Legal Air Cover

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ABSTRACT

The economic harm being caused by the novel coronavirus may soon result in multiple sovereign debtors moving into default territory, but the existing playbook for dealing with multi-sovereign emerging market debt crises is blank. Currently, the only way to deal with a debt crisis is to carry out protracted country-by-country and contract-by-contract negotiated workouts. Expert groups are attempting to design a mechanism to run multiple sovereign debt workouts simultaneously but any design will take time to configure and get international buy-in. This article sets forth some options to provide temporary legal protection to debtor countries while they are diverting resources to respond to the Covid-19 pandemic. This is the notion of ‘legal air cover.’ The options we propose involve ex-post state intervention in debt contracts and come with risks, but we show that in the case of Greece, where such an intervention was necessary in 2012, there were no negative spillovers on periphery eurozone debt markets associated with the Greek ex-post modification of contract terms.

KEYWORDS: sovereign debt; sudden stop; Covid-19

I. WHAT IF WE HAVE ANOTHER SUDDEN STOP?

‘It is not speed that kills, but the sudden stop.’

Banker’s adage 1

In a crisis, financial flows may experience what economists call a ‘sudden stop.’ 2 Capital flows to a debtor country cease, more or less simultaneously, leaving the country unable to refinance maturing loans or to borrow for budgetary purposes. If this happens to one country, it can result in serious financial, social, and political dislocations for that country. If a sudden stop occurs across an entire region or, even worse, across the

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1 This adage was made popular by Dornbush, Goldfajn and Valdes in an article focusing on the 1995 peso crisis in Mexico, which brought this concept to the economics literature. Rüdiger Dornbush, Ilan Goldfajn and Rodrigo O Valdes, ‘Currency Crises and Collapses’ (1995) 2 Brookings Papers on Economic Activity 219.
2 Guillermo A Calvo, ‘Capital Flows and Capital-Market Crises: The Simple Economics of Sudden Stops’ [1998] 1 Journal of Applied Economics 35.

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entire emerging market sovereign asset class, it can trigger an international financial and humanitarian crisis.

Such an event occurred in March 2020 as the Covid-19 pandemic first took hold across a wide range of nations, and sovereign spreads in emerging market countries reached record highs (see the snapshot provided in Figure 1). The global economy looked to be on the brink of a multi-sovereign default scenario, of a type that had not been seen since the Latin American debt crisis of the 1980s. By June 2020, the pandemic had worsened, the global economy had slowed even further, and more than a hundred countries had asked the International Monetary Fund for emergency assistance.

Given that all of these countries had been hit by the same shock—a devastating pandemic not of their making that needed an immediate response—the theoretical answer to the crisis was simple. If the creditors holding the trillions of dollars of claims could be coordinated, they would presumably agree as one to give all of these sovereign debtors a temporary break on their debt obligations. Both creditors and debtors, after all, would benefit from the sovereigns using their scarce resources to fight the pandemic and get their economies back on track.

In legal terms, what was needed was a stay, so that resources that would otherwise be used to pay debt obligations could be diverted to health care costs without having to fight a plethora of creditor lawsuits. However, no fast and efficient mechanism exists to provide this type of multi-country stay.

The international financial architecture has been modified considerably in recent decades to deal with sovereign debt crises, but the types of crises that the current architecture contemplates are those that impact individual countries. And the mechanisms in place contemplate negotiated solutions where the supermajority of holders of each set of contract instruments works out deals with the sovereign in question.

In the wake of the sudden stop in March 2020, officials at the International Monetary Fund (IMF) and the World Bank, with the support of the G20 Finance Ministers, did attempt a fix. Their solution was for the governments of the G20 nations to agree to give the 70 poorest nations in the world a debt holiday for the rest of 2020 and they hoped—via exhortation—that the private sector would voluntarily follow suit in providing equivalent relief. At the time of writing in March 2021, we can safely say that the attempt to exhort voluntary participation by the private sector was a failure. No private sector relief was provided.

As it turned out, the March 2020 sudden stop did not produce a global crash. The massive simultaneous monetary easing by central banks in advanced economies reduced interest rates and drove investors to search for higher yields in emerging markets. Capital began to flow back to the emerging markets, and in large amounts, resulting in an immediate drop in sovereign CDS spreads in many emerging market countries, with the exception of large vulnerable countries such as Brazil, Egypt, South Africa, and Turkey (see Figure 1). Immediate catastrophe was avoided but the newly deployed capital was exposed to far greater risk.

