Systemic Instability and the Emergence of Border Disputes: Supplemental Appendix

Overview of Appendix

This supplemental appendix contains a number of results that are not in the main text for reasons of space and flow. If any of the results are referenced in the main text, we indicate the page number (or footnote number) here. Specifically, we demonstrate the following here:

1. We provide the full case study of the claims underlying unification of the Italian peninsula;
2. We display a map that depicts the 50km buffer units we use as our unit of analysis;
3. We display a table with the correlations among all of our fully systemic (yearly) measures of instability;
4. We provide a brief description of the principal components analysis used to produce our composite measures and also provide a qualitative assessment of the top ten years of instability identified by our *Composite Systemic Instability* variable;
5. We provide a plot that summarizes the substantive effects of our instability measures using the global sample;
6. We report results that explore whether and to what degree the estimated effects of systemic instability vary across time;
7. We show results that estimate the effect of territorial changes on the onset of new claims;
8. We show the results of spatial autoregressive models that allow for contagion among units in claim onset;
9. We show results of more complicated logistic and OLS models that incorporate year-random effects along with dyad fixed effects or dyad random effects;
10. We report the results of models that include alternative versions of our measures of systemic and regional instability that derives from internal instability in the great powers;

11. We report results using the Delta-CON measure proposed by Singer, Bremer and Stuckey (1972);
12. We report results using the global S-score alliances measure;
13. We explore the diversionary argument in the context of claim onset as applied to claim militarization by Mitchell and Thyne (2010);
14. We show results that include a lagged claims indicator;
15. We explore the influence of particular years using a year-fixed effects approach;
16. We graphically show the results of two specifications of varying slopes models. These graphs depict how the effect of historical boundary variability changes year-to-year;
17. We provide a two period game-theoretic model of great power intervention and claim-timing that demonstrates one of the mechanisms proposed in the paper;
18. We present a table that summarizes the results of the sensitivity test for selection on unobservables developed by Oster (2017);
19. We provide additional plots of claim-onset across time that are analogous to figures 1 and 5 in the main text.

1 Great Power Intervention and the Risorgimento

Thus far we have provided a battery of statistical evidence to illustrate the logic of our argument. Here, we delve into an important case to flesh out how exactly the specter of great power intervention affects claim-timing. We focus on the claims that led to the territorial expansion of Piedmont-Sardinia, culminating with the formation of the Italian state. We outline Italian claim-making behavior after 1848. Like broader patterns of territorial claim-making, Italian unification came from a series of limited territorial claims, the timing of which were consistent with the pattern of great power politics described in our theory.

Setting the Table for Unity, Creating Precedent for an Italian Nation

The treaties of Campoformio (1797) and Luneville (1805) briefly unified the Italian peninsula under French rule, eliminating the borders of the many independent states that had previously enforced distinctions between Italians, separating Genoese from Milanese, Florentines from Luccans.[1] In addition to both removing political boundaries and introducing a wide range of modernizing political and economic reforms, French occupation planted the seeds of what would become in the first half of the nineteenth century a genuine Italian nationalism.[2]

After the French invasion Jacobite-patriot clubs proliferated, bringing with them the language and symbols of a national identity.[3] At first, these groups flourished, however, under the Empire these liberal-patriotic associations were stamped out. Nevertheless, the combined exposure to nascent nationalist ideas, the destruction of the old political order, and the shared experience of foreign domination generated the political movements – the secret societies, most famously the Carbonari and more radically liberal Young Italy – that would later spread Italian nationalism to a broad swath of society[4].

The settlement of 1815 did nothing to temper the growing demands for national unity. From

[1] Italy was consolidated first into the three "sister republics", the Cisalpine Republic in the North, the Roman Republic in the center of the peninsula, and the Neopolitan Republic in the south. Under Napoleonic rule, these were either directly consolidated into the First Empire or into one of the two French client states. For an overview of this period see (**?**, ch. 10)

[2] For a general overview of this period see (**?**, ch. 6), **?**, **?**

[3] For a review of Jacobonism in Italy see, **?**.

[4] See, **?**, (**?**, p. 46-50), **?**.

the perspective of the Italians, the Congress system set up by the Great Powers, simply traded one foreign occupier for another. The post-1815 borders of Italy were once more re-drawn to ensure Austrian domination. Directly, the Austrian Hapsburg Empire controlled Lombardy and Venetia. Indirectly, through cadet branches or Hapsburg puppets, the Austrians effectively ruled in the Duchies of Lucca, Modena, Parma, the Papal States, and the Kingdom of the Two Sicilies. Only the Kingdom of Piedmont-Sardina where the House of Savoy was restored escaped Hapsburg domination.

Are Nationalist Precedents Sufficient?

When did this increasingly assertive Italian nationalism manifest itself in claims of territorial unity? An obvious expectation might be that in periods of domestic revolutionary fervor – when nationalist demands were piqued – claims of territorial unity were made. The Italian case provides little evidence of this.[5] Indeed, in 1820, first in Naples and then spreading north to Piedmont, Carbonari led insurrections demanded two objectives, a liberal constitution and the liberation of Italy from Austrian domination. In Naples, Ferdinand I called upon his Austrian patrons to put down the rebellion. In Piedmont, King Victor Emmanuel I abdicated in favor of his brother Charles Felix who with aid from Austria suppressed the insurrection.

A decade later Carbonari in the Duchy of Modena organized to mount a revolutionary campaign aimed at unifying the North of Italy. Simultaneously, in the Papal Legations nationalists mounted an insurrectionist that spread to the Duchy of Parma. These attempts to create some version of a unified Italian state met a similar fate as before. In the face of these nascent movements, heads of state in each affected country appealed to the Austrians who obliged their requests for military intervention, quickly subduing the insurrectionists and stationing armies in the Papal States to quell further revolutionary movements. Relative to our arguments, these episodes demonstrate how the dominant status-quo oriented power in Italy, Austria, was able and willing to intervene, thwarting the making of claims.

[5] For a discussion of the revolutions of 1820 and 1831 see, (**?**, ch. 1–2) (**?**, p. 21–50), (**?**, p. 10–20).

The Effect of the "Springtime of the Peoples" at Home and Abroad

The first set of territorial claims aimed at national unification occurred not only during a period of nationalist fervor but when Austria was preoccupied with internal rebellion both in Austria and across the other parts of the Hapsburg empire. The "springtime of the peoples", the liberal and nationalist revolutions that spread through Europe in 1848 led to a resurgence of demands for national unity throughout Italy. In the "Five Days of Milan" insurgents drove the Austrian garrison first from the city and then from Lombardy. Venice proclaimed independence.[6]

Across Italy focus turned to Piedmont. After the Congress of Vienna, when the rest of the peninsula came under direct or indirect Hapsburg rule, the House of Savoy alone remained independent. As such, Piedmont-Sardinia, was the only Italian state with an army that could plausibly challenge Austria. Charles Albert, King of Piedmont-Sardinia, was a reluctant liberal and an even more reluctant torch-bearer of Italian nationalism. He did, however, have ambitions to expand his territory. In two ways, the revolutionary moment of 1848 provided incentive for him to obtain this outcome. First, pressure from liberal and nationalist groups within Piedmont-Sardinia placed a constraint upon Charles Albert's freedom to act. If he did not pursue a sufficiently aggressive course against Austria, his government faced an increased risk of insurrection. Despite this internal pressure, Charles Albert remained cautious and refrained from committing his armies to support the rebellions against the Hapsburgs in Lombardy-Venetia.

Ultimately, the willingness of Charles Albert to support unification was predicated upon Austria's perceived (in)ability to intervene in Italian affairs. In March of 1848 the spread revolution to the Hapsburg dominions upset the fragile equilibrium that held together the multi-ethnic Austrian Empire. Only once revolutionaries brought down the conservative government of Metternich and only once the Hungarians entered into open rebellion did Charles Albert commit to unification.[7] Nevertheless, Piedmont?s actual territorial claims were fairly contained, limited to Lombardy-Venetia, and Parma.[8]

[6]For general histories of the revolutions of 1848 see **????**. For a focus on Italy in this period see **?**, (**?**, ch. 6–7), (**?**, ch 6–8), (**?**, ch 2–4).

[7]If we examine the value of *Regional Great Power Civil Wars* from table **??** for the Italy in 1848, we see that it takes a value of over 2.17, which is above the 99th percentile in the data. The *Composite Regional Instability* variable from table **??** takes a value close to the 95th percentile for Piedmont-Sardinia in 1848.

[8]This is recorded in the ICOW territorial claims dataset as claims 258.01 and 262.01

Despite quick and initial success in the first couple of months fighting the Austrians, the Sardinian army was eventually pushed back to its pre-war frontiers after a series of setbacks forced into an armistice. After seven months of peace, Charles Albert reengaged by denouncing the truce and invading Lombardy. The catalyst at this point was the fact that between February and early March of 1849, Hungarian revolutionaries strung together a series of victories, which, prior to Russian military intervention, threatened the very survival of the Austrian state. After the Austrians had defeated the Hungarian insurrection they crushed the armies of Piedmont-Sardinia at Novarra, ending Charles Albert's quest for more territory.

The Accidental Environment for Claims to Unity

In July of 1858 Emperor Napoleon III of France and Count Cavour, Prime Minister of Piedmont-Savoy, signed the Plombieres agreement, a secret alliance wherein it was arranged that Piedmont would provoke war with Austria and France would intervene on her side. Outside of the immediate re-statement of the claim on Lombardy-Venetia, the ultimate goal of instigating conflict was not unification of the entire peninsula but, rather, the creation of an Italian Confederacy of independent states with the Pope as a titular head.[9]

Sardinian provocations resulted, as expected, in an Austrian ultimatum, and, ultimately, war by April 1859. As agreed upon, the French entered on the side of the Sardinians and their combined armies drove the Austrians from Lombardy. Piedmont-Sardinia's aggressive stance towards the Austrians inspired revolutionary governments in the central Italian Duchies of Modena, Parma, and Lucca, to overthrow their Austrian puppet-governments and replace them with liberal parliamentary regimes.[10]

Despite this success, the threat of Prussian intervention on the side of Austria drove the French to betray their allies and make a separate peace. Forced to the accede to this peace, the Sardinians received roughly half of the territory agreed to at Plombieres, leaving Venetia under Hapsburg control. Moreover, as a condition for peace the Austrians demanded – and the French and Sardinians formally agreed to – the reinstatement of the conservative Hapsburg allies to office in central Italy,

[9] **?**.

[10] For an overviews of the Second War of Italian Unification see, **???**

preserving the status quo of Austrian hegemony.[11]

Immediately following the conflict, however, it became clear that the Austria was unable to enforce the re-constitution of these conservative governments. Nationalists both in these central Italian states and in Piedmont-Sardinia demanded unification under the House of Savoy. Taking advantage of the inability of Austria to intervene King Victor Emmanuel II of Piedmont-Sardinia announced, after a series of perfunctory plebiscites, only then asserting the claim to these territories, resulting in the unification of these states with Piedemont-Savoy.[12]

The construction of a unified Italian state comprised of the Kingdom of Piedmont-Savoy, Lombardy, and the central Italian Duchies of Parma, Modena, and Lucca, did not satisfy the demands of the most ardent nationalists. With the tacit support of Victor Emmanuel, an army of volunteers, invaded and overthrew the Bourbon regime in the Kingdom of the Two Sicilies. Not content to add just the Neopolitan Kingdom to the new Italian state, Garibaldi sought to take advantage of this liminal moment and add the territories of the Pope as well.[13]

This threat to the territorial domains of the Papacy brought the French, who had since 1848 maintained a garrison in Rome to "protect" the Papacy, back into the picture. To avoid conflict between Piedmont and France, Napoleon III and Cavour again entered into a pact wherein the army of Piedmont-Sardinia would invade and claim the Papal territories – save for Rome and its immediate hinterland which would remain a rump for a greatly reduced Papal State. Only after this guarantee of French non-intervention did Victor Emmanuel assert his claim to the Papal territories, invading the Papal States, eventually linking up with Garibaldi, and unifying the peninsula not in the planned confederation of independent Italian states, but as the Kingdom of Italy.

The Final Pieces

By 1860 Italy was incomplete relative to its contemporary boundaries. Over the next sixty-odd years the Kingdom of Italy would make additional claims to territory that followed the general pattern of our model. Each occurred based upon a historical precedent, frequently couched in

[11] On the roll of great powers in forcing the peace of Villafranca, see **?**.
[12] This is recorded in the ICOW data as claim 264.01
[13] ICOW claim 260.01

nationalism, but only became manifest when Great Powers were unlikely to intervene to maintain the status-quo.

Venetia

Despite having been one of the principle aims of the Second War of Italian Unification, the region of Venetia remained outside of the Kingdom of Italy.[14] Again, only when the Austriarn Empire became preoccupied by a graver threat did Italy re-assert its claim to the region.[15] In 1866 tensions between Austria and Prussia over the Duchies of Schleswig-Holstein erupted in war between the two Great Powers. Allied with Prussia, Italy took advantage of an otherwise distracted Austria and made a claim over Venetia two days after Prussia formally declared war on Austria. As a strictly military endeavor the war with Austria did not go well, with the Italian army failing to win a single significant engagement with the Austrians. However, the success of the Prussians on the battlefield meant that, despite the failures of the Italian army, when it came time to negotiate peace, Venetia finally entered into union with the rest of Italy.

Rome

Controlling Rome and its immediate hinterland, Pius IX was dependent upon French troops to maintain his position. In 1870 the Franco-Prussian war forced Napoleon III to withdraw his Roman garrison to France.[16] The immediate consequence of this was an outpouring of public support in Rome for unification. King Victor Emmanuel did nothing, however, until the defeat of France at the Battle of Sedan, marking the end of the Second Empire, and dispelling any fear of French intervention. Once French non-intervention was assured, he laid claim to Rome and offered peaceful annexation of Rome to defend the pontiff. This was rejected and the Italian armies entered the Papal territories, swiftly defeated the small Papal army. From thereafter Rome has served as capital of Italy.

[14] For overviews of the Third War of Italian Unification, see (**?**, ch. 8), (**?**, ch. 3–4).

[15] At this point, in addition to asserting a claim to the entirety of Ventia, asserting a claim over Trentino-Alto Adige and the Julian March. The relevant ICOW claims are 266.01 and 332.01.

[16] For a general history of the Franco-Prussian War, see **?**. For a focus on the capture of Rome, see (**?**, ch. 9).

