Ties to the Rest: Autocratic Linkages and Regime Survival

Tansey, O.; Koehler, K.; Schmotz, A.

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Abstract:	The relationship between international linkages and the nature and survival of political regimes has gained increasing attention in recent years, but remains one that is poorly understood. In this article, we make three central contributions to our understanding of international linkage politics and autocratic regime survival. First, we introduce and develop the concept of 'autocratic linkage', and highlight its importance for understanding the international politics of autocratic survival. Second, we use event history analysis to demonstrate that autocratic linkage has a systematic effect on the duration of authoritarian regimes. Finally, we complement our quantitative analysis with a focused comparison of autocratic linkage politics in the Middle East. We show that variation in Saudi Arabian support for autocratic incumbents in the wake of the Arab Spring protests can be explained in significant part by variation in linkage relationships.

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TIES TO THE REST:
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Introduction

In late January 2016, Chinese president Xi Jinping visited Iran. He was one of the first world leaders to do so after the international sanction had been lifted. During his two-day stay, he and Iranian president Hassan Rouhani signed seventeen agreements, among them a commitment to raise trade volumes between the two countries to 600 billion US-dollars. According to Rouhani, they also discussed "science, modern technology, culture, tourism, […] security and defence issues" (BBC, 2016). Such diverse ties between two autocratic regimes in various socio-political spheres constitute what we call international autocratic linkage. In this article, we investigate whether and how international autocratic linkages contribute to the survival of autocratic regimes.

The relationship between international linkages and the nature and survival of political regimes has gained increasing attention in recent years, but remains one that is poorly understood. International linkages are cross-border ties between countries across a variety of political, economic, and/or social dimensions, and some have argued that they can have strong democratising effects by raising the international costs of repression and strengthening democratic actors at the local level (Levitsky & Way, 2010, pp. 43–44). Others, however, have suggested that certain forms of international linkages can protect and embolden autocratic elites and reduce the political space for democratic openings (Cameron & Orenstein, 2012; Tolstrup, 2013; Vanderhill, 2013). Close ties to countries like Russia and Iran can serve to facilitate authoritarian stability by shielding incumbent autocrats from democratising pressures and providing lifelines of diplomatic and material support. To date, however, this

literature has been limited by a selective focus on a limited set of international networks and the absence of systematic empirical analysis of linkage politics across time and space.

In this article, we seek to enhance our understanding of international linkage politics and autocratic regime survival in three principal ways. First, we focus on ties to the rest, rather than ties to the West. We introduce and develop the concept of 'autocratic linkage' – that is, linkages between autocratic states – and highlight its importance for understanding the international politics of autocratic survival. We measure autocratic linkage on four dimensions – trade, migration, diplomatic ties, and geographic proximity – and find that in recent years, autocratic regimes have closed ranks on the international level, a trend that does not bode well for democratic development.

Second, we test the effect of autocratic linkage on the survival of 338 autocratic regimes between 1949 and 2008 using techniques of event history analysis, and demonstrate that autocratic linkage has a systematic effect on the duration of authoritarian regimes. In particular, we show that the higher the levels of autocratic linkages, the lower the risk of autocratic breakdown and the longer autocratic regimes are likely to survive. We argue that this is due to the fact that high levels of autocratic linkage give both international and domestic actors a stake in the status quo regime, and both sets of actors have incentives to maintain the status quo. Democratic and autocratic linkage are not equal in this respect, and we tease out the ways in which autocratic linkage creates particular incentive structures that favour authoritarian stability.

Third, we examine one important mechanism of autocratic linkage with a focused comparison of autocratic linkage politics in the Middle East. We trace Saudi Arabia's

policies towards beleaguered Arab regimes during the Arab Spring, and demonstrate that autocratic linkage helps explain variation in Saudi support to regime incumbents (while also taking into account that this support was not always successful).

The article proceeds in five sections. First, we review existing treatments of linkage politics and introduce our concept of 'autocratic linkage'. Second, we outline the ways in which autocratic linkage has implications for autocratic survival. Third, we identify trends over time in patterns of both democratic and autocratic linkage, and reveal a recent surge in autocratic linkage. Fourth, using survival analysis we examine the relationship between autocratic linkage and autocratic survival. Finally, we test one particular mechanism of the effects of autocratic linkage, demonstrating that regimes with close linkages to Saudi Arabia were more likely to receive support from the kingdom during the Arab Spring.

International Politics, Autocratic Linkage, and Authoritarian Rule

In recent years the international sources of authoritarian stability have been the subject of increased scrutiny (Bader, 2015; Escriba-Folch & Wright, 2015; Tansey, 2016; Vanderhill, 2013). Much of this work has focused on the role that individual states (so-called 'Black Knights') play in sponsoring autocratic regimes abroad, including both authoritarian powers such as Russia and China as well as democracies such as the United States (Bader, 2015; Brownlee, 2012; Burnell & Schlumberger, 2010; Levitsky & Way, 2010, p. 41; Tolstrup, 2015). However, scholars have also focused on the various forms of cross-border ties that can contribute to regime survival in more indirect ways. The literature on diffusion has shown that the prospects of authoritarian breakdown depend in part on the international context within which a regime is situated, including regional levels of democracy and

neighbour regime transitions (Beissinger, 2007; Brinks & Coppedge, 2006; Gleditsch & Ward, 2006; Kopstein & Reilly, 2000). Yet the diffusion literature rarely examines cross-border *relationships* directly, focusing instead on the characteristics of regimes across a given region. Elsewhere, studies of specific inter-regime connections have focused on isolated sets of relationships, such as the role of trade (Manger & Pickup, 2016; Ulfelder, 2008), alliances relationships (Boix, 2011; Boix & Svolik, 2013), and common membership of international organizations (Pevehouse, 2005; Vachudova, 2005). The preponderance of empirical findings from these studies have suggested that international linkages can create opportunities for democratic openings and thus act as a threat to authoritarian stability.

Recently, Levitsky and Way have sought to consolidate much of this literature within an analytical framework emphasising two key international-level variables: western leverage and linkage to the West (Levitsky & Way, 2010). While leverage concerns the vulnerability of a particular state to Western pressure, linkage concerns the density of ties and cross-border flows between particular countries and Western states and international organizations. According to Levitsky and Way, linkage to the West acts as a transmitter of international influence, and contributes to democratization by heightening the international reverberation of non-democratic behaviour, creating domestic constituencies for 'democratic norm-abiding behaviour' and strengthening democratic opposition forces at the expense of autocratic leaders (Levitsky & Way, 2010, pp. 38–54). Leverage has limited impact in the absence of linkage.

More recently, several scholars have identified the need to consider how linkages can tie regimes to foreign powers in ways that are more likely to reinforce rather than undermine authoritarian rule at the domestic level. Brownlee's work on the long-

standing ties between the US and Egypt starkly highlights the ways in which linkage to Western states can help strengthen rather than weaken authoritarian rulers (Brownlee, 2012). Vanderhill places international linkages at the heart of her recent study of 'authoritarianism promotion', arguing that linkages to authoritarian states can make the external promotion of authoritarianism more effective (Vanderhill, 2013). Tolstrup has rightly criticised a Western bias in much of the literature on the international politics of regime change, and identified the ways in which linkages to Russia have helped autocratic elites, and harmed democratic ones, in several Eastern European states (Tolstrup, 2013). Several other studies also point to the role that international linkages to major authoritarian powers can play in bolstering autocratic incumbents (Ambrosio, 2009; Bader, 2015; Cameron & Orenstein, 2012).

Scholars have thus increasingly focused on the ways in which linkage politics can contribute to authoritarian stability. Yet our understanding of these dynamics remains incomplete, and the current literature exhibits a number of conceptual, theoretical and empirical limitations. First, existing conceptions of cross-border linkages have either been too restricted or too ad hoc. Insights about cross-national ties often relate only to ties between a handful of selected countries, often involving major powers such as the US, Russia and China. There is little work that explores linkage globally, and that empirically traces changes in global linkage over time. As a result, while we have a good understanding of how some forms of linkage matter for regime change and regime survival, we do not have a complete picture of the range of international (and often competing) linkage politics at work. Second, although existing work on linkage rests on some excellent case analyses, there is very little cross-national quantitative work that would complement the qualitative findings and facilitate the global analysis that is needed.

We overcome some of these limitations by conceptualising 'autocratic linkages' as distinct from linkage to the West or democratic linkages, and we systematically examine the nature and effects of autocratic linkage over time and throughout the world. Autocratic linkage can be conceived of in similar ways to linkage to the West, as the density of ties and cross-border flows between non-democratic regimes. Just as with linkage to the West, autocratic linkage is multi-dimensional and captures a range of connections between states, including economic and social connections and cross-border flows of communication and people (Levitsky & Way, 2010, p. 43).

Autocratic Linkage and Regime Survival

We argue that autocratic linkages have important implications for the survival of authoritarian regimes because they foster preferences for status quo politics both among international partners and domestic constituencies. Although linkage with both democratic and autocratic regimes abroad may at times work to bolster autocratic regimes, we argue that autocratic linkage has distinct and powerful effects that democratic linkage does not. We identify four principal causal mechanisms that link autocratic linkage to autocratic survival.

One channel of linkage influence works through domestic constituencies. Levitsky and Way argue that linkage to the West provides a range of domestic actors with 'personal, financial and professional' ties to West, and that such actors will have a strong interest in avoiding international isolation and sanction from Western democracies (Levitsky & Way, 2010, p. 47). Yet autocratic linkage may provide correspondingly strong incentives among domestic actors to maintain the status quo and avoid any change of regime that would threaten existing foreign ties. Authoritarian leaders often secure the support of key constituencies, such as the

military and business leaders, through patronage and financial largesse (Gandhi & Przeworski, 2007; Magaloni, 2006). Where state revenues depend in significant part on international autocratic linkages, any regime change could put patronage-based benefits at risk. New incumbents may wish to rely on the same constituencies that underwrote the previous regime, but their capacity to do so is lessened if external partners shun them and squeeze their external revenue. Saudi aid to Egypt, for example, declined sharply after the election of Mohamed Morsi in 2012, who was viewed with antipathy in Riyadh.

Autocratic linkages also influence patterns of international democracy enforcement. According to Levitsky and Way, during times of contentious politics linkage to the West increases the probability that Western states will both notice and take action against government abuses of power during these crisis moments (Levitsky & Way, 2010, p. 45). Yet autocratic linkage is unlikely to have such effects as democracy is rarely a foreign policy goal within autocratic regimes. As Donno suggests, authoritarian countries 'are more likely to oppose enforcement, simply because they value democracy less' (Donno, 2013, p. 74). Consequently, countries with high levels of autocratic linkages are less likely to be subjected to costly sanctions that can weaken autocratic rule. This does not mean that countries will be free from any external democratic pressure, but it can ensure that democratic enforcement is not the universal response facing individual autocratic regimes during times of crisis. For example, the coup leaders who took power in Haiti in 1991 enjoyed few ties to autocratic states, and faced universal, UN-authorised enforcement measures that contributed to their departure from power (Legler & Tieku, 2010). By contrast, the Mugabe regime in Zimbabwe has a diverse set of international linkages, and strenuous enforcement measures by Western actors were not matched by the

regime's autocratic partners in the region and beyond, many of whom actively resisted calls for international sanctions (Masunungure & Badza, 2010; Phimister & Raftopoulos, 2004). Channels of autocratic linkage thus shape the intensity of democracy enforcement likely to be faced by norm-violating autocratic regimes.

Autocratic linkage also increases the likelihood that external actors will actively support autocratic incumbents. While the absence of international sanctions can be a welcome relief, the presence of robust external sponsorship (including economic and military assistance) contributes more directly to autocratic regime survival (Tansey, 2016). International linkages increase the stakes that external actors have in the domestic regimes of other countries, but autocratic and democratic linkage are not equivalent in this respect. In particular, autocratic linkage heightens the fear of contagion between autocratic countries, and makes it more likely partners will assist one another in times of crisis. Scholarship on diffusion has shown how models of regime contention can spread quickly from one setting to another, especially between densely connected countries (Bunce & Wolchik, 2011, p. 300). Consequently, when autocratic stability is threatened in one country, its autocratic partners will have a strong incentive to support the imperilled incumbents and prevent democratisation as a means of protecting the status quo in their own countries. For example, in the wake of the Colour Revolutions in Eastern Europe and Central Asia, Putin's regime in Moscow became concerned that a wave of democratic transitions in the region could lead to domestic overthrow in Russia. The result was an increasingly assertive foreign policy, entailing cooperation with and support for regional autocrats as part of a counter-revolutionary push (McFaul & Spector, 2009; Silitski, 2010). We explore this mechanism further in the final section of the article.

Finally, just as close autocratic linkages can enable fear of contagion to spread, so too can they facilitate processes of learning and emulation associated with diffusion. Incumbent elites with close linkages to other autocratic regimes will be more able to learn from, and cooperate with, foreign autocrats. Cross-border learning has contributed to authoritarian retrenchment in a number of settings, including the Arab Spring and in the wake of the fall of communism in Eastern Europe (Ambrosio, 2010; Heydemann & Leenders, 2011; Koesel & Bunce, 2013). Networks of autocratic regimes have shared technologies designed to restrict political and civil liberties with one another, with less advanced countries, such as Venezuela and Belarus, learning from their more advanced partners, such as Russia and China (Koesel & Bunce, 2013, p. 759). Regional autocratic linkages can facilitate such processes, as autocratic 'first-movers' influence the policies of their regional partners. In Southeast Asia, for example, Singapore has acted as an exemplar for its neighbours in developing internet technology without sacrificing authoritarian control (Kalathil & Boas, 2010, p. 73).

We thus argue that international linkages are important for autocratic regime survival, and that autocratic linkages in particular are likely to prolong the duration of autocratic regimes:

Hypothesis: The higher the levels of autocratic linkages, the lower risk of autocratic regime breakdown.

The Rise of Autocratic Linkage

Autocratic linkage is constituted by cross-border ties between autocratic regimes. To approximate the economic, social, political, and geographic facets of international

autocratic linkage, we construct four indicators: autocratic linkage by trade, migration, diplomatic ties, and geographic proximity.

We first identify our sample of autocratic regimes using the well-known dataset by Barbara Geddes and others (2014). Each linkage indicator is then constructed in a manner that reflects the intensity of ties a given autocracy on average entertains with autocratic partners in a given year. More precisely, for each autocratic regime in each year we sum up the volume of trade exchanged (in US-dollars), the number of people migrating to and from, the number of diplomatic envoys sent and received, and the distance (in kilometres) to all other autocracies in that year. The resulting figures are then put in relation to the given autocracy's GDP (trade) or population (migration, diplomatic ties). Analogously, we construct indicators of each autocratic regime's democratic linkages.

In addition, we construct a set of alternative indicators based on average rather than total linkages, dividing the totals by the number of autocracies in the world, minus one. The two approaches allow us to examine two different understandings of how autocratic linkage can be compared over time. Particularly, total linkage levels are more easily affected by the changing numbers of autocratic regimes in the world during the last decades. Total autocratic linkage is likely to be higher if there are more autocracies to link to. By contrast, the variant employing the average linkage is less sensitive to fluctuating numbers of linkage partners and only reflects them if newly found or lost linkage connections are above or below average magnitude. In other words, this latter operationalisation can be understood as capturing the degree to which potential linkages are realised. It can result in similar linkage levels based on different numbers of linkage partners.

Between the two operationalisations, we are confident to capture important variation in international linkage. We use and understand the four indicators as proxies to the complex and multi-facetted underlying concept of autocratic linkage. We are confident that they represent reliable and valid measures of the most important economic, demographic, political, and geographic dimensions of international linkage. They enable us to capture the intensity of linkages that each autocratic regime has to the rest of the world's autocracies, taking into account their size and economic capacity. They are also derived from the best available sources of country-dyad data, which facilitates fine-grained descriptive and statistical analysis of linkage patterns over several decades. We collect figures on trade and diplomatic relations from the Correlates of War project's respective datasets (Barbieri, Keshk, & Pollins, 2009; Bayer, 2006). Migration data is from the World Bank's Global Bilateral Migration Database (Ozden, Parsons, Schiff, & Walmsley, 2011). We construct the indicators of average autocratic proximity from the *cshapes* dataset (Weidmann, Kuse, & Gleditsch, 2010). All these datasets are organised in a yearly country-dyad format, allowing us to assign regime types to both countries in a dyad, and then distinguish democratic from autocratic linkages.[1]

Figure 1 illustrates an average autocratic regime's linkage with both autocracies and democracies entertained on the four linkage dimensions between 1948 and 2009. To provide important context to these developments, we also show the proportion of autocracies in the world during this period. Our indicators provide strong evidence that autocratic linkage is on the rise, and that this development is decoupled from the decrease in the number of autocratic regimes in the world. Note that while Figure 1 shows average linkage based on the sum aggregation discussed above, a very similar picture reveals itself when resorting to the average aggregation (see the online

appendix). An average autocracy's linkage to other autocracies by trade and migration has been increasing, particularly during the most recent period of observation, and is now higher than it has ever been. Remarkably, these developments take place while the number of autocratic regimes in the world has been decreasing since the late 1970s, and, as a consequence, so has the average added distance to other autocracies (see the fourth and fifth panel in Figure 1). Note that the increase in autocratic trade can only in part be attributed to the growing economic power of China. Even if trade with China is excluded, inter-autocratic trade increases remarkably in the most recent period. In contrast, average diplomatic linkage between autocracies has declined sharply since the 1980s. This is due to the fact that the number of autocratic regimes has dwindled since then. While trade and migration linkage can still be expanded by increasing exchanges with the remaining autocracies, the number of diplomatic ties has a natural cap induced by the number of available partners. The sensitivity of diplomatic linkage to the number of available linkage partners also explains the spike during the 1980s: this was the high-time of authoritarianism in the world, and when many autocracies disappeared in the early 1990s, the number of diplomatic linkages among the remaining ones would naturally decrease.

[Figure 1 about here]

The increase in autocratic linkage by trade and migration may well be the result of an intentional move to close ranks internationally. Particularly the fact that linkage increased relative to linkage between autocracies and democracies points to such an intentional shift in autocratic linkage politics. The exception is diplomatic linkage, which did not increase. Naturally, global proximity linkage is a function of decreasing

number of autocratic regimes and cannot be attributed to any intentional manoeuvers. However, we have to be cautious interpreting the rise in autocratic linkage as an intentional change in autocratic foreign policy. Alternative explanations are possible. For example, the rise in trade linkage might also reflect general economic development in some heavily autocratic regions.

Although we use these indicators as proxies for our underlying concept of autocratic linkage, each also has a direct connection with autocratic survival. In the theoretical discussion above, we identified four central causal mechanisms through which autocratic linkage shapes the prospects of survival, and each of our indicators is associated with at least one of these mechanisms.