3 Scott Davis, ‘Emerging-Market Economies Face Covid-19 and a “Sudden Stop” in Capital Flows’ Dallas Fed Newsletter (14 April 2020) <https://www.dallasfed.org/research/economics/2020/0414>. 
Figure 1. Emerging market CDS spreads.
For how long can this continue? One cannot rule out the possibility that the actions of policy makers (particularly at the US Federal Reserve and the European Central Bank), in combination with the deployment of vaccines, have put the fear of another sudden stop to rest, at least in the immediate future. That said, the Covid-19 pandemic is not over, and the possibility that new, more contagious, and more deadly variants may emerge remains. Further, while advanced economies are likely to achieve very high levels of vaccination by the end of 2021, it will take longer before these levels are reached across all of the developing world. In the meantime, there is the fear that capital flows to emerging markets will reverse again, as yields begin to rise in response to the new stimulus in the US and the return of advanced economies to full production capacity. Also, the majority of poorer nations have not been able to take advantage of the good credit conditions of the past 10 months. As of March 2021, over a dozen nations appear to be on the brink of public debt crises.

Twelve months after the sudden stop in March 2020, there is still no mechanism in place to mitigate the costs of the defaults that would inevitably follow.

The motivation for this article is our concern that another sudden stop cannot be ruled out. It could leave a dozen or more countries simultaneously in debt trouble. Under the existing playbook, each of those countries would have to approach its creditors—commercial and bilateral—for a bespoke debt restructuring. The current system is not designed to accommodate that situation. Even the response to a one-off debt crisis, like the one Argentina only recently worked out, may become bogged down. What would happen if institutional investors that are heavily exposed to EM sovereign debt face losses on a dozen or more countries simultaneously? Could they realistically be expected to provide debt relief when multiple, non-coordinated, write-downs could pose an existential threat to the lending institutions themselves?

A mechanism for running multiple sovereign debt workouts simultaneously—something that has not been done since the Latin American debt crisis of the 1980s and early 1990s—is beyond the scope of this article. What we examine below are options which would provide temporary legal protection to the debtor countries while they are diverting their financial resources toward the amelioration of the costs of Covid-19. This is the notion of ‘legal air cover’. This is not to say that some of the options listed below could not be utilized to engineer full-scale sovereign debt restructurings; they could be. But that is not our focus.

In section II, we set out four options that vary in terms of effectiveness and likelihood of success. The first option is to use the ‘reverse acceleration’ mechanism built into existing contracts. Unfortunately, that will at best produce partial relief and will not work quickly. So, we move to more creative solutions. A feature shared by the next three options is that they can be put in place quickly, without the need for lengthy legislative wrangling or contract-by-contract and country-by-country negotiations. Each option is limited in scope. They do not set up sovereign debt restructuring mechanisms, although the air cover they provide may well make it easier for an insolvent country

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4 The so-called ‘Latin American debt crisis’ extended well beyond Latin America into parts of Asia, Africa, and Europe.
to negotiate new debt terms with its creditors. They aim to buy time during which debt sustainability analyses and negotiations with creditors can be conducted, without fear that the situation will devolve into a rush to the courthouse. This will be useful regardless of whether the situation is a liquidity crisis or a solvency one. These options, however, do come with risks.

The most significant risk that these options entail—with the exception of using the reverse acceleration terms already in the contracts—is that each of them envisions a degree of ex-post state intervention in the debt contracts. Under normal circumstances, retroactive modifications of contract terms are disfavoured in every modern legal system. If parties cannot depend on their contractual terms being enforced on a continuing basis, the value of contractual commitment diminishes and by implication the cost of borrowing may increase. State interference with contract terms therefore has to be confined to exceptional circumstances where one might say that the parties themselves—had they been able to negotiate a contract provision ex ante—would want to make modifications to the contract. And given that they were not able to, they might welcome interference that facilitates ex-post contractual changes by the state—for example, by solving a problem of coordination that the parties are unable to solve themselves.