WWI

Italian irredentism was, again, piqued in the aftermath of the First World War. Despite having largely completed the project of national unification, significant Italian speaking populations still lived outside of Italy, particularly in Istria and other Balkan provinces that had a strong Venetian influence. In 1915, the Italians, taking advantage of war between the Great Powers, sought the best bargain from both the Central Powers and the Triple Entente. The best offer they received was from the Triple Entente, which gave them in the Treaty of London a promise of the Austrian Littoral and northern Dalmatia, including the territories of Castua, Matuglia, and Volusca, as well as the territories of present-day Trentino and South Tyrol.[17]

The United States, not party to the Treaty of London, was unwilling to uphold the territorial divisions the treaty outlined. Rather, they preferred the so-called “Wilson Line” that gave much of the territory awarded to Italy in the Treaty of London, instead to Yugoslavia. However, in the aftermath of the war neither the French, British, nor Americans could agree upon the exact partition to enforce. This apparent lack of will on the part of the major powers, coupled with substantial de-facto ambiguity of control and arguably the most severe bout of systemic instability experienced in Europe since 1815, led both the Italian and the Yugoslavian governments to make rival claims to the territories along the Adriatic that held both substantial Italian and Slavic populations.[18] These territories remained under dispute until 1920 when under the Treaty of Rapallo the Italians received the County of Gorizia, Gradisca, Trieste, and Istria, substantially less than they were promised in 1915. Fiume, which the Italians laid claim to during the negotiations at Versailles in 1919, was made into a League of Nations protectorate and did not accede to Italy.

2 Map Depicting Buffer Units

The 50km buffer units are depicted in Figure 2. Note that a number of states, e.g., Germany, have borders that change across time, meaning that the buffer unit with neighbors can also change across time. For the sake of clarity, the depiction in figure 2 shows the dyadic border that was in

[17]The relevant ICOW claims are 334.01 and 332.02

[18]The relevant ICOW claims are 334.02-3, and 332.03-4

place for the longest period of time.

[Figure 1 about here.]

3 Correlations Among Measures of Systemic Instability

Table 1 contains the pairwise correlations for all of the yearly systemic measures of instability that we analyze in the main text of the paper, along with the sum of claims in Europe which is the final row in the table. Note that for the most part the measures are positively correlated with each other, and very highly correlated in several instances, e.g., % Great Power Wars and Systemic Instability. This correlation structure is part of our motivation for combining the measures using principal components analysis (PCA), which we use to create our *Composite Systemic Instability* and *Composite Regional Instability* measures. We explain how PCA works and how it compares to item response methods in the subsequent subsection.

4 Development of Composite Measures of Instability

As we note in the main text, we use principal components analysis to develop our two composite measures of instability: *Composite Regional Instability* and *Composite Systemic Instability*. Principal component analysis is a simple method for reducing the dimensionality of complex (potentially collinear) data. Because complex, multi-dimensional data are difficult to interpret or summarize it is necessary to reduce the number of variables to a few, interpretable linear combinations. The procedure is defined such that the first principal component accounts for as much of the data's variance as possible and each additional component explains more variance relative to subsequent components under the constraint that it is orthogonal to the preceding components. Formally principal component analysis is an orthogonal linear transformation that transforms the data to a new coordinate system such that the greatest variance by some projection of the data comes to lie on the first coordinate (called the first principal component), the second greatest variance on the second coordinate, and so on.

It is similar to item-response methods for scaling roll-call votes and other factor analysis based

Table 1. Bivariate Yearly Correlation Matrix

	Systemic Instability	% GP Inflationary Crises	% GP Civil War	% GP War	GP War Termination	# New Dyads	# Secessions	#Proxy Wars	GP Alliance Shifts	Composite Systemic Instability	# Claims
Systemic Instability	1.0000										
% GP Inflationary Crises	0.3859	1.0000									
% GP Civil Wars	0.1262	0.2275	1.0000								
% GP Wars	0.3854	0.1974	0.0257	1.0000							
GP War Termination	0.1041	0.0827	-0.0508	-0.2636	1.0000						
# New Dyads	0.2304	0.1577	0.2089	0.1734	0.1838	1.0000					
# Secessions	0.1122	0.1074	0.0936	0.2085	0.0075	0.7114	1.0000				
# Proxy Wars	0.0670	0.2081	-0.0064	0.3670	-0.0978	0.1076	0.0652	1.0000			
GP Alliance Shifts	0.2989	0.2463	0.1187	0.2466	-0.1179	0.2457	0.1988	0.2717	1.0000		
Composite Instability Measure	0.6060	0.5522	0.3195	0.6038	-0.0352	0.6728	0.6031	0.4338	0.6038	1.0000	
Number of Claims	0.5404	0.3417	0.2385	0.4485	0.0933	0.6411	0.4007	0.3116	0.3436	0.7476	1.0000

methods for dimension reduction.[19]. Unlike IRT methods PCA does not require that our data matrix be dichotomous, mulitinomial, or polytomous. Furthermore, unlike IRT methods it does not impose a model on the data generating process. In our application, the two procedures produce very hig

Qualitative and quantitative assessment of this composite measure of systemic instability suggests that it is a good measure of systemic crisis across the five sources we identify theoretically. Qualitatively, the top ten years that our composite measure identifies draw across the sources of instability we analyze above. Table 17 summarizes the ten years of greatest instability according to our composite measure, in order of the magnitude of instability. The table nicely demonstrates the diversity of time periods that our composite measure identifies as the years of greatest systemic turmoil, as the top three years are composed of years from World War I, the end of the Cold War, and World War II. The final column of table 17 lists the specific measures of systemic uncertainty that also have the year in question in their ten years of greatest systemic severity. Again, this list shows that the composite measure is doing a nice job combining information across all of our different measures.

[Table 1 about here.]

5 Substantive Effects of Instability Measures: Global Sample

[Figure 2 about here.]

6 Does the Effect of Systemic Instability Decrease Across Time?

Tables 2 assess the possibility that the effect of systemic instability on claim-making behavior has decreased across time. Given that militarized conflict taking territory has declined since World War II (**?**Fazal, 2004; Hensel, Allison and Khanani, 2009) and that their has been a secular decline in the rate of territorial claims being made over the same period Hensel (2013), it is possible that

[19] Canonical factor analysis (Rao's canonical factoring) is simply a different method for computing the same model as PCA

these trends have also affected how systemic instability influences claim-making behavior.

We assess the possibility that the effect of systemic instability on claim-making has declined across (recent) time with two basic modeling approaches. First, in models I and II in table 2 we interact *Time*, which is a calendar year counter, with *Systemic Instability*. *Time* starts at zero in 1816 and increases by one each subsequent year. Second, models III and IV in table 2 show an interaction between *Systemic Instability* and *Post-World War II*, a binary indicator which takes a value of one for years after 1945.

The results suggest that while the military conquest of territory and the rate of claim-making have declined since 1945, there has not been a decline in the effect of *Systemic Instability* on claim-making during this period. The interaction *Time X Systemic Instability* indicates a positive and small effect in Europe (model I), and a positive insignificant effect globally (model II). To more specifically hone in on the post-WWII period that is known to be associated with a secular decline in territorial conquest, we also estimate *Post-World War II X Systemic Instability*. Again, there is no evidence in models III or IV of a decline since 1945 in the importance of systemic instability for claim-timing. The interaction *Post-World War II X Systemic Instability* is positive and significant in the global sample (model IV) but positive and insignificant in the European sample (model III). Thus, we again find no evidence of a decline since WWII in the effect of systemic instability on claim-making, either in Europe or elsewhere.

The results in table 2 make sense to us, as we view the decline in military conquest of territory and claim-making as related to our argument. Specifically, we think the bipolar system during the Cold War and the subsequent hegemony of the United States (and the associated liberal order described by Ikenberry (2011) have much to do with these trends. As we note on page X of the manuscript, the Cold War competition between the U.S. and the Soviet Union played a role in depressing conquest as each instance of militarized conflict involving an ally of one or the other superpower had the potential to escalate into a systemic event. Towards the end of the Cold War and during the post-Cold War period, the United States rose and eventually became a relatively unrivaled hegemon. The U.S. has generally had a distaste for destabilizing claims and militarized conquest, and (until perhaps the last couple of years) has promoted a liberal order the discourages this behavior in a number of ways, e.g., the elevated importance of global investment (Lee and

Table 2. Exploring Temporal Trends in the Effect of Systemic Instability

Systemic Instability	0.001 (0.01)	0.007** (0.00)	0.015** (0.01)	0.005** (0.00)
Time X Systemic Instability	0.000* (0.00)	0.000 (0.00)		
Time	-0.000 (0.00)	-0.000** (0.00)		
Post-World War II X Systemic Instability			0.005 (0.01)	0.005* (0.00)
Post-World War II			-0.008 (0.01)	-0.010** (0.00)
Recent Conflict	0.002 (0.01)	-0.004** (0.00)	0.002 (0.01)	-0.004** (0.00)
Border Not Settled	0.078** (0.02)	0.026** (0.00)	0.077** (0.02)	0.028** (0.00)
Joint Democracy	-0.009 (0.01)	-0.001 (0.00)	-0.009 (0.01)	-0.002* (0.00)
Defensive Alliance	0.004 (0.01)	0.003** (0.00)	0.005 (0.01)	0.003** (0.00)
Constant	0.020 (0.02)	0.033** (0.01)	0.012 (0.01)	0.015** (0.00)
Dyad Fixed Effects	Yes	Yes	Yes	Yes
N =	6476	58788	6476	58788
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Mitchell, 2012).

7 Systemic Territorial Changes and Subsequent Claims

In this section we demonstrate that territorial changes across the systemic in general are not reliable catalysts of territorial claims. Rather, only secessions, which tend to be larger and more consequential territorial claims are associated with claim timing. This is consequential for our paper as years with multiple secessions (which are a subset of territorial claims) are also years of systemic instability (see the Empires section in the main text). Thus, it is not (mostly small) territorial changes across the system that beget further claims, but the more consequential changes that create new states and generate smaller rump states.

Table 3 contains the results of models very similar to those reported in the main text. For both the European sample and the global sample, we report logit regressions, conditional logit with dyad fixed effects, and OLS with dyad fixed effects. We include *Systemic Instability* and a measure of the number of systemic territorial changes in the last year, *Systemic Territorial Changes*. Across all specifications, we do not find much of any effect for *Systemic Territorial Changes*, as the coefficient is small and statistically insignificant, and its sign changes direction across specifications.

For a comparison to the set of territorial changes that are secessions, we also report the results in table 4. The specifications are identical to those in table 3 except in that we have replaced *Systemic Territorial Changes* with the *Number of Secessions* variable from table 5 of the main text. The number of secessions remains positive and statistically significant across all specifications.

8 Tests for Spatial Contagion

We allow for spatial interference, estimating a linear probability spatial autoregressive (SAR) models of the following form:

Table 3. Territorial Changes, Systemic Instability and Territorial Claim Onset

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)
Systemic Instability	0.561**	0.433**	0.015**	0.533**	0.446**	0.006**
	(0.15)	(0.17)	(0.01)	(0.07)	(0.09)	(0.00)
Systemic Territorial Changes	-0.007	-0.016	-0.000	0.014	0.008	0.000
	(0.02)	(0.03)	(0.00)	(0.01)	(0.01)	(0.00)
Recent Conflict		0.228	0.008		0.142	0.002
		(0.30)	(0.01)		(0.18)	(0.00)
Border Not Settled		1.731**	0.067**		1.059**	0.013**
		(0.38)	(0.02)		(0.33)	(0.00)
Joint Democracy		-0.373	-0.007		-0.933**	-0.002**
		(0.45)	(0.01)		(0.40)	(0.00)
Latitude	0.090**			0.005**		
	(0.03)			(0.00)		
Longitude	-0.059**			0.008**		
	(0.02)			(0.00)		
Buffer Area	0.082**			0.001**		
	(0.04)			(0.00)		
Defensive Alliance		-0.195	0.001		-0.287	0.001
		(0.47)	(0.01)		(0.28)	(0.00)
Constant	-3.636**		0.007	-5.260**		0.004**
	(0.54)		(0.01)	(0.22)		(0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes
N =	6606	2986	6344	57634	15967	57634
Include Major Powers	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Table 4. Secessions, Systemic Instability and Territorial Claim Onset

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)
Systemic Instability	0.549**	0.434**	0.015**	0.461**	0.358**	0.007**
	(0.11)	(0.14)	(0.01)	(0.05)	(0.07)	(0.00)
Number of Secessions	0.149**	0.174**	0.005**	0.053**	0.069**	0.000**
	(0.03)	(0.03)	(0.00)	(0.02)	(0.02)	(0.00)
Recent Conflict		0.156	0.004		-0.446**	-0.004**
		(0.30)	(0.01)		(0.17)	(0.00)
Border Not Settled		1.658**	0.076**		1.372**	0.029**
		(0.35)	(0.02)		(0.24)	(0.00)
Joint Democracy		-0.546	-0.011		-0.924**	-0.003**
		(0.48)	(0.01)		(0.35)	(0.00)
Latitude	0.066**			0.002**		
	(0.02)			(0.00)		
Longitude	-0.067**			0.002		
	(0.02)			(0.00)		
Buffer Area	0.090**			0.000**		
	(0.04)			(0.00)		
Defensive Alliance		-0.138	0.003		-0.200	0.002
		(0.48)	(0.01)		(0.21)	(0.00)
Constant	-3.385**		0.009	-4.017**		0.009**
	(0.48)		(0.01)	(0.15)		(0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes
N =	6760	3316	6476	58788	23734	58788
Include Major Powers	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

$$y_{i,t} = \rho_0 + \rho_1 HegemonicVolitility_t + \rho_2 \mathbf{X}_{i,t} + \lambda \sum_{j \neq i} w_{i,j,c,t} y_{j,c,t} + \epsilon_{i,c,t}$$

Where we account for spillovers across units by including the (row standardised) distance weighted outcome of other units, $w_{i,j,t}y_{j,t}$ as a regressor. Across specification we see that our measures of hegemonic volatility yield a qualitatively similar result as in the main text.

[Table 2 about here.]

