EU citizens across member states. But first, we will present an outline of the general argument for conditions of cooperation (i.e. integration) and conflict which is the key concept found in power transition.

Figure 3. Degrees of Integration Between EU Member States



source: Birol Yesilada, et. al. (2017 forthcoming), Global Power Transition and the Future of the European Union.

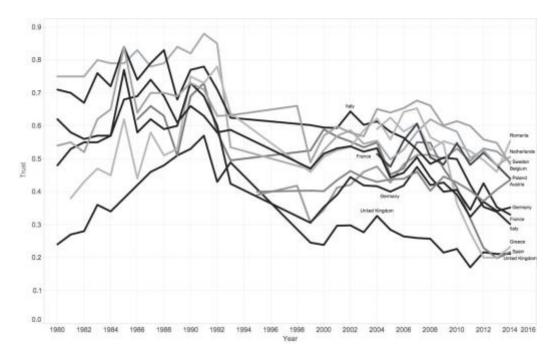
### Peoples' Trust in the EU

One crucial element of satisfaction with the status quo is trust. For sure, at each step in an integration process participating nations lose some sovereignty in exchange for gains in security and economic prospects. The cautious confrontational, "trust and verify" is slowly replaced by increased trust in the institutions created, meaning that each advance in integration transfers regulatory rights that places some aspect of national independence at risk. During the integration process, nations cannot continue to maximize net gains. Integration does not proceed by allocating equal shares to all. At every step, there are some winners and some losers

even though the overall pie may be growing. Participants in the integration process must trust that their partners will not take advantage and will compensate unexpected losses when they take place.

Trust acts like a gravity well. It reinforces status quo satisfaction and eases states into each stage of integration like a ball rolling downhill. Trust among partners develops when they mutually believe they are being treated fairly, meaning that outcomes are not due to biases but due to capabilities. Trust is also important in explaining European integration because the varying levels of economic development can often lead to concerns about free-ridership. Without trust, integration is constrained and therefore becomes an uphill battle, requiring further reliance on power asymmetry to provide negative incentives (i.e. force) under low status quo satisfaction, or positive incentives under higher levels of status quo satisfaction. Integration relies on the creation of a supranational entity so that the process evolves peacefully and cooperatively. Figure 4 shows average trust level of member states' citizen towards EU institutions.

Figure 4. Trust in the EU



Note: Excluded nations are: Portugal, Czech Republic, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, and Slovenia.

### Values Convergence

We propose that the convergence of social values between member states' as an additional requirement for satisfaction with the status quo. Value convergence is a crucial factor behind preparing the groundwork for the emergence and growth in trust that reinforces the status quo. <sup>14</sup> In general, linking values convergence and regional integration has not been studied. <sup>15</sup> Our argument is rooted in how human development (HD) theory addresses the way cultures evolve over time and the implications of cultural development for political development. These are complex issues that have been central to a wide range of social science disciplines, from economics, politics, and sociology to cultural anthropology. How and why

human values change and how these changes affect the way in which societies govern themselves has kept scholars busy for some time. In the more contemporary era, since the late eighteenth century, social scientists have identified causal linkages between economic modernization, cultural change, and political development. Ronald Inglehart and Christian Welzel provide some direction through their two compound variables from the World Values Survey analysis that captures more than 78 percent of cross-national variance in social change across the world.

To reflect value convergence, they measure individual's relative religiosity and social values along two dimensions. The first dimension is religious (traditional)-secular (autonomy) values, which reflect the contrast between societies over religion and religiosity. The more traditional societies place greater emphasis on religious principles, structures, and institutions while more secular-rational ones do not. Inglehart and Welzel also found that a wide range of values is associated with this dimension. For example, societies near the traditional pole emphasize the importance of parent-child ties and deference to authority, along with absolute standards and traditional family values, and reject divorce, abortion, euthanasia, and suicide. They tend to have high levels of religious values and national pride coupled with a nationalistic outlook. Societies with secular-rational values have the opposite preferences in all of these areas.

The second key dimension of cross-cultural variation is linked with the transition from industrial society to postindustrial societies — which brings a polarization between materialist (survival values associated with industrialization phase of development) and postmaterialist (self-expression/postindustrial) values. 18 It corresponds to the transition to the post-industrial

phase of economic development and an advanced welfare system which provides many individuals with an overwhelming sense of existential security. 19 Factor analysis of the mean national scores reveals that individualism, autonomy, and self-expression (measures of the postmodernist value system) all tap a single underlying dimension that accounts for 91 percent of cross-national variance.<sup>20</sup> The basic argument maintains that the unprecedented accumulation of wealth in advanced societies during a prior generation results in a greater portion of the population that takes basic survival for granted. These individuals shift their priorities from an overwhelming emphasis on economic and physical security toward an increasing emphasis on subjective well-being, self-expression, and quality of life. It corresponds to the transition to the postindustrial phase of economic development and an advanced welfare system, which provide many individuals with an overwhelming sense of existential security.<sup>21</sup> Birol Yesilada et. al. examined values convergence along the above two dimensions of social values and measured average factor loading for each year of the European Values Survey and World Values Survey.<sup>22</sup> Figure 5 provides a values map for EU countries. As the figure shows, the EU countries converge in the postmaterialist and secular quadrant of the values map. The direction for Eastern enlargement countries show predominantly materialist values but with most recent observations indicating significant move in the postmaterialist direction.