Both history and theory tell us that ex-post intervention in contracts by the state can—if done in a fashion that makes it clear that it would only be repeated in exceptional circumstances—be welfare enhancing. In contexts where contracts are incomplete because the contingencies could not be adequately contracted for ahead of time (for example, a pandemic), it can be socially optimal for the state to step in to fill the contractual gaps. Nineteenth century interventions in the US in the agricultural credit market, where the contracts did not adequately deal with what would happen in the event of natural calamities, are such an example. The US government’s abrogation of gold clauses in the 1930s, in the context of the Great Depression, is another. Research shows that there was no significant negative market reaction or spillovers to other asset classes (including US government bonds without gold clauses) in either of these instances.

In section III, we analyse the most famous modern instance of retroactive modification of sovereign bond contracts so as to deal with an extreme crisis. That is, the legislative action taken by the Greek government in 2012 to retroactively insert

5 Patrick Bolton and Howard Rosenthal, ‘Political Intervention in Debt Contracts’ (2002) 110 Journal of Political Economy 1103.
6 Sebastian Edwards, Francis Longstaff and Alvaro Garcia Marin, ‘The US Debt Restructuring of 1933: Consequences and Lessons’ NBER Working Paper 21694 (2015); Randall Kroszner, ‘Is it Better to Forgive Than to Receive? An Empirical Analysis of the Impact of Debt Repudiation’ University of Chicago GSB Working Paper (2003).
7 This is not to suggest that the market reaction to such interventions will always be positive. Quite the contrary. One such example is the Austrian legislation utilizing a retrofit in 2015 to deal with a crisis with its sub-sovereign bonds. There, yields increased. Otto Randl and Josef Zechner, ‘Sovereign Reputation and Yield Spreads (2019) 19 German Economic Review 260. Other examples of governments using retrofit legislative changes to enable debt restructurings include the US federal government passing the PROMESA legislation in 2016 for Puerto Rico, and Barbados implementing Greek-style legislation in 2019.
‘collective action clauses’ in all of its local-law governed sovereign bonds (over 200 billion euros worth) so as to enable an orderly debt restructuring. At the time, as with the aforementioned abrogation of gold clauses in the United States in 1933, there was concern that such an action would reduce faith in the value of contracts across the European Union and, therefore, increase the costs of borrowing for every sovereign within the region.8 David Kotok of Cumberland Advisors wrote in his blog:

No sovereign debt contract is now immune from the same action. All sovereign debt contracts will carry a risk premium. Buyers of European sovereign debt now act at their own peril.9

Unsurprisingly, multiple challenges were brought against the Greek sovereign across a range of fora—the Greek local courts, arbitration tribunals, foreign sovereign courts, and European courts—with expropriation-type claims being made in each case.10 At the time of writing in March 2021, all of the claims made thus far have been rejected; the most recent rejection coming but a few months ago. Following the footsteps of the analyses of the market reaction to the gold clause cases, we examine what the market reaction was to the outcome of the key legal decisions in the Greek case. The data show no evidence of a systematic increase in borrowing costs for other vulnerable European sovereigns as a result of the various tribunals upholding the Greek ex-post modification of contract terms. The reason, we conjecture, is that the market had confidence that such interventions would only be taken in the direst circumstances, when the action was necessary to protect the system from crashing.

II. THE OPTIONS TO PROVIDE AIR COVER

The options discussed below are aimed at a single goal: providing temporary air cover in the event of a sudden stop, to allow the authorities time to work out a method by which to engineer a restructuring of a dozen or so sovereign debtors at the same time.11 Given the kind of multi-sovereign crisis scenario that we imagine, the overall debt stock that needs to be restructured will include a wide variety of types of instruments and lenders. That wide variety of types of debt (trade credits, syndicated loans, bonds, guarantees, etc) and lenders (commercial creditors, Paris Club bilateral creditors, non-Paris club bilateral creditors), each with varying contract terms and political sensitivities, presents

8 ‘Greece, Tragedy and Poetry’ Cumberland Advisors Blog (10 March 2012) <https://www.cumber.com/greece-tragedy-poetry/> accessed 21 March 2012; ‘Greece Kills the Rule of Law’ Seeking Alpha (15 March 2012), <https://seekingalpha.com/article/435881-greece-kills-the-rule-of-law> accessed 21 March 2012; Arturo C Porzekanski, ‘Behind the Greek Default and Restructuring of 2012’ in Eugenio C Bruno (ed), Sovereign Debt and Debt Restructuring (Globe Business Publishing 2013) (‘The introduction of CACs in sovereign bonds is no novelty, but to our knowledge it has never been done retroactively—a clear violation of the “sanctity” of contracts.’).