9 Alternative Model Specifications that include Year Random Effects

In this section we provide some additional model specifications to complement those reported in the main text. Specifically, we estimate more complicated versions of the same models, were we also include year-random effects along with dyad-random effects in logistic regressions and year-random effects along with dyad-fixed effects in OLS regressions. The results reported in the main text are as a rule very similar to those obtained with these more complicated models, so we opt for the simpler specifications in the manuscript. Finally, note that we only estimate these more complicated models for the European region, as the global sample size is large enough to cause estimation issues in the mixed logit and OLS specifications. The inability to report similar results for the global sample is an additional reason we relegate these similar results for Europe to the appendix.

9.1 Systemic Instability Measures

Table 5 shows the results of mixed logit and OLS models that include the *Systemic Instability* and *Regional Instability* measures. The estimates are quite similar to those reported in the main text.

Table 5. Systemic Instability and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Systemic Instability	0.547**	0.020**		
	(0.15)	(0.01)		
Regional Instability			1.140**	0.025**
			(0.23)	(0.01)
Border Not Settled	1.624**	0.068**	1.519**	0.066**
	(0.44)	(0.02)	(0.45)	(0.02)
Terrain Ruggedness	0.088		0.186	
	(0.21)		(0.18)	
Agricultural Suitability	0.211		0.229	
	(0.18)		(0.16)	
Buffer Area	0.131**		0.130**	
	(0.05)		(0.05)	
Latitude	0.053		0.077**	
	(0.04)		(0.03)	
Longitude	-0.047		-0.020	
	(0.03)		(0.03)	
Rivers	-0.011		-0.007	
	(0.01)		(0.01)	
Defensive Alliance	-0.123	0.002	0.088	0.005
	(0.44)	(0.01)	(0.42)	(0.01)
Joint Democracy	-0.299	-0.009	-0.255	-0.005
	(0.30)	(0.01)	(0.31)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6476	6476	6475	6475
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

9.2 Internal Turmoil in Great Powers

Table 6 shows results for mixed models where we include the same measures of instability derived from internal instability within the great powers as included in the manuscript. Again, the results are quite similar to what is reported in the main text, with the only difference being that the inclusion of year-random effects leads the instability measures to attain the 0.10 percent level of significance in the OLS models.

9.3 Great Power Wars

Table 7 contains results from mixed models using the measures of great power war. The results are all similar to those reported in the main text, which indicates that both measures survive the inclusion of year-random effects in addition to unit-specific effects.

9.4 Great Power War Termination

Table 8 contains results of mixed logit and OLS models that include our great power war termination variables. We note that while the regional measure performs quite similarly to what is reported in the main text, the systemic measure *Great Power War Termination* does not attain significance at conventional thresholds in the OLS model with dyad-fixed effects and year-random effects. This is consistent with evidence in the main text that this measure is one of the weaker systemic instability predictors and is noted in footnote X on page Y.

9.5 Empire Dissolution

Table 9 reports results where we include our measures of instability that derives from empire dissolution in mixed models with both year-random effects and dyad-specific effects. The measures generally perform as they do in the simpler models, with the slight exception in the case of *Number of Secessions*, which is of similar magnitude but insignificant in the OLS model with dyad-fixed effects and year-random effects.

Table 6. Great Power Internal Turmoil and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Regional GP Civil Wars	0.788**	0.014*		
	(0.22)	(0.01)		
% GP Inflationary Crises			4.474**	0.080*
			(1.31)	(0.04)
Border Not Settled	1.931**	0.077**	1.840**	0.068**
	(0.44)	(0.02)	(0.43)	(0.02)
Terrain Ruggedness	0.136		0.132	
	(0.24)		(0.20)	
Agricultural Suitability	0.228		0.250	
	(0.18)		(0.18)	
Buffer Area	0.146**		0.139**	
	(0.05)		(0.05)	
Latitude	0.054		0.050	
	(0.04)		(0.04)	
Longitude	-0.027		-0.033	
	(0.04)		(0.03)	
Rivers	-0.012		-0.009	
	(0.01)		(0.01)	
Defensive Alliance	-0.118	0.003	-0.013	0.001
	(0.47)	(0.01)	(0.43)	(0.01)
Joint Democracy	-0.466	-0.007	-0.373	-0.008
	(0.36)	(0.01)	(0.31)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6210	6210	6476	6476
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Table 7. Great Power Wars and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Regional Great Power Wars	0.527**	0.015**		
	(0.12)	(0.01)		
% Great Power War			2.658**	0.053**
			(0.55)	(0.02)
Border Not Settled	1.992**	0.076**	1.874**	0.069**
	(0.48)	(0.02)	(0.43)	(0.02)
Terrain Ruggedness	0.079		0.080	
	(0.21)		(0.18)	
Agricultural Suitability	0.232		0.240	
	(0.16)		(0.16)	
Buffer Area	0.128**		0.132**	
	(0.04)		(0.05)	
Latitude	0.044		0.037	
	(0.04)		(0.03)	
Longitude	-0.019		-0.030	
	(0.03)		(0.03)	
Rivers	-0.006		-0.005	
	(0.01)		(0.01)	
Defensive Alliance	-0.282	0.004	-0.359	0.000
	(0.49)	(0.01)	(0.47)	(0.01)
Joint Democracy	-0.322	-0.007	-0.242	-0.008
	(0.31)	(0.01)	(0.29)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6210	6210	6476	6476
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Table 8. Great Power Post-War Settlements and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Great Power War Termination	0.757**	0.008		
	(0.27)	(0.01)		
Regional GP War Termination			0.462**	0.013**
			(0.13)	(0.01)
Border Not Settled	1.782**	0.068**	1.992**	0.077**
	(0.48)	(0.02)	(0.46)	(0.02)
Terrain Ruggedness	0.184		0.144	
	(0.21)		(0.24)	
Agricultural Suitability	0.259		0.243	
	(0.18)		(0.18)	
Buffer Area	0.149**		0.142**	
	(0.05)		(0.05)	
Latitude	0.055		0.052	
	(0.04)		(0.04)	
Longitude	-0.022		-0.021	
	(0.03)		(0.04)	
Rivers	-0.011		-0.014	
	(0.01)		(0.01)	
Defensive Alliance	-0.381	0.000	-0.227	0.003
	(0.50)	(0.01)	(0.49)	(0.01)
Joint Democracy	-0.578*	-0.009	-0.567*	-0.008
	(0.30)	(0.01)	(0.32)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6476	6476	6210	6210
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered by dyad in parentheses
** $p < .05$; * $p < .10$

Table 9. The Breakup of Empires and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Number of New Dyads	0.078**	0.004**		
	(0.01)	(0.00)		
Number of Secessions			0.163**	0.007
			(0.03)	(0.01)
Border Not Settled	1.802**	0.067**	1.911**	0.068**
	(0.47)	(0.02)	(0.49)	(0.02)
Terrain Ruggedness	0.125		0.145	
	(0.22)		(0.21)	
Agricultural Suitability	0.249		0.240	
	(0.19)		(0.19)	
Buffer Area	0.153**		0.153**	
	(0.05)		(0.05)	
Latitude	0.038		0.039	
	(0.04)		(0.04)	
Longitude	-0.046		-0.032	
	(0.03)		(0.03)	
Rivers	-0.011		-0.009	
	(0.02)		(0.02)	
Defensive Alliance	-0.287	-0.000	-0.251	0.000
	(0.49)	(0.01)	(0.48)	(0.01)
Joint Democracy	-0.485	-0.010*	-0.539*	-0.009
	(0.31)	(0.01)	(0.30)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6476	6476	6476	6476
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

9.6 Great Power Proxy Conflicts

Table 10 shows results using our measure of great power proxy conflicts in mixed logit and OLS regressions. The results are again quite similar to what we report in the main text, with the exception that *Great Power Proxy Wars* just misses statistical significance in the OLS model with dyad-fixed effects and year-random effects.

9.7 Composite Instability Measures

Table 11 contains the composite measures of systemic and regional instability that are produced by combining the individual measures using principle-components analysis. The results across logit models with year-random effects and dyad-random effects as well as OLS models with dyad-fixed effects and year-random effects all show that the estimates for both *Composite Systemic Instability* and *Composite Regional Instability* are largely unaffected by these more demanding model specifications.

Table 10. Great Power Proxy Conflicts and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Great Power Proxy Wars	0.288**	0.007		
	(0.06)	(0.00)		
Systemic Change in Great Power Alliances			5.114**	0.075*
			(0.98)	(0.04)
Border Not Settled	1.851**	0.068**	1.897**	0.069**
	(0.48)	(0.02)	(0.47)	(0.02)
Terrain Ruggedness	0.194		0.120	
	(0.20)		(0.21)	
Agricultural Suitability	0.260		0.223	
	(0.17)		(0.18)	
Buffer Area	0.138**		0.148**	
	(0.05)		(0.05)	
Latitude	0.048		0.050	
	(0.04)		(0.04)	
Longitude	-0.016		-0.033	
	(0.03)		(0.03)	
Rivers	-0.006		-0.010	
	(0.01)		(0.01)	
Defense	-0.376	0.000	-0.314	0.001
	(0.49)	(0.01)	(0.47)	(0.01)
Joint Democracy	-0.473	-0.008	-0.466	-0.008
	(0.30)	(0.01)	(0.30)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6476	6476	6476	6476
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered by dyad in parentheses
** $p < .05$; * $p < .10$

Table 11. Composite Instability and Territorial Claims: Random Effects Models

	Model 1 (Logit)	Model 2 (OLS)	Model 3 Logit	Model 4 (OLS)
Composite Systemic Instability	0.368**	0.012**		
	(0.06)	(0.00)		
Composite Regional Instability			0.603**	0.014**
			(0.11)	(0.01)
Border Not Settled	1.714**	0.069**	1.505**	0.066**
	(0.43)	(0.02)	(0.41)	(0.02)
Ruggedness	0.033		0.079	
	(0.22)		(0.19)	
Agricultural Suitability	0.213		0.205	
	(0.19)		(0.15)	
Buffer Area	0.137**		0.122**	
	(0.05)		(0.05)	
Latitude	0.031		0.063*	
	(0.04)		(0.03)	
Longitude	-0.072**		-0.033	
	(0.03)		(0.03)	
Rivers	-0.011		-0.005	
	(0.02)		(0.01)	
Defensive Alliance	-0.094	0.001	0.071	0.004
	(0.44)	(0.01)	(0.45)	(0.01)
Joint Democracy	-0.179	-0.009	-0.044	-0.006
	(0.31)	(0.01)	(0.34)	(0.01)
Constant	-5.691**	0.025**	-6.364**	0.021**
	(1.94)	(0.01)	(1.58)	(0.01)
Dyad Random Effects	Yes	No	Yes	No
Dyad Fixed Effects	No	Yes	No	Yes
N =	6476	6476	6424	6424
Year Random Effects	Yes	Yes	Yes	Yes
Include Major Powers	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

10 Alternative Measures of Great Power Internal Instability

In the main text, we report the systemic measure *% Great Power Inflationary Crises* and the regionally-weighted measure *Regional Great Power Civil Wars*. We do not report the regionally-weighted version of the inflationary crises measure or the systemic civil wars measure due to space constraints. We report both *Regional Great Power Inflationary Crises* and *% Great Power Civil War* in all the same model specifications as table X in the main text here to show that they perform very similarly.

11 Assessing Existing Systemic Measures: Delta-CON

While both the *Systemic Instability* measure developed by Gunitsky (2014) and the Delta-CON measure are based on the capability shifts among great powers, their correlation is only around 0.30. The Delta-CON measure is also good predictor of claim onset, which we note in the text in footnote Y in the section where we introduce the *Systemic Instability* measure. We choose to report the *Systemic Instability* measure as it is slightly more straightforward in computation, which also makes it relatively straightforward to develop a clear regional measure that is weighted by distance.

The Delta-CON measure is calculated as follows:

$$Con_t = \left(\frac{\sum_i^N S_{i,t}^2 - \frac{1}{N_t}}{1 - \frac{1}{N_t}} \right)^{\frac{1}{2}} \tag{1}$$

Where $S_{i,t}$ is the capabilities (CINC score) of great power i in time t and N_t is the number of great powers at time t.

$$\Delta CON_t = CON_t - CON_{t-1} \tag{2}$$

Recall that Gunitsky's measure is computed as:

Table 12. Systemic Instability and Territorial Claim Onset

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)
Regional Great Power Inflationary Crises				0.695** (0.26)	0.400* (0.24)	0.017* (0.01)				0.677** (0.14)	0.521** (0.15)	0.009** (0.00)
% Great Power Civil War	2.733** (0.74)	2.054** (0.65)	0.049** (0.01)				1.334** (0.39)	1.171** (0.37)	0.012** (0.00)			
Recent Conflict		0.247 (0.26)	0.006 (0.01)		0.062 (0.25)	0.004 (0.01)		-0.407** (0.17)	-0.005** (0.00)		-0.434** (0.17)	-0.004** (0.00)
Border Not Settled		1.631** (0.35)	0.078** (0.02)		2.174** (0.35)	0.091** (0.02)		1.474** (0.24)	0.031** (0.00)		1.463** (0.25)	0.028** (0.00)
Joint Democracy		-0.439 (0.53)	-0.008 (0.01)		-0.513 (0.51)	-0.008 (0.01)		-0.855** (0.39)	-0.003* (0.00)		-0.827** (0.34)	-0.003** (0.00)
Defensive Alliance		-0.377 (0.57)	-0.004 (0.01)		-0.212 (0.56)	0.003 (0.01)		-0.398* (0.22)	-0.000 (0.00)		-0.291 (0.21)	0.001 (0.00)
Latitude	0.088** (0.02)			0.089** (0.02)			0.002** (0.00)			0.002 (0.00)		
Longitude	-0.050** (0.02)			-0.038** (0.02)			0.007** (0.00)			0.004 (0.00)		
Buffer Area	0.116** (0.04)			0.100** (0.04)			0.001** (0.00)			0.001** (0.00)		
Constant	-3.531** (0.50)		0.021** (0.01)	-3.318** (0.48)		0.021** (0.01)	-3.942** (0.16)		0.014** (0.00)	-3.819** (0.14)		0.012** (0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
N =	6760	3316	6476	6402	3286	6210	49400	20796	49400	62580	24894	62580
Include Major Powers	No	No	No	No	No	No	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

$$Systemic\ Instability_t = |\frac{1}{N_t}\sum_{i}^{N} S_{i,t} - \frac{1}{N_{t-1}}\sum_{i}^{N} S_{i,t-1}| \qquad (3)$$

12 Assessing Existing Systemic Measures: S-scores

Table 14 contains results where we examine fluctuations in S-scores among great powers, where the S-scores are computed using alliance ties. S-scores are very similar to the seminal tau-b measure introduced by Bueno de Mesquita (1975) and are found by Signorino and Ritter (1999) and Bennett and Rupert (2003) to perform slightly better in predicting international conflict. The results suggest that S-scores are a fairly inconsistent predictor of claims, especially in Europe. Moreover, the S-score measure, while correlated at around 0.99 with the tau-b measure, is only correlated at about 0.10 with our key measures of systemic instability. All of this suggests that this measure is not effectively tapping into the regional and systemic turbulence we identify in our theory.