The role of international trade illuminates the workings of our first causal mechanism, where important elites are incentivised to support the existing regime out of fear that any replacement would put external revenue at risk. Trade is an important source of state revenue, but trade policy is highly political and scholars have shown that trade is particularly likely to decline after leadership change in autocratic regimes (McGillivray & Smith, 2004). Russia, for example, has offered favourable trade terms to close allies (such as the Yanukovych regime in Ukraine) while making it clear that such favourable terms would be at risk in the event of regime change (Tolstrup, 2013, pp. 150–156). Consequently, the higher the levels of trade linkage between autocratic states, the greater the incentive that domestic elites have to maintain support for the existing regime and protect the status quo economic relations.

The role of migration in our story concerns the risk to autocratic elites that comes with the spread of anti-regime mobilisation. Put simply, migration among autocratic regimes heightens the fear of contagion that arises when one regime experiences a destabilising crisis. 'Immigrant activism' is a key hallmark of transnational forms of

mobilisation and contentious politics (Tarrow, 2005, p. 48), and immigrant communities can act as a conduit of political unrest from their home country to their host country. Protests in one regime are thus more likely to cause concern among elites in other regimes where migration flows have served to bridge the gap between home and host country and where immigrant activists can act as potent agents of diffusion. Such concerns in turn increase the chances that these regimes will act to pre-empt domestic challenges at home and stave off potential contagion from neighbouring countries experiencing mass mobilisation.

Diplomatic ties also have implications for the fear of contagion. When autocratic states have diplomatic relations together, they are more likely to gain information about the nature of, and threat from, protest events taking place in partner countries. The fear of contagion can thus be driven by both elite and non-elite forms of autocratic linkage. Diplomatic linkage also plays an important role in facilitating our fourth causal mechanism of elite learning. Elites can not only learn about the nature and extent of the threat from their diplomatic contacts, but are also more likely to learn how to suppress domestic challenges when they have close diplomatic connections with regimes with experience in suppressing public mobilisation. For example, Syrian efforts to withstand mass public protests in 2011 were informed in part through learning from long-standing and close diplomatic allies in Iran, and regime learning in the broader region during the Arab Spring was facilitated by diplomatic connections in the Gulf Cooperation Council (Heydemann, 2013; Heydemann & Leenders, 2011, p. 650).

Finally, we argue that geographic proximity can also heighten the fear of contagion between regimes and facilitate inter-regime learning. Waves of regime contention often have their most significant impact on countries closest to the first-movers, as

actors perceive conditions to be most similar among neighbouring states (Bunce & Wolchik, 2011, p. 281). As a result, mass mobilisation in one country is likely to pose a serious threat to neighbouring autocratic elites, who may thus wish to offer robust support to their besieged neighbours and stem the tide at its source. Close neighbours are thus more likely to work to preserve each other's regimes in times of crisis and reduce the chances of autocratic collapse (e.g. Saudi Arabia intervened to support the regime in Bahrain in part due to the risk of contagion created by such close proximity). Geographic proximity also facilitates learning, as elites can more easily gain information about the strategies of control used by neighbouring countries and employ them at home to stave off mass uprisings within their own regime. Just as processes of popular mobilisation can diffuse more easily among proximate countries, so too can processes of 'counterdiffusion' operate more easily in neighbouring countries, as elites learn how to respond to threats from below and employ strategies of concession or repression to pre-empt successful uprisings (Weyland, 2010, p. 1165).

Statistical Analysis and Results

We now test the effect of the four indicators of autocratic linkage on the survival of autocratic regimes. We employ Geddes, Wright, and Frantz's (2014) data on the survival of autocratic regimes to specify our dependent variable. Their data are unique in capturing the transition of one autocratic regime to another. Alternative measures of autocratic persistence often equate autocratic breakdown with democratisation, therefore missing out on most of the variation.

We include a number of control variables which might confound an association between the level of autocratic linkage and the longevity of autocratic regimes. First, we control each indicator of autocratic linkage for the corresponding indicator of democratic linkage. This ensures we do not conflate the effects of autocratic linkages with the effects of international linkages in general.

Second, we control the effects of autocratic linkage by trade, migration, and diplomatic ties for the average proximity to other autocratic regimes. Geographic linkage plays a particular role in our research design. While proximity can serve as a valid linkage indicator in its own right, it might also be a driver of trade linkage, migration, and diplomatic ties. However, we believe autocratic linkage is more than just proximity. While proximity might facilitate establishing linkages in various political and socio-economic dimensions, we believe that deliberate attempts to strengthen linkage ties transcend mere neighbourhood effects. If this is true, effects of linkage by trade, migration, and diplomatic ties should be robust to the inclusion of proximity as a control variable. At the same time, proximity as a linkage indicator should exert a significant effect itself.

Third, we control for the effects of linkage with two predominant autocratic Black Knights, China and Russia, making sure that any relationships we find are not the result of linkage with these two influential autocratic patrons. Indicators of Black Knight Linkage, analogous to our other linkage indicators, give the sum or average trade, diplomatic ties, migration, or distance of a given autocratic regime to China and Russia.

Fourth, we control for the global proportion of autocratic regimes in all models, making sure that the effects of autocratic linkage we find are not simply the consequence of a more or less autocratic world.

We further control for GDP per capita and GDP growth (Bolt & van Zanden, 2013; retrieved from Teorell et al., 2015), both of which are likely to be associated with at least two of our linkage indicators, trade and migration. Richer and faster growing economies often trade more, and the numbers of both immigrants and emigrants may vary with economic performance of a country and its partners.

We also control for state capacity in all models, as strong states may be more likely to survive and may provide a fertile environment for trading enterprises and attract immigration. We employ the Composite Index of National Capacity composed by the Correlates of War project (Singer, 1987).

We include a dummy variable marking the Cold War period in all models. This helps us isolate the effect of our linkage indicators from endogenous dynamics of the Cold War period, in which autocracies were persistent and linkages were elaborate due to the confrontation of the Western and Eastern blocs.

Additionally, we control for natural resource abundance (measured as the sum of oil and gas production as a proportion of GDP) and oil price (in dollars per barrel) in the trade model (Ross, 2013; retrieved from Teorell et al., 2015). Resource-rich autocracies are known to be remarkably stable (for example Karl, 1997; Ross, 2001). At the same time, oil and gas exporters naturally have higher trade figures. Changing oil prices can bring resource exporters under duress and affect trade figures of both importers and exporters of oil.

Finally, the occurrence of internal armed conflict is controlled for when testing the effect of migration linkage (Themner & Wallensteen, 2014).

We use the Cox proportional hazards survival model to assess the effect of indicators of autocratic linkage on autocratic regime survival. We test the crucial proportional hazards assumption and, following established best practice, adjust for

non-proportional hazards by including interaction terms with the logarithm of survival

time for problematic covariates (Box-Steffensmeier & Zorn, 2001; Golub, 2007,

2008).

Table 1 presents the results of six Cox models employing in turn the trade,

migration, and diplomatic exchange indicators of autocratic linkage in the two

variants discussed above. All models include the fourth linkage indicator, autocratic

proximity (or rather, autocratic distance). Note that we use standardised versions of

the indicators to render effect sizes commensurable. Note also that we do not run a

model including all linkage indicators. Our argument concerns the effects of

autocratic linkage in general, rather than the relative effect of a particular variable.

We understand our linkage indicators as proxies of a country's overall linkage and put

less emphasis on the specificities of individual linkage dimensions. (The exception

here is proximity linkage, which is likely to be driving factor of all other linkage

dimensions as well as a linkage indicator in its own right, and is thus entered as a

control variable in all models.) Only if we were interested in the effects of autocratic

trade as opposed to autocratic migration and diplomatic ties (and vice versa) would

we need to control one for the others. In addition, inclusion of multiple linkage

indicators is likely to result in multicollinearity, which is best avoided.

[Table 1 about here]

The findings lend strong support to our hypothesis. Autocratic linkage across all

four linkage dimensions significantly reduces the risk of autocratic breakdown, as can

be seen from the negative and significant coefficients of autocratic linkage by trade,

migration, and diplomatic ties, and the positive and significant coefficients of

autocratic distance. According to the first three models employing the sum aggregation of overall linkage, an increase by one standard deviation in overall inter-autocratic trade (equivalent to 18.3% of GDP), migration (8.9% of the population), and diplomatic ties (4.6 diplomatic ties per 1 million inhabitants), and a decrease by one standard deviation in the cumulative distance to autocracies (186,652km) decreases the risk of autocratic breakdown by ninety-four, twenty-four, thirty-seven, and seventeen percent, respectively.[2] Note that effects hold when the first three linkage indicators are controlled for autocratic distance, indicating that these linkage dimensions are not a mere function of geography. These effects are substantively very similar, albeit slightly smaller, when the average aggregation indicators are considered (the last three models in Table 1). Note that diplomatic linkage when aggregated via global averages appears to exert a time-dependent effect, represented by the negative and significant interaction term with survival time, and implying that average diplomatic linkage stabilises autocratic only in autocratic regimes of a certain age. We included the time-interactive term following a proportional hazard violation of the covariate. The effects of all other linkage indicators are constant over time. We subject these findings to a rigid set of robustness test involving different operationalisations of the dependent variable, different constellations of control variables, and different time-lags (see below and in the online appendix). The findings of these tests provide further strong support for our argument.

Figure 2 illustrates and substantiates these findings. Using the results from the models above, we simulate the effects of our linkage indicators (King, Tomz, & Wittenberg, 2000; Licht, 2011). Higher values within the interquartile range of trade, migration, diplomatic linkage, and autocratic distance (plotted on the x-axis) are associated with lower risks of autocratic regime breakdown (plotted on the y-axis)

relative to the risk associated with the minimum observed value in our data. In contrast, as the average distance to autocracies increases, so does the risk of regime breakdown relative to the regime with the smallest average autocratic distance. It appears that the effects of trade and distance are similarly strong, while migration and diplomatic ties exert a somewhat weaker effect. Note that the inner 95 percent of one thousand simulations (illustrated by the grey shaded area and analogous to a 95 percent confidence interval) exclude a hazard ratio of 1, implying that the effects are substantively significant at (at least) the 5 percent level.

[Figure 2 about here]

The combination of our four measures of autocratic linkage as well as a series of time-lags we employ (see Table 2 below) safeguards our findings against endogeneity. Regarding the trade and diplomacy linkage indicators, the causal arrow could well point in the other direction. Autocratic regimes that have been around for longer have had more time to establish trade and diplomatic relations with other autocracies. In other words, autocratic durability could cause higher autocratic linkage, rather than the other way around. If this were the case, we would wrongly take causes for effects. However, while endogeneity could be a problem with regards to trade and diplomatic linkage, an inverse causal relationship between autocratic persistence and migration is hardly plausible, and outright impossible with regards to proximity. We do not have reason to expect that in longer lasting autocracies, people tend to migrate more to other autocracies than anywhere else. And of course, autocracies do not move geographically closer to one another the longer they exist. As a further precaution against endogeneity, we show our findings when employing

different time-lags of the covariates (see Table 2 below). Most of the effects we found maintain up until a four-year time-lag, with the exception of both indicators of diplomatic linkage, which are negative throughout, indicating a autocracy sustaining effect, but only significant in the model without lags, and the one-year lag-model presented in Table 1. Finally, lagged by five years, trade linkage also loses significance.

[Table 2 about here]

To conclude, we find effects of autocratic linkage while holding constant an autocratic regime's democratic linkage, linkage to China and Russia (Black Knight Linkage), and the global proportion of autocratic regimes. The effect of democratic linkage is ambiguous at best. It is insignificant in most models in Table 1, and has a positive effect only in the first and a time-dependent effect in the third model. This ambiguity matches mixed accounts in the literature: While sometimes democratic influence from abroad is said to undermine autocratic regimes, democracies have also been shown to support autocratic regimes if it serves their purposes (Brownlee, 2012; Cox, Ikenberry, & Inoguchi, 2000; Schmitz, 2006). The interesting (non-)finding would deserve more attention. However, a more detailed discussion is beyond the scope of this article and must be pursued in future research.

Similarly, the supportive effect of Black Knight linkage pointed out in the literature on the influence of China and Russia does not seem to hold when contrasting it against global autocratic linkages. In most models, the coefficient is negative but insignificant. In the two trade models, it is significantly positive,

indicating in stark contrast to the literature that Black Knight linkage might undermine rather than fortify autocratic regimes.

Finally, we can confirm that a more autocratic global climate, captured here by the proportion of global autocracies, significantly reduces the likelihood of autocratic regime breakdown. However, this effect seems to wear off in older autocracies, judging from the significantly positive, albeit smaller, time-interactive effect found in all models. Importantly, however, the proportion of autocracies in the world does not inhibit the effects of autocratic linkage. Autocratic linkage supports autocratic rule, regardless of how many autocracies there are.

Autocratic Linkages in the Arab Spring: The Saudi Counter-Revolution

Having demonstrated that autocratic linkages contribute to the stability of authoritarian regimes, we now submit our theory to a different type of test by turning to the events of the Arab Spring. The Arab Spring presents an ideal test case for our theory: while six Arab countries saw regime-threatening instability in early 2011, only three experienced regime breakdown as a result of popular uprisings.[3] Following the literature (Brownlee et al. 2015, p. 60), we treat Libya as a case of non-breakdown because Gadhafi lost power in the context of NATO-led external intervention, not as a result of the mass uprising proper. Based on our findings, we would expect cases of non-breakdown to exhibit a significantly higher density of autocratic linkages. Moreover, at a lower level of analysis, we should also be able to observe how dense linkages are translated into concrete measures of support.

On the aggregate level, to begin with, the connection between high linkage levels and regime durability we observed above is also visible in the Arab Spring. As Table

3 shows, the cases of non-breakdown (Bahrain, Libya, and Syria) show higher linkage levels on three of the four measures (trade, migration, and distance) when compared to all other countries. Moreover, all of our linkage indicators with the exception of distance suggest a higher level of autocratic linkages for the non-breakdown group than for the group of countries that experienced breakdown as a result of mass protests (Egypt, Tunisia, and Yemen). Moving to individual countries, our measures are strong predictors of regime trajectories in the Arab Spring as well. Based on linkage density alone, we would have failed to correctly predict the outcome only in the Syrian case, where relatively low linkage density would have suggested a higher likelihood of regime breakdown. In the remaining five cases, our linkage indicators point in the direction suggested by our theory with only minor exceptions. Merely the distance component does not perform well, a fact which can be explained with the above-average concentration of autocratic regimes in the Middle East.

[Table 3 about here]

Instead of concluding that our argument is supported by the Arab Spring and stopping the analysis here, we follow suggestions in the methodological literature and test implications of our theory beyond the original set of hypotheses discussed above (King, Keohane & Verba, 1995, p. 227). In particular, exploiting the strengths of small-N case studies, we use evidence from the Arab Spring to examine one of our four causal mechanisms in detail, and explore the ways in which autocratic linkage increases the likelihood that an authoritarian regime will receive external support in times of crisis. As Lieberman observes, this strategy "requires a *shifting* of levels of analysis" turning from the aggregate level to "an examination of *within*-case

processes" (Lieberman, 2005, p. 440; emphasis in the original).

We thus start from the observation that, in accordance with our theory, countries with denser autocratic linkages were less likely to experience regime breakdown in the Arab Spring. In a further step we examine one way in which dense autocratic linkages are connected to regime survival: via supportive action by international allies. In order to observe this causal mechanism, we focus on the actions of a single external actor. As has been observed, Saudi Arabia "positioned itself as the chief architect of a counterrevolution to contain, and perhaps even to reverse, the Arab Spring as much as possible" (Kamrava, 2012, p. 96). The Saudi regime mobilized its considerable diplomatic, financial, and even military resources to support some of the region's autocrats in times of crisis (al-Rasheed, 2011; Kamrava, 2012; Rieger, 2014). Yet, Saudi policy towards the Arab Spring was not as uniform as is sometimes implied by proponents of the counterrevolution narrative: Only in three cases out of six – namely in Bahrain, Egypt and Yemen – did the Kingdom actually intervene on the side of the incumbent regime. In the three other cases – in Libya, Syria, and Tunisia – Saudi policy ranged from benign disinterest (Tunisia), to support for international military action against the regime (Libya), and active support of the armed opposition (Syria). In brief, Saudi policy towards the Arab Spring was not driven by a mere reflex in favour of the status quo, but varied across different cases. If our causal mechanism is well specified, we would expect Saudi Arabia to act in support of embattled autocrats in cases of dense linkages, but remain silent or even voice support for the opposition in cases of low linkages.

International support in times of regime crisis does not perfectly predict autocratic survival and the Saudi counterrevolution in the Arab Spring is no exception in this regard. In Egypt and Yemen, to begin with, autocrats eventually fell despite Saudi

support, although in both cases Saudi Arabia continued to influence post-breakdown

dynamics. In Syria, on the other hand, Bashar al-Assad survived in office despite

Saudi opposition. In this section, we aim to show that autocratic linkage density

increases the likelihood that an embattled incumbent will receive support from

international autocratic allies. We are not claiming, however, that international

support is always effective, much less that autocratic linkage can explain regime

outcomes in the Arab Spring more generally. As the comparative literature on regime

outcomes in the Arab Spring has demonstrated, regime trajectories in the Arab Spring

were significantly shaped by domestic factors, notably the behaviour of the coercive

apparatus (Bellin, 2012; Brownlee, Masoud, & Reynolds, 2015). We do not purport to

offer an alternative explanation for regime trajectories in the Arab Spring, but merely

to illustrate how—all other things equal—autocratic linkage contributes to

authoritarian stability by inducing international allies to lend support to their

embattled allies.

Saudi Responses to the Arab Uprisings

One advantage of focusing on crisis periods is that our theory makes clear predictions

on the expected behaviour of international actors. In a nutshell, when authoritarian

regimes are confronted with an immediate challenge to their stability, we would

expect external autocratic allies to intervene in support in cases of high linkage

density, but not in cases in which linkages are weak. External autocratic sponsorship

can take a variety of forms, and here we focus on two broad categories of support

(Tansey, 2016). First, external actors can seek to divert potential pressure against

embattled regimes originating from other international actors, for example by

blocking international sanctions. Second, supportive actions by international

autocratic allies can also include direct material or political interventions at the domestic level, including financial assistance or the supply of weapons. The Saudi reaction to the Arab Spring comprised both types of external support to autocratic regimes under stress. We first outline these reactions and then turn to the role of linkages in explaining variance in Saudi behaviour.

Diluting External Pressure: The repression of domestic uprisings often creates punitive international costs, as external actors seek to sanction and isolate the regime. Yet autocratic allies can support beleaguered autocratic incumbents by blocking attempts at international condemnation or sanctions. Saudi Arabia's actions in support of the Mubarak regime in Egypt provide an important example. The late King Abdallah was an open critic of the public protests in Egypt and notified US President Obama by phone that Saudi Arabia would substitute for US aid to Egypt if the United States were to withdraw their assistance (Elaph, 2011). This was a clear signal to the United States that contemplating economic sanctions against Egypt by withholding US assistance would be pointless since Saudi Arabia would cover the bill. Even as late as 8 February 2011, three days before Mubarak's forced resignation, Saudi Arabia joined the UAE and Israel among other Middle Eastern allies of the United States in lobbying the White House not to put too much pressure on Mubarak (New York Times, 2011).