9 ‘Greece, Tragedy and Poetry’ (Cumberland Advisors Blog, 10 March 2012) <https://www.cumber.com/greece-tragedy-poetry/> accessed 21 March 2012.

10 Patrick Wautelet, ‘The Greek Restructuring and Property Rights: A Greek Tragedy For Investors?’ in André Alen and others (eds), Liberac Cognitiones Liber Amicorum Marc Bossuyt (Cambridge 2019).

11 Our understanding is that expert groups at the IMF and World Bank were constituted in the wake of the March 2020 sudden stop and are working on this question.
a particularly intractable restructuring problem in a context where there are neither the resources nor the time to conduct individualized debt renegotiations.

A solution is needed that provides an immediate answer to the sudden stop in capital flows: a sudden stop to litigation and asset seizures on all these obligations at once, while the international financial authorities come up with a solution to the bigger problem. The stay on creditor litigation is particularly important, so that the sovereigns in crisis can undertake a debt work-out that is as orderly as possible. This is akin to the debtor-in-possession regime under US corporate bankruptcy.

In proposing options, we do not start with a blank slate. The options we describe draw from prior sovereign crises and the literature on how air cover was provided there, albeit in the context of individual sovereign crises.\(^\text{12}\)

In what follows, we do not purport to suggest solutions to impose stays on bilateral and multilateral debt obligations. Those lenders have already indicated their willingness to provide temporary relief via initiatives such as the Debt Service Suspension Initiative (DSSI) and the Common Framework. Further, historical practice tells us that these lenders are unlikely to litigate. We also assume that there will be a portion of private creditors who enter into cooperative agreements along the lines suggested by the Official Sector—a portion that will be larger if there is assurance that the litigation options for those inclined to stay out of the deal are minimized.

We begin with the obvious option: the existing bond contracts. This is where we would look in an individual country restructuring context, but, as we explain, this option is unlikely to work. Hence, we move to more creative solutions.

**A. Option 1: reverse acceleration**

The vast majority of foreign currency/foreign law sovereign bonds outstanding today have a built-in mechanism to respond to a shock where the debtor and a majority of creditors agree that it is in their mutual interest to impose a stay on creditor litigation. The mechanism is the ‘reverse acceleration’ provision. These clauses allow for a simple majority of creditors (in principal amount) to reverse attempts by a minority of creditors to accelerate the debt.\(^\text{13}\) Acceleration itself usually requires that an Event of Default

\(^{12}\) In the wake of what look to have been incorrect funding decisions by the Official Sector in Greece in 2010–13, considerable intellectual energy was expended some years ago in designing ‘reprofiling’ mechanisms. The goal was to be able to buy time for the Official Sector to make better decisions in the future regarding whether a sovereign’s crisis was the product of a solvency problem or a liquidity one, since that determination was crucial to deciding on what type of relief to provide. The IMF’s 2014 mea culpa report explains:

> In circumstances where a member has lost market access and debt is considered sustainable, but not with high probability, the Fund would be able to provide exceptional access on the basis of a debt operation that involves an extension of maturities (normally without any reduction of principal or interest). Such a ‘reprofiling’ operation, coupled with the implementation of a credible adjustment program, would be designed to improve the prospect of securing sustainability and regaining market access, without having to meet the criterion of restoring debt sustainability with high probability.

International Monetary Fund, *The Fund’s Lending Framework and Sovereign Debt—Preliminary Considerations* (1 June 2014).

\(^{13}\) On rare occasions the requirement is 66.67 per cent.
has occurred and that 25 per cent of the creditors (in principal amount) have asked for acceleration.

There are four problems with this mechanism if an immediate stay on creditor action in a multi-sovereign default scenario is sought.