13 Assessing a Diversionary Explanation: Inflationary Crises in Potential Revisionist States

Following Mitchell and Thyne (2010), who analyze how domestic inflation affects militarization within contentious issue disputes, we assess the possibility that this idea works in the context of territorial claim onset in table 15. We use the same inflationary crisis measure discussed in the paper that we derive from (Reinhart and Rogoff, 2009), with the difference being that it is measured for each potential revisionist state rather than for the great powers. We focus on the models that include our *Systemic Instability* and *Regional Instability* measures (table 1 in the main text), although the results are similar for all of the models we estimate across the different measures of instability. In short, we do not find much support for the idea that inflation within potential revisionist states is associated with claim onset. Thus, it seems that this diversionary dynamic is more relevant to militarization of existing disputes (Mitchell and Thyne, 2010) than the onset of

Table 13. Delta-CON and Territorial Claim Onset

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)	Model 7 (Logit)	Model 8 (OLS)
Delta-CON	0.882**	0.557**	0.895**	0.035**	0.037**	0.760**	0.477**	0.012**
	(0.18)	(0.18)	(0.25)	(0.01)	(0.02)	(0.14)	(0.14)	(0.00)
Recent Conflict		0.236		0.006			-0.413**	-0.004**
		(0.26)		(0.01)			(0.17)	(0.00)
Border Not Settled		1.730**	1.758**	0.076**	0.067**		1.423**	0.028**
		(0.36)	(0.47)	(0.02)	(0.02)		(0.24)	(0.00)
Joint Democracy		-0.575	-0.463	-0.008	-0.008		-0.820**	-0.003**
		(0.46)	(0.29)	(0.01)	(0.01)		(0.36)	(0.00)
Defensive Alliance		-0.383	-0.278	-0.002	0.000		-0.358	0.001
		(0.57)	(0.47)	(0.01)	(0.01)		(0.22)	(0.00)
Terrain Ruggedness			0.163					
			(0.21)					
Agricultural Suitability			0.255					
			(0.18)					
Rivers			-0.010					
			(0.01)					
Latitude	-0.047**		-0.029			0.002*		
	(0.02)		(0.04)			(0.00)		
Longitude	-0.047**		-0.029			0.007**		
	(0.02)		(0.03)			(0.00)		
Buffer Area	0.101**		0.149**			0.001**		
	(0.04)		(0.05)			(0.00)		
Constant	-2.979**		-6.183**	0.029**	0.029**	-3.733**		0.015**
	(0.40)		(1.84)	(0.01)	(0.01)	(0.14)		(0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes	Yes	Yes
N =	6746	3316	6468	6468	6468	58740	23728	58740
Include Major Powers	No	No	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Table 14. S-Scores and Territorial Claim Onset

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)	Model 7 (Logit)	Model 8 (OLS)
S-Scores	1.833** (0.88)	-0.575 (1.00)	0.101 (1.16)	0.001 (0.01)	0.005 (0.02)	1.679** (0.39)	0.916** (0.46)	0.007** (0.00)
Recent Conflict		0.211 (0.27)		0.006 (0.01)			-0.453** (0.17)	-0.004** (0.00)
Border Not Settled		1.993** (0.40)	1.864** (0.52)	0.081** (0.02)	0.068** (0.02)		1.428** (0.24)	0.028** (0.00)
Joint Democracy		-0.698 (0.54)	-0.581* (0.30)	-0.009 (0.01)	-0.008 (0.01)		-0.817** (0.35)	-0.003** (0.00)
Terrain Ruggedness			0.199 (0.20)					
Agricultural Suitability			0.262 (0.18)					
Rivers			-0.008 (0.01)					
Latitude	0.084** (0.02)		0.053 (0.04)			0.002** (0.00)		
Latitude	-0.045** (0.02)		-0.014 (0.03)			0.006** (0.00)		
Buffer Area	0.102** (0.04)		0.148** (0.05)			0.001** (0.00)		
Defensive Alliance		-0.505 (0.68)	-0.319 (0.54)	-0.002 (0.01)	0.001 (0.01)		-0.256 (0.22)	0.000 (0.00)
Constant	-3.550** (0.55)		-6.386** (1.81)	0.028** (0.01)	0.026* (0.01)	-4.196** (0.19)		0.012** (0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes	Yes	Yes
N =	6760	3316	6476	6476	6476	62580	24894	62580
Include Major Powers	No	No	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

claims.

14 Assessing Models with Lagged Claim Onsets

Table 16 reports results that include a measure of lagged (by one year) dyadic claims. We report results for the composite measures of systemic and regional instability here, but the results for other measures are quite similar when a lagged dependent variable is included. Given that the results are very similar for our measures of interest, we relegate these models to the appendix rather than reporting them in the main text.

15 Exploring Systemic Instability with Year Effects

In this section, we explore whether we pick up known years of systemic instability with a year-fixed effects approach. The advantage of this approach is that we can let the data "tell us" whether specific years continue to explain claim-timing in a well-specified model without committing to a particular measure. The disadvantage, which is of course not trivial, is that we are not actually measuring systemic instability and thus are not able to say much of anything about what the source of instability is.

Year Effects: Fixed Effects and Varying Slopes Models

Having shown that ocular examination of the raw data is consistent with the broad trends in claim-making that our theory suggests, we turn to more systematic exploration of how systemic instability affects claim-making behavior. As in figure 5, we examine claim-making behavior across years to assess whether there is a robust effect that is plausibly the effect of systemic pressures. We start with the simplest possible regression model, estimating an OLS model (i.e., linear probability model) with year-fixed effects. A key advantage of OLS in this context is that we can also include dyad-fixed effects to condition out any important geographic factors, such as the presence of rivers or rugged terrain, as well as the presence of historical boundary precedents. Thus, we do not include any of the geographic controls or the measures of historical boundary precedents, as these

Table 15. Diversionary Inflation Crises and Territorial Claim Onset in Europe

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)
Systemic Instability	0.480**	0.389**	0.016**			
	(0.10)	(0.14)	(0.01)			
Regional Instability				1.043**	1.049**	0.026**
				(0.17)	(0.25)	(0.01)
Revisionist State	0.097	0.439	0.005	0.301	0.572	0.006
Inflationary Crisis	(0.32)	(0.38)	(0.01)	(0.31)	(0.38)	(0.01)
Buffer Area	0.080**			0.088**		
	(0.03)			(0.03)		
Latitude	0.079**			0.102**		
	(0.02)			(0.02)		
Longitude	-0.052**			-0.036**		
	(0.01)			(0.01)		
Recent Conflict		-0.074	0.002		-0.065	0.002
		(0.31)	(0.01)		(0.26)	(0.01)
Border Not Settled		1.723**	0.077**		1.721**	0.077**
		(0.35)	(0.02)		(0.38)	(0.02)
Defensive Alliance		-0.243	0.003		-0.061	0.007
		(0.54)	(0.01)		(0.48)	(0.01)
Joint Democracy		-0.561	-0.010		-0.331	-0.005
		(0.50)	(0.01)		(0.48)	(0.01)
Constant	-3.321**		0.010	-3.823**		0.010
	(0.41)		(0.01)	(0.43)		(0.01)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes
N =	6760	3316	6476	6759	3316	6475
Include Major Powers	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

Table 16. Including Lagged Onsets

	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)	Model 1 (Logit)	Model 2 (Logit)	Model 3 (OLS)	Model 4 (Logit)	Model 5 (Logit)	Model 6 (OLS)
Composite Systemic Instability	0.346**	0.371**	0.013**				0.168**	0.162**	0.002**			
	(0.07)	(0.06)	(0.00)				(0.02)	(0.03)	(0.00)			
Composite Regional Instability				0.501**	0.539**	0.015**				0.180**	0.103**	0.002**
				(0.13)	(0.12)	(0.00)				(0.05)	(0.05)	(0.00)
Recent Conflict		0.847**	0.010		0.742**	0.009		-0.366**	-0.004*		-0.606**	-0.005**
		(0.35)	(0.01)		(0.34)	(0.01)		(0.18)	(0.00)		(0.19)	(0.00)
Border Not Settled		2.490**	0.080**		2.481**	0.077**		1.345**	0.028**		1.208**	0.025**
		(0.83)	(0.03)		(0.83)	(0.03)		(0.27)	(0.00)		(0.27)	(0.00)
Joint Democracy		-0.366	-0.013		-0.460	-0.006		-1.080**	-0.004**		-0.718	-0.002**
		(1.08)	(0.01)		(1.29)	(0.01)		(0.41)	(0.00)		(0.46)	(0.00)
Lagged Claims	0.000	-13.797**	-0.026**	0.000	-13.762**	-0.028**	0.004**	0.000	0.000	0.003**	-0.000	-0.000
	(.)	(0.48)	(0.01)	(.)	(0.55)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Latitude	0.052			0.087**			0.002*			0.002*		
	(0.03)			(0.03)			(0.00)			(0.00)		
Longitude	-0.075**			-0.031			0.002			0.001		
	(0.02)			(0.02)			(0.00)			(0.00)		
Buffer Area	0.110**			0.089**			0.000**			0.001**		
	(0.05)			(0.04)			(0.00)			(0.00)		
Defensive Alliance		-0.342	0.004		-0.233	0.008		-0.282	0.001		-0.156	0.001
		(0.79)	(0.01)		(0.78)	(0.01)		(0.22)	(0.00)		(0.23)	(0.00)
Constant	-2.961**		0.011	-3.577**		0.018**	-3.779**		0.014**	-3.616**		0.013**
	(0.63)		(0.01)	(0.70)		(0.01)	(0.14)		(0.00)	(0.15)		(0.00)
Dyad Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
N =	3175	1340	3032	3125	1340	2982	45804	18541	45804	50765	19154	50765
Include Major Powers	No	No	No	No	No	No	No	No	No	No	No	No
Duration Cubic Polynomial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors clustered
by dyad in parentheses
** $p < .05$; * $p < .10$

time-invariant dyadic factors are soaked up in the fixed effect.[20] We also control for a number of time-varying dyadic variables such as whether the (potential) challenger and/or target is a major power, whether the two neighbors are both democracies, whether the two states share an alliance, and a cubic polynomial in the time since the last claim was made (or the "birth" of the dyad if no claims have been previously made). While previous studies of claim emergence have used cross-sectional designs, e.g., Abramson and Carter (2016) estimate the number of claims on spatial grid-squares, or small sections of a shared boundary as a unit of analysis, e.g., Goemans and Schultz (2017) estimate the probability a particular section of a shared boundary becomes disputed, our interest in claim-timing suggests a directed-dyad-year design. This approach allows us to assess whether and why each member of a dyad makes a claim or not in a given year.[21]

Our estimates, shown graphically in the appendix, show a persistent effect for systemic factors. The year fixed effects for which a statistically significant marginal effect is estimated again overlap with years that are associated with systemic crisis: the Revolutions of 1848, the Crimean War in 1853, the Austro-Prussian (1866) and Franco-Prussian (1870) wars, the periods before and after World War II, with large systemic effects before, during and especially after World War I. Theoretically, the outsized importance of World War I makes a great deal of sense as this period was arguably un-paralleled over the time period in study in terms of how much systemic instability it exhibited (see Tooze (2014) for much evidence that this was the case).

While the year-fixed effects specification shows that years associated with systemic turmoil retain significant effect even when we condition out dyad-fixed effects and a number of additional variables, the dyad-fixed effects do not provide a very good basis for understanding what interests underly the latent claims that are being activated at these specific periods of time as all geographic or historical factors are subsumed.[22] Accordingly, a different modeling approach is needed if we are to unpack how the value of a potential claim interacts with systemic instability to influence claim-timing. We employ varying slopes models that allow a unique estimate of the relationship

[20]While these variables are of theoretical interest, in this particular model our interest is in examining the year-effects. We explore the effect of historical boundary precedents and dyad-specific geographic features below.

[21]As with all regression models in this paper, we cluster our standard errors by dyad as within-dyad observations are not independent.

[22]It is typical for measures of territorial value or salience to be time-invariant. For instance, the measures of a piece of territory's strategic importance and economic value in Huth (1996) are time-invariant, and the salience index in the ICOW data Hensel (2013) is also a static measure.

between a measure of territorial value, e.g., historical border variability, and claim onset in each year. We briefly summarize the results here, and report the results of two model specifications in the appendix.[23] The results show that the effect of historical boundary precedents on claim onset in Europe is large and positive in the same set of years that have been shown to be associated with claim-making in figure 5 and in our year-fixed effects specification, while the estimates are not significant in years without major systemic events. Moreover, the findings are largely unchanged when we include our full set of pre-treatment controls, or also include dyadic measures such as whether the two neighbors are democratic, are a "new dyad" because one or both states entered the system within the last two years, whether the neighbors are allies, in addition to several other controls.

As highlighted on pages 24–25 of the manuscript, our first cut at assessing the influence of systemic factors on claim-timing is to estimate a well-specified year-fixed effects model. Thus, we are able to assess whether the temporal patterns that emerge in figures 3 and 4 in the main text remain after conditioning out a number of other factors. We start with the simplest possible regression model, estimating an OLS model (i.e., linear probability model) with year-fixed effects. A key advantage of OLS in this context is that we can also include dyad-fixed effects to account for any time-invariant variables that affect claim onset in addition to year-fixed effects. Importantly in our context, dyad-fixed effects condition out any important geographic factors, such as the presence of rivers or rugged terrain, as well as the presence of relevant historical boundaries. Additionally, we control for whether the (potential) challenger and/or target is a major power, whether the two neighbors are both democracies, whether the two states share an alliance, and a cubic polynomial in the time since the last claim was made (or the "birth" of the dyad if no claims have been previously made). Since we estimate dyad-fixed effects, we do not include any of the geographic controls or the measures of historical boundary precedents, as these are soaked up in the fixed effect.[24]

Figure 1 plots the marginal effect of each year fixed effect on the probability a claim is activated. The estimates in the plot show a persistent effect of systemic factors, even after including dyad-

[23]We focus on the Historical Border Variability measure, as alternative measures such as the number of historical precedents perform very similarly. Moreover, measures that also account for other factors such as economic value do not perform very well. This is consistent with the findings of Abramson and Carter (2016) in Europe.