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Figure 5. EU Values Map

source: calculated from the World Values Survey (1981-2013) data.

The two value dimensions are critical for deep cooperation. Imagine two societies, one more materialist and traditional and the other more postmaterialist and secular. If the two wish to develop deeper economic ties, they will be faced with a large set of problems and issues that will be difficult to resolve due to their preferences. Take our previous example of environmental regulations. Such regulations add costs to production. If one society adopts such regulations and the other does not, then the adopter will not be able to compete with the other since products from the adopter will be more expensive. The postmaterialist society will insist on such regulations because they believe the value a cleaner environment over economic gain. The

materialist society will have the opposite view. In the end, they may agree on a PTA, but a FTA or beyond will be unlikely. Another example could be laws associated with marriage/domestic partnerships. The traditional society would not allow laws that guarantee rights to homosexual partners or unmarried heterosexual partners due to religious reasons, while the secular society would adopt such laws. If the two states develop a common market, what will happen to the labor mobility rights of those individuals that are in such relationships? Without congruence, such people will be denied such rights. In sum, value convergence allows for easier agreements and less issue areas requiring protracted negotiations

## Modeling

We modified Power Transition Theory for analyzing determinants of integration. The theory predicts integration to develop when there is power asymmetry among regional partners that also possess satisfaction with the status quo. We modified the theory by specifying the heart of the satisfaction variable, namely value convergence, and introducing trust as an important factor. The remainder of this chapter will describe the variable operationalization and test the hypotheses. Afterwards, we will use our model outcomes to determine what amounts of power asymmetry, value convergence, and trust is needed for further integration.

For our dependent variable, regional integration, we use the Integration Achievement Score (IAS).<sup>23</sup> IAS provides the measure of deepening of integration in the EU and the data of 2016 are taken as constant until 2021. Given Brexit, we also assume that the UK leaves the EU in 2019 for estimation purposes. The IAS codes the level of integration in a given year using six categories of institutionalized cooperation among two or more countries using information

found in the implemented treaties. Coding is sensitive to the fact that obligations often take time to implement. Therefore, coders conduct a yearly monitoring of actual implementation. The categories include liberalization of trade in goods and services, degree of capital mobility, degree of labor mobility, level of supranational institution importance, degree of monetary policy coordination, and degree of fiscal policy coordination. Each category has a value of 0 (low) through 5 (high) and is coded using a Guttman scale (see Appendix A for explanation of variable measurement). When we look at the level of integration in the EU, it is clear that this is a two-track process. Those members that are in the Eurozone are more integrated than others who are only in the economic union.

For the operationalization of the independent variables, we use hierarchy, values convergence, and trust in the EU. As previously discussed, for power transition theory, hierarchy, which is based on relative power of each state to all other states, is an important variable for system stability and promoting cooperation and integration. To approximate the degree of hierarchy within the EU, we construct the following simple measure that scores the relative impact of the dominant nation (Germany) on the largest members of the integrated EU community:

(1) 
$$Hierarchy_{EU} = \frac{German \ GDP}{Sum \ of \ remaining \ EU \ member \ states' GDPs}$$

As Figures 6a&b indicate, Germany has been the dominant nation in Europe but its status has been on a steady decline over time as other members of the EU have increased their relative power. However, one of the bigger factors in the decline of German power asymmetry is

the expansion of membership. The 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 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.

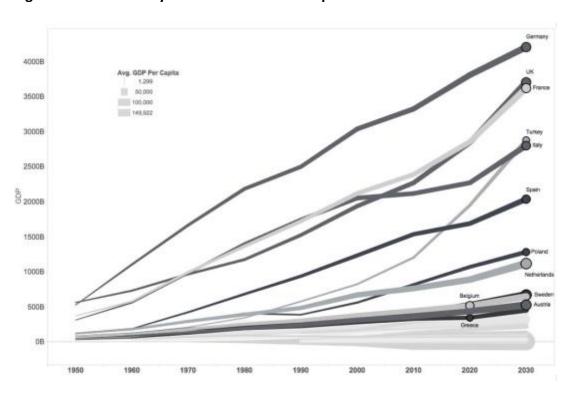
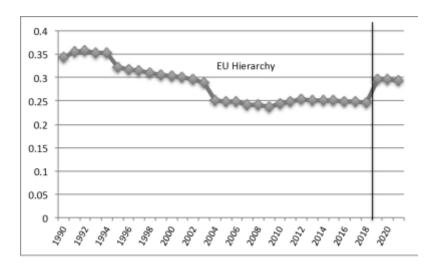


Figure 6a: EU hierarchy with German leadership

Unlabeled nations are: Portugal, Czech Republic, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, and Slovenia

And when we calibrate dyadic relations of power against that of Germany we get the following distribution for German dominance in the EU.





