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Types of political risk leading to investment arbitrations in the oil and gas sector

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It is often believed that investment arbitrations are filed because some form of political risk materialized, harming the investor's interests. This is the hypothesis that the authors examine in this article, focusing on the oil and gas sector. They analyse which types of political risk, present in the host state, eventually lead oil and gas investors to file investment arbitration claims against that state. They find statistical evidence supporting the idea that bad governance and economic nationalism are indeed conducive to arbitration claims in the oil and gas sector. However, it appears that economic hardship does not have the same triggering effect.

1. Introduction

Investment arbitration in the oil and gas sector has become a matter of significant business and geopolitical interest: between 1977 and 2012, a total of more than US$ 170 billion were claimed from states hosting oil and gas investments—this amounts to the 57th largest GDP worldwide, in other words, the size of Vietnam's economy.[1] Out of this claimed sum, a total of more than US$ 53 billion were awarded.[2] Individual claims were not negligible either: the average amount claimed in investment arbitration disputes in this sector during this period is US$ 3.5 billion, for a mean of US$ 2.2 billion awarded per claim.[3]

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1 Information based on data for 49 claims out of 91 in the period, as amounts claimed and awarded are not always publicized by the parties. Vietnam's GDP in 2013 <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?order=wbapi_data_value_2013+wbapi_data_value+wbapi_data_value-last&sort=desc> accessed 18 April 2015.

2 Information based on data for 24 claims out of 91 in the period.

3 The averages are heavily influenced by two outliers: *Hulley Enterprises Ltd v Russia* (2005) UNCITRAL/ PCA (claimed US$ 93 billion, was awarded US$ 40 billion), and *ConocoPhillips Co, Petrozuata B V v Venezuela* (2007) ICSID ARB/07/30 (claimed US$ 30 billion, still pending). Removing these claims, the average claimed amount was US$ 1.3 billion (N = 47), and the average amount awarded US$ 573 million (N = 23).

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It is often believed, sensibly, that such arbitrations are filed because some form of political risk materialized, which harmed the investor's interests. But is it true? Is there really a link between political risk and investment arbitration claims in the oil and gas sector? If so, which types of political risk?

These are the questions put forward in this article. But before we address them, let us illustrate the types of political risk considered in this article with three specific cases of arbitration.

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In 1991, the Soviet Union was being dismantled. Unprecedented business opportunities offered themselves. But administrative disarray and recklessness often loomed just around the corner.

Georgia, for example, badly needed a certain decrepit pipeline to get back to work. And so it entered into a joint venture with an American company, Tramex International, to do the required repairs. For a while, things went well for Tramex: two years later, in 1993, it had secured a 30-year exclusive concession to oversee and operate the entire Georgian energy transportation network. But at the end of 1995, a new president was elected in the country. He soon started negotiations with a large multinational energy consortium for an ambitious pipeline project to transport crude oil from the Caspian Sea to western markets. Shortly thereafter, the government issued a decree terminating all previous energy concessions. Apparently, the president was unaware of the exclusive rights granted to Tramex. This, observers found, 'reflects how chaotic and disorganized Georgia was at that time'.[4]

Tramex first sought compensation with the Georgian authorities. Numerous reassuring exchanges followed, a Compensation Commission was established in 1997 and no findings were reached in six years of inquiry. As one of Tramex's owners put it, 'Commissions established to resolve the matter fell apart and never reached conclusions. Ministers were replaced but their responsibilities were not. Correspondence went unanswered for months, if not permanently.'[5] With the Rose Revolution and a new government, Tramex had a second chance: a new Compensation Commission was created in October 2004. One month later, it found no legal grounds for compensation.[6]

At that stage, the two co-owners of Tramex took the matter to the international level: they filed an investment arbitration with the World Bank's International Center for Settlement of Investment Disputes (ICSID) in 2005. The ICSID arbitral tribunal found not only that 'responsibility for Tramex's claim was shuffled from one government ministry to another, without any progress'[7] but also that the compensation process 'can only be described as non-transparent, arbitrary and unfair'.[8] These and other violations led the tribunal to award US$ 98 million in compensation to the Tramex owners, in March 2010.

4 Peter Mamradze, former presidential chief-of-staff, quoted in 'Trapped in Tbilisi' *Bloomberg Businessweek* (24 February 2011, New York) <http://www.bloomberg.com/bw/magazine/content/11_10/b4218058741193.htm> accessed 16 March 2015.

5 *Kardassopoulos and Fuchs v Georgia*, Award [2010] ICSID Case No ARB/05/18, ICSID Case No ARB/07/15, para 414.

6 ibid paras 163–205.

7 ibid para 448.

8 ibid para 446.

Arguably, Tramex had experienced the materialization of a type of political risk best described as bad governance, in the form of dysfunctional institutions and a disregard for the rule of law based to a large extent on carelessness and administrative disarray. Investment arbitration was the instrument used, eventually, to respond to it.

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In the early 1970s, a wave of nationalizations and expropriations hit foreign oil companies operating in Venezuela. Most of them left the country. But in the 1990s, many returned, attracted by low taxes and royalties. Together they developed the Orinoco Basin, one of the world's most important oil sources. ExxonMobil was one of these companies.

In 1998, Hugo Chávez was elected to the Presidency of the country. One of his most striking political endeavours was his so-called 'Bolivarian Revolution', which included social welfare programs, subsidized food, better, more-expensive education, free healthcare programs, the attribution of free land titles to poor communities and the like. Most of these programs were as popular as they were expensive. Funding for the Revolution came to a large extent from oil profits. What Chávez did with his country's oil made him hugely popular—within his constituency.

But soon thereafter, the production in Venezuelan oil fields began to decrease as a consequence of the depletion of the fields and a lack of reinvestment of oil revenues. The Revolution was at risk. The government's reaction was to increase its profits by raising the royalty on companies operating in the Orinoco Basin from one per cent to 33 per cent, in several steps between 2004 and 2006, while increasing income tax on foreign ventures to 50 per cent and forcing foreign oil companies to give up control of their interest in Venezuelan oil ventures. Two referenda, held in 2006 and 2009, confirmed the support among the Venezuelan population for these policies—policies of stronger assertions of sovereignty over natural resources. ExxonMobil, this time, drew a line in the sand: the company filed an ICSID arbitration claim in September 2007 against the Venezuelan government.

Arguably, ExxonMobil had experienced the materialization of a different type of political risk than Tramex: a disregard of the rule of law based on ideological reasons, grounded in the idea that Venezuelan oil should be returned to the Venezuelan people. Investment arbitration was, again, the tool the company used to respond to the materialization of this political risk.

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Between the early 1970s and 1991, Argentina suffered eight major currency crises. But in 1991, a radically new economic plan was introduced, which would reduce trade barriers, deregulate industries, privatize government-owned entities including in certain public utility sectors, and peg the Argentine peso to the US dollar.

As part of these efforts, the government passed the 1992 Gas Law, which allowed the privatization of Gas del Estado S.E., with its two transportation and eight distribution companies. CMS Gas Transmission Company, incorporated in the USA, acquired part of the shareholdings.[9] For many years, its collaboration with the Argentine government went well.

But in January 2002, an economic crisis brought Argentina to its knees: the government defaulted on its US$ 80 billion foreign debt. One of the measures Argentina took to alleviate the worst of the crisis was to unpeg the peso from the US dollar: in a matter of five months, the value of the Argentine peso dropped by nearly 70 per cent compared to the US dollar. The Argentine government froze all utility rates by enacting an 'economic emergency law', which also terminated the right of privatized gas transportation and distribution companies to charge tariffs calculated in US dollars, requiring them to renegotiate the agreements according to the new exchange rate regime.[10] CMS unsheathed the international sword: it filed an investment arbitration against Argentina, as did dozens of other foreign investors, invoking the provisions of the US–Argentina Bilateral Investment Treaty (BIT).

Arguably, CMS had experienced the materialization of a third type of political risk: a disregard of the rule of law driven by financial crises, or more generally by economic slowdowns pushing governments to take measures that harm foreign investors. Once again, investment arbitration was the tool the company used to respond to the materialization of this political risk.

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Our claim is that these three cases illustrate the types of political risk that investors face in the oil and gas sector and for which they use investment arbitration. In this article, we thus suggest a three-pronged typology of political risk and empirically investigate the relationship between each type of risk and the filing of an investment arbitration claim. We then use our own original dataset of arbitration claims to highlight the relative frequency of these types of political risk in leading to investment arbitration claims in the oil and gas sector.