[24]While these variables are of theoretical interest, in this particular model our interest is in examining the year-effects. Dyad-fixed effects are a nice approach in this specific model because they ensure that we do not omit any time-invariant factor that makes a particular border area valuable.

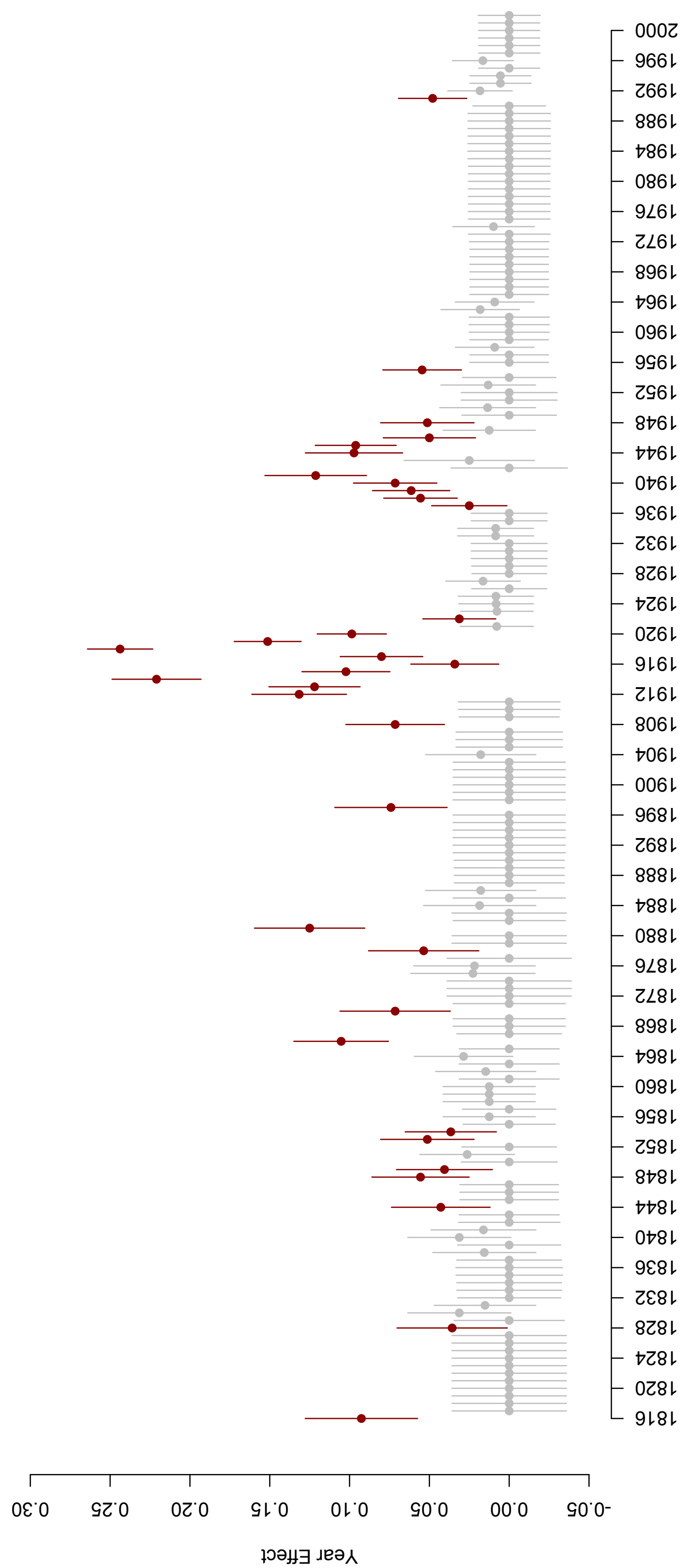

Figure 1. Marginal Effect of Years on Territorial Claim Onset

fixed effects and several other substantive variables.[25] Moreover, the years in which a significant marginal effect is estimated largely overlap with the years where we observe a spike in claim-making in the raw data. The years that are labeled in red on the x-axis reach statistical significance at the 0.10 level. We observe especially large systemic effects before, during and especially after World War I, which is exactly what the raw data also suggests. Theoretically, this makes a great deal of sense as this period was arguably un-paralleled over the time period in study in terms of how much systemic instability and uncertainty it exhibited. Other times of systemic instability are also quite familiar, with the Revolutions of 1848, the Crimean War in 1853, the Austro-Prussian (1866) and Franco-Prussian (1870) wars, the beginnings of the Scramble for Africa (1881), and the periods before and after World War II also standing out. In sum, figure 1 provides evidence of a persistent and non-trivial systemic effect that remains despite conditioning out all territorial characteristics with fixed effects.

16 Year Effects and Historical Boundary Variability: A Varying Coefficients Approach

The year-fixed effects specification summarized in figure 1 shows that years associated with systemic turmoil retain significant effect even when we condition out dyad-fixed effects and a number of additional variables. However, the dyad-fixed effects model does not provide a very good basis for understanding what interests underly the latent claims that are being activated at these specific periods of time as it conditions out all geographic or historical factors that influence the value of potential claims.[26] Accordingly, a different modeling approach is needed if we are to unpack how the value of a potential claim (i.e., τ in the theoretical model) interacts with systemic instability to influence claim-timing. To empirically assess how the value of potential claims interacts with systemic instability we employ varying coefficients models that essentially interact year-specific effects with our measures of territorial value. Here we depict graphically the results for the varying

[25]The only statistically significant variable besides the cubic polynomial in time since the last claim is the indicator of whether the potential revisionist state is a major power or not. The coefficient on this variable is positive and significant at the 0.10 level.

[26]It is typical for measures of territorial value or salience to be time-invariant. For instance, the measures of a piece of territory's strategic importance and economic value in Huth (1996) are time-invariant, and the salience index in the ICOW data Hensel (2013) is also a static measure.

slopes models of claim-timing described on pages 24–25 in the main text.

Specifically, the varying slopes models allow us to evaluate the simultaneous effects of measures of the value of a potential claim as well as systemic instability by allowing the effect of measures like historical border variability on claim onset to vary year-to-year. We estimate mixed effect models models of claim onset that take the following form:

$$\Pr(\text{Dispute}_{it} = 1|X) = \text{logit}^{-1}(\beta_0 + \beta_{1,t} BorderVariability + \mathbf{X_i}'\beta_{\mathbf{2}}). \tag{4}$$

For each year t we obtain a unique estimate of the relationship between border variability and claim onset, $\hat{\beta}_{1,t}$.[27] We report the results of two model specifications in figure 4. Each of the sub-figures depicts the effect of historical boundary precedents in each specific year after 1815.[28] The years that reach statistical significance at the 0.10 level are depicted in blue, while all other years are depicted in grey. The first panel, labeled "Model 1" only includes the time-varying effect of Historical Border Variability, along with essential controls such as the mean density of historical boundaries, our control for buffer area, latitude and longitude, and the cubic polynomial in time since the last claim. Examination of the results of this baseline model shows that the effect of historical boundary precedents on claim onset in Europe is large and positive in the same set of years that have been shown to be associated with the bulk of claims above. The years in which the effect of historical boundary precedents is statistically significant are 1848, 1870, the periods prior to World War I and World War II, and the end of the Cold War. This picture remains largely unchanged in the next panel, labeled "Model 2", where we add our full set of controls: agricultural suitability, terrain ruggedness, river density, urban population, iron production centers, longitude, latitude, the size in squared kilometers of each buffer unit, whether the neighbors are allies, whether the two states are both democratic, whether the dyad is "new", and whether the states in the dyad were involved in a war that just ended.

[Figure 3 about here.]

[27] We assume that $\beta_{1t} \sim (0, \sigma^2)$.

[28] We focus on the Historical Border Variability measure here, as alternative measures such as the number of historical precedents perform very similarly.

17 A Two Period Model of Systemic Instability and Claim-Timing

To gain clarity over the strategic dynamics of systemic turmoil and the timing of territorial claims, we develop and analyze a two-period model of claim timing. The model has three players: a revisionist state (R) with a latent claim, a great power (G) with interest in maintaining regional stability, and finally Nature (N), who chooses whether the system is in crisis or not in each period. We first outline the sequence of play in the game, then specify the revisionist state's and great power's utility functions by connecting the model to the key insights produced by work on the emergence of territorial claims (Huth, 1996; Carter and Goemans, 2011; Goemans and Schultz, 2017; Abramson and Carter, 2016). Our objective is to build the simplest possible model of claim timing that incorporates recent theoretical insights about why leaders choose to activate territorial claims while also clarifying the connections between systemic instability, great power involvement, and the timing of territorial claims.

Consider a two-period game in which a revisionist state has a latent territorial claim it wishes to make and a great power seeks to preserve the status quo. In both rounds, the revisionist state decides whether to make a territorial claim, the great power must balance the imperative of dealing with crises that threaten the stability of the system, and also reacts to challenges to the territorial status quo, which are also potentially destabilizing. In the first round, Nature chooses whether the system is in crisis ($\omega = C$) or is stable and devoid of major crisis ($\omega = S$). If the system is in crisis in the first period, we assume that the great power addresses the crisis, as systemic instability poses a real threat to the maintenance of its regional and international position.[29] After observing the system status, the revisionist state decides whether to activate its latent claim ($\sigma = 1$) or not ($\sigma = 0$). If R activates its latent claim, then G subsequently decides whether to oppose the claim ($\nu = I$), which imposes costs on R, or to refrain from intervening ($\nu = \neg I$). These costs, and the character of intervention range from relatively low cost interventions such as diplomatic protest to more costly actions such as economic sanctions or military intervention, e.g., British intervention in the Crimean War. If R makes its claim, we assume that the game does not move to the second period, as the latent claim has already been made.[30]

[29] Giving the great power the option of not addressing the systemic crisis does not change our key findings, but does complicate the model unnecessarily.

[30] It is of course possible to assume that R might have multiple latent claims, but adding a second round following

If no claim is made, the first round ends and both R and G enter the second period of play. The second period differs from the first period only in that Nature chooses the system status via a lottery. Thus, with probability p, the system faces major crisis ($\omega = C$) and with probability $1 - p$ the system is stable ($\omega = S$). The sequence of play is identical to that in the first round after Nature chooses these probabilities. We model a lottery over system status in the second round so that in the first round R decides whether to make a claim or not without knowing for sure whether the system will be rife with turmoil in the second round.

Great Power Interests: System Status and Territorial Revisionism

The great power's payoffs reflect its concern with maintaining the current status quo from which she benefits. As has been noted by theorists such as Ikenberry (2001), great powers that sit atop the prevailing order receive numerous benefits from this position. Accordingly, a great power hegemon's foreign policy is shaped by constant work at maintaining both its position atop the system and at maintaining the stability of the status quo. We capture the great power's benefit from sitting atop the system with a payoff $\theta > 0$, which G receives in each round that the current system persists. The parameter θ is meant to capture a wide range of security and economic benefits to hegemony.[31] Given the benefits associated with being a manager of the current system, we assume that if the system is in crisis ($\omega = C$) that G will intervene to attempt to preserve the current system and will be successful in weathering systemic instability and retaining its systemic payoff θ with probability q, losing θ with probability $1 - q$. The parameter $q \in (0, 1)$ has a natural interpretation as an indicator of the severity of systemic instability. Thus, as $q \to 1$ the crisis becomes less of a threat to system stability, while as $q \to 0$, the crisis becomes increasingly severe. Intuitively, we can think of a crisis such as the Belgian revolution as an example of systemic turmoil that was relatively "easy" to deal with, i.e., a high value of q, while the conflict and instability in the run-up to World War I was a relatively severe bout of systemic instability, i.e., a lower value of q.[32]

a claim to allow for this does not lead to different conclusions, only adding unnecessary complexity to the model.

[31] It is of course possible for there to be multiple great powers that might intervene or collaborate on intervention via an institution, e.g., the Concert of Europe, NATO or the United Nations Security Council. However, for simplicity we model one actor while recognizing that this could be a single powerful state or multiple great powers with shared interests.

[32] We can also assume that G pays some cost for systemic maintenance when $\omega = C$, but inclusion of this cost term is irrelevant as it always cancels out when G makes utility comparisons. In other words, since it is paid regardless of whether G decides to intervene in R's claim or not, it has no influence on G's behavior and we leave it out to simplify.

If R activates a latent claim and G chooses to actively oppose the claim, the great power incurs a cost $k > 0$. Great power interventions range from the highest cost actions such as direct military intervention to options like economic sanctions, e.g., the array of costly sanctions imposed on Russia after the annexation of Crimea in 2014, or diplomatic protest. If R activates its latent claim and G decides not to oppose the claim, G's systemic payoff θ is weighted by $\pi \in (0, 1)$, which reduces it by some amount. The parameter π captures the fact that the great power has a general interest in maintenance of the status quo, which is harmed by destabilizing and violence-prone territorial claims. Thus, seeing a claim made and doing nothing to oppose it erodes G's reputation as manager of the existing order.[33]

It is quite plausible to think of the cost of actively opposing a claim, k, to vary as a function of the capabilities of the revisionist state, as claims can be made both by small states and by other great powers. If we think about k increasing in R's power status, then this would push against intervention against claims by major powers. However, it is also quite plausible to think that π varies as a function of the capabilities and power of the revisionist state, as claims by major powers should have greater potential to disrupt the existing order relative to claims by smaller states. If this is the case, then the affect of great power status on G's decision to actively oppose a claim or not is unclear, as the higher cost in terms of k when R is a major power may be offset by great disruption to the system via a lower π. We leave these possibilities as empirical questions and investigate them below.