The second independent variable for integration is the convergence of social values. As previously explained, 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 the other member states. Therefore, we measure value convergence by calculating the distance between Germany's values from the 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.

All survey data used for calculating value convergence come from various years of World Values Surveys (WVS). For 2017, we use estimates since 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 tradition-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 post-materialist-materialist and secular-traditional values between two countries:

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

where; X represents the country's value on the secular-traditional axis and Y represents the country's value on the post-materialist-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 'VcGMY' in the formula(s) and is calculated using a modified version of equation 2:

(3) 
$$VcGer_{Ger,j} = \sqrt{(X_{Ger} - X_j)^2 + (Y_{Ger} - Y_j)^2}$$

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 7 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 to these three, the UK and Poland fall farther away from the leader.

Overtime, we are witnessing greater convergence among the larger EU member states.

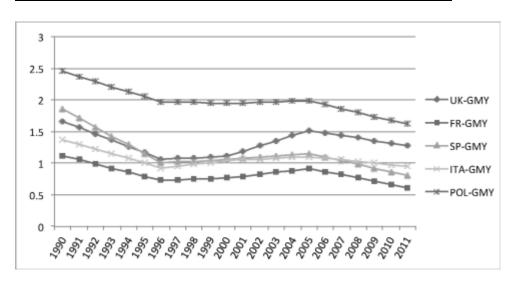


Figure 7: Values Convergence with the Regional Leader (Germany)

The third independent is the amount of trust citizens of member states have toward the European Union. Like value convergence, this variable also helps us gauge the amount of member state satisfaction with status quo. Data come from various years of the Eurobarometer surveys. The Eurobarometer survey responses are a rich source of information regarding EU

citizen views on European integration because of the frequency of repeated questions. By aggregating the respondents' answers to the national level, we are able follow trends in our timeframe.

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

The earlier data points (1973-2001) used another question, which we believe also approximates trust in the EU. The survey series asks the respondent if membership in the EU (or the European Community if it is an early survey) is a good thing, a bad thing, or neither good nor bad. This question has been used in various analyses that attempt to explain general support for European integration.<sup>24</sup>Public support for integration is highly correlated with trust because favorable support of integration is generally perceived when trust is present.<sup>25</sup>

The only annual data points that are missing are country values for 1998. For this year, we linearly interpolate these values. For the countries that are extrapolated, these two measures correlate at 67% for the overlapping period. Adjusting commitment to the *status quo* by levels of trust to anticipate the degree of support for integration is a path we wish to follow

to clarify intra-EU relations. For operationalization of trust variable in our model, we calculate the variable, Trust towards the European Commission (TrustEC), by a trend function which utilizes the least squares method to calculate the line of best fit for a supplied set of y- and x-values. We further estimated TrustEC for 2017-2021 assuming high trust, a normal moving average, and low trust. Figure 8 provides trust levels for Germany and EU average.

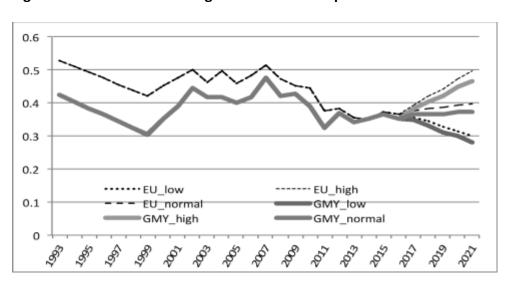


Figure 8: German & EU Average Trust to the European Commission

It is apparent that the level of trust in the EU fell significantly during and since the last financial crisis and recovered to its pre-crisis level in 2015. However, the overall trend is a steady decline since 2003. This raises another concern for EU integration, that of legitimacy. Several factors can be identified that result in low democratic citizen trust: problems of legitimacy, recession, mistrust, anti-EU propaganda of nationalist political parties, and negative attitudes towards migration.

Model Estimate – With Trust Projected at Current Trend Levels

This Model tests the relationship between integration (IAS dependent variable) and value convergence on Germany, trust towards the EU, and regional hierarchy. Table 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 2003-2016 for each member state. The model gives a Cox and Snell pseudo-R<sup>2</sup> of 58.5 and Negelkere pseudo-R<sup>2</sup> of 64.1 percent respectively and the Likelihood Ratio Tests are significant at 0.000 for all variables.

(Model): 
$$IAS_{1980-2021} = VC_{Ger} + Trust_{EC\ normal} + Hier_{Ger}$$

<u>Table 1 Parameter Estimates</u>

Integration Achievement Score (IAS) <sup>a</sup>	Independent Variables	В	Std. Error	Wald	Sig.	Exp(B)	95% Confidence Interval for Exp(B)
1.16	Intercept	-21.77	11.57	3.54	0.060		
(Free Trade Area)	Value Convergence	0.018	0.019	0.83	0.361	1.02	0.980-1.06
	Normal Trust	-0.311	0.178	3.06	0.080	0.733	0.517-1.04
	Hierarchy	1.147	0.431	7.07	0.008	3.15	1.35-7.33
2.67 (Customs	Intercept	-58.37	10.58	30.43	0.000		
Union)	Value	0.005	0.010	0.202	0.653	1.01	0.99-1.03
	Convergence						
	Normal 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
3.17	Intercept	-15.04	8.68	3.00	0.083		
(Common	Value	0.015	0.007	4.90	0.027	1.02	1.00-1.03
Market)	Convergence						
	Normal 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
3.50	Intercept	-27.19	8.97	9.18	0.002		
(Economic	Value	0.019	0.008	5.71	0.017	1.02	1.00-1.04
Union)	Convergence						
	Normal 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	Intercept	-6.14	8.69	0.499	0.480		
(EMU)	Value	0.033	0.007	21.03	0.000	1.03	1.01-1.05
	Convergence						
	Normal 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