2. A theory of political risk leading to investment arbitration

The empirical literature on investment arbitration has investigated mainly downstream aspects, ie aspects after the filing of the claim, relating to the arbitration process and its outcome. Upstream investigations, into what leads to the filing of a claim, are still rare. At first sight, it might appear that the empirical literature on the development bias question—ie whether the host state's development status is correlated to any specific outcomes—would fall within this strand of literature.[11] However, most authors have

9 José E Alvarez and Kathryn Khamsi, 'The Argentine Crisis and Foreign Investors: A Glimpse into the Heart of the Investment Regime' in Karl P Sauvant (ed), *The Yearbook on International Investment Law and Policy 2008/2009* (OUP 2009) 388.

10 ibid 389–90.

11 See eg Kathleen S McArthur and Pablo A Ormachea, 'International Investor– State Arbitration: An Empirical Analysis of ICSID Decision on Jurisdiction' (2008) 28 Rev Litig 559; Susan D Franck, 'Development and Outcomes of Investment Treaty Arbitration' (2009) 50 Har Int'l LJ 435; Gus Van Harten, 'Arbitrator Behaviour in Asymmetrical Adjudication: An Empirical Study of Investment Treaty Arbitration' (2012) 50 Osgoode Hall LJ 211; Emilie M Hafner-Burton, Zachary C Steinert-Threlkeld and David G Victor, 'Leveling the Playfield Through Investor-State Arbitration' [2013] ILAR Working Paper No 18 <http://pages.ucsd.edu/~dgvictor/ILAR_Working-Paper18.pdf> accessed 25 June 2015.

approached that issue from the point of view of institutional bias and not in terms of the determinants of a claim. In other words, they investigated whether developing states are more likely to win or lose a claim because the system is biased against them, and not whether developing states would share any characteristics that make them more likely to commit a breach of investment law. In a previous article, two of the present authors have started investigating the upstream determinants of investment arbitration claims, focusing in particular on the impact of low democratic governance.[12] The present article takes this work a step further, by looking at how the broader category of political risk may be linked to investment claims.

The problem of political risk is central to the legal, political and economic literature on international investments. Yet what exactly political risk consists of remains unclear. We suggest a simple theory based on three strands of literature.

The first strand is the practitioner-oriented literature on investment law. Political risk, in this strand, encompasses a relatively loose array of both specific government measures harming an investor's rights and various other types of hazards that have a political component. Rubins and Kinsella, for instance, offer the following list: (i) expropriation, nationalization and confiscation; (ii) regulatory interference; (iii) currency risk; (iv) civil disturbance; (v) breach of state contracts; (vi) corruption and (vii) trade restrictions.[13]

The second is the extensive literature on expropriation and FDIs. Studies in 1980 already pointed to economic nationalism as a relevant explanatory variable, dismissing it however either due to measurement difficulties or in favour of economic and political factors.[14] Recent publications have revived the interest in resource nationalism, in particular in the oil and gas sector, as a factor in economic development,[15] the attraction of FDI[16] and the valuation of resources.[17] Further, studies have also found that nationalizations in the oil sector are more likely when the quality of institutions is low.[18]

12 Thomas Schultz and Cedric G Dupont, 'Investment Arbitration: Promoting the Rule of Law or Over-Empowering Investors? A Quantitative Empirical Study' (2014) 25 Eur J Int'l L 1147.

13 Noah Rubins and N Stephan Kinsella, *International Investment, Political Risk and Dispute Resolution: A Practitioner's Guide* (OUP, Oxford, 2005) 5–25.

14 'One would not deny that nationalism is an important cause of expropriation, or that a long-run shift in bargaining power toward host countries has not occurred. However, nationalism is of limited use as an explanatory variable in a formal model because of the difficulties involved in compiling valid and reliable cross-national measures of its scope and intensity.' Jodice David A, 'Sources of Change in Third World Regimes for Foreign Direct Investment, 1968–1976' (1980) 34 Int'l Org 177, 179. 'The findings of this study refute an assertion that forced divestment is simply a manifestation of "economic nationalism", reflecting national pride, an anti-foreign bias, or political opportunism. On the contrary, it is more often a means than an end. The findings are generally consistent with a view of forced divestment as a policy instrument used to attempt to achieve national political-economic objectives by increasing control over economic actors.' Kobrin Stephen J, 'Foreign enterprise and forced divestment in LDCs' (1980) 34 Int'l Org 65, 85.

15 Paul Domjan and Matt Stone, 'A Comparative Study of Resource Nationalism in Russia and Kazakhstan 2004–2008' (2010) 62 Europe–Asia Studies 35.

16 Ian Bremmer and Robert Johnston, 'The Rise and Fall of Resource Nationalism' (2009) 51 Survival 149; Vlado Vivoda, 'Resource Nationalism, Bargaining and International Oil Companies: Challenges and Change in the New Millennium' (2009) 14 New Pol Econ 517.

17 Reid W Click and Robert J Weiner, 'Resource Nationalism Meets the Market: Political Risk and the Value of Petroleum Reserves' (2010) 41 J Int'l Bus Stud 783.

18 Sergei Guriev, Anton Kolotilin and Konstantin Sonin, 'Determinants of Nationalization in the Oil Sector: A Theory and Evidence from Panel Data' (2011) 27 JL Econ Org 301. A number of other studies have assessed the quality of institutions in terms of their democratic character, generally arguing that democratic institutions are more investment friendly and thus less likely to expropriate. See eg Roderick Duncan, 'Price or Politics? An Investigation of the Causes of Expropriation' (2006) 50 Aus J Agr Res Econ 85; Quan Li, 'Democracy, Autocracy, and Expropriation of Foreign Direct Investment' [2009] Comp Pol Stud 1;

Thirdly, we draw upon the literature on states' reactions to economic difficulties, captured by the notion of 'politics in hard times'.[19] Gourevitch, for instance, identifies a range of broad policy options available to governments to respond to severe crises, including nationalization and protectionism.[20] Both options are likely to have an impact on foreign investors. This literature includes a range of domestic and international factors explaining the choice among the various policy options.

Our suggestion is to crystallize these three strands in the literature into three main types of political risk, or three main sets of conditions in which political risk may materialize:

(i) poor governance, such as lack of respect of rule of law, lack of transparency and of individual rights;
(ii) severe economic conditions; and
(iii) economic nationalism, including (but not restricted to) resource nationalism.

These three sets of conditions rarely, if ever, exist in pure, isolated form. They rather occur in combinations of varying degrees of intensity. This idea can be represented by the following 'political risk triangle' (Figure 1).[21]

Using the triangle,[22] we can associate different zones (A–G) to different situations of political risk. Zones A–C represent the most straightforward manifestations of each type of political risk.

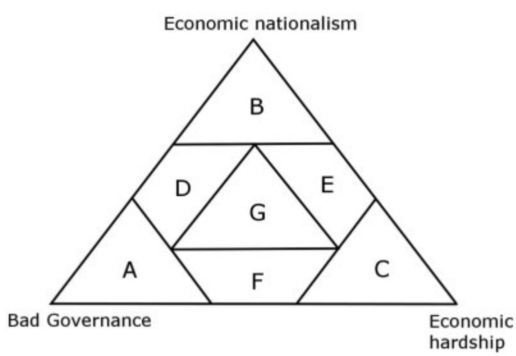

Figure 1. Political risk triangle.

Facundo Albornoz, Sebastian Galiani and Daniel Heymann, 'Foreign Investment and Expropriation under Oligarchy and Democracy' (2012) 24 Econ Pol 24.

19 Peter Gourevitch, *Politics in Hard Times: Comparative Responses to International Economic Crises* (Cornell UP, Ithaca, 1986).

20 ibid.

21 We borrow the idea of the use of a triangle to identify different types of combinations from Kenneth Abbott's and Duncan Snidal's work on forms of international governance (Kenneth Abbott and Duncan Snidal, 'The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State' in W Mattli and N Woods (eds), *The Politics of Global Regulation* (Princeton UP, Princeton, 2009) 44.

22 We use the triangle as a categorical tool, in which the triangle sides do not function as continuous axes with low values on one extreme and high values on the other.

Zone A corresponds to situations in which the main source of risk is bad governance. The situation in Georgia at the time of the Tramex case would fit into this zone.

Zone B corresponds to situations in which the main source of risk is economic nationalism. This may, for instance be illustrated by the most intense Bolivarian revolutionary episodes in Venezuela under the presidency of Hugo Chávez.