Revisionist States and the Incentive to Activate Latent Claims

The revisionist state's payoffs reflect the fact that it can benefit from activating a latent claim, but wants to avoid very costly claims. We capture the benefit associated with activation of a latent claim with the parameter $\tau > 0$. For states with relatively attractive latent claims, there are several benefits associated with formally making a territorial claim. Formally making a claim

[33] It is also possible to think of claims as increasing the probability of subsequent systemic instability. This would necessitate a model of at least two periods in which R's claim in the first period does not terminate the game, but can increase the probability of systemic instability in the second period (which could presumably encourage another claim). This more complicated model, while appealing in its somewhat finer substantive detail, does not lead to different general conclusions. In fact, if we allow claims to contribute to the probability of subsequent systemic instability this only increases the great power's incentive to intervene to block them, which provides revisionist states further incentive to reserve claims for years of significant turmoil when great powers are less interested in intervention.

is almost always the initial step that a state will make if it hopes to ever gain territory it sees as part of the homeland in a manner that the international community might view as legitimate. Thus, if R prospectively wants to integrate a piece of territory into her state, making a claim over it is usually a necessary step, unless R is willing to shoulder the risks and costs associated with attempting to take it via fait accompli (Altman, 2017). Moreover, there are almost always domestic political benefits to activating an attractive latent territorial claim, especially when claims bound remembered historical boundaries that facilitate connection to national identity (Abramson and Carter, 2016; Carter, 2017; Goemans and Schultz, 2017). Thus, leaders stand to gain from publicly making claims to territory viewed as part of the "homeland", a point made by numerous scholars (e.g., Huth (1996); Goemans and Schultz (2017)).

Finally, given the various benefits of making a latent territorial claim active, it is important to note that there are reasons for states with such claims to activate them sooner rather than later. As latent claims sit unactivated for longer periods of time, they become less attractive and are viewed with less credibility and legitimacy. Every year a latent claim is not made the state that currently administers the territory works to further consolidate its control over the land. Moreover, the idea that claims are made along historical precedent due to the persistent effects of these old boundaries implies that such claims become less attractive as time passes, which Abramson and Carter (2016) provide evidence of. These points suggest that the payoffs associated with a territorial claim depreciate across time, a dynamic we account for with the parameter $\phi \in (0, 1)$. We assume that if no claim is made by R in the first period that the benefit of making a claim in the second period depreciates to $\phi\tau$. The ϕ parameter specifies how the benefits associated with a territorial claim depreciate across time, which suggests why states with a latent claim have incentive to activate the claim as soon as conditions are favorable.

To account for the influence of great power intervention on R's claim-making, we specify a cost to making a territorial claim and also allow the cost to vary depending on whether a great power hegemon actively opposes it. The cost of a territorial claim is specified as $c(\nu) > 0$, where we assume that $c(I) > c(\neg I)$, which indicates that R pays a higher cost for making a claim when the great power intervenes.[34]

[34] We also note that it is plausible that the status of the revisionist state and the target of its territorial claim affect the associated cost. Thus, to capture this possibility we could scale the cost parameter by $\rho \in (0, 1)$ when R is also

Systemic Instability and Claim-Timing in Equilibrium

We now turn to analysis of the equilibrium behavior of the great power and revisionist state, with a focus on deriving empirical implications. Our primary focus here are the conditions under which revisionist states with attractive latent claims will quickly make a claim as opposed to waiting. Accordingly, the results of greatest interest are those that clarify the dynamics of claim-timing by revisionist states. Thus, we discuss the effects of systemic turmoil and other factors that affect great power behavior largely with an interest in clarifying their influence on the revisionist state's claim-making behavior. Two sets of results are of the greatest theoretical interest. First, how is the revisionist state's claim-making behavior affected by the great power's propensity to actively oppose a claim and what role does systemic turmoil play? Second, under what conditions is the revisionist state willing to wait to make its claim to try to avoid great power intervention? In sum, our primary interest is in the conditions under which systemic turmoil contributes to an increased tendency for revisionist states to activate latent claims.

We analyze our two-period model of claim-timing with the sub-game perfect equilibrium refinement. As play is sequential and the players have complete and perfect information, there is a unique equilibrium in pure strategies for any distribution of the model's parameters.[35]

Systemic Uncertainty and Great Power Intervention

We start by outlining several findings for great power behavior that clarify key dynamics. First, the condition on intervention to oppose R's claim is always weaker, i.e., easier to satisfy, when the system is stable relative to when the system is in crisis. To see this, note that the intervention condition for G can always be written as an inequality on π, which is the reduction in systemic payoff θ that G suffers from an unopposed territorial claim. When the system is in crisis, or $\omega = C$,

a major power, and scale the cost by $\alpha > 1$ when R is not a major power and targets the territory of a major power with its claim. While these parameters make substantive sense, their inclusion does not affect our key results, as they apply (or do not apply) to a potential claim regardless of whether the great power intervenes or not, i.e., they rescale $c(\nu)$ in the same manner regardless of the value of ν. Accordingly, we exclude them to keep the model as simple as possible.

[35] Mas-Colell, Whinston and Green 1995, 276. The only additional requirement for this result to hold is that no player be indifferent over two possible actions. We assume that when R is indifferent it chooses to not to make a claim, while G chooses not to intervene when indifferent. See the appendix for a full characterization of the sub-game perfect equilibrium.

the intervention condition is

$$\pi < 1 - \frac{k}{q\theta}. \tag{5}$$

Thus, in order for intervention under systemic instability to be worthwhile for the great power, the reduction in payoff it would face from inaction has to be less than one minus the ratio of the cost of intervention to the systemic payoff. Note that the systemic payoff θ is weighted by q, which indicates that it is weighted by the severity of the instability, i.e., the probability G will remain atop the system. The intervention condition when the system is not in crisis, or $\omega = S$, is

$$\pi < 1 - \frac{k}{\theta}. \tag{6}$$

The condition in equation 6 is very similar to that in equation 5, with the only difference being that G's systemic payoff is not weighted by q when $\omega = S$. Moreover, it is trivial to see that the right-hand side (RHS) of the inequality in equation 6 is always larger than the that in equation 5 as long as $q < 1$. The fact that G's intervention condition is always more difficult to satisfy under instability is interesting as it is not the result of assumptions about differential costs, but rather derives from the fact that receipt of the systemic payoff θ is no longer assured, i.e., G retains it with probability q. Thus, if a systemic crisis is so severe that G is unlikely to retain its position, paying additional costs to stave off further reductions in θ that result from R's territorial claim, i.e., π, is not worthwhile. This also implies that when the inequality in equation 7 holds G's intervention choice is conditional on system status, meaning it will intervene when $\omega = S$ but refrain when $\omega = C$.

$$1 - \frac{k}{q\theta} < \pi < 1 - \frac{k}{\theta}. \tag{7}$$

The inequality in equation 7 becomes easier to satisfy as the systemic instability in question becomes more severe, meaning that $q \to 0$. Thus, as the probability that the great power manager is able to effectively deal with system-level instability decreases, its interest in paying costs to actively oppose revisionist territorial claims also decreases.

The great power's intervention conditions have implications for what strategies can be optimal for it across periods. We summarize these implications with the following remark:

Remark 1. *If G intervenes (plays $\nu = I$) in period 1 when the system is in crisis ($\omega = C$), G will always intervene (play $\nu = I$) in period 2.*

In other words, remark 1 states that it is not possible to intervene in the first round when facing systemic instability and to subsequently not intervene as the great power already found it optimal to intervene under the most difficult possible circumstance.

Systemic Uncertainty and the Timing of Territorial Claims

It is useful to note that we can identify three kinds of revisionist states in our theoretical model depending on the distribution of parameters: states that will never find it beneficial enough to activate latent claims (a passive revisionist state), states that will always immediately activate their claims (an aggressive revisionist state), and states that are potentially willing to activate a latent claim but will wait until a period in which the great power refrains from intervention (a willing revisionist state). Revisionist states that are willing to make a claim conditional on the great power refraining from intervention are the most interesting cases, as these are the states that presumably drive observed temporal variation in claim-making activity that coincides with systemic crises.

The tradeoff for willing revisionist states in deciding whether to immediately make a claim or wait is that they want to both avoid the costs of great power intervention and the depreciation of their payoff from delay. Thus, when deciding whether to make its claim in the first period or not, the prospect of great power intervention is what keeps an otherwise willing revisionist state from making a claim in period 1. Accordingly, a willing revisionist state will never wait to make a claim if it faces no great power intervention in period 1.

Remark 2. *R will never refrain from making a claim (play $\sigma = 0$) in period 1 and then make a claim (play $\sigma = 1$) in period 2 if: a.) G does not intervene in period 1 (plays $\nu = \neg I$), or b.) the system is in crisis ($\omega = C$) and G intervenes in period 1 (plays $\nu = I$).*

Comparison of R's utility for making a claim in period 1 to waiting until period 2 under all relevant scenarios makes clear why Remark 2 is true. Regardless of system status, for Remark 2a to be true the following has to hold for waiting to make sense, assuming the best case scenario for R in period 2: $\tau - c(\neg I) > \phi\tau - c(\neg I)$, which reduces to $\tau > \phi\tau$. Given that $\phi \in (0, 1)$, this inequality never holds. In words, the depreciation of τ by ϕ, even if very small (i.e., suppose $\phi \to 1$), makes waiting costly in the absence of some other change in payoffs in the second period. The comparison for Remark 2b to hold is identical, as the costs of making a claim ($c(I)$ in this case) again cancel out.

The revisionist state's increased willingness to make claims when the system is in turmoil (and intervention less common) is reflected clearly in its decision over whether to wait to activate a latent claim until the second period. The influence of system status on the revisionist state's claim-making behavior is most starkly seen in the following corollary to Remark 1.

Corollary 1. *A "willing" R will never wait until the second period to make a claim when the system is in crisis ($\omega = C$) in the first period.*

In other words, willing revisionist states *only* wait to make a claim when the system is stable. Given that the benefit of activating a claim (τ) depreciates across periods by ϕ, R has no reason to wait to make a claim unless the costs have some chance of going down to compensate. Thus, the only reason to wait is in expectation that the cost of making a claim with intervention, $c(I)$, will reduce to $c(\neg I)$ in period 2. Systemic instability does all of the work here as it 1.) reduces the great power's willingness to intervene, which 2.) provides a willing revisionist state with incentive to try to wait to make claims when the system is in turmoil and the costs imposed by intervention might disappear. This is interesting as we did not assume any direct benefit or cost difference conditional on ω for the revisionist state.

The most substantively interesting case is the condition under which R will hold out and not make a claim when the system is stable in period 1, but will make a claim if the system is in crisis in period 2. Note that this is only possible if the inequality in equation 7 holds for the great power as well. As Remark 2 notes, there is no incentive to wait when there is no possibility that the great power will change its behavior (in a way favorable to R) across periods. Thus, waiting until period 2 to make a claim, and paying the depreciation costs implied by ϕ, only makes sense when the possibility of systemic turmoil implies avoiding great power intervention in period 2 when intervention would occur in period 1. Specifically, the following condition must hold for the revisionist state for waiting to make a claim worthwhile:

$$\phi > 1 - \frac{p(c(I) - c(\neg I))}{\tau}, \text{ or rearranging,} \tag{8}$$

$$p > \frac{\tau(1-\phi)}{c(I) - c(\neg I)}. \tag{9}$$

The condition identified in equations 8–9 clarifies how the revisionist state's decision to wait on making a claim or not hinges on the value of an active claim, how much this value depreciates across periods, the costs associated with great power intervention, and the probability that the system will be embroiled in crisis in the future. The inequality in equation 9 is especially interesting, as it pins down the exact relationship between the prospects of future systemic turmoil, p, and the ratio of difference in the depreciated payoff from making a claim to the difference in costs across the two periods. Thus, if the difference in costs, i.e., $c(I) - c(\neg I)$ are greater than the difference in payoff τ across periods, i.e., $\tau(1 - \phi)$, then it is possible for waiting to pay as the RHS of equation 9 is less than 1. However, if ϕ is so large that the difference in benefit from making a claim across periods outweighs the additional costs imposed by the great power, then the RHS of equation 9 is greater than 1, meaning waiting is never optimal. In sum, our model of claim timing leads us to expect that *the activation of territorial claims will cluster during periods of systemic instability.* All of the results summarized thus far provide theoretical foundation for this expectation.

Characterization of Subgame Perfect Equilibrium

Here we outline a proposition that summarizes equilibrium behavior in the game:

Proposition 1. *The following constitutes a unique SPE to this game:*

1.) If $\pi \geq 1 - \frac{k}{q\theta}$, G always refrains from intervention and R will always make a claim in the first period if $\tau > c$, and never make a claim otherwise.

2.) If $1 - \frac{k}{q\theta} < \pi < 1 - \frac{k}{\theta}$ G refrains from intervention when $\omega = C$ but intervenes when $\omega = S$.

R will always make the claim in the first period if $\tau > c_I$, only makes a claim when $\omega = C$ if $c_I > \tau > c$ and will wait to make a claim in the second period if $\omega = S$ in period 1 and $p > \frac{\tau(1-\phi)}{c_I - c}$. R will never make a claim if $\tau < c$.

3.) If $\pi < 1 - \frac{k}{q\theta}$ G will always intervene and R will always make a claim in the first period if $\tau > c_I$ and will never make a claim otherwise.

Recall that knife-edge cases are dealt with by assuming that G does not intervene when indifferent and R does not make a claim when indifferent.

18 Results of Oster's Test for Selection on Unobservables

We summarize the results of the test for selection on unobservables in table 19. For each of the measures of systemic and regional instability reported in the main text, we assess how sensitive they are to selection on unobservables using the recommended threshold for observational studies suggested by Oster (2017).[36] Oster's test is a more general version of the influential test for sensitivity to selection on unobservables developed by Altonji, Elder and Taber (2005) and rests on the assumption that selection on unobservables is *proportional* to selection on unobservables.[37] The test identifies the estimate with proportional selection on unobservables by using changes both in the estimated coefficient of interest and the model R^2 moving from a bivariate regression model with only the variable of interest, e.g., Systemic Instability, and the fully specified model.

The results in 19 show that the treatment effect remains fairly stable and large across all of the measures. While certainly not a definitive test of whether we have uncovered a true causal effect, this does provide more evidence that the effects of our measures of instability are real and fairly stable in the face of sensitivity analysis.

[Table 3 about here.]

[36] Oster uses all observational studies in four of the top economics journals to develop the upper bound on R^2 for the test.

[37] Prior versions assumed equality.