<sup>&</sup>lt;sup>a</sup>The IAS reference category is 0.00

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

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 become significant around midlevel integration, the customs union, and continues to be an important factor for deepening of integration. This is an important result since it suggests the need of value convergence to the regional leader as integration deepens over time.

Finally, trust in the EU becomes crucial as soon as integration moves from 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.

## **Estimating Further Integration**

The pervious section assumed stable or deepening integration. The question that remains unanswered is: what are the prospects for the member states to deepen the integration? By utilizing the results obtained in the multinomial regression model in the previous section, we can estimate the likelihood of further integration. Since it is difficult to forecast integration through the use of the multinomial model, we construct an Integration Factors Index (IFI), which provides a benchmark for furthering of integration (see Appendix B for details). The IFI reflects the average levels of value convergence, trust, and hierarchy at every stage of integration.<sup>26</sup>

Table 2: 2019 – 2021 Impact of Brexit with Values, Trust Scenarios and Hierarchy

Integration Achievement Score (IAS)	Independent Variables	N*	Mean	Integration Factors Index	
Country: UK					
UK's Integration Level after Brexit	Value Convergence	3	1.3086252		
(Customs Union)	Hierarchy	3	0.2947608		
	Low Trust	3	0.1461217	0.03	
	Normal Trust	3	0.1826510	0.04	
	High Trust	3	0.2191803	0.05	
Countries: Poland, Sweden, Romania, t	he Czech Rep., Hungary, Denma	rk, Bulga	ria, and Croatia		
3.50	Value Convergence	24	1.4995956		
(Economic Union)	Hierarchy	24	0.2947608		
	Low Trust	24	0.3335608	0.07	
	Normal Trust	24	0.4165723	0.08	
	High Trust	24	0.4995837	0.10	
Countries: France, Spain, Italy, Netherla Latvia, Lithuania, Luxemburg, Estonia, G	_	Portugal,	Finland, Ireland, S	lovakia, Slovenia,	
3.83	Value Convergence	54	1.0267418		

(Eurozone + partial financial integration)	Hierarchy		0.2947	
		4	608	
	Low Trust		0.3135	0.09
		4	296	0.05
	Normal Trust		0.3916	0.11
		4	334	0.11
	High Trust		0.4697	0.14
		4	372	0.14
*Country-year				

Table 2 presents the IFI estimates and mean compositions for the time period between 2019 and 2021. As in our prior analysis, we assume that the UK is going to leave the EU in 2019. IFI values above 0.10 indicate movement towards further integration; 0.09- 0.06 suggest stability current levels; 0.05 and below suggest lower levels of integration. The estimates provide important but rather complex results. We begin from the first section where we hold the integration achievement score (IAS) to the level of a customs union. Even at this low level of integration, the UK will seek further separation from the EU as indicated by the low IFI values. This is reinforced at all three trust scenarios – low, normal and high. Therefore, the UK is expected to seek a hard exit and continue to distance itself from the EU.

We then set the IAS value to the level of the economic union (3.50) to see how the members listed are likely to press for further integration at varying levels of trust. At low or normal trust levels, members will likely stay at their current levels of integration. If trust increases, they may take steps towards further integration. The incentive to do so, however, is not high since the IFI values of 0.10 is a weak indicator of further integration. The last section of Table 2 increases the IAS to the EMU level (3.87). States that have low trust are likely to resist

major increases in integration (i.e. fiscal union). However, if trust increases to normal or high levels, integration is likely to increase swiftly.

## Conclusions

Findings of these models are quite telling. For the EU to move beyond its current challenges and achieve stable and successful fiscal and political union, trust in EU must improve among the citizens. Convergence of values among Europeans also shows that there are indeed emergent European values and that convergence on these value goes a long way in promoting the deepening of integration in the EU. Finally, hierarchy is important in the early stages of integration as a leader is essential in providing the guidance and public goods for pulling everyone together. However, as power asymmetry declines by either bringing in new members and/or improvements in the member states' economies, hierarchy and the ability of the regional leader to provide resources for public goods decreases. From here on, hierarchy stops being a significant factor for the deepening of integration. The regional leader is needed for the early institutional construction needed to establish the framework of future integration. As integration shifts to greater political cohesion, convergence of values and trust are more necessary for further development of common policies and the supranational quality of institutions.