Zone C corresponds to situations in which the main source of risk is the severity of an economic crisis. The situation in Argentina is a case in point.

Zones D–F refer to situations with significant (but not necessarily equal) influence of two sets of conditions. The combination of poor governance and economic nationalism in Zone D would apply, for instance, to certain countries in post-soviet Central Asia. The situation of many Latin American countries in the 1980s, 1990s and 2000s would be located along the right side of the triangle in Zone E. The situation of many sub-Saharan African countries falls within zone F, combining poor governance and severe economic difficulties.

Zone G includes situations where the three risk conditions co-exist, a combination that many countries have been experimenting during limited time-periods and a few over a long period (in particular, Zimbabwe).

The following elaborates on the three types of political risk.

Bad governance

Investment arbitration may be used to respond to a first type of political risk: governance issues. By governance issues, we mean situations in which governments simply run roughshod over treaty or contract obligations, over international law or their own domestic law. Put differently, these are circumstances in which public powers are exercised by states in a way that unduly interferes with a foreign investment in plain, blunt disregard of legal obligations. Such situations correspond to a weak rule of law, in the sense that 'the rule of law is distinguished from regimes of administrative command and control, where "arbitrary" state action prevails. Law is the instrument that gives the individual power to resist the state'.[23]

We envisage two main types of such blunt disregard of legal obligations: first, carelessness strictly speaking, where the authority of law is simply ignored; secondly, simple administrative or governmental disarray, where a government is unable to have the rule of law respected in its country. In the first type, disregard is by design. In the second type, disregard is merely by effect.

Investment arbitration would, then, be used to stimulate or react to the absence of 'good and orderly state administration and the protection of rights and other deserving interests', as is often claimed in the law literature.[24] We consider that such situations would typically translate as poor institutional conditions.

23 Kerry Rittich, *Recharacterizing Restructuring: Law, Distribution and Gender in Market Reform* (Kluwer, 2002) 67.

24 Benedict Kingsbury and Stephan Schill, 'Investor-State Arbitration as Governance: Fair and Equitable Treatment, Proportionality, and the Emerging Global Administrative Law', Institute for International Law and Justice, NYU Law School, Working Paper 2009/6 (Global Administrative Law Series, 2009) 8 <http://www.iilj.org/publications/documents/2009-6.KingsburySchill.pdf> accessed 17 March 2015.

This leads us to our first hypothesis: arbitration claims are more likely to target states with poor institutional conditions than those with good institutional conditions.

In previous work making descriptive use of our dataset,[25] we provided mixed empirical evidence for this theoretical proposition with regard to all investment arbitrations, not only in the oil and gas sector. For the period up to the mid-90s, the data suggests it is reasonably plausible that investment arbitration was indeed used mainly to respond to situations of poor democratic governance, where governments simply bluntly disregard their legal commitments, by design or effect. However, in the mid-to-late 90s when investment arbitration claims became more frequent, the situation somewhat shifted. Since then, investment arbitrations have been filed against governments exhibiting, on average, a relatively high level of democratic development and rule of law.[26] Given that the use of investment arbitration has really taken off in the mid-to-late 90s, with the vast majority of cases having been filed between the mid-to-late 90s and today, the overall plausibility of that hypothesis is low inasmuch as we consider investment arbitration globally, as a whole.

The case for this article is to elaborate on these findings and examine them more specifically in the context of oil and gas.

Economic hardship

Investment arbitration may also be used to respond to the second type of political risk identified above: severe economic conditions. How states react to severe economic conditions is vastly documented in the literature. In hard economic times, governments face strong political pressures from citizens, political parties and pressure groups. Political, economic and social domestic actors use all available institutionalized channels, and oftentimes manifest themselves in the protest arena, to push for the adoption of immediate, and sometimes radical, policy responses to the crisis.

Governments have of course reacted differently to such pressures, depending on a host of economic, social and political factors. But one type of reaction traverses most fault lines: market intervention.[27] Such market intervention primarily aims at helping domestic interest with often-negative effects (direct or indirect) on foreign investors.

Another significant feature of acute economic crises is the difficulty governments face in adopting policy responses that appropriately address core concerns of domestic actors. Failures in such attempts have led to episodes of government change,[28] or even to

[25] Thomas Schultz and Cedric G Dupont (n 12).

[26] A parallel may be drawn with Beth Simmons, 'The International Investment Regime since the 1980s: A Transnational ''Hands-Tying'' Regime for International Investment' (Conference Paper, Annual Meeting of the American Political Science Association, September 1–4, 2011), who found that the average polity score of states seeking annulment of an ICSID award, up to 2008, was 2 on a scale of 10 (scale and source of information undisclosed in the conference paper), and it shot up to six on the same scale after 2008. The parallel has its limits though, since the reasons for a state to file annulment proceedings (Simmons' study) are starkly different from the reasons for an investor to file a claim (our study).

[27] See Gourevitch (n 19), and more recently Nancy Bermeo and Jonas Pontusson (eds), *Coping with Crisis: Government Reactions to the Great Recession* (Russel Sage Foundation, New York, 2012).

[28] Recent work on the great economic recession shows that electoral processes in 30 European countries since 2008 strongly confirm the major finding of the literature on economic voting that incumbents are voted out in elections in times of economic recessions. Given that the recession is particularly severe, and in most countries clearly attributed to governments, the effect on incumbents has been particularly strong and fast. In countries with more than one electoral process since 2008 and ongoing

political regime change.[29] Such changes plainly put foreign investors at risk in the short run, although they may lead to better conditions over the medium or long run.

It seems reasonable to infer two simple points from these debates. First, in times of economic crises, governments often have to adopt quick measures that are very likely to hurt, inadvertently or intentionally, the rights and interest of foreign investors.[30] Secondly, given the political dynamics that follow severe economic crises, governments have a hard time quickly reverting to 'normal' behaviour, thus making it unlikely that foreign investors can find acceptable arrangements to redress harm caused by policy change.

This leads us to our second hypothesis: severe economic crises are prone to lead to the filing of arbitration claims by foreign investors. Put differently, arbitration claims are more likely to target states that recently suffered a severe economic slowdown than those with stable economic conditions.

Economic or resource nationalism

Investors also seem to resort to investment arbitration when facing a last type of political risk: resource nationalism. By resource nationalism, we mean 'state control or dominance of natural resources, and the resulting potential to use this power for political and economic purposes, including relationships with foreign investors'.[31] It can manifest itself either by a government aiming to regain ownership and control of the natural resource itself, or by a mere desire to increase participation in its revenues.[32] For the purpose of our typology of political risk, we consider both types as deriving from ideology rather than pure economic interest. In other words, while economic benefit may also ensue, in contrast to the economic hardship scenario, the driving force is political rather than monetary. Determinant is the domestic perception of disadvantage or loss of profits to foreign natural resource operators. Corporations are perceived as benefiting more from the resources, retaining what is perceived as an unfair share of the revenues when compared with the host state. The government's drive to increase control over, or revenue from, the national resources is often this public perception of unfairness.

While this reaction may target domestic and foreign private companies alike, foreign multinational corporations tend to be perceived in a particularly negative light. As a result, foreign investors are often subject to interferences with their investments due to nationalistic motivations.[33] In this scenario, although domestic institutions would

acute economic slump, the interesting result is the tendency to choose outside of main parties, including radical, 'anti-parties' or to abstain (Hanspeter Kriesi, 'The Political Consequences of the Financial and Economic Crisis in Europe: Electoral Punishment and Popular Protest' (2012) 18(4) Swiss Pol Sci Rev 518.

29 Mark J Gasiorowski, 'Economic Crisis and Political Regime Change: An Event History Analysis' (1995) 89 (4) Am Pol Sci Rev 882; Andrew MacIntyre, 'The Politics of the Economic Crisis in Southeast Asia' (2001) 55(1) Int'l Org 81; Thomas B Pepinsky, 'The Global Economic Crisis and the Politics of Non-Transitions' (2012) 47(2) Gov't Opposition 135; Karen L Remmer, 'Democracy and Economic Crisis: The Latin American Experience' (1990) 42(3) World Pol 315.

30 The recent financial crisis in Cyprus is a case in point: the government bail-in measures explicitly targeted foreign, in that case Russian, bank depositors.