19 Additional Plots of Claim-Making Across Time

In this section, we provide a number of additional figures with plots of claim-making across time. The plots are generally quite similar to those reported in the main manuscript, but are relegated to the appendix for reasons of space. The plot in figure 5 shows the unconditional probability of a claim arising within a dyadic pair in a given year.[38] This plot is similar to figure Y in the main text that shows the number of claims in each year, with the difference being the quantity plotted and the fact that we do not distinguish among claims by great powers and claims by small states in this plot. These raw probabilities further highlight a high degree of temporal clustering as more than half of all claims are made in just five percent of all years. Moreover, these years correspond with known systemic events: the Congress of Vienna, the Romantic Revolutions, the Revolutions of 1848, the Franco-Prussian War, the Two World Wars, the break-up of the Soviet Union, and so on.

[Figure 4 about here.]

The plots in figures 6–12 plot our different measures of systemic instability by year against the number of claims. Thus, the plots are essentially just like figure X in the manuscript that plots the *Systemic Instability* measure and figure Y that plots the *Composite Systemic Instability* measure. While the plots all differ somewhat in how closely a given measure seems to track with claim-making (see table 1 for all pairwise correlations) as they often highlight distinct years of instability, in general they all show a relationship.

[Figure 5 about here.]

[Figure 6 about here.]

[Figure 7 about here.]

[Figure 8 about here.]

[38] In a given year t, this is simply $\frac{\#ofClaims_t}{\#ofDyads_t}$

[Figure 9 about here.]

[Figure 10 about here.]

[Figure 11 about here.]

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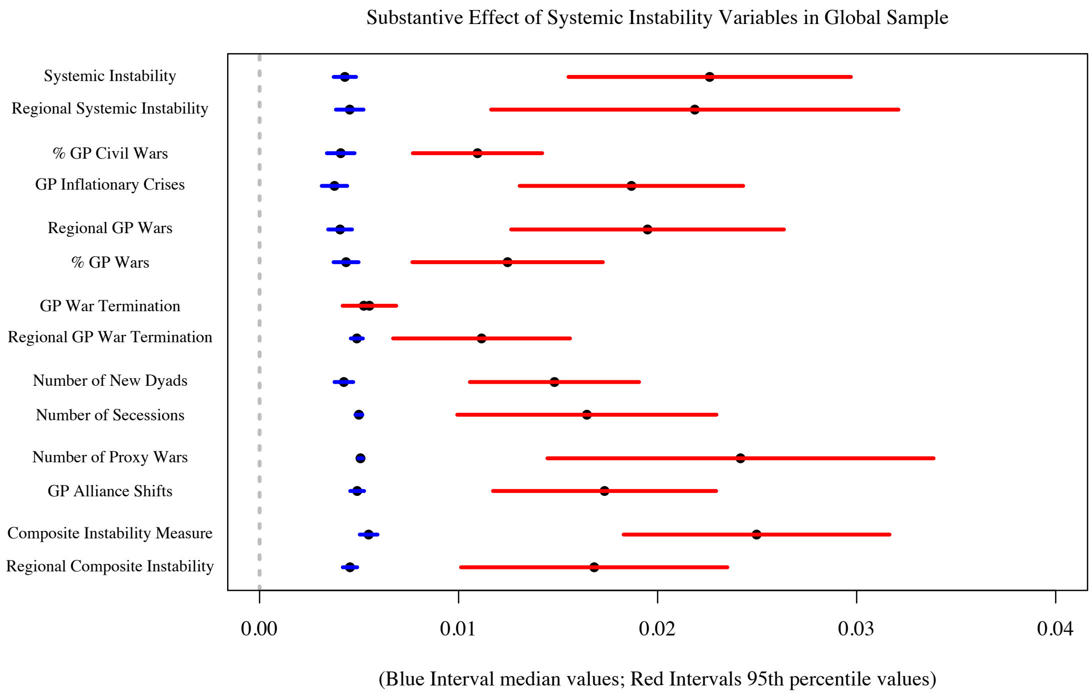

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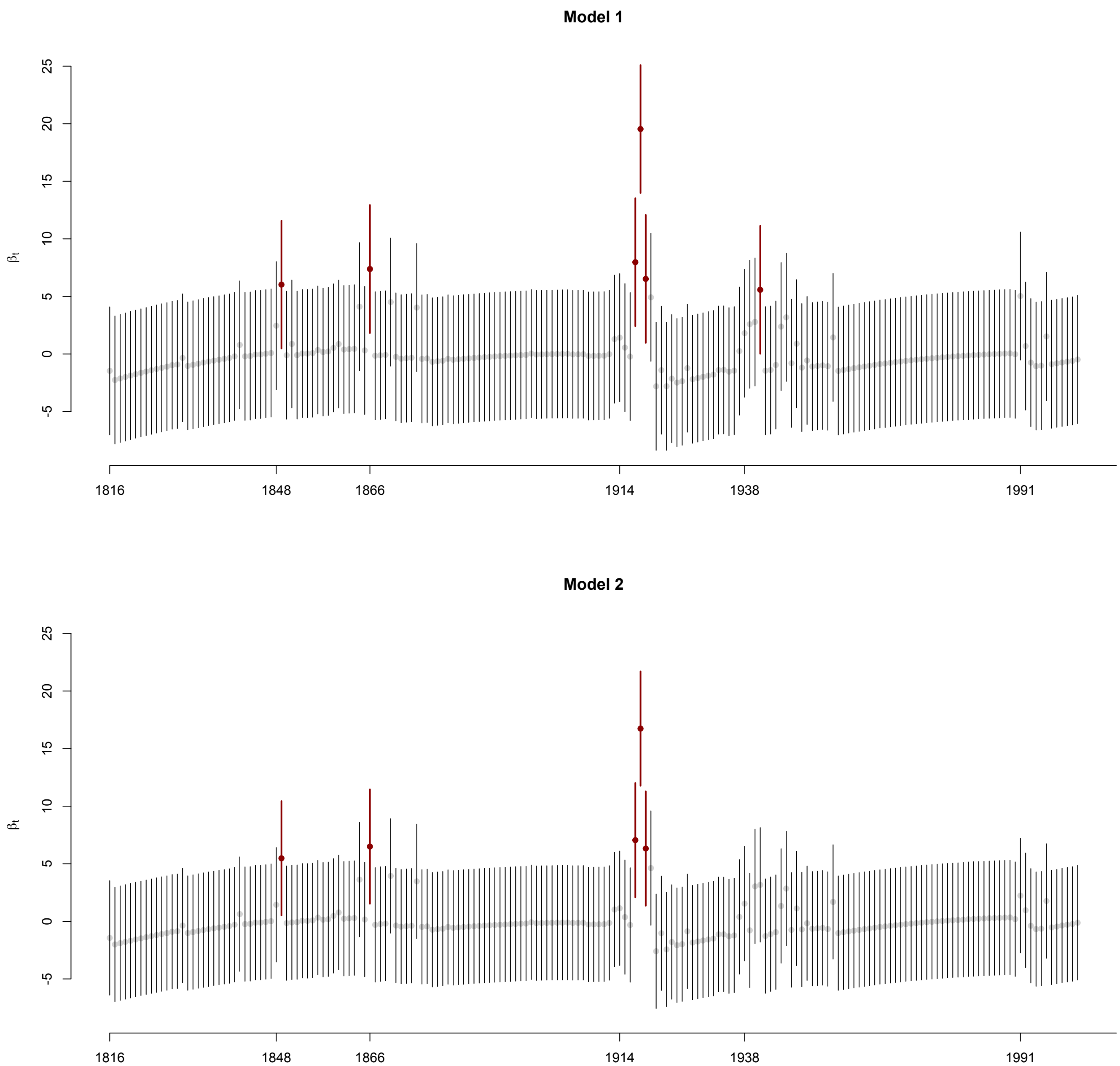

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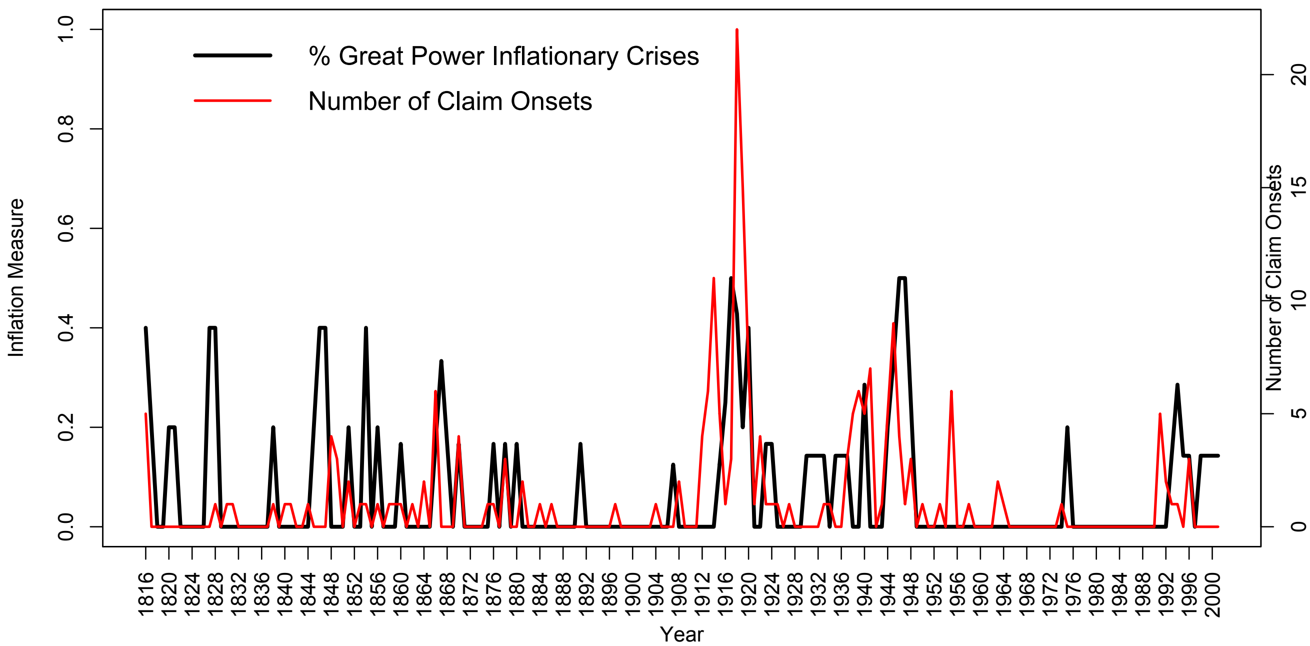

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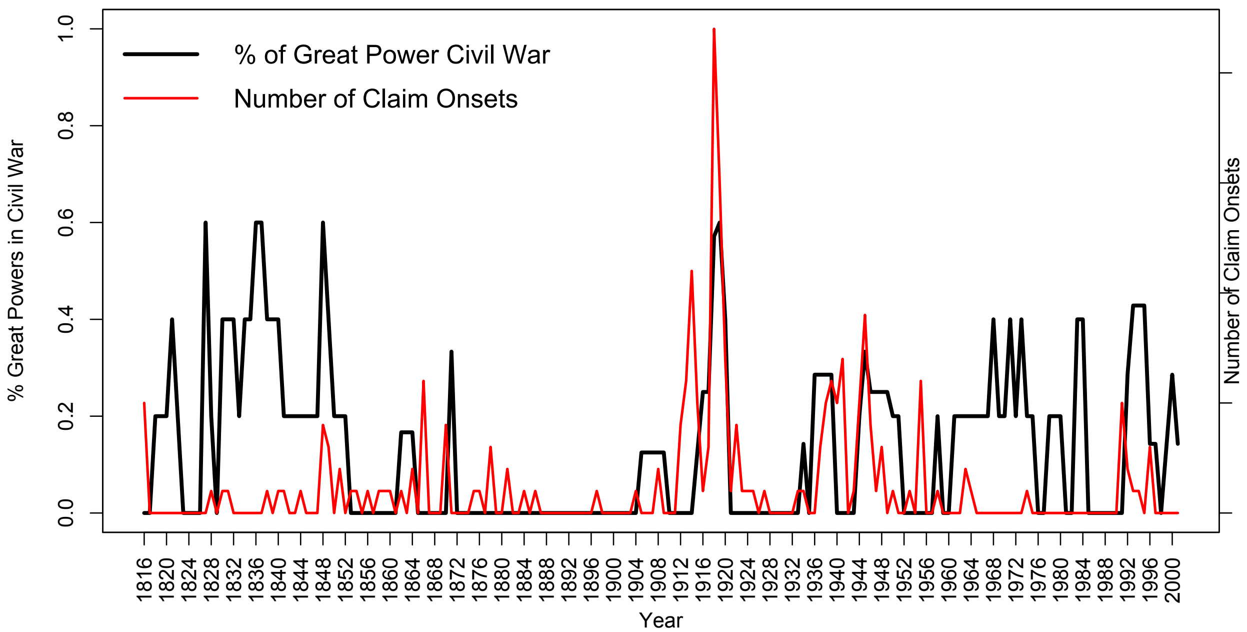

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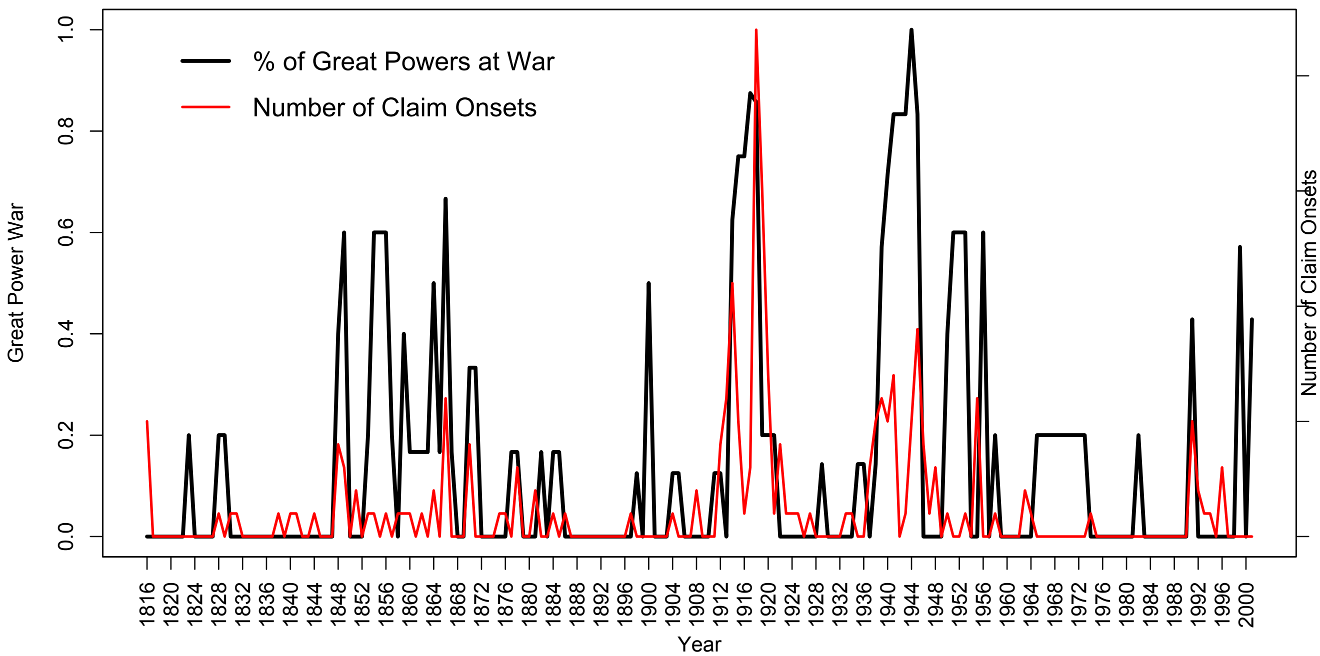