Our findings also indicate that further divergence of a two speed Europe is likely (Table 2). The EU will be stable but will only inch forward to further integration if trust in the EU increases. Unlike current analysists that predict other countries to follow Brexit's example, we predict no country currently in the Economic Union or the Eurozone would leave the EU

anytime soon. In sum, the EU is fairly stable. Finally, if we consider prior expectations derived from a British lack of trust in the EU and its movement away from value convergence with the core EU nations, a comparison of the results in Table 2 to similar assessments of the EU's probability of deepening of integration without the UK, we find that integration will increase after Brexit. Furthermore, Brexit would increase Germany's power asymmetry in the European hierarchy and improve values converge among the remaining leading EU countries. This leads to improved prospects for further integration rise concurrently.

## Appendix A

#### A. Integration Achievement Score (coding system)

#### 1. Trade in Goods and Services

- 0 = No agreements made to lower tariffs and non-tariff barriers
- 1 = Preferential Tariff Agreement
- 2 = Partial Free Trade Area
- 3 = Full Free Trade Area
- 4 = Customs Union (Common External Tariffs)
- 5 = No barriers among member countries

#### 2. Degree of Capital Mobility

- 0 = No agreements made to promote capital mobility
- 1 = Foreign Direct Investment allowed in limited form
- 2 = Capital withdrawal allowed
- 3 = Full access for foreign investment and capital withdrawal, except for national government procurement
- 4 = Full capital mobility expect for large scale mergers and acquisitions
- 5 = Full capital mobility without restriction

#### 3. Degree of Labor Mobility

- 0 = No agreements made to promote labor mobility
- 1 = Right of movement granted for select professions
- 2 = Full right of movement
- 3 = Transferability of professional qualifications granted
- 4 = Transferability of pensions and other retirement devices
- 5 = Full freedom of movement

#### 4. Level of Supranational Institution Importance

0 = No supranational institutions

1 = Establishment of nominal institutions

2 = Information gathering and advisory role

3 = Ability for institutions to amend proposals

4 = Ability for institutions to veto proposals

5 = Supranational institutions operate as primary decision node

#### 5. Degree of Monetary Policy Coordination

0 = No monetary policy coordination

1 = Consultation regarding policy

2 = Commitment to maintain parity

3 = Coordinated interventions

4 = Regional Central Bank establishment

5 = Single currency

## 6. Degree of Fiscal Policy Coordination

0 = No fiscal policy coordination

1 = Consultation regarding policy

2 = Commitments regarding deficit spending and taxation

3 = Sanctions regarding breaking commitments

4 = Uniform tax code

5 = Single budget

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

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

#### B. Hierarchy

Hierarchy is one of the independent variables used in the multinomial regression model.

This variable measures the difference between relative power a regional leader and 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:

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

Data for Hierarchy come 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.

#### 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-Post Materialist Values on the map. Value Convergence (value distance) of Country a and Country b is calculated as follows:

Value Convergence<sub>a,b</sub> = 
$$\sqrt{(X_a - X_b)^2 + (Y_a - Y_b)^2}$$

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

Trust is calculated via Excel's Trend function. The Trend function is adjusted to take into account the previous 4 years of data for every estimated year.

#### APPENDIX B

### Integration Factors Index

It is possible to make estimations about furthering of integration by using the variables that are obtained from the multinomial regression model. Since our multinomial model does

not let us insert variables and make estimations in the same fashion of a linear model, we should think in a way that takes into account the categorical nature of the dependent variable (Integration Achievement Score). The independent variables in the multinomial model tests the elements on, or factors of integration. We need to understand how these independent variables, Value Convergence, Trust and Hierarchy, differentiate in different integration categories. Table B.1 displays the average level of every independent variable in the integration categories. The means of the independent variables at every integration category display certain levels. In other words, factors of integration have to come to a certain level in order to witness integration.

Table B.1: 1980 – 2011 Benchmark for the Index

							Integration
	Independent					Std.	Factors
IAS	Variables	N*	Minimum	Maximum	Mean	Deviation	Index
.00	Value Convergence	127	0.17500	2.86007	1.5883041	0.65747531	0.097
For a Total	Trust	14	0.33850	0.62504	0.4493635	0.09524567	
Free Trade	Hierarchy	339	0.23758	0.42784	0.3438517	0.04530341	
	Valid N	14					
-	pain, Poland, Romania, Evia, Lithuania, Estonia,		•	blic, Hungary	, Finland, Bul	garia, Croatia,	Slovakia,
2.67	Value Convergence	75	0.67382	1.73667	1.2049535	0.27654858	0.1914
	Trust	130	0.24000	0.88000	0.6265385	0.15382821	
Customs Union	Hierarchy	130	0.33118	0.42784	0.3681142	0.03326596	
Union	Valid N	75					
Countries: Fr	ance, Spain, Italy, Neth	erland	ls, Belgium, G	reece, Portu	gal, Denmark,	, Ireland, Luxem	burg, UK
3.17	Value Convergence	168	0.15811	2.66133	1.3639665	0.47136607	0.1038
•	Trust	192	0.17027	0.68912	0.5005842	0.10410617	
Common Market	Hierarchy	192	0.23758	0.35302	0.2827435	0.04054722	
····	Valid N	168					
Countries: Fr	ance, Spain, Italy, Neth	erland	ls, Hungary, F	inland, Bulga	ria, Belgium,	Greece, Portug	al, Denmark
-	nd, Sweden, Austria, R	omani	a, Czech Repu	ıblic, Slovakia	, Slovenia, La	tvia, Lithuania,	Estonia,
Cyprus, Malt	a, Luxemburg, UK						
3.50	Value Convergence	31	0.60381	2.52982	1.2397807	0.58833121	0.1305
	Trust	31	0.40152	0.65455	0.5353495	0.06489291	
	Hierarchy	31	0.30038	0.30463	0.3022428	0.00179534	