- Reverse acceleration clauses typically operate on an individual bond-by-bond basis. That means that a majority of creditors has to be coordinated in every individual bond that a country has outstanding. History, and the recent restructurings of Ecuador and Argentina, tells us that this coordination task can be onerous even for a single country.\(^{14}\)
- Most reverse acceleration clauses require that the underlying Event of Default that triggered the acceleration in the first place must be cured before the reversal can occur. Assuming that the Event of Default is the failure to make payments to creditors, the cure is to make those payments; however, during an ongoing crisis such as a pandemic that cannot be done because the money needs to be allocated to other expenditure in order to fight the effects of the pandemic.
- Reverse acceleration only applies to accelerations; it cannot stop creditor action on payments that were due and not made (such as if the principal amount has come due).
- Some of a sovereign debtor’s obligations—such as its syndicated loans or guarantees—may not even contain reverse acceleration clauses.\(^{15}\)

The bottom line is that it is unlikely that the existing contract mechanisms can produce an immediate and effective stay on litigation in a generalized sudden stop scenario. We turn, therefore, to three other mechanisms. None is an easy lift.

**B. Option 2: UN Security Council immunity shield**

In 2003, when Saddam Hussein’s government was defeated in Iraq, the country was left with a debt stock of approximately $140 billion.\(^{16}\) From a restructuring’s perspective, the debt stock was particularly unwieldy in that it was made up by a much wider range of debt obligations—each with its own restructuring provisions—that needed to be

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\(^{14}\) The text is referring to the numerous delays and battles during the recent restructurings for Ecuador and Argentina. There, the clauses in question were Collective Action Clauses that apply to the modification of ‘reserved matters’, such as the payment terms of the bonds. And the coordination and voting mechanisms for that matter are much better defined and familiar to the various players than reverse acceleration clauses. To our knowledge, reverse acceleration clauses have never been used in practice, which means that no one knows what pitfalls lie in wait.

\(^{15}\) This information is based on informal conversations with senior practitioners in this area, including Lee Buchheit, Mark Stumpf, and staff at the IMF. And the observation likely also holds for bilateral and multilateral debt obligations. However, there is no research that we are aware of that details the types of reverse acceleration clauses in any of these categories of sovereign debt. Nor, as far as we are aware, have these clauses ever been used in actual practice even when they have been present.

\(^{16}\) Joanna Chung and Stephen Fidler, ‘Why Iraqi Debt is no Longer a Write Off’ Financial Times (London 16 July 2006) 5. For more detail, see Simon Hinrichsen, ‘The Iraq Sovereign Debt Restructuring’ (2020) Capital Markets Law Journal 95.
restructured than perhaps had ever been seen before. Given the depth of economic distress that post-invasion Iraq was in, and the vulnerability that its primary asset faced in terms of creditor attachment actions, the need for a standstill action was urgent.

The solution devised by the US authorities for Iraq’s restructuring was both original and devastatingly effective. In the end, the new government in Iraq inflicted an 89.75 per cent loss on holders of Saddam-era claims. As of 2008, the Iraqi authorities had settled 13,164 claims tendered from 576 commercial creditors from 50 countries—a creditor participation rate exceeding 96 per cent (by value of claims).

The approach taken was to pass a UN Security Council resolution—Resolution 1483 of 22 May 2003 to protect Iraq against asset attachment attempts by its creditors. That Security Council resolution created a global immunity shield for Iraq’s key assets, which in turn induced a remarkable level of cooperation from the creditors of all sizes and shape.

Resolution 1483 was passed by the Security Council under Chapter VII of the UN Charter. The result: it was legally binding on all members of the United Nations. Those members were then required to enact into their domestic laws the legal immunities for Iraqi assets set out in Resolution 1483.

The technique utilized for Iraq was a form of legal air cover. Creditors retained their legal contract rights; their remedies, however, were temporarily put on hold. Creditors, therefore, had the option to refuse any restructuring offer, but their ability to litigate effectively was frozen until the expiry of the Security Council resolution.

The original resolution was to expire on 31 December 2007. The Security Council subsequently extended the immunities through 30 June 2011. By then, the restructuring of Saddam-era debt was effectively complete.