Figure 8. Great Power Wars and Territorial Claims, 1816–2001

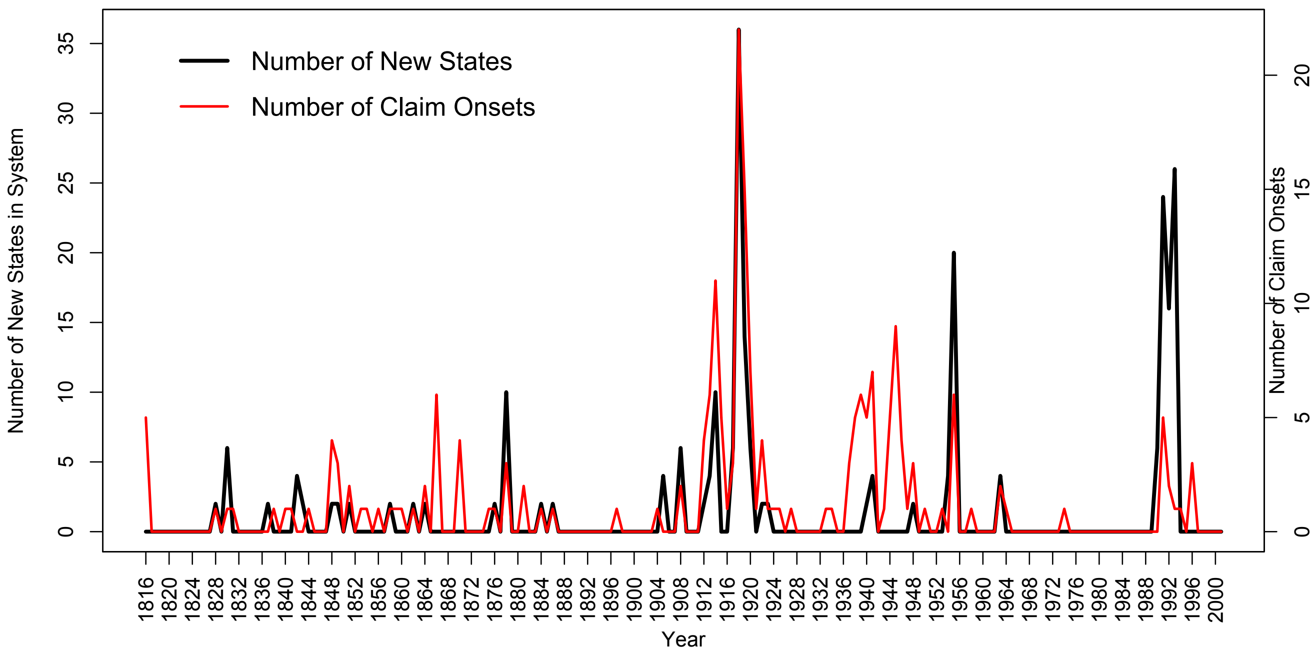

Figure 9. # of New States in the System and Territorial Claims, 1816–2001

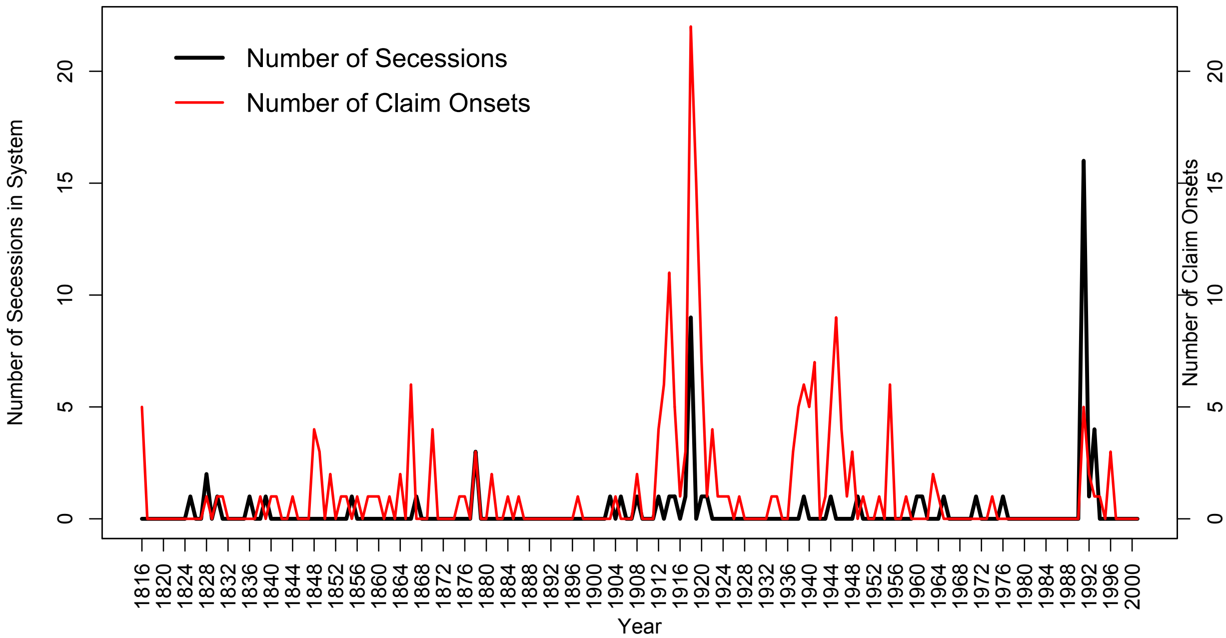

Figure 10. # of Secessions and Territorial Claims, 1816–2001

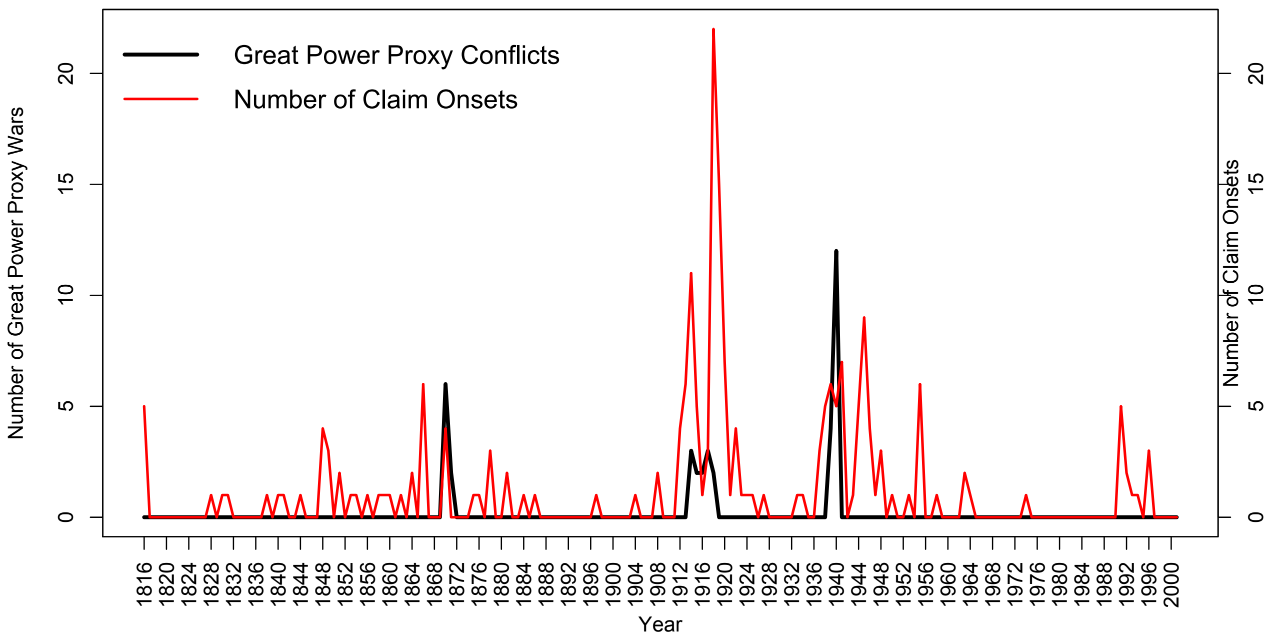

Figure 11. Great Power Proxy Wars and Territorial Claims, 1816–2001

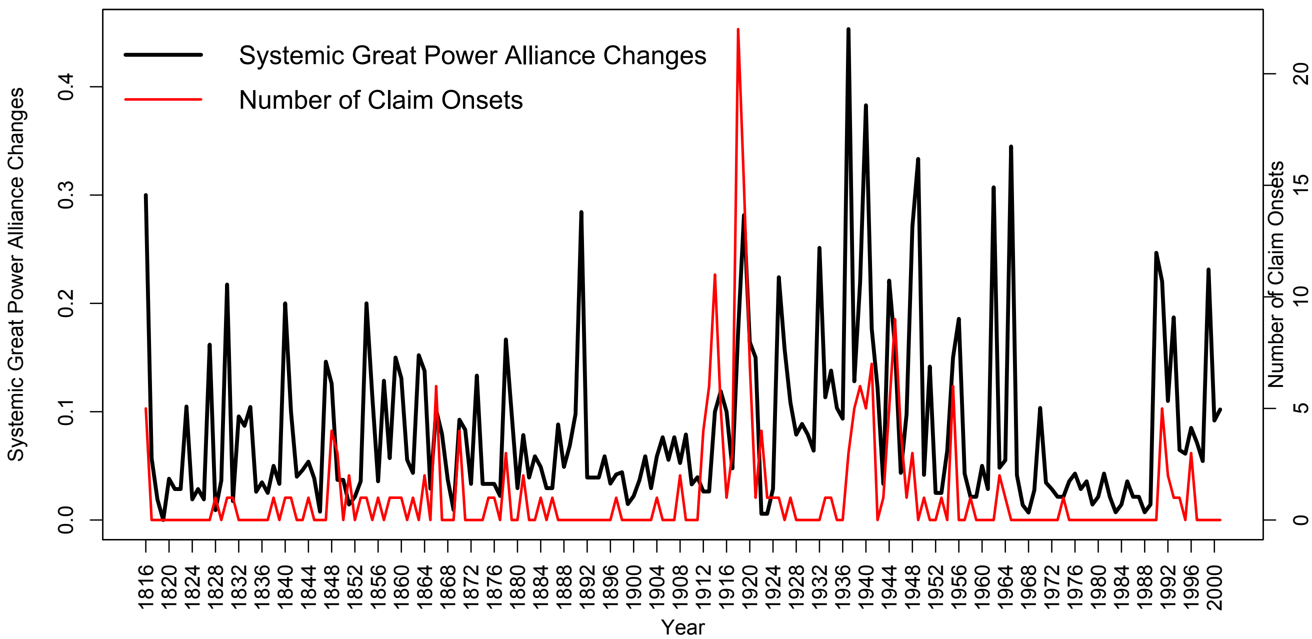

Figure 12. Systemic Changes in Great Power Allliances and Territorial Claims, 1816–2001

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Table 17. Top Ten Years of Instability in the Composite Measure

Rank	Year	Sources of Systemic Instability
1.	1918	New Dyads, Secessions, % GP War, % Inflationary Crisis
2.	1991	Secessions, New Dyads
3.	1940	Great Power Alliance Volatility, Proxy Wars
4.	1919	Systemic Instability, % Civil War
5.	1920	Systemic Instability, % Inflationary Crisis, Secessions
6.	1945	Systemic Instability, % GP Wars
7.	1993	New Dyads, Secessions, % GP Civil War
8.	1917	% Inflationary Crisis, % GP War, Proxy Wars
9.	1854	Systemic Instability, % Inflationary Crisis
10.	1939	Proxy Wars

Table 18. Spatial Autoregressive Models

	1.	2.	3.	4.
Hegemonic Volatility	0.029***			
	(0.002)			
Weighted Hegemonic Volatility		0.022***		
		(0.003)		
1st PCA of Measures			0.013***	
			(0.001)	
1st PCA of Weighted Measures				0.017***
				(0.001)
λ	0.0327	0.0338	-0.0367	-0.0355
LR Test on λ	0.178	0.245	0.219	0.247
p- value	0.673	0.620	0.640	0.619
N	6760	6759	6760	6708

Notes: Spatial Autoregressive Models. All models control for buffer area,river length, and terrain ruggedness.

Table 19. Sensitivity of Estimates to Selection on Unobservables

	Original Beta	Beta with Proportional Selection on Unobservables	% Reduction in Treatment Effect
Systemic Instability	0.01622	0.01022	37%
Regional Systemic Instability	0.02584	0.02242	13%
% GP Inflationary Crises	0.09091	0.07166	21%
Regional GP Civil Wars	0.01692	0.01524	10%
Regional GP Wars	0.01404	0.01194	15%
% GP Wars	0.05136	0.04718	8%
GP War Termination	0.00941	0.00895	5%
Regional GP War Termination	0.01144	0.01029	10%
Number of New Dyads	0.00256	0.00225	12%
Number of Secessions	0.00521	0.00508	2.5%
Number of Proxy Wars	0.00710	0.00645	9%
GP Alliance Shifts	0.05299	0.04346	18%
Composite Systemic Instability	0.01038	0.00886	15%
Composite Regional Instability	0.01455	0.01148	21%