Saudi Arabia used the same strategy in support of the new military rulers in Egypt after the military coup of 3 July 2013, again offering to compensate Egypt for potential losses in American aid in the context of the military's crackdown on the Muslim Brotherhood. Riyadh also offered vocal diplomatic support in ways that clearly signalled the strength of the new regime's international alliances. Following

the 3 July 2013 return of the Egyptian military to political power, the Saudi announced that "the people and government of the Kingdom of Saudi Arabia stood and still stand today with our brothers in Egypt against terrorism, extremism and sedition, and against whomever is trying to interfere in Egypt's internal affairs" (cited in Rieger, 2014, p. 11). Quite predictably, the Saudi, Emirati and Kuwaiti authorities were the first to congratulate Adly Mansour who became interim President after Mursi's deposition and expressed strong support for the Egyptian military (Rieger, 2014, p. 11).

By contrast, the Saudis never used comparable language to describe the protests in Tunisia. They merely affirmed their support for the "brotherly people of Tunisia," simultaneously making it known that Ben Ali was not to engage in political activities while a guest in Saudi Arabia (Al-Arab, 2011). In the case of Libya, moreover, the GCC referred to the Libyan regime as 'illegitimate' and spoke of the demands of the Libyan people early on in the crisis. Published in the wake of a meeting of GCC foreign ministers in Riyadh on 10 March 2011 (and thus four days prior to GCC intervention in Bahrain), the statement denounced the use of violence against civilians and called on the Arab League and the United Nations to impose a no-fly zone (Al-Sharq al-Awsat, 2011). In brief, Saudi public pronouncements on the uprisings in the Arab Spring clearly followed a differentiated policy, designed to divert pressure from and generate international support for specific regimes and to foster opposition against others.

Direct support for domestic incumbents: As well as seeking to minimise international costs and maximise international support, external autocratic allies can also seek to bolster autocratic incumbents through direct assistance at the domestic level. By

directly intervening in support of an authoritarian incumbent (through surges in financial aid, arms transfers, or even direct military intervention), autocratic allies cover parts of the direct, material costs of the conflict and enhance the regime's room to manoeuvre. Saudi intervention in Bahrain under the cover of the Peninsula Shield Force (*quwwat dir' al-jazira al-mushtarika*) maintained by the Gulf Cooperation Council (GCC) offers a clear example of such material support. Officially acting on the request of the Bahraini government, observers have suggested that the initiative actually came from the Saudi regime itself, which felt threatened by the potential cross-border implications of political change in Bahrain (also see Odinius & Kuntz, 2015; Rieger, 2014, p. 7). Part of the reason for this threat perception was the fact that Saudi Arabia was concerned about the effects of the Bahraini uprising on its own restive Shia minority in the Eastern Province (Wehrey, 2013). Given the tight interconnections between Bahrain and Saudi Arabia, the Saudi regime had an interest in containing the situation in Bahrain. While Saudi troops were not directly involved in repressive activity, they nevertheless freed up Bahraini capabilities that could then be deployed against the protesters. In brief, by sending troops to Bahrain, Saudi Arabia took over parts of the direct costs of repressing the Bahraini uprising.

GCC stabilization efforts in Bahrain also included financial aid. In March 2011 the GCC foreign ministers set up a USD 20 billion fund for Bahrain and Oman with the aim of bolstering these two poorer member states' capacity to counteract economically motivated domestic dissent. Bahrain used these resources in part to create 20,000 new jobs in the Ministry of Interior, no small feat in a country of 600,000 inhabitants (Hertog, 2011).

Financial aid was also an important instrument in Saudi policy towards the post-revolutionary Egyptian regime. The Saudis supported the return to power of Egypt's

military elite by first starving the post-Mubarak MB-led regime of financial aid, and

then massively increasing aid flows immediately after the July 2013 military takeover.

Although Saudi Arabia had pledged support to Egypt in the form of a USD 4 billion

loan in May 2011, the actual disbursement of this loan was delayed. Similarly, in

October 2011 the UAE had pledged USD 3 billion in aid to Egypt, but then failed to

disburse the amount until July 2013, arguing that the mechanisms of delivery had not

yet been decided upon (Farouk, 2014, pp. 10–11). The flow of GCC (with the

exception of Qatari) money into Egypt only resumed following the July 3rd military

takeover. On 9th and 10th July 2013, about a week after the coup, Saudi Arabia, the

UAE and Kuwait each announced aid packages to Egypt with a total volume of USD

12 billion. By January 2014, the Central Bank of Egypt declared that it had already

received USD 9 billion and even returned a USD 2 billion deposit made earlier by

Qatar (Farouk, 2014, pp. 11–12).

In Yemen, finally, Saudi influence was equally consequential. Saudi Arabia had

long cultivated networks of supporters among the Yemeni tribes. While systematic

figures are not available, in the year 2000, Saudi Arabia's Special Committee for

Yemeni Affairs (SCYA) through which Saudi influence was channelled had a budget

of USD 3.5 billion and estimates on the number of Yemeni political actors on the

Saudi payroll before the 2011 uprising go into the thousands (Burke, 2013; Phillips,

2011). In 2008, the Kingdom confirmed that it had paid a monthly stipend of USD

800,000 to the paramount *shaykh* of the Hashid tribal confederation (the most

important tribal group in the country to which President Salih belonged) and that it

would continue to pay the same amount to the *shaykh*'s sons after his death (US

Diplomatic Cable, 2009; Phillips, 2011, p. Chapter 3 and 4). In the context of the

uprising in Yemen, Saudi Arabia used these connections to create domestic support

for its transition plan (later known as the GCC initiative) that included President Salih's resignation, but also "ensure[d] roles for as many members of the Saleh regime as possible" (Horton, 2011). In particular, the GCC initiative made sure to exclude the Houthi-movement, Saudi Arabia's most vocal internal critic, from the transitional process—a decision that significantly contributed to the failure of conflict resolution in Yemen and also explains Saudi Arabia's armed intervention in the Yemeni crisis since early 2015.

Linkage Intensity and Saudi Support

How well do these different forms of support align with the density of linkages between Saudi Arabia and the countries hit by uprisings during the Arab Spring? On the aggregate level, to begin with, the evidence supports our hypothesis: employing the operationalization of autocratic linkages in terms of trade volumes, migration flows, and diplomatic ties we introduced above, the three countries that received some kind of support from the Saudi regime during their respective crises (Bahrain, Egypt, Yemen) show significantly higher levels of linkage density than the three countries that did not (Libya, Syria, Tunisia).

[Table 4 about here]

As Table 4 shows, those countries that were supported by Saudi Arabia in the Arab Spring traded significantly more with the kingdom than those that were not, they contributed more to the immigrant population in Saudi Arabia,[4] they universally had full diplomatic relations at all times between 1990 and 2005, and the distance between their capitals and Riyadh is significantly smaller. In brief, our four different linkage

indicators align well with Saudi policies towards the Arab uprisings on the aggregate

level.

[Table 5 about here]

If we break this information down to the country level, the picture becomes less

clear-cut, but still offers considerable support for our arguments. Table 5 displays the

strength of linkages with Saudi Arabia for all six Arab Spring countries. There are

two cases with weak linkages to Saudi Arabia (Libya and Tunisia) and four cases with

relatively high linkage density (Bahrain, Egypt, Syria, and Yemen).

Bahrain, the country that arguably saw the most intense form of Saudi intervention

during the Arab Spring also has the highest level of linkage density. In the Bahraini

case this is mainly a function of the extraordinarily dense trade relations between the

two Gulf countries: As displayed in Table 5, the trade volume with Saudi Arabia

accounted for more than 40% of Bahraini GDP during the 2000s, a fact that can in no

small measure be explained by Bahraini dependence on Saudi oil. Egypt and Yemen,

in turn, show lower, but still considerable levels of linkage density with Saudi Arabia

in terms of trade volumes and migration flows, and Saudi Arabia's reaction aligns

with linkage patterns in the expected way.

The same can be said for Libya and Tunisia. As Table 5 reports, trade linkages and

migration movements between Saudi Arabia and both Libya and Tunisia were weak.

In addition, Libya did not maintain uninterrupted diplomatic relations with Saudi

Arabia throughout the 2000s. In accordance with our expectations, Saudi Arabia did

not offer any support to these two countries during the Arab Spring. While linkages

between Saudi Arabia and Libya were negligible, the Kingdom's opposition against

Qadhafi was probably also influenced by his erratic nature and the ongoing, personal row between the Libyan leader and the Saudi King.[5] In Tunisia, the Saudis applied a cautious and largely indifferent strategy. While they continued to back Egypt's Husni Mubarak at about the same time, they did not come out in support of Tunisian president Zine al-Abidin Ben Ali. Although Ben Ali was granted exile in Saudi Arabia, he was not allowed to engage in political activities while in Saudi Arabia (Gulfnews, 2011).

The only case that does not conform to our expectations is Syria. As reported in Table 5, Syria actually enjoyed relatively strong linkages with Saudi Arabia both in terms of trade and migration flows. As all other Arab Spring countries with the exception of Libya, Syria also enjoyed full diplomatic relations with the Saudi monarchy throughout the 2000s. At the same time, however, Saudi policy in the Syrian crisis has not only been non-supportive, but actually outright hostile towards the Syrian regime. While this aspect of Saudi policy towards the Arab Spring is probably driven by regional strategic considerations – such as Syria's alignment with Iran and Hizballah – it nevertheless goes against our expectations.

This points to a major limitation of probabilistic arguments. While linkage density—as measured by trade, migration, diplomatic ties, and proximity—provides a strong explanation on average, linkage patterns cannot account for all observable variation. Neither do our linkage measures capture the all the nuances of international and regional alliances, nor does linkage completely determine the foreign policy of autocratic states. The fact that Syria is an outlier both when compared to all other autocracies globally (Table 3), and when compared to the other Arab Spring countries (Table 5), is illustrative of this limitation. On average, however, our measures represent a valid approximation of linkage density and we find strong support for the

stabilizing effect of autocratic linkage. This claim is supported by our statistical

results and the remaining five Arab Spring cases with the exception of Syria.

Moreover, we find no plausible alternative explanation that can account for the

pattern of Saudi support. The principal alternative explanations would focus on Saudi

national interests, variously defined in terms of the containment of Iran as a major

Shi'a power, the protection of fellow monarchies in the region, or the stabilisation of

their immediate neighbourhood (see Ennis & Momani, 2013). None of these

arguments provide a better alternative to linkage patterns. Confessionalism and the

containment of Iran, to begin with, could be adduced as an explanation for Saudi

intervention in support of the Sunni-led minority regime in Bahrain, but hardly

provide a convincing explanation for Saudi support to Egypt (but not Sunni Tunisia)

or the fact that the kingdom traditionally maintained ties of patronage to Zaydi Shia

tribal elites in Yemen. Monarchical regime type or proximity do not fare much better

as alternative explanations. Saudi Arabia gave support to both monarchies and

republics in the Arab Spring. Proximity as an isolated factor might explain the

kingdom's support for the regime in neighbouring Bahrain and Saudi indifference

towards the events in far-away Tunisia, but proximity alone does not explain variation

in Saudi reactions among the group of countries that share similar distances to Saudi

Arabia, nor can proximity account for Saudi hostility towards distant Libya.

In sum, we find ample empirical evidence to back up the plausibility of our

hypothesized causal mechanism linking autocratic linkage to external support in times

of crisis. Our argument is not that autocratic linkages are completely independent of

strategic considerations, but rather that once created, they can have independent

effects. Linkages create vested interests on both sides and, once in place, generate

path dependencies that shape the likelihood of specific foreign policy choices. As the

Syrian outlier suggests, high linkage density operates more as a necessary, rather than

sufficient, condition for external support. Nonetheless, the pattern of Saudi policy

across the Arab Spring cases points to a compelling and important role for autocratic

linkage in shaping a key mechanism in our causal story, namely, the role of external

support for beleaguered autocratic incumbents in times of contentious politics.

Conclusion

In recent years, various scholars have sought to account for the effects of international

linkage on regime survival. These studies, however, have tended to deal only with a

truncated sample of international linkages and have lacked a systematic analysis of

linkage over time and across regions. We have made several significant contributions

to our understanding of the nature of international linkages and their effects on regime

survival. We have shown the importance of viewing autocratic linkage as a distinct

form of cross-border relationship that has varied over time independently of

democratic linkages. Although autocratic linkages have been slow to develop, in

recent years they have been growing at a greater rate than democratic linkages. We

have also shown that autocratic linkages are crucial in explaining patterns of

autocratic survival in recent decades. Authoritarian regimes that have higher

autocratic linkages are likely to survive longer, and the stronger the linkages, the

greater the effect. We have demonstrated this effect empirically through a robust

quantitative analysis of global patterns of international linkages over several decades,

and have thus offered one of the first statistical tests of linkage-based theories of

regime survival. An analysis of Saudi policies in the wake of the Arab Spring

provides further evidence of the importance of international linkage in shaping patterns of external support for authoritarian regime survival.

Our findings have important implications for the future prospects of democracy. As discussed above, we have witnessed a surge in autocratic linkages since 2000 that shows no sign of abating. Autocratic regimes are increasing their trade, migration flows, and diplomatic exchange with other autocracies even as the total number of democracies in the world declines. As these ties make autocratic breakdown less likely, we should expect the world's remaining authoritarian regimes to be more resilient to prevailing democratising pressures than those of the recent past. This is a sobering finding for those who have an interest in the further spread of democracy. The tightening of relations between autocratic states poses significant challenges to would-be democratic reformers, and as the rise in levels of autocratic linkage is ongoing, the future holds out little prospect for radical democratic transformation in much of the world. As long as autocratic linkages remain firm, autocratic rulers will be difficult to dislodge.

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[1] For a more detailed discussion of the characteristics of the linkage indicators, please refer to the online appendix, codebook, and replication code available at http://cps.sagepub.com/content/...

[2] Following from hazard ratios of $HR_{Autocratic\ Trade} = exp(b_{Autocratic\ Trade}) = exp(-1.994) = 0.136$, $HR_{Autocratic\ Migration} = exp(b_{Autocratic\ Migration}) = exp(-0.272) = 0.762$, $HR_{Autocratic\ Diplomatic} = exp(b_{Autocratic\ Diplomatic}) = exp(-0.472) = 0.633$, and $HR_{Autocratic\ Distance} = exp(-b_{Distance,\ Model\ 1}) = exp(-0.185) = 0.832$, computed from the first three models in Table 1.

[3] Following Brownlee, Masoud & Reynolds (2015, p. 60), we treat Libya as a case of foreign induced regime change (FIRC).

[4] Numbers of Saudi migrants in Arab Spring states are generally lower and do not show significant differences across the two groups.

[5] Qadhafi had called Abdallah a US-slave in the context of the 2003 invasion of Iraq and a liar at the 2009 summit of the Arab League in Doha.

Trade (% GDP)
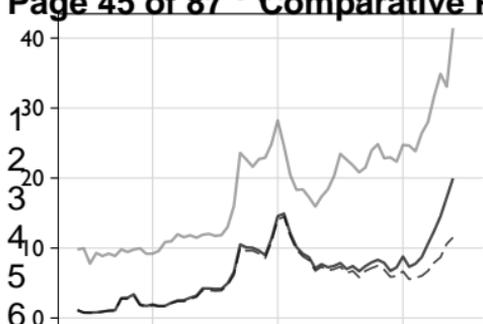
Migrants (per 100 inhabitants)
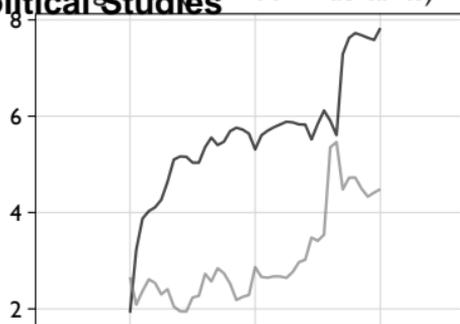
Diplomatic Ties (per 1M inhab.)

Added Distances (1000 km)

Global Autocracies (%)