31 Reid W Click and Robert J Weiner (n 17) 784.

32 Ian Bremmer and Robert Johnston (n 16).

33 For example, Benjamin B Smith, *Hard Times in the Lands of Plenty: Oil Politics in Iran and Indonesia* (Cornell UP, Ithaca, 2007); Paul Domjan and Matt Stone (n 15); Ruben Berrios, Andrae Marak and Scott Morgenstern, 'Explaining Hydrocarbon Nationalization in Latin America: Economics and Political Ideology' (2011) 18 Rev Int'l Pol Econ 673.

possibly be functional (as opposed to what we assume in the bad governance situation), ideological components may bias their operation. As a result, the government may deliberately disregard the rights of the investor, and domestic courts may be unwilling to provide an appropriate remedy. This is when international arbitration becomes relevant: to substitute for ideologically biased domestic institutions.

Our third hypothesis thus suggests a positive relationship between investment arbitration and resource nationalism. In other words, investment claims are more likely to be filed against countries that have governments with economic or resource nationalistic orientation.

3. Methodology

Dataset and dependent variable

The present study draws on a dataset of 91 investment arbitration claims in the oil and gas sector, filed between 1977 and 2012. Nearly a quarter of these claims are still pending, while 16 were settled, 20 were awarded in favour of the investor, 11 were awarded in favour of the host state, 6 were discontinued and the tribunal held it did not have jurisdiction in 8 of the cases. More than two-thirds of the claims were brought to ICSID, and nearly as many rely on Bilateral Investment Treaties as legal bases for their claims. The geographical distribution of claims is equally skewed: half of all claims were brought against a host from Latin America or the Caribbean—a number heavily influenced by the claims against Argentina (17) and Ecuador (12). Investors are more evenly distributed among high-income regions: European and North American investors brought 36 claims each.

The unit of analysis used here is claims—not awards since certain claims end in a negotiated agreement or are withdrawn, and not cases since the definitional ambiguity of that concept is greater than that of claims.

Our study relates to investment arbitration in general, also called investor-state arbitration. We thus go beyond investment treaty arbitration, which encompasses only investment arbitrations based on an international treaty (typically a BIT). Our dataset thus includes arbitration claims based on a treaty (bilateral or multilateral), or a contract between the host state and the investor, or the domestic investment law of the host state of the investment.

The study is further concerned with all types of investment arbitration in the sense that the dataset covers claims filed under the rules of all relevant arbitration institutions (mainly ICSID, the Permanent Court of Arbitration (PCA), the International Chamber of Commerce (ICC), the Stockholm Chamber of Commerce (SCC)) as well as ad hoc arbitrations (primarily conducted under the rules of the United Nations Commission for International Trade Law (UNCITRAL)).

Based on the experience of the second author and on informal consultations with other researchers and practitioners, this universe of claims appears to be close to a complete picture of all investment arbitrations filed during that period. It seems reasonable to estimate that no more than 10 per cent of the existing investment claims are missing in our dataset, given that few arbitration cases remain entirely secret and no information about them ever leaks somehow to the public.

These 91 claims were encoded in the dataset according to the year in which they were filed. Figure 2 shows the evolution of claims filed between 1977 and 2012 in the oil and gas sector, while Figure 3[34] shows a comparison with the overall number of claims. It is noteworthy that the number of claims filed annually significantly increased starting in the late 90s.

The sources of the data collected were as broad as possible. The dataset includes all cases about which information was found either directly in an award, or indirectly in other datasets and reports of law firms and of specialized journalists.

We thus decided to focus on scope and statistical relevance, accepting a small loss in reliability and accuracy due to the use of secondary sources.

Our dependent variable is the number of arbitration claims per country per year. It is derived directly from our dataset.

Independent variables for bad governance

Our first hypothesis, as we said, suggests that investment arbitration is more likely to target countries with poor institutional conditions. We conceptualize this variable by relying on two composite indexes of the Worldwide Governance Indicators (WGI).

We first assess the quality of domestic legal and judicial institutions through the WGI Rule of Law index, which 'captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police and the courts'.[35] In other words, we take it to measure to what extent domestic legal institutions are able or willing to provide an independent and fair assessment, and potentially a remedy, for an interference with an investment. The index measures the perception of the quality of domestic legal institutions, rather than their objective quality. Yet, an investor that merely perceives these institutions to be deficient may also be more likely to seek remedy for any interference with his investment by presenting a claim to an international investment tribunal.

We also consider whether domestic institutions may interfere with an investment by design. We assess this scenario by looking at the WGI Regulatory Quality index, a business-friendliness measure that captures 'the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development'.[36] Rather than measuring the capacity of domestic institutions to adequately respond to an investment interference, this index would point out the likelihood of the interference itself.

Both indicators are available from 1996 onwards, which leaves four oil and gas arbitration claims outside the coverage.[37]

34 The figures from 1977 to 2010 are from our own dataset, while those for 2011 and 2012 are from UNCTAD.

35 WGI Methodology <http://info.worldbank.org/governance/wgi/rl.pdf> accessed 10 March 2015.

36 ibid.

37 We use all indicators without lagging their effects. We decided not to lag their effects, despite our argument that investment arbitration is the result of serious governmental misconduct in preceding years, for two reasons. First, the indicators are relatively stable. Lagging their effect is unlikely to produce any significant difference for the descriptive type of analysis

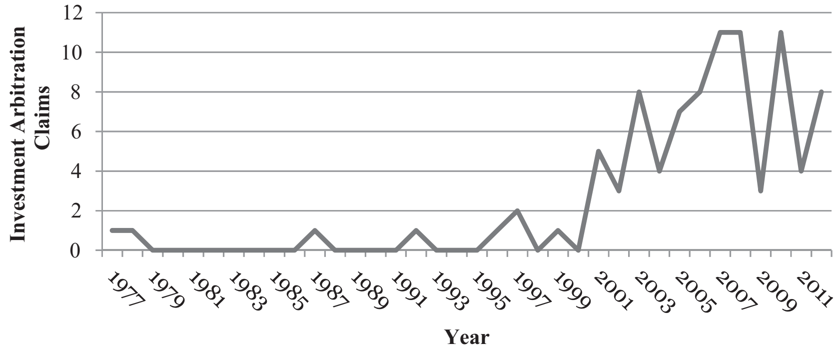

Figure 2. Number of investment arbitration claims filed per year in the oil and gas sector.

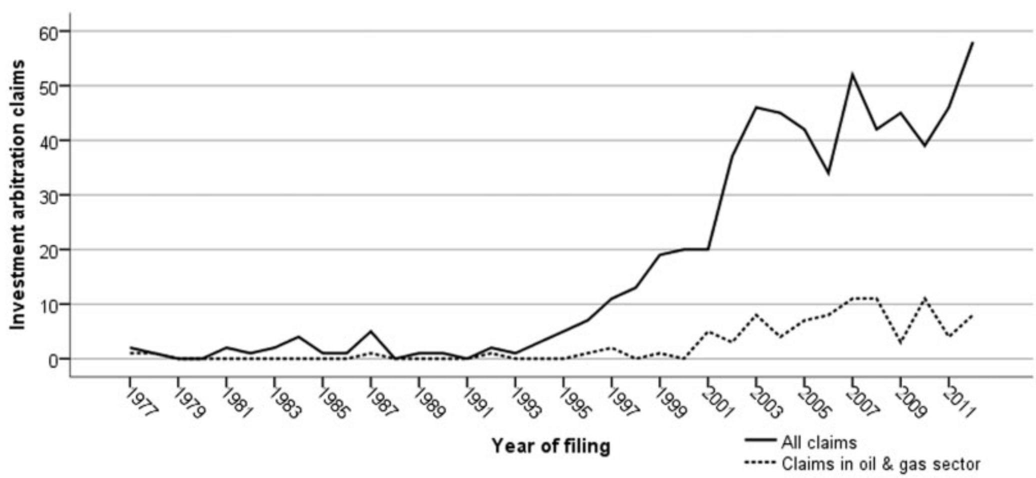

Figure 3. Number of investment arbitration claims filed per year.

Independent variables for economic hardship

Our second hypothesis surmises that investment arbitration is more likely to target countries that have gone through severe economic situations. We thus need an indicator measuring the severity of an economic crisis.

Relying on Reinhart and Rogoff's data on financial crises,[38] we sum up six categories of economic hardship, namely banking crises, currency crashes, sovereign domestic or external default (or restructuring), inflation crises and stock market crashes to have an

performed here. Secondly, it is unclear to which extent past and current domestic institutional conditions respectively affect the decisions of investors to give up alternative ways to settle a dispute and use arbitration. True, poor institutional conditions in the past are likely to have led to the dispute. However, ongoing poor institutional conditions are likely to continue to indicate that any deal with the government is risky.