Among the attractive aspects of the UN Security Council resolution is that it creates worldwide immunity for the assets of the sovereigns in peril and it does so with speed. Only the members of the security council have to agree; and that is a small group—the five permanent members and 10 non-permanent ones. Of course, this is possible only if there is agreement from the leadership in these countries. In 2003, agreement

Buchheit and Gulati write:

Most of the debts were owed to bilateral (governmental) creditors. Approximately $48 billion was due to members of the Paris Club and another $71 billion to more than 60 non-Paris Club bilateral lenders. In addition, $21 billion of the Saddam-era debt stock was owed to a widely mixed group of commercial creditors including commercial banks, insurance companies, hedge funds, trade creditors of every imaginable stripe, construction companies and individuals.

Lee C Buchheit and Mitu Gulati, ‘Sovereign Debt Restructuring and U.S. Executive Power’ (2019) 14 Capital Markets Law Journal 114. For more detail, see Simon Hinrichsen, ‘The Iraq Sovereign Debt Restructuring’ (2020) 16 Capital Markets Law Journal 95.

Ali Allawi, ‘Why Iraq’s Debt Deal Makes Sense’ Euromoney (London, 1 September 2005) 213.

Iraq Announces Successful Conclusion of Additional Commercial Debt Settlement, 10 September 2008 Lee C Buchheit and Mitu Gulati, ‘Sovereign Debt Restructuring and U.S. Executive Power’ (2019) 14 Capital Markets Law Journal 114.

Iraq Announces Conclusion of Commercial Debt Settlement, 18 July 2006 Lee C Buchheit and Mitu Gulati, ‘Sovereign Debt Restructuring and U.S. Executive Power’ (2019) 14 Capital Markets Law Journal 114.

United Nations Security Council Resolution Number 1483, UN Doc S/RES/1483, Section 22, 22 May 2003.
was obtained largely through the diplomatic efforts of George Bush’s administration. The Joe Biden led US administration, in cooperation with other Security Council members, might be able to do the same. The question though, will be whether the Biden administration—and other members of the Security Council—will choose to prioritize this issue sufficiently to be able to engineer the kind of agreement that was achieved in the Iraq context.22

C. Option 3: The US President’s Executive Order

The UN Security Council’s Immunity strategy was initially set to expire in 2007, and received one extension until 2011. Getting repeated agreement among all of the members of the Security Council for a global immunity shield, however, is non-trivial. In the Iraqi case, when the extension of the global shield expired in 2011, the US was still able to extend its effectiveness acting on its own. That precedent—which was effective in nullifying litigation against Iraq’s oil assets in the US (the primary location where creditors would have wanted to bring such as action)—generates option 3.

The US implemented the Resolution 1483 immunities through an Executive Order (EO 13303) issued on 22 May 2003.23 The George Bush administration made the claim that the threat of creditor attachment of Iraqi assets posed an ‘unusual and extraordinary threat to the national security of the United States’. Given that this is a matter on which the courts generally give the executive deference on, there was no challenge. That Executive Order was renewed annually thereafter by both Presidents Bush and Obama. The initial Executive Orders were put in place so as to follow the dictates of the UN Security Council. However, that dictate ended in 2011.

Legal immunities for Iraqi assets held in the US, however, continued until 27 May 2014. That is, there was a period of three years (2011–14) when an effective immunity strategy was in place due to the actions of a single country: the US. Further, if one digs deeper into the strategy used with Iraq, one realizes that a crucial element of the immunity strategy—the immunization of Iraqi Central Bank Assets—was the product of solo action by the US itself right from the start in 2004.

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22 Simon Hinrichsen, the leading scholar on the Iraq debt restructuring, has made the point that the key determinant of achieving the UNSC immunity shield was the fact that one powerful nation (the US) had a great deal at stake in making sure that Iraq was able to have a relatively smooth economic recovery in the wake of the invasion and Saddam Hussein’s removal. The answer to the question of whether a Joe Biden administration will view the necessity of a smooth global economic recovery in the wake of the devastation caused by Covid-19 to be important enough to the US to exert the kind of effort that the George Bush administration was willing to exert in 2003 is yet to be seen. Clauses and Controversies, Episode 29—Simon Hinrichsen, Apple Podcasts (15 March 2021) <https://podcasts.apple.com/us/podcast/clauses-controversies/id1528208049> accessed 21 March 2021.