Autocracies' Linkage Partners

——— Autocracies
- - - - Autocracies without China
——— Democracies

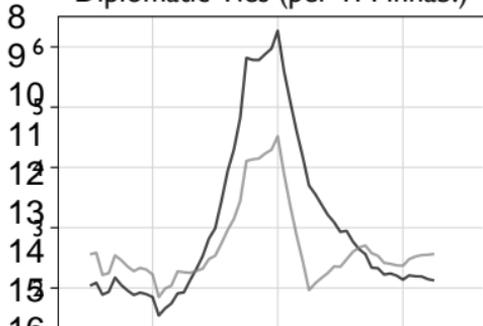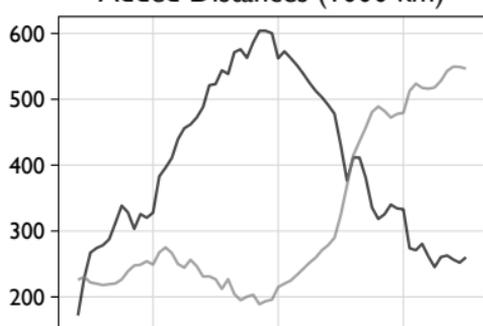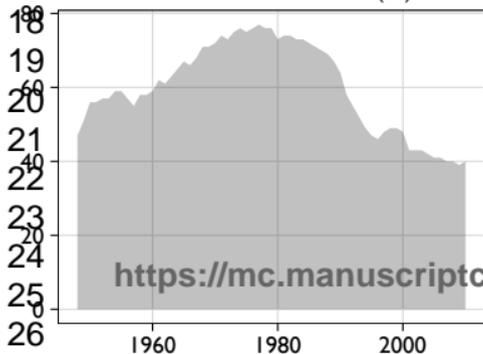|	Autocratic Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-1.994***	-0.272**	-0.499**	-1.576***	-0.240**	0.294
	(0.566)	(0.124)	(0.221)	(0.485)	(0.122)	(0.248)
Democratic Linkage	0.364**	-0.059	0.578***	0.206	-0.067	-0.003
	(0.154)	(0.155)	(0.178)	(0.276)	(0.138)	(0.159)
Autocratic Distance	0.185*	0.243**	0.176*	0.188**	0.222**	0.222**
	(0.099)	(0.104)	(0.101)	(0.085)	(0.091)	(0.088)
Black Knight Linkage	0.457**	-0.263	-0.173	0.477**	-0.312	-0.069
	(0.232)	(0.242)	(0.123)	(0.221)	(0.293)	(0.148)
Global Autocracies	-4.239*	-9.029***	-6.227**	-3.323	-7.350**	-4.657**
	(2.318)	(3.454)	(2.515)	(2.128)	(3.264)	(2.064)
GDP per capita (ln)	0.046	-0.099	-0.058	-0.014	-0.099	-0.071
	(0.102)	(0.123)	(0.111)	(0.105)	(0.123)	(0.109)
GDP Growth	0.409	-4.159***	0.421	0.174	-4.162***	0.663
	(2.037)	(1.168)	(2.225)	(2.240)	(1.174)	(2.171)
State Capacity	-24.125*	-28.593*	-43.703**	-25.268	-27.534*	-46.893**
	(12.925)	(14.988)	(21.767)	(15.868)	(15.429)	(23.415)
Cold War	0.606	1.538**	1.024**	0.338	1.318*	0.680
	(0.478)	(0.715)	(0.490)	(0.454)	(0.692)	(0.441)
Resources	-1.626**			-1.244*		
	(0.700)			(0.749)		
Oil Price	0.001			0.0002		
	(0.004)			(0.004)		
Conflict		-0.022			-0.012	
		(0.096)			(0.098)	
Autocratic Linkage * ln(T)						-0.236***
						(0.091)
Democratic Linkage * ln(T)			-0.181***			
			(0.060)			
Global Autocracies * ln(T)	2.441**	4.561***	3.168***	2.153**	4.283***	2.678**
	(1.082)	(1.439)	(1.147)	(1.049)	(1.413)	(1.100)
GDP Growth * ln(T)	-2.551**		-2.543**	-2.116**		-2.619***
	(0.996)		(1.006)	(1.046)		(1.014)
Cold * ln(T)	-0.492**	-1.008***	-0.627**	-0.414*	-0.947***	-0.512**
	(0.247)	(0.303)	(0.263)	(0.235)	(0.295)	(0.251)
Events	206	164	199	200	164	199
Observations	3,912	3,051	3,737	3,588	3,049	3,737
Log Likelihood	-913.319	-684.135	-873.607	-871.193	-684.305	-874.497
LR Test	70.782*** (df = 14)	51.321*** (df = 12)	64.438*** (df = 13)	64.901*** (df = 14)	50.606*** (df = 12)	62.656*** (df = 13)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
			No Time Lags			
Autocratic Linkage	-1.846***	-0.358**	-0.707***	-1.846***	-0.358**	-0.707***
	(0.699)	(0.160)	(0.238)	(0.699)	(0.160)	(0.238)
Autocratic Distance	0.253***	0.286***	0.257***	0.253***	0.286***	0.257***
	(0.094)	(0.102)	(0.099)	(0.094)	(0.102)	(0.099)
			Two-Year Lags			
Autocratic Linkage	-1.285***	-0.255**	-0.295	-1.285***	-0.255**	-0.295
	(0.455)	(0.123)	(0.214)	(0.455)	(0.123)	(0.214)
Autocratic Distance	0.178*	0.199**	0.184*	0.178*	0.199**	0.184*
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)
			Three-Year Lags			
Autocratic Linkage	-1.330***	-0.311**	-0.187	-1.330***	-0.311**	-0.187
	(0.481)	(0.136)	(0.193)	(0.481)	(0.136)	(0.193)
Autocratic Distance	0.142	0.181*	0.179*	0.142	0.181*	0.179*
	(0.089)	(0.096)	(0.093)	(0.089)	(0.096)	(0.093)
			Four-Year Lags			
Autocratic Linkage	-1.236***	-0.285**	0.288	-1.236***	-0.285**	0.288
	(0.466)	(0.139)	(0.266)	(0.466)	(0.139)	(0.266)
Autocratic Distance	0.168**	0.204**	0.187**	0.168**	0.204**	0.187**
	(0.079)	(0.091)	(0.086)	(0.079)	(0.091)	(0.086)
			Five-Year Lags			
Autocratic Linkage	-0.662	-0.293**	-0.119	-0.662	-0.293**	-0.119
	(0.410)	(0.132)	(0.186)	(0.410)	(0.132)	(0.186)
Autocratic Distance	0.146*	0.184**	0.193**	0.146*	0.184**	0.193**
	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)

Entries are Cox regression coefficients with robust standard errors in parentheses from models using different time lags. Linkage indicators standardised. Control variables (same as in Table 1) not shown: GDP, Growth, State Capacity, Cold War Resources, Oil Price, Conflict. Significance levels: * < .1, ** < .05, *** < .01
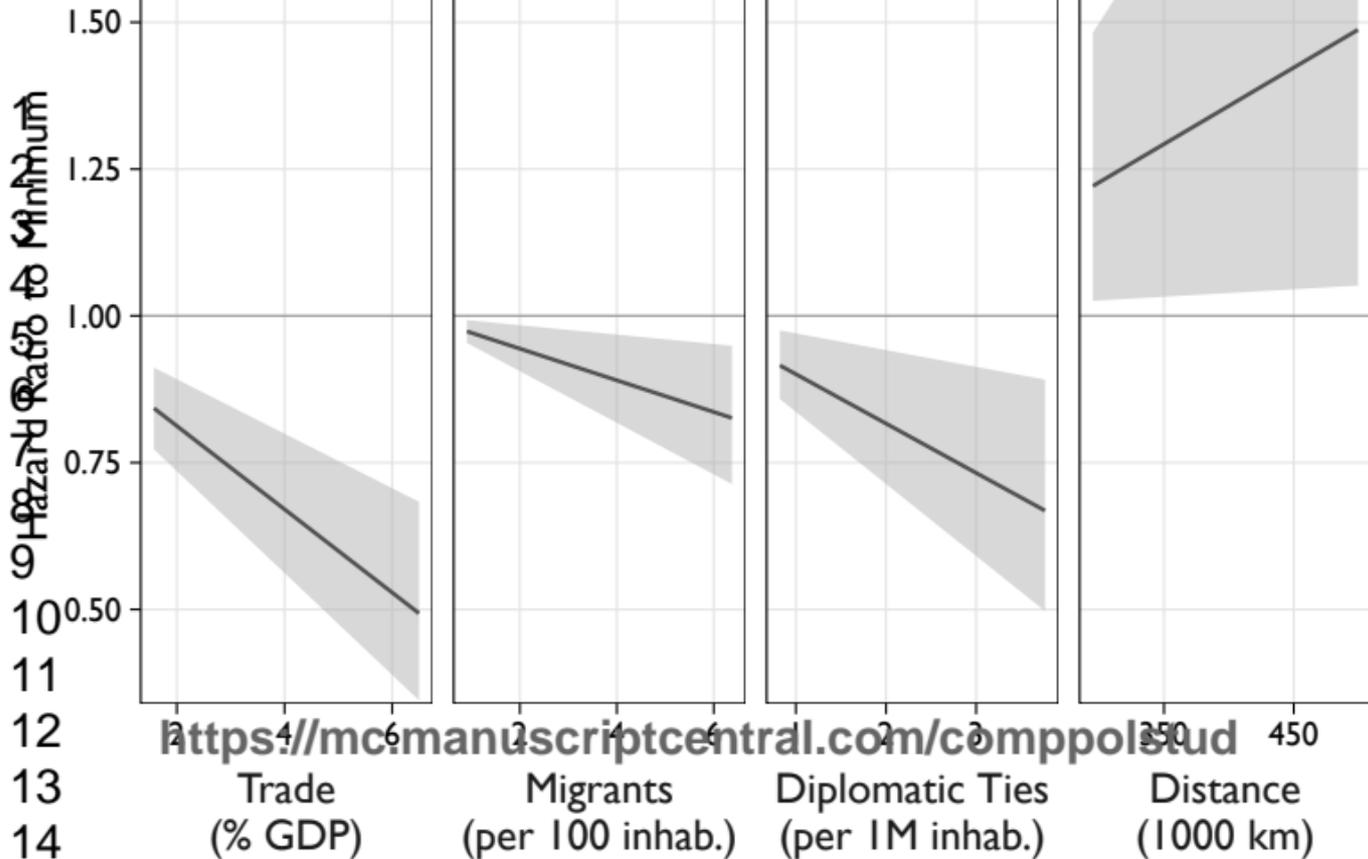
		Breakdown			Non-Breakdown			
		Egypt	*Tunisia*	*Yemen*	*Bahrain*	*Libya*	*Syria*	*all*
Trade (% of GDP)	*all*	-.18*	-.15*	-.10	1.20***	.11	-.15*	**.14**
	AS	-.35**	-.32**	-.26*	1.27***	-.01	-.32**	**.52***
Migration (per thousand)	*all*	-.77***	-.98***	-.51**	1.93***	.21	-.81***	**.76***
	AS	-.62	-.83*	-.36	2.08**	.37	-.65	**.60**
Diplomatic (per million)	*all*	-.024	.008	-.017	.284***	.068***	-.014	**.014**
	AS	- .087*	-.057	- .079*	.277***	.022	-.076*	**.124***
Distance (km)	*all*	-1,541***	-443	-1,296**	-861**	-1,486**	-1,123**	**-1,131***
	AS	-491***	805***	-202*	312**	-426***	3	**62**

Note: The rows labeled "AS" use the Arab Spring countries as a comparison group, while the columns labeled "all" use all countries; in both cases averages for the 2000s are compared in one-tailed t-tests. All cell entries are differences in means, shaded cells contain differences in line with our expectations.
*p<.1; **p<.01; ***p<.001

	Trade			Migration		Full Diplomatic Relations (N)	Distance (in km)
	Million USD	% of GDP (Receiver)	% of GDP (KSA)	Absolute	% of Sender Population		
Support	1,280	11.16	0.59	358,448	1.03	3	1,135
No support	71	0.21	0.03	4,786	0.05	2	3,545
Difference	-1,209*	-10.95*	-0.55*	-353,662	-0.98	1	2,409*

Note: * = difference in means significant in a t-test at 95 per cent confidence level. Values for trade and migration are averages for the 2000s; diplomatic relations captures whether full diplomatic relations were ever interrupted between 1990 and 2005, and distance is the distance between Riyadh and the respective capital of the Arab Spring state in kilometres.

	Trade Volume as % of GDP		Migrants in KSA as % of Population	Diplomatic Relations with KSA (2000s)	Distance (in km)	Linkage Strength
	Receiver	KSA				
Bahrain	42.42	0.86	0.04	Full	428	**Strong**
Egypt	0.56	0.68	1.39	Full	1,636	**Strong**
Libya	0.21	0.02	0.01	Interrupted	3,375	**Weak**
Syria	0.85	0.58	0.65	Full	1,406	**Strong**
Tunisia	0.20	0.05	0.10	Full	3,714	**Weak**
Yemen	0.81	0.22	1.99	Full	1,072	**Strong**

Note: The trade data are averages for 2000-2009, the migration data is for 2000, and the diplomatic relations data for the 2000s. Diplomatic relations are interrupted if ambassadors have been withdrawn at any point during the 2000s.

TIES TO THE REST: AUTOCRATIC LINKAGES AND REGIME SURVIVAL
ONLINE APPENDIX

Oisín Tansey
oisin.tansey@kcl.ac.uk

Kevin Koehler
kevin.koehler@aucegypt.edu

Alexander Schmotz
alexander.schmotz@kcl.ac.uk

London, 14 July 2016

This online appendix provides supplementary discussion and analysis supporting the arguments presented in *Ties to the Rest: Autocratic Linkages and Regime Survival.* First, we discuss some key characteristics of the linkage indicators we constructed. Second we show alternative descriptive graphs and simulations based on average rather than total linkages indicators (we show the latte in the article). Third, we run a substantial number of additional models to corroborate the robustness of our findings, including models employing different constellations of control variables, alternative operationalisations of the dependent variable, including all linkage indicators at once, and different time-lags of covariates. In addition, we provide the results of the proportional hazards test of all models in the paper and this online appendix.

1   Discussion of Indicator Characteristics

We constructed two sets of autocratic linkage indicators, one based on the average level and the other on the total sum of linkages a given autocratic regime entertains with all other autocracies in the world on the vital linkage dimensions of trade (by GDP), migration (by population), diplomatic ties (by population), and geographic proximity. Constructed in this manner, the linkage indicators have particular advantages and disadvantages, and the sum and average aggregations result in particular commonalities and differences. We want to point out three of these characteristics we consider particularly important.

First, as we have pointed out in the paper, the sum and average aggregations reflect changing numbers of autocracies in the world differently. While in the sum aggregation, every loss or gain of an autocratic linkage partner is registered, and thus results in an increase of decrease of autocratic linkage levels, the average aggregation is less sensitive to the global autocratic environment. Here, an increase or decrease in the number of linkage partners over the years only results in a rise of fall of the level of linkage if a regime upholds above or below average connections to these partners. As a consequence, the average linkage can remain the same, even if the number of autocratic partners changes. In contrast, the sum aggregation would register every such change. This affects the way in which linkages will be compared over

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time: Average linkage can be the same in very autocratic and less autocratic times (for example, between the 1980s and today), while total linkage is more likely to reflect lower number of autocratic linkage in lower linkage level of individual autocracies. In other words, the two variants of the indicators reflect a slightly different understanding of how bilateral linkages translate into an overall level of linkage, and thus a slightly different logic of the concept formation of autocratic linkage. Our theory does not dictate either of the two understandings. By testing both, we are confident to capture important variation in autocratic linkage.

Second, our measures do not discriminate between few strong bilateral linkages and many moderate ones. Both scenarios can result in similar overall linkage levels. In most cases, and particularly for most of our mechanisms, the two scenarios are indeed likely to be equivalent. For example, domestic beneficiaries of autocratic linkage might not care much whether revenues are derived from diverse or concentrated sources. Autocratic learning is likely to take place already with a relatively low level of linkage, and learning from multiple partners and comparing and weighing their relative success might be much more beneficial than more intense learning relationships with only a few partners. On the other hand, some mechanisms might be more effective if partners have denser linkage relations. For example, the fear of contagion and thus the inclination to offer support in times of crisis might be more pronounced among strongly linked partners. On balance, we are confident that more or less linkage dispersion can be equally beneficial, and our findings indicate they are. However, disentangling the differences between concentrated and dispersed linkage relations might be a fruitful endeavour for future research on autocratic linkages.

Third, our measures do not discriminate between linkage to stronger and weaker partners (economically, politically, or by military force). This feature distinguishes our approach from studies focussing on the influence of (regional or global) autocratic patrons, i.e. regimes that are by definition particularly strong. By contrast, our measures emphasise the intensity of the actual linkage relation rather than the power of the patron. Even powerful patrons will have more influence in countries to which they are densely linked than in those they hardly have any connections with. What is more, while we do not weight linkage partners by their respective strength, it can be expected in many cases that particularly strong partners bring about higher levels of exchange. In other words, and implicit weighting is likely to be included in the measures.

2 Descriptive Graphs Based on Average Aggregations

Figure 1 below shows the development of an average autocratic regime's autocratic and democratic linkage between 1948 and 2009, but instead of the sum aggregation shown in the article gives the average aggregation also tested throughout the article and this online appendix. The depicted figures match those derived from the sum aggregation and shown in the article in most regards and underline our interpretation of those figures. However, there are also some important differences. First, the realised values are notably smaller, as is only natural given the average instead of sum aggregation of dyad linkages to overall global linkages. Second, the increase in average autocratic trade linkage relative to democratic trade

linkage is much more pronounced. And third, autocratic diplomatic linkage indeed shows a small recent increase relative to democratic diplomatic linkage, but also in absolute terms. This finding provides some additional support for our cautious interpretation that autocratic regimes might consciously increase their efforts of autocratic linkage politics. Note also that due to the different aggregation democratic rather than autocratic diplomatic linkage appears to have the upper hand for most of the observation period.

Figure 1: Average Autocracies' Autocratic and Democratic Linkages, 1948-2009, Average Aggregations
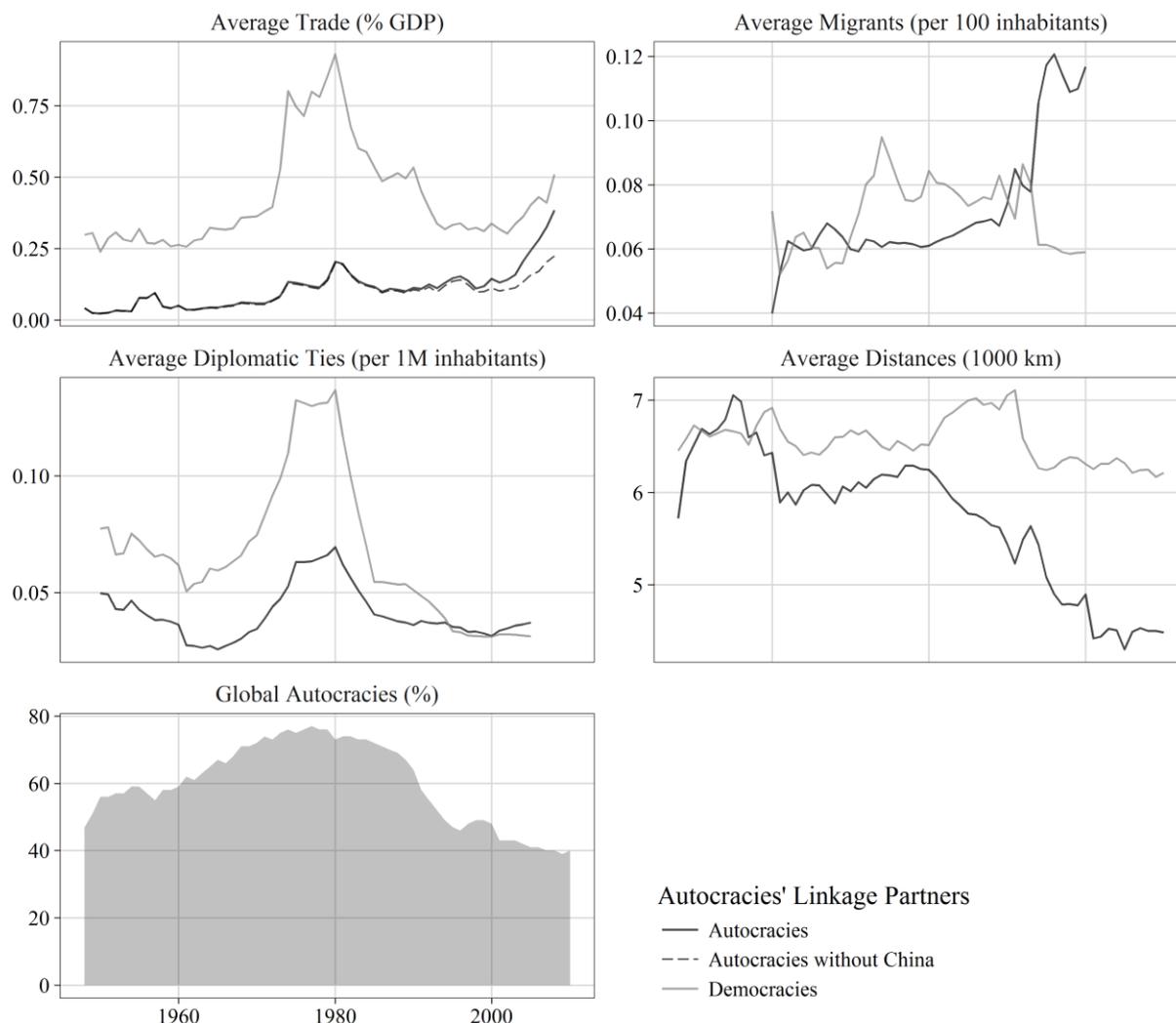
3   Simulation of Effects of Indicators Based on Average Aggregations

Figure 2 below illustrates a simulation of the constant effects of trade, migration and proximity linkage indicators based on average aggregations drawn from the (fourth and fifth) average aggregation models in Table 1 in the article (i.e. the last models from Tables 7 and 9 below). While the range of values of average linkages are naturally a lot smaller than of sums, the strength of the effects across the inter-quartile range of the distribution is remarkably similar to the one of the sum-based indicator.