38 Carmen M Reinhart and Kenneth S Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton UP, Princeton, 2009) <http://www.reinhartandrogoff.com/data/browse-by-topic/topics/7/> accessed 9 April 2015.

economic-crisis index.[39] Countries score zero for a given year if they faced no event in any of the six categories, receiving one point per category up to a maximum of six points. However, since the dataset covers 70 countries only, there are too many missing values in our dataset for this variable.

Therefore, we also look at the GDP growth rates using the National Accounts Main Aggregates Database from the UN Statistics Division, as this database has only few missing values for the countries and time-period covered by our dataset, unlike the World Bank database for instance, where we would get missing data for Argentina, which is one of the key cases in this research. We consider that growth rates best capture the idea of overall general economic difficulty that may result from a host of different economic factors. As such, for our purposes, growth rates appear to be a more appropriate indicator than more specific variables, such as the average price of main export commodities, data on public finance, unemployment or inflation.[40]

Independent variables for resource nationalism

Our third hypothesis suggests a positive relationship between investment arbitration and resource nationalism. But measuring resource nationalism is not as straightforward as it might seem.[41] There is no commonly used indicator in the literature we can use to operationalize a single variable.[42] We believe that the best proxy we can use to measure resource nationalism is party orientation, assuming that leftist governments are typically more inclined to be economic redistributivists and therefore economic nationalists.[43] Therefore, we rely on an indicator that might give hints about a possible correlation: the World Bank's Database of Political Institutions' (DPI 2012) 'EXECRLC' variable that measures the Chief Executive's party orientation with respect to economic policy.[44]

Control groups

Although this article relies only on descriptive statistics, we use two control groups to illustrate the relevance of our independent variables. Both groups use data between 1977

[39] We would like to thank Christina Davis for drawing our attention to this index. For a detailed discussion on the aforementioned tally measure, see Christina L Davis and Krzysztof Pelc, 'Cooperation in Hard Times: Self-Restraint of Trade Protection' J Conflict Resol (forthcoming).

[40] The use of unemployment figures would require to carefully consider the social automatic stabilizers. Data on public finance and inflation would require a clearly longer view on economic performance.

[41] Jodice for instance dismissed the usefulness of nationalism as an explanatory variable already in 1980 due to the 'difficulties involved in compiling valid and reliable cross-national measure of its scope and intensity', Jodice (n 14).

[42] Mahdavi has relied on OPEC membership as a proxy for 'countries with resource nationalistic tendencies and revenue-maximization ideals'. Paasha Mahdavi, 'Why Do Leaders Nationalize the Oil Industry? The Politics of Resource Expropriation' (2014) 75 Energy Pol'y 228. Arbatli relied on the ICRG Investment Profile score, as it 'captures some of the most important characteristics associated with resource nationalism', ie risk to operations, taxation discrimination, repatriation and labour costs. However, the occurrence of any of these components could be rooted in economic concerns as well, which makes this proxy unsuitable for our model. Ekim Arbatli, 'Political Regimes, Investment Risk and Resource Nationalism: An Empirical Analysis' (2014) <http://regconf.hse.ru/uploads/7da62134fab330f54f067e5cd2e603c40298cd7e.pdf> accessed 5 February 2015.

[43] Although a recent study did not find a correlation between government orientation and oil nationalizations in Latin America, Ruben Berrios and others (n 33).

[44] Thorsten Beck and others, 'New tools in comparative political economy: The Database of Political Institutions' (2001) 15 World Bank Econ Rev 165; DPI 2012 codebook <http://go.worldbank.org/2EAGGLRZ40> accessed 15 April 2015.

and 2012, using as unit of analysis 'country-year'.[45] The first group is that of all countries that are members to international investment agreements (hereinafter IIA members) or, in other words, countries against whom investment arbitration claims were likely to be brought. More precisely, IIA members were included only for the period during which they were party to a BIT, or the ICSID Convention, North American Free Trade Agreement (NAFTA) or Energy Charter Treaty (ECT) (entered into force).[46] Our dataset also includes contract claims. These contracts are not necessarily concluded with a state that is also an IIA member. Yet the overlap of IIA members and states entering into investment contracts containing an arbitration clause is likely to be extensive, as both tend to depend on a general policy regarding investment arbitration. In any event, our data indicates that less than 13 per cent of all investment arbitrations are based on a contract only, as opposed to a treaty. In addition, to the knowledge of the authors, there is no available data on all contracts containing investment arbitration clauses. All this makes the control group we use representative of the countries against whom arbitration cases could possibly have been filed. These criteria returned a group of 180 countries and 4675 observations.

The second control group is formed by the countries in the first group that are also oil producers. We included in the group, countries producing more than 500 thousand barrels of oil per day in 2013, a criterion that returned 29 states and 729 observations.[47]

Triangle operationalization

In order to locate individual investment claims on the political risk triangle (Figure 1), we operationalized the triangle areas as follows. First, we converted the continuous governance and economic variables into three-tier categorical variables with the levels *low*, *middle* and *high*.[48] According to our hypotheses, arbitration claims would be more likely if a state has bad domestic institutions (low Rule of Law), an economically nationalistic government (leftist executive) and/or is facing economic hardship (low GDP growth). The triangle allows us to identify which of these factors were most relevant for a given claim. As such, the triangle only shows claims for which at least one of the factors scored low or left: the vertexes A, B and C accommodate cases with a *low* or *left* level in their given factor, and medium to high levels for the other factors. Areas D, E and F are used for claims in which two of the factors present such *low/left* levels. Finally, area G shows claims for *low/left* values in all three factors. Claims that have *middle/high* or *centre/right* values for all factors are not listed. An overview of the operationalization is given in Table 1 below.

[45] Please note that the unit of analysis of the data used to calculate the mean for countries actually facing investment claims is 'claim-year'—ie if a given country faced two claims in the same year, this score is computed twice.

[46] The data for the year in which the first BIT entered into force for a given country is taken from Haftel and Thompson's dataset: Yoram Z Haftel and Alexander Thompson, 'Delayed Ratification: The Domestic Fate of Bilateral Investment Treaties' (2013) 67 International Organization 355.

[47] Algeria, Angola, Argentina, Azerbaijan, Brazil, Canada, China, Colombia, Ecuador, Egypt, Iran, Iraq, Kazakhstan, Kuwait, Libya, India, Indonesia, Malaysia, Mexico, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, United Arab Emirates, United Kingdom, United States and Venezuela http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=53&aid=1&cid=all,&syid=2013&eyid=2013&unit=TBPD accessed 10 March 2013.

[48] According to the tercile levels identified in the IIA members' control group.

Table 1 Operationalization of political risk triangle (Figure 1)

Component Indicator	Governance *Rule of law score*	Economic Nationalism *Political orientation*	Economic Hardship *GDP growth*
A	Low	Centre or Right	Middle or High
B	Middle or High	Left	Middle or High
C	Middle or High	Centre or Right	Low
D	Low	Left	Middle or High
E	Middle or High	Left	Low
F	Low	Centre or Right	Low
G	Low	Left	Low

4. Results

Making descriptive use of our dataset, we provide below empirical evidence for the abovementioned theoretical propositions.[49] We start by addressing each independent variable separately, and conclude by placing the findings on the political risk triangle discussed at the outset.

Bad governance

Our first hypothesis suggests that investment arbitration is more likely to target countries with poor institutional conditions. The evidence seems to suggest an inverse relationship between investment arbitration and both WGI Rule of Law and Regulatory Quality, with a mean of –0.7 and –0.5, respectively (both indexes run from –2.5 to +2.5). These scores are considerably lower than the average. While oil-producing countries score an average of –0.16 for Rule of Law and –0.013 for Regulatory Quality, the mean for IIA members is respectively, –0.08 and –0.02. In other words, countries facing investment claims tend to have lower scores than those facing no claims. The relationship between the number of arbitration claims per country per year and these two variables are shown in Figure 4 and 5. Figure 4 shows that states facing investment claims have had Rule of Law and Regulatory Quality scores consistently lower than the IIA members' average over time. While claims brought against Costa Rica and Canada in 1996 and 1997 raise the score at the beginning of the time-series in Figure 4, subsequent years show a consistent pattern of countries facing claims having scores lower than the IIA members' average. Yet, this does not mean that the lower the score the more likely it is for a country to face a claim. As can be seen in Figure 5, which plots the individual scores of countries facing investment claims, the countries facing the highest numbers of claims have scores in the middle range of the distribution.