Economic Union	Valid N	31					
Countries:	France, Spain, Italy, Neth	erland	s, Belgium, A	ustria, Greec	e, Portugal, F	inland, Ireland,	
Luxembour	g						
3.83	Value Convergence	124	0.35355	2.24473	1.1053302	0.48202021	0.1230
EMU	Trust	127	0.27550	0.69860	0.5374050	0.08116768	
	Hierarchy	127	0.23758	0.29576	0.2529337	0.01862016	
	Valid N	124					
Countries:	France, Spain, Italy, Neth	erland	s, Belgium, A	ustria, Greec	e, Portugal, F	inland, Ireland,	Slovakia,
	uxembourg, Estonia, Cyp			-		•	·
* Country y	/ear						

When the means of the independent variables, denoting factors of integration, come to a certain level, they demonstrate a level of sufficiency for furthering of integration. By multiplying the means of the independent variables, it is possible to measure the overall impact of the factors of integration. This calculation is called the Integration Factors Index (IFI):

$$Integration \ Factors \ Index = \frac{1}{Mean_{VcGer}} \times Mean_{TrustEC} \times Mean_{HierGer}$$

Since Value Convergence is a distance measurement between countries, the inverse mean is taken: 1/Mean<sub>VcGer</sub> - the lower the values distance between countries, the higher the level of integration. Therefore, in this analysis, a decreasing mean of VcGer, which denotes converging values, is ideal, and it would increase the IFI. In contrary, the higher the mean of TrustEC, the higher the level of integration. Similarly, the higher the mean of HierGer, the higher the integration factors index, representing increasing likelihood for integration. In conclusion, the IFI measures the overall level of the factors of integration or the general impact of the drivers of integration. The higher the IFI among countries, the higher the likelihood of developing

integration among them. And if there is already some level of integration among these countries, the higher the IFI, the higher the chances of deepening of integration. In opposite, the lower the IFI among a group of countries, the lower the possibility of integration (or deepening of integration if there is already some level of integration among them).

The Integration Factors Index results of Table B.1 can be utilized as a comparative standard estimating further integration. Table B.1 focuses on the period between 1980 and 2011, which is the most reliable section of the dataset in this study because there is no estimation. As it can be seen from the table, the smallest IFI number, which is 0.097, appears under the 0.0 category where there is no integration between countries. This situation is not surprising since it indicates that the combination of Value Convergence, Trust, and Hierarchy is not at a sufficient level for integration. All the integration categories have higher IFI numbers than the 0.0 level. However, with 0.1038, the 3.17 level displays the lowest level of IFI among the integration categories. Thus, the lowest IFI number among the actualized integration categories, can be taken as a comparative benchmark as 0.10 in order to estimate the probability of furthering integration in the future. As result, the higher the Integration Factors Index than 0.10, the higher the probability of integration among the EU countries. When the IFI falls below 0.10, the probability of integration decreases among the members.

Table B.2 depicts the chances of future integration if the UK does not leave the EU in 2019. Table 2 (see analysis section in paper) portrays the impact of Brexit for the future integration potential in the EU. Table B.2 is provided in this section to demonstrate that with the UK in the Union, the likelihood for deepening of integration decreases. The IFI numbers of both integration groups, Economic Union countries and the Eurozone countries, are smaller

when the UK does not leave. In all three scenarios of Trust, the countries that are only in the Economic Union (3.17) fall behind the IFI threshold 0.10. Even in a high trust scenario, these countries fall two points short in terms of demonstrating a potential for furthering integration. On the other hand, if the UK does not leave, the Eurozone countries would be affected as well. Even though the UK is not in the 3.83 integration group, it is weakening the German hierarchy which influences all the member countries. As a result, only in a high trust scenario, the Eurozone countries demonstrate a potential for deepening of integration. Consequently, if the UK does not leave the Union, all the factors of integration, Values Convergence, Hierarchy and Trust would be negatively influenced and the likelihood for further integration would decrease in all integration categories.