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Figure 2: Simulated Constant Effects of Autocratic Linkage by Average Trade, Average Migration, and Average Distance on the Likelihood of Autocratic Regime Breakdown
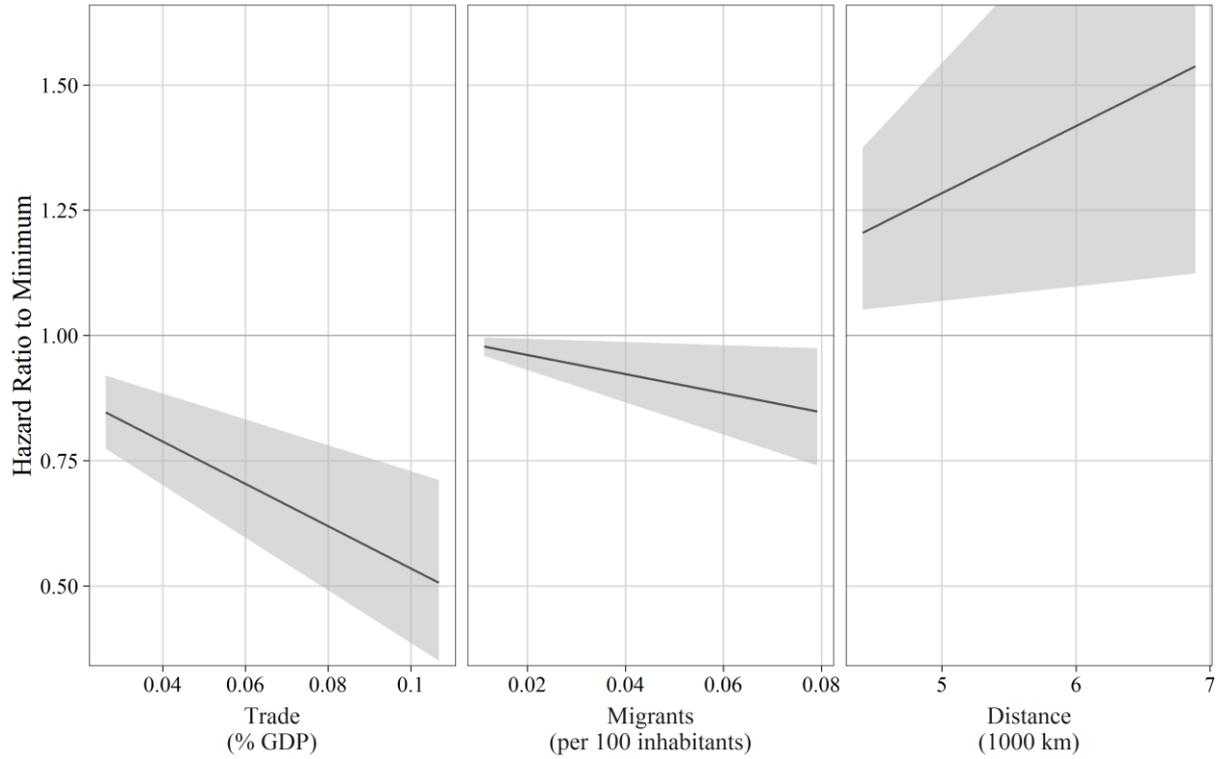
Figure 3: Simulated Time-Dependent Effect of Autocratic Linkage by Average Diplomatic Exchange on the Likelihood of Autocratic Regime Breakdown

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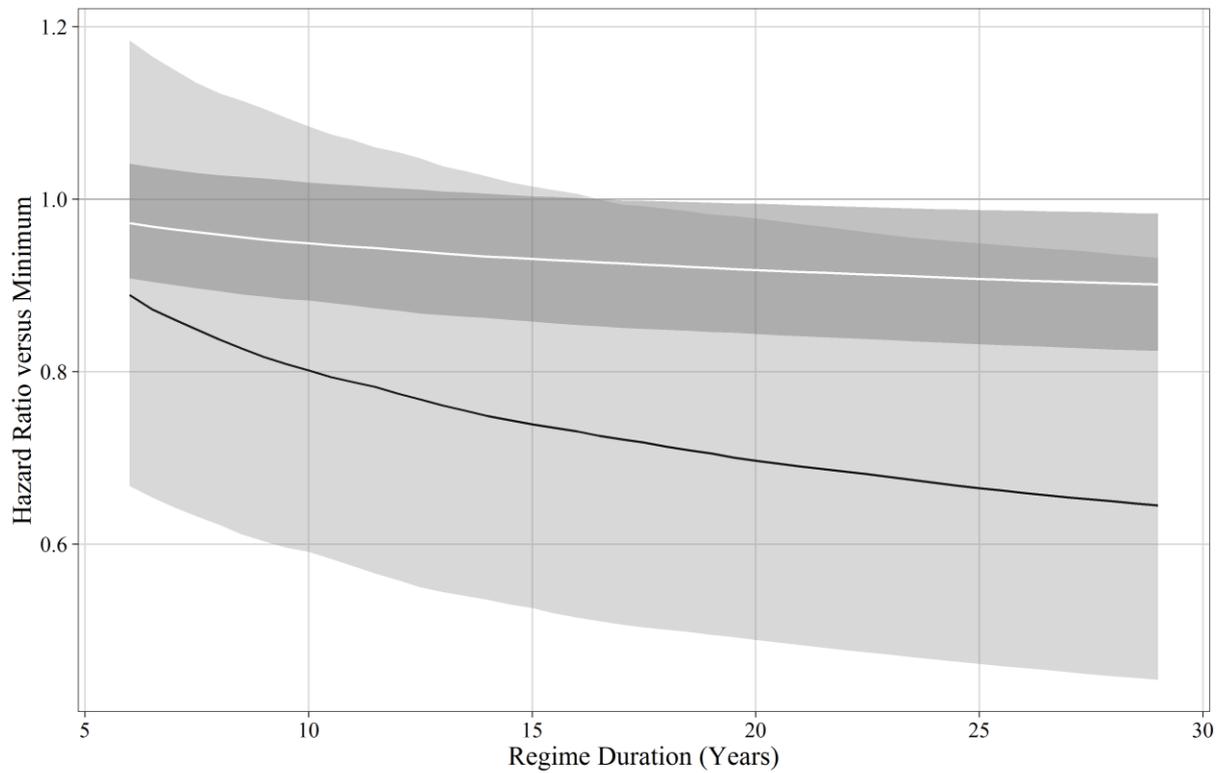
Figure 3 shows the time-dependent effect of average diplomatic linkage, based on the last model in Table 1 in the article, or Table 11 in this online appendix. We can see that while hazard ratios are below one throughout the inter-quartile range, indicating a reduction of risk relative to minimum linkage scores, the effect become significant at the ten percent level only after about 17 years.

4   Control Variable Constellations

We first present six tables with different configurations of control variables of the trade, migration, and diplomatic linkage models based on the sum and average aggregations of the linkage indicators. We start with bivariate models and successively add control variables until the full models as presented in the article are complete. The effects of our linkage indicators hold and are statistically significant throughout all of these specifications.

Table 2 provides the results of the proportional hazards tests of the models from Table 1, on the basis of which we include time-interactive terms in the models (Box-Steffensmeier and Zorn 2001; Golub 2007; Golub 2008). We rely on the established proportional hazards test developed by Grambsch and Therneau (1994). Every subsequent regression table will be followed by the respective proportional hazards tests.

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Table 1: Alternative Trade Model Specifications, Sum Aggregation

	Autocratic Breakdown									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Autocratic Trade (Sum)	-0.888[**]	-1.029[**]	-1.092[**]	-1.546[***]	-1.445[***]	-1.542[***]	-1.596[***]	-1.721[***]	-1.965[***]	-1.994[***]
	(0.349)	(0.416)	(0.431)	(0.448)	(0.432)	(0.446)	(0.452)	(0.465)	(0.546)	(0.566)
Democratic Trade (Sum)		0.093	0.123	0.168	0.155	0.134	0.098	0.107	0.360[**]	0.364[**]
		(0.170)	(0.173)	(0.173)	(0.173)	(0.186)	(0.200)	(0.208)	(0.149)	(0.154)
Autocratic Distance (Sum)			0.179[***]	0.199[***]	0.237[***]	0.262[***]	0.249[***]	0.251[***]	0.188[*]	0.185[*]
			(0.062)	(0.063)	(0.082)	(0.088)	(0.087)	(0.095)	(0.099)	(0.099)
Black Knight Trade (Sum)				0.270[*]	0.226	0.271[*]	0.313[*]	0.371[**]	0.457[**]	0.457[**]
				(0.138)	(0.142)	(0.157)	(0.171)	(0.175)	(0.232)	(0.232)
Global Autocracies					-0.742	-0.955	-1.037	-5.128[**]	-4.146[*]	-4.239[*]
					(0.816)	(0.828)	(0.821)	(2.370)	(2.284)	(2.318)
GDP per capita (ln)						-0.090	-0.052	-0.058	0.044	0.046
						(0.095)	(0.101)	(0.104)	(0.102)	(0.102)
GDP Growth						0.956	1.005	0.334	0.396	0.409
						(2.025)	(2.002)	(2.064)	(2.039)	(2.037)
State Capacity							-25.541[*]	-26.426[*]	-24.094[*]	-24.125[*]
							(13.449)	(13.976)	(12.946)	(12.925)
Cold War								0.704	0.586	0.606
								(0.476)	(0.463)	(0.478)
Resources									-1.615[**]	-1.626[**]
									(0.691)	(0.700)
Oil Price										0.001
										(0.004)
Global Autocracies * ln(T)								2.603[**]	2.436[**]	2.441[**]
								(1.107)	(1.082)	(1.082)

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
						Autocratic Breakdown				
Growth * ln(T)						-2.846***	-2.804***	-2.344**	-2.546**	-2.551**
						(0.956)	(0.946)	(0.971)	(0.995)	(0.996)
Cold War * ln(T)								-0.503**	-0.490**	-0.492**
								(0.253)	(0.246)	(0.247)
Events	209	209	209	209	209	206	206	206	206	206
Observations	4,027	4,027	4,026	4,026	4,026	3,968	3,912	3,912	3,912	3,912
Log Likelihood	-960.302	-960.083	-956.245	-955.247	-954.828	-925.471	-921.404	-917.344	-913.354	-913.319
LR Test	11.886***	12.324***	19.699***	21.695***	22.534***	50.951***	54.611***	62.731***	70.713***	70.782***
	(df = 1)	(df = 2)	(df = 3)	(df = 4)	(df = 5)	(df = 8)	(df = 9)	(df = 12)	(df = 13)	(df = 14)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 2: Proportional Hazards Test, Table 1

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Autocratic Trade (Sum)	0.029	0.029	0.012	0.021	0.021	0.026	0.024	0.009	-0.004	0.026
Democratic Trade (Sum)		-0.008	0.011	-0.001	-0.001	-0.009	-0.01	-0.015	0.008	-0.021
Autocratic Distance (Sum)			0.089	0.081	0.026	0.021	0.018	-0.015	-0.023	-0.015
Black Knight Trade (Sum)				-0.037	-0.029	-0.049	-0.054	-0.06	-0.034	-0.05
Global Autocracies					0.047	0.028	0.035	0.132**	0.129**	0.146***
GDP per capita (ln)						-0.052	-0.054	-0.059	-0.044	-0.054
GDP Growth						-0.222***	-0.216***	-0.172**	-0.172***	-0.18***
State Capacity							0.079	0.074	0.066	0.044
Cold War								-0.133***	-0.131**	-0.148***
Resources									-0.052	-0.031
Oil Price										-0.121*
Global Test		0.22	2.133	2.212	2.843	14.021*	13.694*	20.552**	20.442**	23.287**

Table 3: Alternative Migration Model Specifications, Sum Aggregation

	Autocratic Breakdown								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Autocratic Migration (Sum)	-0.359***	-0.355***	-0.304**	-0.224*	-0.186	-0.201*	-0.257**	-0.268**	-0.272**
	(0.122)	(0.129)	(0.124)	(0.114)	(0.113)	(0.116)	(0.119)	(0.124)	(0.124)
Democratic Migration (Sum)		-0.027	-0.047	-0.037	-0.071	-0.049	-0.065	-0.058	-0.059
		(0.119)	(0.126)	(0.121)	(0.128)	(0.148)	(0.156)	(0.155)	(0.155)
Autocratic Distance (Sum)			0.122	0.129*	0.205**	0.260**	0.241**	0.241**	0.243**
			(0.078)	(0.078)	(0.091)	(0.103)	(0.102)	(0.104)	(0.104)
Black Knight Migration (Sum)				-0.263	-0.308	-0.266	-0.252	-0.265	-0.263
				(0.260)	(0.265)	(0.251)	(0.239)	(0.244)	(0.242)
Global Autocracies					-1.768*	-1.900*	-1.908*	-8.994***	-9.029***
					(0.943)	(0.994)	(0.981)	(3.469)	(3.454)
GDP per capita (ln)						-0.147	-0.097	-0.096	-0.099
						(0.112)	(0.120)	(0.125)	(0.123)
GDP Growth						-1.178	-1.205	-4.137***	-4.159***
						(1.898)	(1.884)	(1.157)	(1.168)
State Capacity							-28.404*	-29.021*	-28.593*
							(15.543)	(15.388)	(14.988)
Cold War								1.536**	1.538**
								(0.716)	(0.715)
Conflict									-0.022
									(0.096)
Global Autocracies * ln(T)								4.549***	4.561***
								(1.447)	(1.439)
Growth * ln(T)						-1.758*	-1.697*		
						(0.947)	(0.936)		

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					Autocratic Breakdown				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cold War * ln(T)								-1.006***	-1.008***
								(0.305)	(0.303)
Events	170	170	170	170	170	164	164	164	164
Observations	3,152	3,152	3,150	3,150	3,150	3,051	3,051	3,051	3,051
Log Likelihood	-738.807	-738.775	-737.488	-736.042	-734.348	-690.648	-688.636	-684.157	-684.135
LR Test	9.015*** (df = 1)	9.078** (df = 2)	11.653*** (df = 3)	14.545*** (df = 4)	17.933*** (df = 5)	38.294*** (df = 8)	42.319*** (df = 9)	51.277*** (df = 11)	51.321*** (df = 12)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 4: Proportional Hazards Test, Table 3

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Autocratic Migration (Sum)	-0.046	-0.016	-0.011	-0.025	-0.024	-0.053	-0.051	-0.07	-0.058
Democratic Migration (Sum)		-0.023	-0.026	-0.034	-0.034	-0.014	-0.028	-0.001	0.008
Autocratic Distance (Sum)			0.065	0.079	0.062	0.08	0.086	0.09	0.079
Black Knight Migration (Sum)				-0.054	-0.054	-0.05	-0.05	-0.037	-0.038
Global Autocracies					-0.005	-0.039	-0.041	0.174***	0.177***
GDP per capita (ln)						-0.055	-0.048	-0.089	-0.095
GDP Growth						-0.174**	-0.168**	-0.112	-0.097
State Capacity							0.007	0.043	0.04
Cold War								-0.207***	-0.205***
Conflict									0.151
Global Test		0.302	1.151	3.107	3.163	8.51	8.314	22.511***	24.476***

Table 5: Alternative Diplomatic Exchange Model Specifications, Sum Aggregation

				Autocratic Breakdown				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Autocratic Diplomatic Ties (Sum)	-0.175	-0.967[**]	-1.006[***]	-0.931[**]	-0.793[*]	-0.506[**]	-0.522[**]	-0.499[**]
	(0.110)	(0.379)	(0.385)	(0.401)	(0.405)	(0.206)	(0.217)	(0.221)
Democratic Diplomatic Ties (Sum)		0.971[***]	0.996[***]	0.965[***]	0.825[***]	0.678[***]	0.629[***]	0.578[***]
		(0.241)	(0.241)	(0.239)	(0.258)	(0.188)	(0.208)	(0.178)
Autocratic Distance (Sum)			-0.102	-0.106	0.143	0.174[*]	0.160[*]	0.176[*]
			(0.148)	(0.147)	(0.090)	(0.096)	(0.094)	(0.101)
Black Knight Diplomatic Ties (Sum)				-0.127	-0.132	-0.141	-0.157	-0.173
				(0.114)	(0.113)	(0.123)	(0.128)	(0.123)
Global Autocracies					-0.412	-0.749	-0.645	-6.227[**]
					(0.956)	(0.988)	(0.973)	(2.515)
GDP per capita (ln)						-0.134	-0.049	-0.058
						(0.100)	(0.109)	(0.111)
GDP Growth						0.880	0.836	0.421
						(2.150)	(2.149)	(2.225)
State Capacity							-42.223[*]	-43.703[**]
							(21.710)	(21.767)
Cold War								1.024[**]
								(0.490)
Autocratic Diplomatic Ties (Sum) * ln(T)		0.222	0.245	0.229	0.190			
		(0.169)	(0.167)	(0.172)	(0.173)			
Democratic Diplomatic Ties (Sum) * ln(T)		-0.312[***]	-0.336[***]	-0.328[***]	-0.283[**]	-0.173[***]	-0.196[***]	-0.181[***]
		(0.110)	(0.107)	(0.107)	(0.111)	(0.057)	(0.060)	(0.060)
Autocratic Distance (Sum) * ln(T)			0.118[*]	0.117[*]				
			(0.066)	(0.066)				

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	Autocratic Breakdown							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Global Autocracies * ln(T)								3.168***
								(1.147)
Growth * ln(T)						-2.927***	-2.904***	-2.543**
						(1.000)	(0.985)	(1.006)
Cold War * ln(T)								-0.627**
								(0.263)
Events	209	209	209	209	209	199	199	199
Observations	3,916	3,916	3,915	3,915	3,915	3,737	3,737	3,737
Log Likelihood	-955.469	-949.420	-945.382	-944.844	-946.842	-881.954	-878.440	-873.607
LR Test	3.175* (df = 1)	15.271*** (df = 4)	23.061*** (df = 6)	24.135*** (df = 7)	20.141*** (df = 7)	47.742*** (df = 9)	54.771*** (df = 10)	64.438*** (df = 13)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: $* < .1$, $** < .05$, $*** < .01$