[49] We choose not to run any statistical regression at this stage, considering the small size of our dataset of arbitration cases in the oil and gas sector.

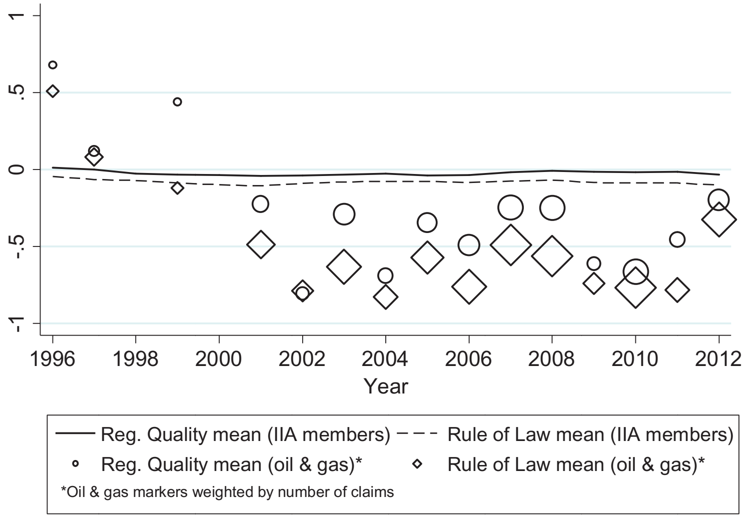

Figure 4. Time series of Rule of Law and Regulatory Quality scores with number of investment arbitration claims (graph produced using Stata SE 13).

These findings contrast with what we previously found with regard to all investment arbitration claims.[50] In earlier research, we found that, since the mid-90s, arbitration claims were being brought against countries with a high level of democratic development and rule of law. In the oil and gas sector, however, our data seem to indicate the opposite trend.[51]

Economic hardship

Our second hypothesis surmizes that investment arbitration is more likely to target countries that have gone through severe economic situations.

Overall, we find no strong evidence that poor economic performance (measured by GDP growth) is significantly associated with investment arbitration claims. The mean of GDP growth rate is 4.12, with a standard deviation of 7.71, and there are less than 20 per cent of claims by foreign investors when the host country was facing a negative growth. This mean is somewhat lower than the average GDP growth for oil-producing countries, which lies at 4.54, but higher than the IIA members' mean of 3.6. Thus, we find no clear pattern that distinguishes countries facing investment claims from those that do not.

50 See text accompanying n 26 above.

51 There are a few caveats to this observation. First, our previous study relied on different measures of governance—it assessed democratic development through the Polity IV score, and rule of law by means of the ICRG Law and Order indicator: see Monty G Marshall and Keith Jaggers, 'Polity IV Project: Political Regime Characteristics and Transitions, 1800-2002' <http://www.systemicpeace.org/polityproject.html> accessed 4 August 2014; International Country Risk Guide, Researcher Dataset (ICRG T3B—Political Risk). In the present article we conceptualize governance not in terms of democratic development, but rather in terms of rule of law and business friendliness. While the ICRG Law and Order indicator would still be appropriate to measure an aspect of rule of law, namely the impartiality of the legal system, we opted to use the WGI Rule of Law instead as it is a composite index that covers a wider range of aspects relevant to our theoretical proposition. Further, in using two WGI indexes that have the same ranges and scales to measure governance, we are able to better compare their results. Secondly, the previous study relied on more detailed statistical modelling than the present article, which only uses descriptive statistics. As such, its findings should not be taken to invalidate the previous ones.

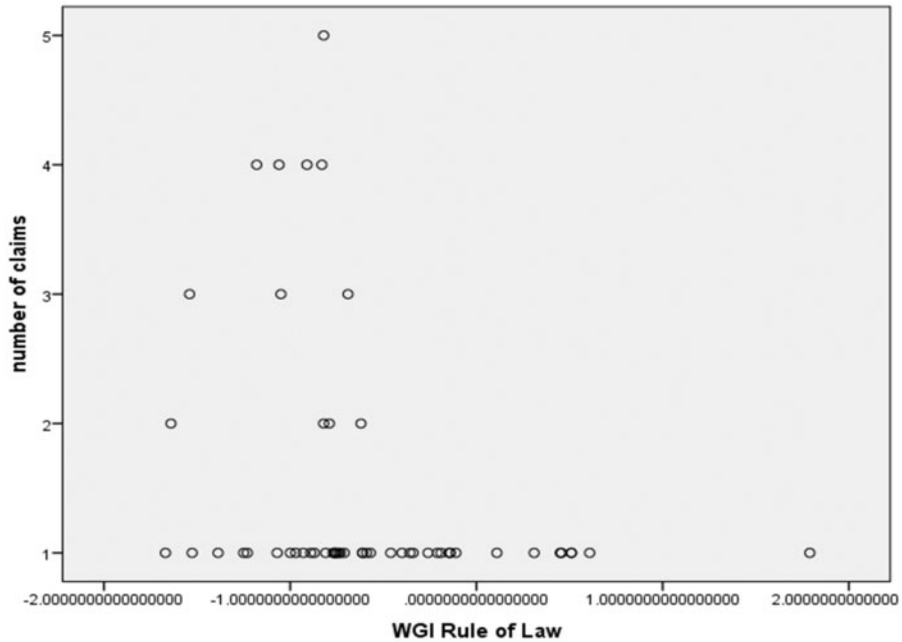

Figure 5. Scatterplot of Rule of Law with number of investment arbitration claims (graph produced using SPSS Statistics 22).

Although we do not have the economic-crisis index (derived from Reinhart and Rogoff's data) for almost half of our cases, we do observe a slightly stronger relationship between economic hardship and investment arbitration: more than half of the countries facing claims had one category of economic crisis, while around a third of them had more than one category of crisis. Figure 6 shows the distribution of economic-crisis index of oil and gas sector cases included in our dataset. In this regard, economic crises seem to have a positive relationship with investment arbitration claims.

Resource nationalism

Our third hypothesis suggests the existence of a positive relationship between investment arbitration and resource nationalism.

We find that party orientation seems to have some impact on investment arbitration. As shown in Figure 7, nearly 58 per cent of the claims were filed against a host state ruled by a leftist party, when we take out the category 0, which refers to the cases that do not fit into the categories Right, Left or Centre. While we find the same proportion of leftist parties among the oil-producing countries, the IIA members' frequency of left-oriented executives is of 50 per cent. Thus, there is only little evidence that a leftist executive orientation is linked to a higher likelihood of a country facing investment claims.

Triangle findings

The previous discussion suggests that only one of our independent variables, namely bad governance, seems to have a noticeable impact on countries facing an investment claim.

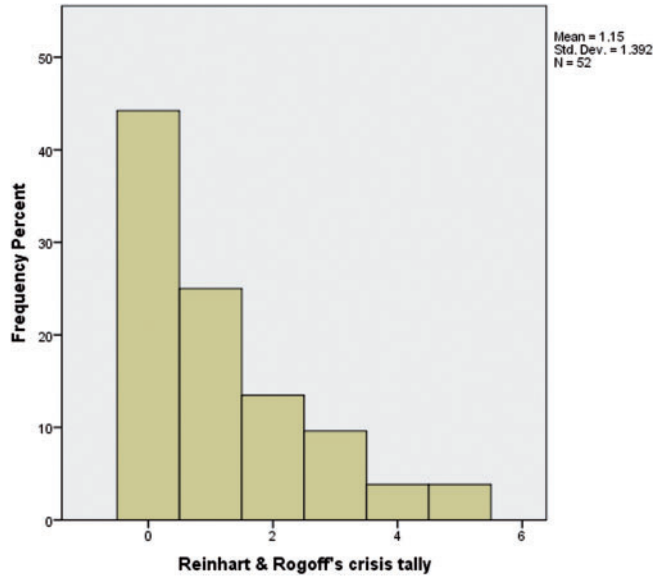

Figure 6. Relative distribution of economic-crisis index (graph produced using SPSS Statistics 22).