Table B.2: What if the UK does not leave? (2019-2021)

Integration Achievement Score (IAS)	Independent Variables	N*	Mean	Integration Factors Index
3.50	Value Convergence	27	1.478376691	
(Economic Union)	Hierarchy	27	0.243017254	
	Low Trust	27	0.312734275	0.05
	Normal Trust	27	0.39058104	0.06
	High Trust	27	0.468427805	0.08
Countries: UK, Poland, Sweden, Romaine,	the Czech Rep., Hungary, D	enmark	, Bulgaria, and Cro	oatia
3.83	Value Convergence	54	1.026741786	
(Eurozone + partial financial integration)	Hierarchy	54	0.243017254	
	Low Trust	54	0.313529587	0.07
	Normal Trust	54	0.391633371	0.09
	High Trust	54	0.469737155	0.11
Countries: France, Spain, Italy, Netherland Slovenia, Latvia, Lithuania, Luxemburg, Es		, Portug	al, Finland, Irelan	d, Slovakia,
*Country-year				

### **Endnotes**

<sup>1</sup> Solemn Declaration on European Union. European Council, Stuttgart 19 June 1983. Bulletin of the European Communities, No. 6 (1983): 24-29. [EU European Council).

<sup>&</sup>lt;sup>2</sup>William Riker, *Federalism*, in *Handbook of Political Science*, eds. Fred Greenstein and Nelson Polsby, Vol 5 (1975): 93-172; Daron Acemoglu and James Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty.* (New York: Crown Publishers, 2012).

<sup>&</sup>lt;sup>3</sup> For example, see works by Ernst B. Haas, *The Uniting of Europe: Political, Social, and Economic Forces, 1950–1957* (Stanford, Calif.: Stanford University Press 1958) and *Beyond the Nation-State* (Stanford, Calif.: Stanford University Press, 1964); David Mitrany, *A Working Peace System*. (Chicago: Quadrangle Books, 1966); Charles Pentland, *International Theory and European Integration*. (London: Faber and Faber, 1973); Sweet Stone and Wayne Sandholtz, *European Integration and Supranational Governance, Journal of European Public Policy* 4, no. 3 (1997); Sebastian Rosato, *Europe United: Power Politics and the Making of the European Community*. (Ithaca, NY: Cornell University Press, 2011); and Moravcsik, Andrew (1993). "Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach," Journal of Common Market Studies 31 (December 1993): 473–524.

<sup>4</sup> A. F. K. Organski, *World Politics*. Borzoi Books in Political Science. (New York: Knopf, 1958).

<sup>&</sup>lt;sup>5</sup> For works on Power Transition theory see Jacek Kugler and Douglas Lemke, "The Power Transition: a Retrospective and prospective Evaluation" in Manus Midlarski *Handbook of War Studies II*, Ann Arbor: University of Michigan Press, 2000, pp. 171-194; Jacek Kugler and A.F.K. Organski, "The Power Transition: A Retrospective and Prospective Evaluation" in Manus Midlarski ed. *Handbook of War Studies* Ann Arbor, MI: Michigan University Press 1989, pp 171-194; Ronald L. Tammen, et al. *Power Transitions: Strategies for the 21st Century*. 1st edition. New York: Seven Bridges Press, LLC / Chatham House, 2000 and, Ronald L. Tammen Jacek Kugler, eds. *The Performance of Nations*. Lanham: Rowman & Littlefield Publishers, Inc., 2012.

<sup>&</sup>lt;sup>6</sup> Brian Efird and Gaspare M. Genna, *Structural Conditions and the Propensity for Regional Integration*, *European Union Politics* 3, no. 3 (2002): 267–295; Brian Efird, Gaspare Genna, and Jacek Kugler, *From War to Integration: Generalizing the Dynamic of Power Transitions*, *International Interactions* 29, no. 4 (2003): 293–314; Birol Yesilada, Brian Efird, and Peter Noordijk, *Competition among Giants: A Look at How Future Enlargement of the European Union Could Affect Global Power Transition*, *International Studies Review* 8, no. 4 (2006): 607-622.

<sup>&</sup>lt;sup>7</sup> Extensions of Power Transition logic at the agent based level also indicate that when trust is added to the mix – cooperation and recourse to legal solutions increase's and confrontations decline.

<sup>&</sup>lt;sup>8</sup> Ronald L. Tammen, et al., *Power Transitions: Strategies for the 21st Century*, 1st edition. (New York: Seven Bridges Press, LLC / Chatham House, 2000); Ronald L. Tammen and Jacek Kugler, eds. *The Performance of Nations*. (Lanham: Rowman & Littlefield Publishers, Inc., 2012).

<sup>&</sup>lt;sup>9</sup> Lemke, Douglas, *Regions of War and Peace (Cambridge Studies in International Relations)*. (Cambridge, UK, New York: Cambridge University Press, 2002).

<sup>&</sup>lt;sup>10</sup> A. F. K. Organski, *World Politics*. Borzoi Books in Political Science. (New York: Knopf, 1958) and empirically explored and refined in subsequent works by A.F.K. Organski, and Jacek Kugler, *The War Ledger*. Chicago University Press, 1980; Jacek Kugler and Douglas Lemke, *Parity and War*. University of Michigan Press, 1996; Tammen, Ronald et. al., *Power Transitions*. (Chatham House, 2000).