Table 6: Proportional Hazards Test, Table 5

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Autocratic Diplomatic (Sum)	-0.086	0.162**	0.163**	0.152**	0.137**	0.091	0.095	0.067
Democratic Diplomatic (Sum)		-0.19***	-0.195***	-0.193***	-0.183***	-0.135**	-0.137***	-0.135***
Autocratic Distance (Sum)			0.176***	0.175***	0.11*	0.103*	0.113*	0.047
Black Knight Diplomatic (Sum)				0.044	0.043	0.098	0.098	0.125*
Global Autocracies					-0.009	-0.02	-0.019	0.141***
GDP per capita (ln)						-0.069	-0.042	-0.037
GDP Growth						-0.209***	-0.196***	-0.167**
State Capacity							-0.033	-0.036
Cold War								-0.172***
Global Test		13.945***	16.304***	16.087***	16.123***	23.402***	25.341***	37.875***

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Table 7: Alternative Trade Model Specifications, Average Aggregation

	Autocratic Breakdown									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Autocratic Trade (Mean)	-0.826[**]	-0.861[**]	-0.756[**]	-1.313[***]	-1.322[***]	-1.365[***]	-1.445[***]	-1.513[***]	-1.573[***]	-1.576[***]
	(0.322)	(0.344)	(0.316)	(0.423)	(0.424)	(0.437)	(0.447)	(0.457)	(0.491)	(0.485)
Democratic Trade (Mean)		0.034	0.023	0.021	0.031	0.034	-0.011	-0.013	0.206	0.206
		(0.149)	(0.153)	(0.196)	(0.206)	(0.218)	(0.234)	(0.241)	(0.276)	(0.276)
Autocratic Distance (Mean)			0.193[***]	0.201[***]	0.203[***]	0.233[***]	0.219[***]	0.225[***]	0.189[**]	0.188[**]
			(0.071)	(0.071)	(0.074)	(0.081)	(0.081)	(0.083)	(0.085)	(0.085)
Black Knight Trade (Mean)				0.340[*]	0.336[*]	0.375[*]	0.421[**]	0.448[**]	0.477[**]	0.477[**]
				(0.199)	(0.198)	(0.196)	(0.198)	(0.201)	(0.220)	(0.221)
Global Autocracies					-0.175	-0.324	-0.409	-3.397[*]	-3.304	-3.323
					(0.712)	(0.714)	(0.718)	(2.039)	(2.053)	(2.128)
GDP per capita (ln)						-0.126	-0.076	-0.081	-0.014	-0.014
						(0.100)	(0.108)	(0.112)	(0.106)	(0.105)
GDP Growth						0.661	0.699	0.194	0.172	0.174
						(2.176)	(2.145)	(2.231)	(2.240)	(2.240)
State Capacity							-27.955[*]	-29.183[*]	-25.245	-25.268
							(16.758)	(17.698)	(15.971)	(15.868)
Cold War								0.395	0.334	0.338
								(0.443)	(0.439)	(0.454)
Resources									-1.243[*]	-1.244[*]
									(0.747)	(0.749)
Oil Price										0.0002
										(0.004)
Global Autocracies * ln(T)								2.257[**]	2.152[**]	2.153[**]
								(1.055)	(1.048)	(1.049)

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
						Autocratic Breakdown				
Growth * ln(T)						-2.438**	-2.409**	-1.995**	-2.115**	-2.116**
						(0.998)	(0.985)	(1.014)	(1.046)	(1.046)
Cold War * ln(T)								-0.421*	-0.413*	-0.414*
								(0.238)	(0.234)	(0.235)
Events	209	209	209	202	202	200	200	200	200	200
Observations	4,027	4,027	4,026	3,682	3,682	3,644	3,588	3,588	3,588	3,588
Log Likelihood	-959.375	-959.341	-954.792	-905.798	-905.766	-880.458	-877.058	-873.304	-871.194	-871.193
LR Test	13.739*** (df = 1)	13.808*** (df = 2)	22.605*** (df = 3)	28.169*** (df = 4)	28.233*** (df = 5)	51.064*** (df = 8)	53.171*** (df = 9)	60.679*** (df = 12)	64.899*** (df = 13)	64.901*** (df = 14)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: $* < .1$, $** < .05$, $*** < .01$

Table 8: Proportional Hazards Test, Table 7

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Autocratic Trade (Mean)	-0.011	-0.037	-0.053	-0.071	-0.06	-0.05	-0.051	-0.073	-0.086	-0.084
Democratic Trade (Mean)		0.076	0.084	0.074	0.046	0.035	0.037	0.042	0.078*	0.072*
Autocratic Distance (Mean)			0.038	0.043	0.016	0.005	0.004	0.019	0.002	-0.002
Black Knight Trade (Mean)				0.036	0.023	-0.017	-0.021	-0.015	0.006	-0.004
Global Autocracies					0.056	0.034	0.035	0.126**	0.112**	0.131**
GDP per capita (ln)						-0.032	-0.038	-0.057	-0.032	-0.026
GDP Growth						-0.186***	-0.184***	-0.141**	-0.145**	-0.15***
State Capacity							0.071	0.062	0.082	0.059
Cold War								-0.124**	-0.13**	-0.147***
Resources									-0.087	-0.078
Oil Price										-0.106
Global Test		1.482	2.365	2.566	3.32	11.42	11.652	16.372*	18.28*	20.551**

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Table 9: Alternative Migration Model Specifications, Average Aggregation

	Autocratic Breakdown								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Autocratic Migration (Mean)	-0.338***	-0.332***	-0.261**	-0.163	-0.166	-0.176	-0.227*	-0.237*	-0.240*
	(0.119)	(0.122)	(0.119)	(0.112)	(0.112)	(0.117)	(0.119)	(0.122)	(0.122)
Democratic Migration (Mean)		-0.060	-0.102	-0.101	-0.091	-0.057	-0.072	-0.067	-0.067
		(0.105)	(0.118)	(0.113)	(0.114)	(0.129)	(0.136)	(0.138)	(0.138)
Autocratic Distance (Mean)			0.155*	0.170**	0.185**	0.236***	0.221**	0.221**	0.222**
			(0.080)	(0.079)	(0.080)	(0.089)	(0.088)	(0.091)	(0.091)
Black Knight Migration (Mean)				-0.340	-0.365	-0.316	-0.298	-0.313	-0.312
				(0.323)	(0.321)	(0.307)	(0.290)	(0.295)	(0.293)
Global Autocracies					-1.099	-1.101	-1.165	-7.335**	-7.350**
					(0.811)	(0.817)	(0.814)	(3.281)	(3.264)
GDP per capita (ln)						-0.146	-0.098	-0.098	-0.099
						(0.110)	(0.119)	(0.124)	(0.123)
GDP Growth						-1.327	-1.323	-4.151***	-4.162***
						(1.913)	(1.902)	(1.164)	(1.174)
State Capacity							-27.362*	-27.761*	-27.534*
							(15.481)	(15.669)	(15.429)
Cold War								1.318*	1.318*
								(0.692)	(0.692)
Conflict									-0.012
									(0.098)
Global Autocracies * ln(T)								4.276***	4.283***
								(1.421)	(1.413)
Growth * ln(T)						-1.703*	-1.660*		
						(0.952)	(0.942)		

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		Autocratic Breakdown							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cold War * ln(T)								-0.946***	-0.947***
								(0.297)	(0.295)
Events	170	170	170	170	170	164	164	164	164
Observations	3,152	3,152	3,150	3,148	3,148	3,049	3,049	3,049	3,049
Log Likelihood	-739.149	-738.979	-736.859	-734.919	-734.093	-690.633	-688.802	-684.312	-684.305
LR Test	8.331*** (df = 1)	8.670** (df = 2)	12.911*** (df = 3)	16.309*** (df = 4)	17.962*** (df = 5)	37.952*** (df = 8)	41.612*** (df = 9)	50.593*** (df = 11)	50.606*** (df = 12)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 10: Proportional Hazards Test, Table 9

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Autocratic Migration (Mean)	-0.061	-0.043	-0.047	-0.067	-0.066	-0.099	-0.097	-0.11	-0.096
Democratic Migration (Mean)		0.002	0.001	-0.003	-0.003	0.013	-0.002	0.029	0.04
Autocratic Distance (Mean)			0.015	0.029	0.021	0.029	0.034	0.051	0.044
Black Knight Migration (Mean)				-0.053	-0.051	-0.048	-0.047	-0.036	-0.037
Global Autocracies					0.035	0	0.005	0.205***	0.203***
GDP per capita (ln)						-0.038	-0.034	-0.081	-0.09
GDP Growth						-0.16**	-0.156**	-0.103	-0.088
State Capacity							0.009	0.044	0.039
Cold War								-0.206***	-0.203***
Conflict									0.163
Global Test		0.289	0.42	2.383	2.442	7.278	6.982	19.799**	22.265**

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Table 11: Alternative Diplomatic Exchange Model Specifications, Average Aggregation

	Autocratic Breakdown							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Autocratic Diplomatic Ties (Mean)	0.368[*]	-0.319[**]	-0.134	0.467[**]	0.431[**]	0.323	0.399[*]	0.294
	(0.219)	(0.162)	(0.169)	(0.238)	(0.218)	(0.238)	(0.241)	(0.248)
Democratic Diplomatic Ties (Mean)		0.235[*]	0.041	0.007	0.049	0.109	-0.003	-0.003
		(0.142)	(0.147)	(0.163)	(0.165)	(0.163)	(0.161)	(0.159)
Autocratic Distance (Mean)			0.205[**]	0.189[**]	0.190[**]	0.222[**]	0.216[**]	0.222[**]
			(0.081)	(0.084)	(0.085)	(0.089)	(0.087)	(0.088)
Black Knight Diplomatic Ties (Mean)				-0.278	-0.253	-0.219	-0.246	-0.069
				(0.185)	(0.180)	(0.205)	(0.223)	(0.148)
Global Autocracies					-2.123	-0.598	-0.453	-4.657[**]
					(1.440)	(0.739)	(0.732)	(2.064)
GDP per capita (ln)						-0.139	-0.061	-0.071
						(0.097)	(0.105)	(0.109)
GDP Growth						0.825	0.832	0.663
						(2.203)	(2.191)	(2.171)
State Capacity							-46.764[**]	-46.893[**]
							(23.507)	(23.415)
Cold War								0.680
								(0.441)
Autocratic Diplomatic Ties (Mean) * ln(T)	-0.226[**]			-0.303[***]	-0.315[***]	-0.282[***]	-0.303[***]	-0.236[***]
	(0.097)			(0.084)	(0.085)	(0.086)	(0.091)	(0.091)
Black Knight Diplomatic Ties (Sum) * ln(T)				0.149[*]	0.153[*]	0.107	0.094	
				(0.083)	(0.084)	(0.090)	(0.095)	
Global Autocracies * ln(T)					0.931[*]			2.678[**]
					(0.548)			(1.100)

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				Autocratic Breakdown				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Growth * ln(T)						-2.887***	-2.880***	-2.619***
						(1.044)	(1.027)	(1.014)
Cold War * ln(T)								-0.512**
								(0.251)
Events	209	209	209	209	209	199	199	199
Observations	3,916	3,916	3,915	3,915	3,915	3,737	3,737	3,737
Log Likelihood	-952.917	-955.396	-950.956	-947.043	-945.757	-881.973	-878.098	-874.497
LR Test	8.277** (df = 2)	3.320 (df = 2)	11.912*** (df = 3)	19.739*** (df = 6)	22.311*** (df = 8)	47.705*** (df = 10)	55.454*** (df = 11)	62.656*** (df = 13)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 12: Proportional Hazards Test, Table 11

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Autocratic Diplomatic (Mean)	-0.167***	-0.142*	-0.147*	-0.143***	-0.143***	-0.107***	-0.108***	-0.098**
Democratic Diplomatic (Mean)		-0.038	0.001	0.097	0.038	0.035	0	-0.001
Autocratic Distance (Mean)			-0.025	0.011	-0.009	-0.022	-0.019	0
Black Knight Diplomatic (Mean)				0.124***	0.123***	0.086**	0.085**	0.074*
Global Autocracies					0.135**	0.092	0.105	0.212***
GDP per capita (ln)						0.002	0.015	-0.008
GDP Growth						-0.213***	-0.205***	-0.19***
State Capacity							-0.026	-0.007
Cold War								-0.173***
Global Test		7.9**	7.213*	14.728***	18.703***	22.836***	24.294***	31.947***

5   Alternative Dependent Variable: Autocratic Ruling Coalitions

We rerun our primary models using as dependent variable a different measure of autocratic survival, Milan Svolik's (2012) autocratic ruling coalitions. Svolik follows an approach similar to the one applied by Geddes, Wright and Frantz (2014), the source for our original dependent variable, in that he captures autocratic survival and breakdown below the level of democratisation. According to Svolik, autocratic ruling coalitions endure as long as new rulers are affiliated with previous ones. Affiliated rulers are members of the same government, ruling party, family, or military junta as their predecessors (Svolik 2012, 42). Consequently, one autocratic ruling coalition can be replaced by another and, similarly to the coding by Geddes et al. (2014), autocratic collapse is not synonymous with democratisation.

Table 13 replicates the six models reported in the paper (including a one-year time-lag) using the breakdown of autocratic ruling coalitions as dependent variables, while Table 15 reruns the same specifications without time-lags. (Tables 14 and 16 give the respective proportional hazards tests.) The results confirm the findings of the article to large extent, however not as consistent as in the original models. The three sum indicators significantly lower the risk of autocratic ruling coalitions breakdown in the model without and with a one-year time-lag, albeit the effect of migration and diplomatic linkage appears to weaken over time (indicated by the positive time-interaction term). The average-based indicators are not as consistent. While average migration and trade linkage are negatively associated with autocratic ruling coalition breakdown, the coefficients are not significant, and in the case of average migration linkage in the model with a one-year lag the effect reverses over time (indicated by the positive and significant time-interactive term). Whereas average diplomatic linkage is significantly negative in the model without lags, it becomes negative and significant only over time in the lagged model, but is positive in the beginning.

Table 13: Autocratic Linkage and Ruling Coalition Breakdown, One-year Lag

	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-2.539[*]	-0.935[*]	-4.410[**]	-0.735	-0.418	2.138[**]
	(1.343)	(0.512)	(1.863)	(0.698)	(0.317)	(1.015)
Democratic Linkage	0.633[***]	-0.358	0.918[***]	-0.960	-0.293	-5.091[***]
	(0.180)	(0.324)	(0.309)	(0.813)	(0.295)	(1.415)
Autocratic Distance	0.306[***]	0.525[***]	0.281[*]	0.767[***]	0.654[***]	0.479[***]
	(0.110)	(0.166)	(0.149)	(0.275)	(0.191)	(0.139)

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	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Black Knight Linkage	-0.807	-0.150	-4.935[*]	0.597	-0.418	-9.668[***]
	(0.592)	(0.180)	(2.614)	(1.668)	(0.425)	(3.244)
Global Autocracies	-2.067	-11.083	0.019	-3.621	-3.931	-0.307
	(8.970)	(7.089)	(8.986)	(9.997)	(7.721)	(7.807)
GDP per capita (ln)	1.986[***]	1.452[***]	2.074[***]	2.084[***]	1.392[***]	2.458[***]
	(0.498)	(0.363)	(0.756)	(0.594)	(0.408)	(0.428)
GDP Growth	-4.270	-2.175	-5.035	-1.105	-1.512	-4.732[*]
	(3.816)	(4.578)	(5.046)	(5.913)	(4.324)	(2.774)
State Capacity	-183.632[***]	-92.157[*]	-310.482[**]	-163.168[*]	-73.035	-477.335[***]
	(67.285)	(47.869)	(139.872)	(85.551)	(49.422)	(129.600)
Cold War	0.024	-0.933	0.248	-0.243	0.063	1.255[*]
	(0.498)	(0.593)	(0.392)	(0.985)	(0.447)	(0.649)
Resources	-6.626[***]			-5.226[*]		
	(1.898)			(2.918)		
Oil Price	-0.004			-0.005		
	(0.005)			(0.006)		
Conflict		-1.132			-0.900	
		(0.695)			(0.761)	
Autocratic Linkage * ln(T)		0.468[***]	1.206[*]		0.324[***]	-1.324[***]
		(0.160)	(0.655)		(0.113)	(0.453)
Democratic Linkage * ln(T)				0.488[*]		2.468[***]
				(0.289)		(0.564)
Autocratic Distance * ln(T)	-0.051	-0.009	-0.062	-0.148	-0.009	-0.090
	(0.068)	(0.093)	(0.079)	(0.137)	(0.106)	(0.062)
Black Knight Linkage * ln(T)			1.638[**]	-0.605		3.374[***]
			(0.751)	(0.634)		(1.130)
GDP per capita (ln) * ln(T)	-0.967[***]	-0.886[***]	-0.968[***]	-1.099[***]	-0.866[***]	-1.147[***]
	(0.228)	(0.164)	(0.314)	(0.282)	(0.163)	(0.197)
GDP Growth * ln(T)	-0.325	-1.346	-0.283	-1.332	-1.658	-0.190
	(1.995)	(1.502)	(2.231)	(2.224)	(1.422)	(1.424)
State Capacity * ln(T)	48.929[***]	23.355	83.958[**]	44.367[*]	17.933	130.508[***]
	(18.599)	(14.856)	(39.253)	(24.060)	(16.177)	(34.358)
Cold War * ln(T)		0.319[*]		0.084		-0.521[**]
		(0.192)		(0.307)		(0.221)
Resources * ln(T)	2.277[***]			1.919[**]		
	(0.623)			(0.920)		
Conflict * ln(T)		0.404[*]			0.331	
		(0.233)			(0.254)	
Events	144	103	138	136	103	138
Observations	3,961	3,093	3,803	3,621	3,084	3,803

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	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Log Likelihood	-519.682	-339.770	-492.517	-470.109	-336.774	-470.220
LR Test	333.670*** (df = 16)	241.406*** (df = 17)	315.900*** (df = 15)	332.379*** (df = 19)	247.250*** (df = 16)	360.495*** (df = 17)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 14: Proportional Hazards Test, Table 13

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	0.022	0.366***	0.135**	-0.048	0.325***	-0.132**
Democratic Linkage	0.017	-0.013	-0.1	0.189***	0.025	0.149**
Autocratic Distance	0.125***	0.256***	0.138***	0.172***	0.263***	0.169***
Black Knight Linkage	0.033	-0.099	0.245***	0.118***	-0.013	0.148**
Global Autocracies	0.031	-0.101	-0.006	0.039	0.054	0.056
GDP per capita (ln)	-0.153***	-0.267***	-0.202***	-0.2***	-0.28***	-0.18***
GDP Growth	-0.221***	-0.326***	-0.225***	-0.22***	-0.318***	-0.226***
State Capacity	0.152***	0.172***	0.157***	0.214***	0.159**	0.179***
Cold War	-0.043	-0.103***	-0.063	-0.096***	-0.012	-0.105***
Resources	0.177***			0.105***		
Oil Price	-0.06			0.02		
Conflict		0.164**			0.21**	
Global Test	52.035***	118.091***	54.703***	90.942***	116.952***	65.979***