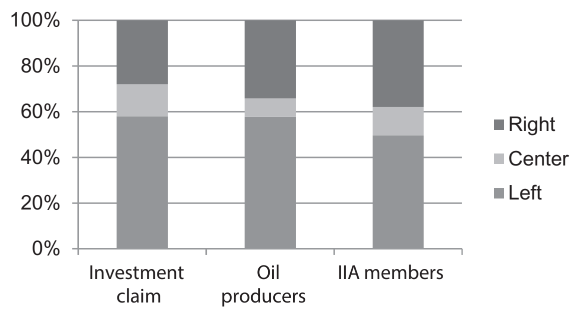

Figure 7. Relative distribution of Chief Executive Party Orientation per group.

This conclusion is also evident when we place the individual claims on the political risk triangle (Figure 8). The triangle shows the distribution of investment claims among its seven areas. Due to the limited data on party orientation, we have data on all three variables for 49 claims. Out of these, 46 claims fit the criteria set out for triangle.[52] The most densely populated area, with 43 per cent of the claims, is area D (Table 2), suggesting that the country faces a mix of bad governance and economic nationalism. Second ranks area A, with more than a quarter of the claims, where countries are plagued with bad governance alone. Considering the poor evidence for leftist governments being linked to investment claims (as discussed in the previous section), claims in areas A and

[52] Excluded are claims with middle/high and centre/right scores, in a total of three claims.

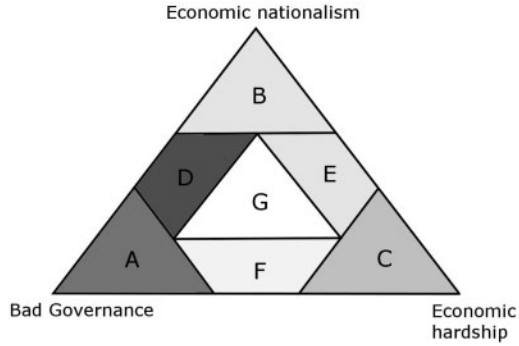

Figure 8. Political risk triangle (distribution of investment claims).

Table 2 Political risk triangle (distribution of investment claims)

Component	Governance	Economic Nationalism	Economic Hardship	Oil claims	
Indicator	*Rule of law score*	*Political orientation*	*GDP growth*	Count	%
A	Low	Centre or Right	Middle or High	12	0.24
B	Middle or High	Left	Middle or High	3	0.06
C	Middle or High	Centre or Right	Low	4	0.08
D	Low	Left	Middle or High	21	0.43
E	Middle or High	Left	Low	3	0.06
F	Low	Centre or Right	Low	2	0.04
G	Low	Left	Low	1	0.02

D could be read as being due to low governance alone. If that is the case, nearly 70 per cent of claims in the oil and gas sector could be linked to bad governance.[53]

5. Conclusion

The empirical literature on investment arbitration has so far focused on aspects of the arbitration process and its outcomes, ie downstream aspects. Our contribution lies mainly in looking upstream: namely, at what type of political risk can be linked with investment arbitration claims. In addition, we contribute to the literature on political risk by dissociating the concept into three components: bad governance, economic hardship and economic/resource nationalism.

Our findings seem to indicate that bad governance and economic nationalism are components frequently associated with the bringing of a new investment arbitration claim in the oil and gas sector. This result contrasts with the findings of our previous

[53] If we were to use the WGI Regulatory Quality index, we would reach similar conclusions. While only 41 claims (out of the 49 we have data for) would fit the criteria of the triangle, areas D and A would also be the most populated ones, with a combined share of 65 per cent out of the 49 claims.

study, possibly because of specificities of the oil and gas sector, although we cannot exclude that they are due to a new operationalization of the governance variable. While the previous study found that claims since the mid-90s were brought against high rule of law countries, the present findings suggest the opposite.

Surprisingly, however, we find only feeble evidence for economic hardship having a similar effect. This does not mean that economic conditions do not matter in this context. Rather, this finding may be partly due to the operationalization of the variable in terms of GDP growth, and the limited data we have on economic crises. Simmons, in contrast, has found a significant correlation between economic performance and arbitration claims by looking at inflation.[54] We preferred not to use this measure, as several Latin American countries, which represent a substantial part of our claims, have an endemic inflation problem. Thus, our study provides tentative evidence that economic conditions have no significant link with investment arbitration claims. This might suggest that governments have realized that no long-term economic benefit tends to ensue from interfering with foreign investments—as the literature on expropriations has previously suggested.[55]

Appendix A. Investment arbitration claims in the oil and gas sector (ordered by year of filing)

AGIP S p A v People's Rep of Congo (1977) ICSID ARB/77/1

Guadalupe Gas Products Corp v Nigeria (1978) ICSID ARB/78/1

Occidental of Pakistan, Inc v Islamic Rep of Pakistan (1987) ICSID ARB/87/4

Scimitar Exploration Ltd v Bangladesh and Bangladesh Oil, Gaz and Mineral Corp (1992) ICSID ARB/92/2

Compania del Desarrollo de Santa Elena, S A v Rep Costa Rica (1996) ICSID ARB/96/1

Societe Kufpec (Congo) Ltd v Rep of Congo (1997) ICSID ARB/97/2

Ethyl Corp v Canada (1997) UNCITRAL

Mobil Argentina S A v Argentine Rep (1999) ICSID ARB/99/1

F-W Oil Interests, Inc v Rep of Trinidad & Tobago (2001) ICSID ARB/01/14

CMS Gas Transmission Co v Argentine Rep (2001) ICSID ARB/01/8

Enron Creditors Recovery Corp (formerly Enron Corporation) *and Ponderosa Assets, L P v Argentine Rep* (2001) ICSID ARB/01/3

Repsol YPF Ecuador S A v Empresa Estatal Petróleos del Ecuador (Petroecuador) (2001) ICSID ARB/01/10

CCL Oil v Kazakhstan (2001) SCC No 122/2001

Sempra Energy International v Argentine Rep (2002) ICSID ARB/02/16

LG&E Energy Corp, LG&E Capital Corp and LG&E International Inc v Argentine Rep (2002) ICSID ARB/02/1

54 Beth A Simmons, 'Bargaining over BITs, Arbitrating Awards: The Regime for Protection and Promotion of International Investment' (2014) 66 World Pol 12.

55 On the increased efficiency of private assets in general, see William L Megginson, *The Financial Economics of Privatization* (OUP, Oxford, 2005); and as regards the oil sector, see Guriev and others (n 18).

Occidental Exploration and Production Co v Ecuador (2002) UNCITRAL/ LCIA No UN 3467

Pioneer Natural Resources Co, Pioneer Natural Resources (Argentina) S A and Pioneer Natural Resources (Tierra del Fuego) S A v Argentine Rep (2003) ICSID ARB/03/12

Plama Consortium Ltd v Rep of Bulgaria (2003) ICSID ARB/03/24

Pan American Energy LLC and BP Argentina Exploration Co v Argentine Rep (2003) ICSID ARB/03/13

Gas Natural SDG, S A v Argentine Rep (2003) ICSID ARB/03/10

Camuzzi International S A v Argentine Rep (I) (2003) ICSID ARB/03/2

Petrobart Ltd v Kyrgyz Rep (2003) SCC No 126/2003

BG Group Plc v Argentina (2003) UNCITRAL

Encana Corp v Rep of Ecuador (2003) UNCITRAL/ LCIA No UN3481

Total S A v Argentine Rep (2004) ICSID ARB/04/1

Wintershall Aktiengesellschaft v Argentine Rep (2004) ICSID ARB/04/14

BP America Production Co and Others v Argentine Rep (2004) ICSID ARB/04/8

Mobil Exploration and Development Inc Suc Argentina and Mobil Argentina S A v Argentine Rep (2004) ICSID ARB/04/16

Ioannis Kardassopoulos v Georgia (2005) ICSID ARB/05/18

RSM Production Corp v Grenada (2005) ICSID ARB/05/14

Saipem S p A v People's Rep of Bangladesh (2005) ICSID ARB/05/7

RosInvestCo UK Ltd v The Russian Federation (2005) SCC No V079/2005

Yukos Universal Ltd v Russian Federation (2005) UNCITRAL/ PCA

Veteran Petroleum Ltd v Russian Federation (2005) UNCITRAL/ PCA

Hulley Enterprises Ltd v Russian Federation (2005) UNCITRAL/ PCA

Técnicas Reunidas, S A and Eurocontrol, S A v Rep of Ecuador (2006) ICSID ARB/06/17

Rompetrol Group N V v Romania (2006) ICSID ARB/06/3

Chevron Block Twelve and Chevron Blocks Thirteen and Fourteen v People's Rep of Bangladesh (2006) ICSID ARB/06/10