<sup>&</sup>lt;sup>11</sup> A Nash equilibrium, named after John Nash, is a set of strategies, one for each player, such that no player has incentive to unilaterally change her action. *Players are in equilibrium if a change in strategies by any one of them would lead that player to earn less than if she remained with her current strategy.* For games in which players randomize (mixed strategies), the expected or average payoff must be at least as large as that obtainable by any other strategy. By definition, a strategy pair is Nash equilibrium solution if each player's strategy is the best response to the other player's strategy. Pareto optimal, on the other hand, is a measure of efficiency. Named after Vilfredo Pareto, it is the outcome of a game if there is no other outcome that makes every player at least as well

off and at least one player strictly better off. That is, a Pareto Optimal outcome cannot be improved upon without hurting at least one player. Often, a Nash Equilibrium is not Pareto Optimal implying that the players' payoffs can all be increased. By definition an outcome is Pareto optimal if any other outcome gives a worse outcome for at least one of the players.

- <sup>12</sup> Jong-sung You, *Social Trust: Fairness Matters More than Homogeneity, Political Psychology* 33, 5 (2012): 701-721.
- <sup>13</sup> Gaspare M. Genna, *Images of Europeans: transnational trust and support for European integration*, *Journal of International Relations and Development* advance online publication, 13 March 2015; doi:10.1057/jird.2015.9.
- <sup>14</sup> Birol Yesilada, Osman Tanrikulu, Jacek Kugler and Allison Hamlin, *Power Transition and the Future of European Union Integration*, paper presented at the 2016 annual conference of the International Studies Association in Atlanta, Georgia.
- 15 Ibid.
- <sup>16</sup> For example, see Daron Acemoglu and James Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty.* (New York, NY: Crown Business, 2012); Jean-Antoine-Nicolas De Caritat Condorcet, *Sketch for a Historical Picture of the Progress of the Human Mind*, translated by June Barraclough. Westport, CT: Hyperion Press, 1795; Ted Robert Gurr *Why Men Rebel.* (Princeton, NJ: Princeton University Press, 1970); Samuel P. Huntington, *The Change to Change: Modernization, Development, and Politics, Comparative Politics* 3, (1971): 283–322; Ronald Inglehart, *Modernization and Postmodernization: Cultural, Economic and Political Change in 43 Societies.* (Princeton, NJ: Princeton University Press, 1997); Marion J. Levy Jr, "Social Patterns (Structures) and Problems of Modernization." In *Readings on Social Change*, ed by Wilbert Moore, and Robert M. Cook. (Englewood Cliffs: Prentice-Hall: 1967), and Mark Abdollahian, Travis Coan, Hanna Oh, and Birol Yesilada "Dynamics of Cultural Change: The Human Development Perspective," *International Studies Quarterly,* Vol 56., no 4 (December 2012):827-43.
- <sup>17</sup> Ronald Inglehart and Christian Welzel, *Modernization, cultural change, and democracy: the human development sequence.* (New York, NY: Cambridge University Press, 2005).
- <sup>18</sup> Ronald Inglehart, "Changing Values among Western Publics from 1970 to 2006." Wet European Politics 31, 130-46. Inglehart Ronald and Wayne Baker, Modernization, cultural change, and the persistence of traditional values, American Sociological Review 65, (2000): 19–51.
- <sup>19</sup> Daniel Bell, *The coming of postindustrial society.* (New York: Basic Books: 1973).
- <sup>20</sup> Ronald Inglehart, *Mapping Global Values*, in *Measuring and Mapping Cultures: 25 Years of Comparative Value Surveys* ed by Yilmaz Esmer and Thorleif Pettersson. (Leiden: Brill: 2007).
- <sup>21</sup> Bell, *Ibid*.
- <sup>22</sup> Birol Yesilada, Osman Goktug Tanrikulu, Jacek Kugler and Allison Hamlin, *Power Transition and the Future of European Union Integration*. Paper presented at the annual conference of the *International Studies Association* in Atlanta, March 16, 2016.
- <sup>23</sup> The Integration Achievement Score was first developed in Gary C. Hufbauer and Jeffery J. Schott, *Western Hemisphere Economic Integration*. (Washington, DC: Institute for International Economics, 1994), and then later expanded and further developed in Brain Efird and Gaspare M. Genna, *Structural Conditions and the Propensity for Regional Integration*, *European Union Politics* 3, no. 3 (2002): 267-95.
- <sup>24</sup> See Matthew Gabel, *Interests and integration: Market liberalization, public opinion, and European Union*, Ann Arbor. (MI: University of Michigan Press, 1998).
- <sup>25</sup> Gaspare M. Genna, *Positive Country Images, Trust, and Public Support for European Integration, Comparative European Politics* 7, no. 2 (2009): 213-32; Gaspare M. Genna, *Images of Europeans: transnational trust and support for European integration, Journal of International Relations and Development*, advance online publication, 13 March 2015; doi:10.1057/jird.2015.9.
- <sup>26</sup> Integration Factors Index (IFI) is derived as an interaction between the means as follows:

IFI = 1 / Mean\_Value Convergence + Mean\_Trust + Mean\_Hierarchy

The lower the values distance between countries, the higher the level of integration. In the analysis, a decreasing mean of value convergence increases the IFI; an increasing mean of Trust rises the level of integration; and an increasing mean of Hierarchy, increases integration. The resulting IFI measures the impact of all drivers of integration. For more details, see Appendix B.