Table 15: Autocratic Linkage and Ruling Coalition Breakdown, No Time-Lags

	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-1.588**	-0.803*	-3.695***	-0.461	-0.321	-0.813***
	(0.646)	(0.486)	(1.197)	(0.432)	(0.336)	(0.280)
Democratic Linkage	0.529***	-1.200*	-0.536	-1.347	-0.197	-0.046
	(0.135)	(0.659)	(1.748)	(0.882)	(0.150)	(0.361)
Autocratic Distance	0.240**	0.256**	0.230***	0.596***	0.506***	0.122
	(0.111)	(0.114)	(0.079)	(0.123)	(0.150)	(0.267)
Black Knight Linkage	0.180	-0.752	-1.649*	0.043	-15.671	-2.819*
	(0.181)	(0.621)	(0.873)	(0.767)	(13.025)	(1.514)
Global Autocracies	22.832***	10.439**	23.671***	21.857***	13.249***	72.635***
	(5.076)	(4.549)	(4.741)	(4.567)	(4.270)	(9.952)

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	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
GDP per capita (ln)	1.883***	1.609***	2.039***	1.836***	1.709***	1.863***
	(0.344)	(0.316)	(0.284)	(0.253)	(0.304)	(0.373)
GDP Growth	-0.118	-2.055	1.196	1.876	0.459	6.304***
	(1.529)	(2.061)	(1.748)	(1.727)	(2.538)	(2.242)
State Capacity	-19.377	-19.000	-341.532***	-157.725**	-7.660	-172.440***
	(13.600)	(16.290)	(91.658)	(64.291)	(10.620)	(65.881)
Cold War	-1.101***	-1.690***	-0.220	-0.604	-1.259***	-2.362***
	(0.194)	(0.447)	(0.541)	(0.511)	(0.465)	(0.727)
Resources	-8.808***			-1.140		
	(1.913)			(0.702)		
Oil Price	-0.019***			-0.014***		
	(0.005)			(0.004)		
Conflict		-0.558*			-0.352	
		(0.291)			(0.396)	
Autocratic Linkage * ln(T)		0.328*	1.009**		0.175	
		(0.183)	(0.436)		(0.169)	
Democratic Linkage * ln(T)		0.467**	0.308	0.618**		
		(0.221)	(0.650)	(0.308)		
Autocratic Distance * ln(T)	0.059	0.070	0.014	-0.114*	-0.015	0.040
	(0.065)	(0.048)	(0.053)	(0.064)	(0.065)	(0.108)
Black Knight Linkage * ln(T)			0.648**	0.006	4.231	1.136**
			(0.303)	(0.297)	(3.476)	(0.522)
Global Autocracies * ln(T)						-30.690***
						(2.790)
GDP per capita (ln) * ln(T)	-0.903***	-0.876***	-0.884***	-0.886***	-0.849***	-0.718***
	(0.111)	(0.130)	(0.101)	(0.096)	(0.130)	(0.152)
GDP Growth * ln(T)	-0.942	0.047	-1.517*	-1.602**	-0.969	-4.083***
	(0.749)	(1.060)	(0.789)	(0.784)	(1.181)	(1.043)
State Capacity * ln(T)			89.760***	46.833***		43.042**
			(23.709)	(18.035)		(17.889)
Cold War * ln(T)		0.150	-0.333	-0.177	0.092	0.859***
		(0.165)	(0.255)	(0.227)	(0.174)	(0.278)
Resources * ln(T)	2.668***					
	(0.565)					
Conflict * ln(T)		0.166			0.116	
		(0.113)			(0.152)	
Events	236	170	228	232	170	228
Observations	3,961	3,093	3,803	3,621	3,084	3,803
Log Likelihood	-859.225	-590.152	-811.238	-821.504	-582.575	-634.680

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	Autocratic Ruling Coalition Breakdown					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
LR Test	507.474*** (df = 15)	315.587*** (df = 17)	501.490*** (df = 17)	507.639*** (df = 18)	329.213*** (df = 17)	854.604*** (df = 16)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. Significance levels: * < .1, ** < .05, *** < .01

Table 16: Proportional Hazards Test, Table 15

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	0.028	0.225***	0.175***	-0.098	0.177***	0.037
Democratic Linkage	-0.016	0.149**	-0.15***	0.102***	0.144*	-0.053
Autocratic Distance	0.195***	0.231***	0.243***	0.122***	0.169***	0.179***
Black Knight Linkage	0.126	0.155*	0.127***	0.197***	0.145**	0.101**
Global Autocracies	0.073	-0.028	0.05	0.08	0.068	0.131***
GDP per capita (ln)	-0.222***	-0.227***	-0.256***	-0.184***	-0.206***	-0.232***
GDP Growth	-0.248***	-0.301***	-0.331***	-0.249***	-0.278***	-0.33***
State Capacity	0.095	-0.002	0.134**	0.155***	-0.013	0.158***
Cold War	-0.098	-0.184***	-0.223***	-0.111**	-0.154**	-0.215***
Resources	0.235***			0.064		
Oil Price	-0.091			0.059		
Conflict		0.319***			0.255***	
Global Test	60.651***	70.38***	113.499***	53.221***	51.615***	97.37***

6 Alternative Dependent Variable: Democratisation

Democratisation can be understood as a particular form of autocratic breakdown. It is a very demanding form of autocratic breakdown which requires a complex set of facilitating conditions. Our theory is much more modest than claiming autocratic linkage had an effect on this complex phenomenon. However if it did, such evidence would provide very strong indirect support of our argument, given that autocratic regime breakdown is a necessary condition for democratisation. Tables 17 and 19 presents the findings of six democratisation models each, based on the template of control variables presented in the article. The former includes no time lag, the latter a one-year lag. Autocratic linkage has a significant negative effect in almost all models, reducing the likelihood of democratisation, thus strongly supporting our argument.

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Table 17: Autocratic Linkage and Democratisation, No Time-lags

	Democratisation					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-1.266	-1.752**	-1.227***	-1.523*	-1.718**	-0.661
	(0.809)	(0.714)	(0.464)	(0.863)	(0.696)	(0.434)
Democratic Linkage	-0.053	-0.076	0.320	-0.172	0.029	0.115
	(0.311)	(0.187)	(0.347)	(0.362)	(0.190)	(0.294)
Autocratic Distance	0.516***	0.420**	0.493***	0.405***	0.303**	0.400***
	(0.157)	(0.199)	(0.158)	(0.123)	(0.153)	(0.123)
Black Knight Linkage	0.239	-0.452	-0.250	0.423	-0.392	-1.532
	(0.353)	(0.439)	(0.240)	(0.386)	(0.461)	(1.644)
Global Autocracies	-11.394***	-14.446**	-8.113	-5.962*	-11.895*	3.094
	(3.666)	(6.730)	(4.943)	(3.082)	(6.429)	(2.196)
GDP per capita (ln)	0.359*	0.343*	0.320*	0.351**	0.357*	0.341**
	(0.184)	(0.201)	(0.170)	(0.179)	(0.194)	(0.167)
GDP Growth	-4.174***	-4.850***	-4.972***	-3.952***	-4.827***	-4.953***
	(1.491)	(1.710)	(1.537)	(1.517)	(1.693)	(1.564)
State Capacity	-12.231	-23.169	-20.077	-13.586	-21.008	-22.963
	(9.623)	(15.926)	(13.258)	(10.999)	(15.503)	(15.514)
Cold War	1.701	2.037	1.479	0.746	1.762	-0.797
	(1.273)	(1.863)	(1.615)	(1.179)	(1.814)	(1.043)
Resources	-1.321			-1.110		
	(1.489)			(1.558)		
Oil Price	0.011*			0.012*		
	(0.006)			(0.006)		
Conflict		-0.228			-0.207	
		(0.221)			(0.220)	
Black Knight Linkage * ln(T)						0.358
						(0.537)
Global Autocracies * ln(T)	4.321***	4.939**	3.740**	3.195**	4.469*	
	(1.418)	(2.454)	(1.683)	(1.392)	(2.423)	
Cold * ln(T)	-1.225**	-1.424**	-1.177**	-0.925**	-1.340**	-0.406
	(0.496)	(0.689)	(0.577)	(0.460)	(0.673)	(0.361)
Events	70	58	66	70	58	66
Observations	3,913	3,051	3,738	3,589	3,049	3,738
Log Likelihood	-271.748	-194.915	-251.145	-266.587	-195.864	-251.591
LR Test	55.560*** (df = 13)	68.300*** (df = 12)	54.061*** (df = 11)	55.300*** (df = 13)	66.267*** (df = 12)	53.169*** (df = 11)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. Significance levels: * < .1, ** < .05, *** < .01

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Table 18: Proportional Hazards Test, Table 17

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-0.108	0.02	-0.12	-0.095	0.043	-0.34*
Democratic Linkage	0.034	0.055	0.118	0.065	0.108	0.29
Autocratic Distance	0.063	0.073	0.035	0.051	0.068	0.125
Black Knight Linkage	0.187*	-0.135	0.221	0.177*	-0.137	0.258**
Global Autocracies	0.315***	0.179**	0.273***	0.272***	0.192**	0.173
GDP per capita (ln)	-0.061	-0.121	-0.174*	-0.035	-0.125	-0.197*
GDP Growth	-0.098	0.04	0.044	-0.072	0.011	-0.062
State Capacity	-0.283	-0.252	-0.124	-0.239	-0.219	-0.116
Cold War	-0.33***	-0.272***	-0.298***	-0.275***	-0.264***	-0.252***
Resources	-0.022			-0.026		
Oil Price	-0.165			-0.132		
Conflict		-0.111			-0.091	
Global Test	23.917**	15.157	17.79**	14.737	13.616	16.808*

Table 19: Autocratic Linkage and Democratisation, One-year Lag

	Democratisation					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-1.076	-1.144**	-1.194**	-1.261**	-1.112**	0.612
	(0.745)	(0.509)	(0.469)	(0.632)	(0.510)	(0.474)
Democratic Linkage	0.012	-0.246	0.358	0.003	-0.133	0.190
	(0.264)	(0.184)	(0.321)	(0.324)	(0.180)	(0.317)
Autocratic Distance	0.474***	0.506***	0.474***	0.330***	0.373**	0.350***
	(0.150)	(0.186)	(0.149)	(0.124)	(0.151)	(0.113)
Black Knight Linkage	0.358	-1.128	-0.361	0.482	-1.286	-2.913*
	(0.378)	(1.343)	(0.305)	(0.361)	(1.482)	(1.490)
Global Autocracies	-12.079**	-1.610	-7.935	-7.949	0.805	2.937
	(5.716)	(3.147)	(7.371)	(5.434)	(2.829)	(2.277)
GDP per capita (ln)	0.233	0.203	0.223	0.233	0.214	0.296*
	(0.175)	(0.194)	(0.164)	(0.177)	(0.191)	(0.165)
GDP Growth	-4.305**	-5.878***	-5.623***	-3.864*	-5.659***	-5.906***
	(1.902)	(2.088)	(1.978)	(2.018)	(2.113)	(2.131)
State Capacity	-10.239	-22.900	-21.307	-10.371	-19.952	-32.535
	(10.092)	(16.775)	(14.300)	(10.820)	(15.656)	(23.833)
Cold War	2.043	-0.960	1.714	1.248	-1.078	-1.212**
	(1.483)	(0.742)	(1.693)	(1.372)	(0.717)	(0.559)
Resources	-2.301*			-2.417*		
	(1.220)			(1.296)		
Oil Price	0.031*			0.035**		
	(0.017)			(0.016)		

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	Democratisation					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Conflict		-0.247			-0.209	
		(0.168)			(0.169)	
Autocratic Linkage * ln(T)						-0.674***
						(0.176)
Black Knight Linkage * ln(T)						0.938**
						(0.474)
Global Autocracies * ln(T)	4.354**		3.595	3.696*		
	(2.049)		(2.505)	(1.990)		
Cold * ln(T)	-1.063*		-1.064*	-0.833*		
	(0.556)		(0.623)	(0.506)		
Oil Price * ln(T)	-0.012**			-0.013**		
	(0.006)			(0.006)		
Events	72	58	68	72	58	68
Observations	3,896	3,039	3,721	3,572	3,037	3,721
Log Likelihood	-285.434	-205.553	-263.543	-280.937	-207.399	-261.536
LR Test	46.059*** (df = 14)	47.169*** (df = 10)	46.697*** (df = 11)	44.352*** (df = 14)	43.256*** (df = 10)	50.711*** (df = 11)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 20: Proportional Hazards Test, Table 19

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	0.12	-0.064	-0.141	-0.044	-0.082	-0.322**
Democratic Linkage	-0.075	0.081	0.016	0.022	0.056	0.19
Autocratic Distance	-0.052	-0.052	-0.075	-0.056	-0.091	-0.034
Black Knight Linkage	-0.099	-0.151	0.153	-0.035	-0.138	0.256**
Global Autocracies	0.296***	0.179*	0.234**	0.228**	0.128	0.134
GDP per capita (ln)	0.092	-0.006	0.022	0.105	0.002	0.058
GDP Growth	-0.063	0.057	-0.127	-0.051	0.021	-0.175*
State Capacity	-0.28	-0.242	-0.165	-0.262	-0.252	-0.098
Cold War	-0.253***	-0.163*	-0.227***	-0.182**	-0.138	-0.145
Resources	-0.122			-0.13		
Oil Price	-0.275**			-0.22**		
Conflict		0.139			0.136	
Global Test	16.574	6.991	10.817	10.932	6.567	12.907

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7   Multicollinear Models Including All Linkage Dimensions

We do not present a model including all linkage dimensions in the article. Such a model would run counter to our understanding of the linkage indicators as proxies for autocratic linkages in general. We are less interested in the effects of, for example, trade linkage versus migration linkage – which a model controlling one for the other would imply. Rather, we see all indicators as equally valid indicators of autocratic linkages in general. The exception here is proximity linkage, which is both a driver of linkages in other spheres, and a linkage indicator in its own right. We therefore include it as a control vis-à-vis the indicators of trade, migration, and diplomatic linkage.

However, to demonstrate we do not avoid a model including all linkage dimensions because of unfavourable results, we show in Table 21 below that findings are reasonably supportive of our argument. Autocratic linkage by trade and diplomatic ties continue to display significant effects in reducing the likelihood of autocratic breakdown. The lack of significance of the migration an distance indicators is likely to be due to multicollinearity – a further technical argument to not include the indicators in the same model.

Table 21: Models Including All Linkage Dimensions

	Autocratic Breakdown	
	Sum Linkage Indicators	Average Linkage Indicators
Autocratic Trade	-1.908***	-1.835***
	(0.632)	(0.585)
Autocratic Migration	-0.169	-0.138
	(0.128)	(0.126)
Autocratic Diplomatic Ties	-0.384*	-0.455*
	(0.214)	(0.249)
Autocratic Distance	0.143	0.137
	(0.123)	(0.101)
Democratic Trade	0.329	-0.615
	(0.214)	(0.559)
Democratic Migration	-0.171	-0.086
	(0.197)	(0.168)
Democratic Diplomatic Ties	0.128	0.223
	(0.197)	(0.212)
Black Knight Linkage	0.387	0.477
	(0.261)	(0.293)
Global Autocracies	-6.490*	-5.186
	(3.767)	(3.747)

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	Autocratic Breakdown	
	Sum Linkage Indicators	Average Linkage Indicators
GDP per capita (ln)	0.130	0.081
	(0.149)	(0.148)
GDP Growth	-5.172***	-5.041***
	(1.146)	(1.280)
State Capacity	-46.636*	-47.182*
	(25.179)	(25.074)
Cold War	1.260	1.049
	(0.771)	(0.761)
Resources	-1.120	-1.145
	(0.709)	(0.732)
Oil Price	0.002	0.001
	(0.005)	(0.005)
Conflict	0.014	-0.476
	(0.110)	(0.302)
Democratic Trade * ln(T)		0.353**
		(0.157)
Global Autocracies * ln(T)	4.309***	3.437**
	(1.487)	(1.526)
Cold * ln(T)	-0.938***	-0.830***
	(0.307)	(0.307)
Conflict * ln(T)		0.213**
		(0.103)
Events	162	158
Observations	3,019	2,798
Log Likelihood	-663.975	-633.365
LR Test	67.992*** (df = 18)	71.106*** (df = 20)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. All covariates lagged by one year. All covariates lagged by one year. Significance levels: * < .1, ** < .05, *** < .01

Table 22: Proportional Hazards Test, Table 21

	Sum Linkage Indicators	Average Linkage Indicators
Autocratic Trade	0.02	-0.063
Autocratic Migration	-0.016	-0.014
Autocratic Diplomatic Ties	0.02	-0.067
Autocratic Distance	0.061	0.019
Democratic Trade	0.052	0.102* *
Democratic Migration	0.04	0.051
Democratic Diplomatic Ties	-0.007	0
Black Knight Linkage	0.073	0.115*
Global Autocracies	0.174* * *	0.127* *

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	Sum Linkage Indicators	Average Linkage Indicators
GDP per capita (ln)	-0.091	-0.041
GDP Growth	-0.048	-0.018
State Capacity	0.004	0
Cold War	-0.19* * *	-0.165* * *
Resources	-0.032	-0.074
Oil Price	-0.081	-0.055
Conflict	0.147*	0.152* *
Global Test	21.767	22.521

8   Time-Lags

The following five tables report the full models behind Table 2 in the article, in which only coefficients of autocratic linkage indicators are shown and control variables omitted. Most linkage indicators are significant in models up to a four-year time-lag. The two trade indicators lose significant in the five-year model. The only exception here are the indicators of diplomatic linkage, which retain their negative sign, indicating that lower risks of autocratic breakdown are associated with higher levels of diplomatic autocratic linkage, but the effect is statistically significant only in the models with no lags and a one-year lag (presented in the article).