Occidental Petroleum Corp and Occidental Exploration and Production Co v Rep of Ecuador (2006) ICSID ARB/06/11

City Oriente v Ecuador (2006) ICSID ARB/06/21

Azpetrol International Holdings B V et al v Rep of Azerbaijan (2006) ICSID ARB/06/15

Renta 4 S V S A et al v Russian Federation (2006) SCC

Chevron Corp and Texaco Petroleum Corp v Ecuador (2006) UNCITRAL/ PCA

S&T Oil Equipment & Machinery Ltd v Romania (2007) ICSID ARB/07/13

Liman Caspian Oil BV and NCL Dutch Investment BV v Rep of Kazakhstan (2007) ICSID ARB/07/14

Ron Fuchs v Rep of Georgia (2007) ICSID ARB/07/15

Trans-Global Petroleum, Inc v Hashemite Kingdom of Jordan (2007) ICSID ARB/07/25

Eni Dación B V v Bolivarian Rep of Venezuela (2007) ICSID ARB/07/4

Mobil Corp, Venezuela Holdings B V and others v Bolivarian Rep of Venezuela (2007) ICSID ARB/07/27

ConocoPhillips Co, Petrozuata B V v Bolivarian Rep of Venezuela (2007) ICSID ARB/07/30

Shell Nigeria Ultra Deep Ltd v Federal Rep of Nigeria (2007) ICSID ARB/07/18

RSM Production Corp v Central African Rep (2007) ICSID ARB/07/2

Mobil Investments Canada Inc and Murphy Oil Corp v Canada (2007) ICSID (AF) ARB(AF)/07/4

Mohammad Ammar Al-Bahloul v The Rep of Tajikistan (2007) SCC V(064/2008)

GEA Group Aktiengesellschaft v Ukraine (2008) ICSID ARB/08/16

Repsol YPF Ecuador, S A and others v Rep of Ecuador (PetroEcuador) (2008) ICSID ARB/08/10

Murphy Exploration and Production Co International v Rep of Ecuador (2008) ICSID ARB/08/4

Perenco Ecuador Ltd v Rep of Ecuador and Empresa Estatal Petroleos del Ecuador (Petroecuador) (2008) ICSID ARB/08/6

Caratube International Oil Co LLP v Rep of Kazakhstan (2008) ICSID ARB/08/12

Itera International Energy LLC and Itera Group NV v Georgia (2008) ICSID ARB/08/7

Burlington Resources, Inc v Rep of Ecuador (2008) ICSID ARB/08/5

Ashmore Energy Int (AEI) v Bolivia (2008) SCC

Mercuria Energy Group Ltd (Mercuria) v Poland (2008) SCC

Vanco Prykerchenska v Ukraine (2008) SCC

Tatneft v Ukraine (2008) UNCITRAL

Mærsk Olie, Algeriet A/S v People's Democratic Rep of Algeria (2009) ICSID ARB/09/14

Itera International Energy LLC and Itera Group NV v Georgia (2009) ICSID ARB/09/22

Chevron Corp and Texaco Petroleum Corp v Ecuador (2009) UNCITRAL/ PCA

Sempra Energy International v Argentine Rep [Resubmission] (2010) ICSID ARB/02/16

RSM Production Corp and others v Grenada (2010) ICSID ARB/10/6

Opic Karimum Corp v Bolivarian Rep of Venezuela (2010) ICSID ARB/10/14

Enron Creditors Recovery Corp (formerly Enron Corporation) *and Ponderosa Assets, L P v Argentine Rep* [Resubmission] (2010) ICSID ARB/01/3

Niko Resources (Bangladesh) Ltd v People's Rep of Bangladesh, Bangladesh Petroleum Exploration & Production Co Ltd ('Bapex') and Bangladesh Oil Gas and Mineral Corp ('Petrobangla') (2010) ICSID ARB/10/11

Niko Resources (Bangladesh) Ltd v People's Rep of Bangladesh, Bangladesh Petroleum Exploration and Production Co Ltd ('Bapex') and Bangladesh Oil Gas and Mineral Corp ('Petrobangla') (2010) ICSID ARB/10/18

Pan American Energy LLC v Plurinational State of Bolivia (2010) ICSID ARB/10/8

Universal Compression International Holdings, S L U v Bolivarian Rep of Venezuela (2010) ICSID ARB/10/9

Ascom v Kazakhstan (2010) SCC

Air BP v Bolivia (2010) UNCITRAL

Oiltankings, Grana y Montero (Compania Logistica de Hidrocarburos de Bolivia) v Bolivia (2010) UNCITRAL/ PCA

National Gas S A E v Arab Rep of Egypt (2011) ICSID ARB/11/7

Türkiye Petrolleri Anonim Ortaklığı v Rep of Kazakhstan (2011) ICSID ARB/11/2

The Williams Companies, International Holdings B V, WilPro Energy Services (El Furrial) Ltd and WilPro Energy Services (Pigap II) Ltd v Bolivarian Rep of Venezuela (2011) ICSID ARB/11/10

Mamidoil Jetoil Greek Petroleum Products Societe Anonyme S A v Rep of Albania (2011) ICSID ARB/11/24

Sudapet Co Ltd v Rep of South Sudan (2012) ICSID ARB/12/26

Pluspetrol Peru Corp and other v Perupetro S A (2012) ICSID ARB/12/28

Repsol Butano, S A, Repsol, S A v Argentine Rep (2012) ICSID ARB/12/38

Ampal-American Israel Corp and others v Arab Rep of Egypt (2012) ICSID ARB/12/11

Tullow Uganda Operations Pty Ltd v Rep of Uganda (2012) ICSID ARB/12/34

Lundin Tunisia B V v Rep of Tunisia (2012) ICSID ARB/12/30

Slovak Gas Holding B V, GDF International SAS and E.ON Ruhrgas International GmbH v Slovak Rep (2012) ICSID ARB/12/7

RSM Production Corp v Saint Lucia (2012) ICSID ARB/12/10

Appendix B. Triangle data

				GDP growth (categorical)			
				Low Count	Middle Count	High Count	Total Count
WGI Rule of Law (categorical)	Low	Chief Executive Party Orientation	0	6	11	5	22
			Right	2	1	6	9
			Centre	0	1	4	5
			Left	1	13	8	22
			Total	9	26	23	58
	Middle	Chief Executive Party Orientation	0	2	7	1	10
			Right	1	1	1	3
			Centre	2	0	0	2
			Left	1	0	0	1
			Total	6	8	2	16
	High	Chief Executive Party Orientation	0	0	0	1	1
			Right	1	1	0	2
			Centre	0	0	0	0
			Left	2	3	0	5
			Total	3	4	1	8
	Total	Chief Executive Party Orientation	0	8	18	7	33
			Right	4	3	7	14
			Centre	2	1	4	7
			Left	4	16	8	28
			Total	18	38	26	82

Appendix C. Descriptive statistics

Investment arbitration claims in the oil and gas sector

Unit of analysis country-year (weighted for number of claims per year), missing values in WGI (1997, 1999, 2000) replaced by mean of adjacents.

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
GDP growth	91	80	–46	34	4.12	7.707
Chief Executive Party Orientation	86	3	0	3	1.34	1.325
WGI Rule of Law	87	0.07	–0.11	–0.04	–0.0832	0.01198
WGI Regulatory Quality	87	0.06	–0.05	0.01	–0.0244	0.01229
Valid N (list wise)	82					

Control group—oil-producing countries

Unit of analysis country-year, missing values in WGI (1997, 1999, 2000) replaced by mean of adjacents.

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
GDP Growth	729	170	–66	104	4.54	9.440
Chief Executive Party Orientation	331	2	1	3	2.24	0.930
WGI Rule of Law	473	3.91	–1.92	1.99	–1630	1.00775
WGI Regulatory Quality	473	4.19	–2.17	2.02	–0.1260	0.95789
Valid N (list wise)	216					

Control group—IIA members

Unit of analysis country-year, missing values in WGI (1997, 1999, 2000) replaced by mean of adjacents.

Descriptive Statistics						
	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
GDP Growth	4618	197	–66	131	3.60	6.915
Chief Executive Party Orientation	2634	2	1	3	2.12	0.929
WGI Rule of Law	2854	4.67	–2.67	2.00	–0.0826	1.00995
WGI Regulatory Quality	2854	4.91	–2.67	2.25	–0.0242	0.99363
Valid N (list wise)	1436					