Table 23: Autocratic Linkage and Regime Survival, No Time-lags

	No Time Lags					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Autocratic Linkage	-1.846***	-0.358**	-0.707***	-1.846***	-0.358**	-0.707***
	(0.699)	(0.160)	(0.238)	(0.699)	(0.160)	(0.238)
Democratic Linkage	0.377***	-0.100	0.263	0.377***	-0.100	0.263
	(0.136)	(0.144)	(0.198)	(0.136)	(0.144)	(0.198)
Autocratic Distance	0.253***	0.286***	0.257***	0.253***	0.286***	0.257***
	(0.094)	(0.102)	(0.099)	(0.094)	(0.102)	(0.099)
Black Knight Linkage	0.214	-0.054	0.141*	0.214	-0.054	0.141*
	(0.273)	(0.130)	(0.085)	(0.273)	(0.130)	(0.085)
Global Autocracies	-7.774***	-12.128***	-7.189**	-7.774***	-12.128***	-7.189**
	(2.528)	(3.997)	(2.892)	(2.528)	(3.997)	(2.892)
GDP per capita (ln)	0.042	0.042	0.190	0.042	0.042	0.190
	(0.114)	(0.245)	(0.231)	(0.114)	(0.245)	(0.231)
GDP Growth	-5.476***	-4.380***	-5.762***	-5.476***	-4.380***	-5.762***
	(1.013)	(1.186)	(0.970)	(1.013)	(1.186)	(0.970)

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	No Time Lags					
	Trade (Sum) (1)	Migration (Sum) (2)	Diplomatic (Sum) (3)	Trade (Mean) (4)	Migration (Mean) (5)	Diplomatic (Mean) (6)
State Capacity	-29.070** (14.433)	-30.112* (17.666)	-39.616* (20.939)	-29.070** (14.433)	-30.112* (17.666)	-39.616* (20.939)
Cold War	1.204** (0.599)	2.131** (0.968)	1.260* (0.684)	1.204** (0.599)	2.131** (0.968)	1.260* (0.684)
Resources	-1.220 (0.795)			-1.220 (0.795)		
Oil Price	0.006 (0.004)			0.006 (0.004)		
Conflict		0.019 (0.080)			0.019 (0.080)	
Global Autocracies * ln(T)	3.263*** (1.087)	5.280*** (1.592)	3.234*** (1.164)	3.263*** (1.087)	5.280*** (1.592)	3.234*** (1.164)
GDP per capita (ln) * ln(T)		-0.062 (0.097)	-0.124 (0.089)		-0.062 (0.097)	-0.124 (0.089)
Cold * ln(T)	-0.705** (0.280)	-1.207*** (0.378)	-0.689** (0.297)	-0.705** (0.280)	-1.207*** (0.378)	-0.689** (0.297)
Events	195	155	188	195	155	188
Observations	3,913	3,051	3,738	3,913	3,051	3,738
Log Likelihood	-845.656	-634.609	-805.315	-845.656	-634.609	-805.315
LR Test	86.217*** (df = 13)	63.654*** (df = 13)	80.004*** (df = 12)	86.217*** (df = 13)	63.654*** (df = 13)	80.004*** (df = 12)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. Significance levels: * < .1, ** < .05, *** < .01

Table 24: Proportional Hazards Test, Table 23

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	0.003	-0.037	0.001	0.003	-0.037	0.001
Democratic Linkage	0.05	0.13*	-0.046	0.05	0.13*	-0.046
Autocratic Distance	-0.023	0.032	0.013	-0.023	0.032	0.013
Black Knight Linkage	-0.02	0.002	0.023	-0.02	0.002	0.023
Global Autocracies	0.15***	0.222***	0.154***	0.15***	0.222***	0.154***
GDP per capita (ln)	-0.101	-0.142**	-0.104**	-0.101	-0.142**	-0.104**
GDP Growth	-0.021	0.007	-0.054	-0.021	0.007	-0.054
State Capacity	0.043	-0.025	0.038	0.043	-0.025	0.038
Cold War	-0.151***	-0.232***	-0.17***	-0.151***	-0.232***	-0.17***
Resources	0.005			0.005		
Oil Price	-0.018			-0.018		

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	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Conflict		0.129			0.129	
Global Test	18.211*	24.156***	20.415**	18.211*	24.156***	20.415**

Table 25: Autocratic Linkage and Regime Survival, Two-year Lag

	Autocratic Breakdown, Two-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Autocratic Linkage	-1.285***	-0.255**	-0.295	-1.285***	-0.255**	-0.295
	(0.455)	(0.123)	(0.214)	(0.455)	(0.123)	(0.214)
Democratic Linkage	0.309***	-0.189	0.044	0.309***	-0.189	0.044
	(0.107)	(0.163)	(0.212)	(0.107)	(0.163)	(0.212)
Autocratic Distance	0.178*	0.199**	0.184*	0.178*	0.199**	0.184*
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)
Black Knight Linkage	0.209	-0.231	0.515**	0.209	-0.231	0.515**
	(0.170)	(0.233)	(0.209)	(0.170)	(0.233)	(0.209)
Global Autocracies	-6.383***	-7.805**	-9.080***	-6.383***	-7.805**	-9.080***
	(2.266)	(3.499)	(2.266)	(2.266)	(3.499)	(2.266)
GDP per capita (ln)	-0.071	-0.127	-0.095	-0.071	-0.127	-0.095
	(0.108)	(0.124)	(0.115)	(0.108)	(0.124)	(0.115)
GDP Growth	-2.092*	-1.770	-2.307**	-2.092*	-1.770	-2.307**
	(1.123)	(1.142)	(1.131)	(1.123)	(1.142)	(1.131)
State Capacity	-28.241**	-39.420**	-53.777**	-28.241**	-39.420**	-53.777**
	(12.296)	(17.929)	(23.293)	(12.296)	(17.929)	(23.293)
Cold War	0.959**	1.344*	1.498***	0.959**	1.344*	1.498***
	(0.427)	(0.725)	(0.412)	(0.427)	(0.725)	(0.412)
Resources	-1.152**			-1.152**		
	(0.570)			(0.570)		
Oil Price	-0.002			-0.002		
	(0.004)			(0.004)		
Conflict		-0.056			-0.056	
		(0.069)			(0.069)	
Black Knight Linkage * ln(T)			-0.496**			-0.496**
			(0.212)			(0.212)
Global Autocracies * ln(T)	3.238***	3.360**	4.346***	3.238***	3.360**	4.346***
	(0.999)	(1.597)	(1.047)	(0.999)	(1.597)	(1.047)
Cold * ln(T)	-0.552**	-0.668**	-0.789***	-0.552**	-0.668**	-0.789***
	(0.226)	(0.337)	(0.230)	(0.226)	(0.337)	(0.230)
Events	208	164	201	208	164	201
Observations	3,912	3,051	3,737	3,912	3,051	3,737

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	Autocratic Breakdown, Two-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Log Likelihood	-935.411	-692.300	-889.499	-935.411	-692.300	-889.499
LR Test	47.947*** (df = 13)	31.878*** (df = 12)	54.620*** (df = 12)	47.947*** (df = 13)	31.878*** (df = 12)	54.620*** (df = 12)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by two years. Significance levels: $* < .1$, $** < .05$, $*** < .01$

Table 26: Proportional Hazards Test, Table 25

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-0.057	-0.119	-0.001	-0.057	-0.119	-0.001
Democratic Linkage	0.076	0.095	-0.076	0.076	0.095	-0.076
Autocratic Distance	0.024	0.074	0.021	0.024	0.074	0.021
Black Knight Linkage	0.094	-0.056	-0.188***	0.094	-0.056	-0.188***
Global Autocracies	0.147**	0.137**	0.148***	0.147**	0.137**	0.148***
GDP per capita (ln)	-0.003	-0.076	0.027	-0.003	-0.076	0.027
GDP Growth	-0.038	-0.036	-0.009	-0.038	-0.036	-0.009
State Capacity	0.056	0.138	-0.001	0.056	0.138	-0.001
Cold War	-0.138**	-0.159***	-0.171***	-0.138**	-0.159***	-0.171***
Resources	-0.008			-0.008		
Oil Price	-0.075			-0.075		
Conflict		0.003			0.003	
Global Test	12.544	12.168	29.887***	12.544	12.168	29.887***

Table 27: Autocratic Linkage and Regime Survival, Three-year Lag

	Autocratic Breakdown, Three-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Autocratic Linkage	-1.330***	-0.311**	-0.187	-1.330***	-0.311**	-0.187
	(0.481)	(0.136)	(0.193)	(0.481)	(0.136)	(0.193)
Democratic Linkage	0.247**	-0.676*	-0.121	0.247**	-0.676*	-0.121
	(0.120)	(0.372)	(0.185)	(0.120)	(0.372)	(0.185)
Autocratic Distance	0.142	0.181*	0.179*	0.142	0.181*	0.179*
	(0.089)	(0.096)	(0.093)	(0.089)	(0.096)	(0.093)
Black Knight Linkage	0.305*	-0.035	0.070	0.305*	-0.035	0.070
	(0.179)	(0.136)	(0.094)	(0.179)	(0.136)	(0.094)
Global Autocracies	-6.871***	-7.991**	-7.646***	-6.871***	-7.991**	-7.646***
	(1.904)	(3.279)	(2.286)	(1.904)	(3.279)	(2.286)

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	Autocratic Breakdown, Three-year Lag					
	Trade (Sum) (1)	Migration (Sum) (2)	Diplomatic (Sum) (3)	Trade (Mean) (4)	Migration (Mean) (5)	Diplomatic (Mean) (6)
GDP per capita (ln)	-0.054	-0.100	-0.081	-0.054	-0.100	-0.081
	(0.103)	(0.126)	(0.106)	(0.103)	(0.126)	(0.106)
GDP Growth	-0.452	0.159	-0.375	-0.452	0.159	-0.375
	(0.916)	(1.166)	(0.924)	(0.916)	(1.166)	(0.924)
State Capacity	-37.062**	-37.501**	-54.583**	-37.062**	-37.501**	-54.583**
	(14.536)	(15.485)	(21.199)	(14.536)	(15.485)	(21.199)
Cold War	1.223***	1.423**	1.391***	1.223***	1.423**	1.391***
	(0.398)	(0.658)	(0.445)	(0.398)	(0.658)	(0.445)
Resources	-0.964			-0.964		
	(0.636)			(0.636)		
Oil Price	0.001			0.001		
	(0.004)			(0.004)		
Conflict		-0.207**			-0.207**	
		(0.091)			(0.091)	
Democratic Linkage * ln(T)		0.173			0.173	
		(0.130)			(0.130)	
Global Autocracies * ln(T)	3.908***	3.895***	3.741***	3.908***	3.895***	3.741***
	(0.814)	(1.391)	(0.962)	(0.814)	(1.391)	(0.962)
Cold * ln(T)	-0.702***	-0.789***	-0.677***	-0.702***	-0.789***	-0.677***
	(0.195)	(0.283)	(0.217)	(0.195)	(0.283)	(0.217)
Events	209	168	204	209	168	204
Observations	3,912	3,051	3,737	3,912	3,051	3,737
Log Likelihood	-941.284	-711.229	-912.965	-941.284	-711.229	-912.965
LR Test	46.659*** (df = 13)	32.637*** (df = 13)	34.520*** (df = 11)	46.659*** (df = 13)	32.637*** (df = 13)	34.520*** (df = 11)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by three years. Significance levels: * < .1, ** < .05, *** < .01

Table 28: Proportional Hazards Test, Table 27

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-0.017	-0.066	-0.107	-0.017	-0.066	-0.107
Democratic Linkage	0.025	0.159**	0.044	0.025	0.159**	0.044
Autocratic Distance	-0.008	0.057	-0.023	-0.008	0.057	-0.023
Black Knight Linkage	0.047	-0.006	-0.048	0.047	-0.006	-0.048
Global Autocracies	0.187***	0.217***	0.183***	0.187***	0.217***	0.183***
GDP per capita (ln)	0.003	-0.098	0.019	0.003	-0.098	0.019

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	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
GDP Growth	-0.083	-0.107	-0.145	-0.083	-0.107	-0.145
State Capacity	0.187*	0.181*	0.09	0.187*	0.181*	0.09
Cold War	-0.16**	-0.209***	-0.172***	-0.16**	-0.209***	-0.172***
Resources	0.021			0.021		
Oil Price	-0.093			-0.093		
Conflict		0.136			0.136	
Global Test	19.733**	20.014**	20.914**	19.733**	20.014**	20.914**

Table 29: Autocratic Linkage and Regime Survival, Four-year Lag

	Autocratic Breakdown, Four-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Autocratic Linkage	-1.236***	-0.285**	0.288	-1.236***	-0.285**	0.288
	(0.466)	(0.139)	(0.266)	(0.466)	(0.139)	(0.266)
Democratic Linkage	0.201*	-0.220	-0.144	0.201*	-0.220	-0.144
	(0.104)	(0.184)	(0.177)	(0.104)	(0.184)	(0.177)
Autocratic Distance	0.168**	0.204**	0.187**	0.168**	0.204**	0.187**
	(0.079)	(0.091)	(0.086)	(0.079)	(0.091)	(0.086)
Black Knight Linkage	0.314*	0.007	-0.413*	0.314*	0.007	-0.413*
	(0.167)	(0.175)	(0.246)	(0.167)	(0.175)	(0.246)
Global Autocracies	-3.382**	-4.282*	-4.353**	-3.382**	-4.282*	-4.353**
	(1.559)	(2.247)	(1.699)	(1.559)	(2.247)	(1.699)
GDP per capita (ln)	-0.071	-0.158	-0.088	-0.071	-0.158	-0.088
	(0.096)	(0.122)	(0.101)	(0.096)	(0.122)	(0.101)
GDP Growth	-0.054	-0.152	-0.116	-0.054	-0.152	-0.116
	(0.965)	(1.031)	(1.031)	(0.965)	(1.031)	(1.031)
State Capacity	-41.105**	-39.007**	-60.483***	-41.105**	-39.007**	-60.483***
	(16.373)	(16.142)	(22.049)	(16.373)	(16.142)	(22.049)
Cold War	0.178	0.336	0.342	0.178	0.336	0.342
	(0.262)	(0.321)	(0.258)	(0.262)	(0.321)	(0.258)
Resources	-0.683			-0.683		
	(0.530)			(0.530)		
Oil Price	0.001			0.001		
	(0.004)			(0.004)		
Conflict		-0.199**			-0.199**	
		(0.092)			(0.092)	
Autocratic Linkage * ln(T)			-0.194*			-0.194*
			(0.104)			(0.104)
Black Knight Linkage * ln(T)			0.162*			0.162*
			(0.086)			(0.086)

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	Autocratic Breakdown, Four-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Global Autocracies * ln(T)	1.739***	1.239	1.809***	1.739***	1.239	1.809***
	(0.499)	(0.767)	(0.553)	(0.499)	(0.767)	(0.553)
Events	206	170	203	206	170	203
Observations	3,855	3,051	3,737	3,855	3,051	3,737
Log Likelihood	-927.106	-723.345	-907.184	-927.106	-723.345	-907.184
LR Test	39.173*** (df = 12)	27.171*** (df = 11)	34.820*** (df = 12)	39.173*** (df = 12)	27.171*** (df = 11)	34.820*** (df = 12)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. All covariates lagged by four years. Significance levels: * < .1, ** < .05, *** < .01

Table 30: Proportional Hazards Test, Table 29

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	0.003	-0.035	-0.127**	0.003	-0.035	-0.127**
Democratic Linkage	0.011	0.064	0.044	0.011	0.064	0.044
Autocratic Distance	-0.028	0.029	-0.041	-0.028	0.029	-0.041
Black Knight Linkage	0.043	-0.069*	0.177**	0.043	-0.069*	0.177**
Global Autocracies	0.172**	0.149**	0.186***	0.172**	0.149**	0.186***
GDP per capita (ln)	0	-0.044	0.045	0	-0.044	0.045
GDP Growth	-0.061	-0.01	-0.112	-0.061	-0.01	-0.112
State Capacity	0.153	0.11	0.078	0.153	0.11	0.078
Cold War	-0.085	-0.129*	-0.09	-0.085	-0.129*	-0.09
Resources	-0.001			-0.001		
Oil Price	-0.051			-0.051		
Conflict		0.051			0.051	
Global Test	13.766	11.561	18.948**	13.766	11.561	18.948**

Table 31: Autocratic Linkage and Regime Survival, Five-year Lag

	Autocratic Breakdown, Five-year Lag					
	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
	(1)	(2)	(3)	(4)	(5)	(6)
Autocratic Linkage	-0.662	-0.293**	-0.119	-0.662	-0.293**	-0.119
	(0.410)	(0.132)	(0.186)	(0.410)	(0.132)	(0.186)
Democratic Linkage	0.210**	-0.299	-0.171	0.210**	-0.299	-0.171
	(0.099)	(0.186)	(0.214)	(0.099)	(0.186)	(0.214)
Autocratic Distance	0.146*	0.184**	0.193**	0.146*	0.184**	0.193**
	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)

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	Autocratic Breakdown, Five-year Lag					
	Trade (Sum) (1)	Migration (Sum) (2)	Diplomatic (Sum) (3)	Trade (Mean) (4)	Migration (Mean) (5)	Diplomatic (Mean) (6)
Black Knight Linkage	0.100 (0.180)	0.083 (0.116)	0.046 (0.083)	0.100 (0.180)	0.083 (0.116)	0.046 (0.083)
Global Autocracies	-0.827 (1.427)	-2.490 (1.685)	-5.458*** (1.606)	-0.827 (1.427)	-2.490 (1.685)	-5.458*** (1.606)
GDP per capita (ln)	-0.105 (0.103)	-0.137 (0.120)	-0.087 (0.104)	-0.105 (0.103)	-0.137 (0.120)	-0.087 (0.104)
GDP Growth	-0.263 (1.249)	-1.378 (1.203)	-0.836 (1.331)	-0.263 (1.249)	-1.378 (1.203)	-0.836 (1.331)
State Capacity	-33.049** (13.805)	-38.879** (16.112)	-59.386*** (22.809)	-33.049** (13.805)	-38.879** (16.112)	-59.386*** (22.809)
Cold War	0.465 (0.301)	0.595* (0.333)	0.620** (0.278)	0.465 (0.301)	0.595* (0.333)	0.620** (0.278)
Resources	-0.794 (0.535)			-0.794 (0.535)		
Oil Price	0.001 (0.004)			0.001 (0.004)		
Conflict		-0.162* (0.088)			-0.162* (0.088)	
Global Autocracies * ln(T)			2.042*** (0.548)			2.042*** (0.548)
Events	203	170	201	203	170	201
Observations	3,797	3,051	3,736	3,797	3,051	3,736
Log Likelihood	-914.725	-723.522	-895.644	-914.725	-723.522	-895.644
LR Test	26.494*** (df = 11)	26.403*** (df = 10)	37.692*** (df = 10)	26.494*** (df = 11)	26.403*** (df = 10)	37.692*** (df = 10)

Entries are Cox regression coefficients with robust standard errors clustered by country in parentheses. Linkage indicators are standardised total and average trade volumes as a GDP share, standardised total and average migration per capita, and standardised total and average diplomatic exchange per capita. All covariates lagged by five years. Significance levels: * < .1, ** < .05, *** < .01

Table 32: Proportional Hazards Test, Table 31

	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
Autocratic Linkage	-0.007	-0.089	-0.094	-0.007	-0.089	-0.094
Democratic Linkage	-0.002	0.082	0.01	-0.002	0.082	0.01
Autocratic Distance	0.027	0.01	-0.039	0.027	0.01	-0.039
Black Knight Linkage	0.054	-0.02	-0.052	0.054	-0.02	-0.052
Global Autocracies	0.09	0.143*	0.161***	0.09	0.143*	0.161***
GDP per capita (ln)	-0.048	-0.065	0.022	-0.048	-0.065	0.022
GDP Growth	0.036	0.063	0.028	0.036	0.063	0.028

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	Trade (Sum)	Migration (Sum)	Diplomatic (Sum)	Trade (Mean)	Migration (Mean)	Diplomatic (Mean)
State Capacity	0.156	0.138	0.097	0.156	0.138	0.097
Cold War	0.054	-0.041	-0.023	0.054	-0.041	-0.023
Resources	0.06			0.06		
Oil Price	0.05			0.05		
Conflict		-0.039			-0.039	
Global Test	16.77	10.492	20.616**	16.77	10.492	20.616**

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