23 The preamble to Executive Order 13303 declared that the threat posed by the potential exercise of legal remedies against Iraqi assets by Saddam-era creditors constituted an ‘unusual and extraordinary threat to the national security and foreign policy of the United States’. Declaring this a national emergency, President Bush prohibited ‘any attachment, judgment, decree, lien, execution, garnishment, or other judicial process’ against the protected Iraqi assets, all of which ‘shall be deemed null and void’. Executive Order 13303—Protecting the Development Fund for Iraq and Certain Other Property in Which Iraq Has an Interest, 68 FR 31931, 22 May 2003. For other executive orders involving foreign relations where the same ‘unusual and extraordinary threat to the national security and foreign policy of the United States’ language is used, see eg <https://www.archives.gov/federal-register/codification/executive-order/12513.html> accessed 21 March 2021.
When President Bush first renewed EO 13303 on 29 November 2004, he added to the items covered by Security Council Resolution 1483 those assets held in the US by the Central Bank of Iraq.\(^\text{24}\) In other words, the Executive Order operated as an independent and additional shield for Iraqi assets; this shield protecting assets of the Central Bank, a quasi sovereign.

When the Security Council’s resolution expired on 30 June 2011, President Obama renewed President Bush’s Executive Order immunizing Iraqi assets. This was done three times until May 2014.\(^\text{25}\)

The following note from US Congressional Research Service sets out the implications of what happened:

The Iraq case thus illustrates that the United States and the international community are willing to shield a debtor from its creditors on an ad-hoc basis, without a formal international bankruptcy regime. This can be accomplished multilaterally through U.N. Security Council Resolutions or bilaterally, on a case-by-case basis, through executive orders. Since these measures were not taken in other recent financial crisis-afflicted countries, such as Argentina or Brazil, it appears that policymakers are only willing to use such measures selectively, and for countries that exhibit a perceived threat to U.S. and international security.\(^\text{26}\)

A recent example of a US President utilizing his executive power to confer immunity on key assets of a sovereign debtor in default is Venezuela. Here, the US authorities have issued temporary protective orders immunizing the prize Venezuelan asset on US soil: ownership interests in its Texas-based oil refinery, Citgo. History provides additional examples, where US executive authority has been used well beyond the temporary immunization of assets from seizure.

The immunization of Iranian assets in the US, in the wake of the settlement of the hostage crisis between Iran and the US in 1980, is such a case. There, the government ordered the negation of attachment orders and removal of all pending claims in US courts against the Iranian sovereign in US courts by an international tribunal at the Hague (despite explicit contractual provisions allowing those claims to be brought in US courts).\(^\text{27}\) The actions of the US government were challenged in court, but the US Supreme Court ruled in favour of the executive.\(^\text{28}\)

\(^\text{24}\) Executive Order 13364—Modifying the Protection Granted to the Development Fund for Iraq and Certain Property in Which Iraq has an Interest and Protecting the Central Bank of Iraq, 69FR 70177, 29 November 2004.

\(^\text{25}\) Executive Order 13668—Ending Immunities Granted to the Development Fund for Iraq and Certain Other Iraqi Property and Interests in Property Pursuant to Executive Order 13303, as Amended, 79FR 31019, 27 May 2014.

\(^\text{26}\) Congressional Research Service ‘Iraq’s Debt Relief Procedure and Potential Implications for International Debt Relief’ (6 December 2006) CRS-13 (emphasis added).

\(^\text{27}\) Warren Christopher and Richard M Mosk, ‘The Iranian Hostage Crisis and the Iran-U.S. Claims Tribunal: Implications for International Dispute Resolution and Diplomacy’ (2007) 7 Pepperdine Dispute Resolution Journal 165.

\(^\text{28}\) Dames & Moore v Regan [1981] 453 US 654, 663–64, 675. In preparation for the action in question, President Carter asked the Office of Legal Counsel (OLC) of the US Department of Justice whether the Executive Branch had the power to suspend pending litigation between US nationals and Iranian public sector defendants. In a 25 June 1980 Memorandum Opinion for the Attorney General, the OLC pointed
Other examples, even more intrusive into individual rights, are the numerous blanket settlements of the claims of US nationals against foreign governments that have been entered into by various US governments over the years. The bottom line is that the US executive has broad authority to take actions of the type described above in matters relating to foreign relations, particularly where the actions in question are aimed at dealing with a national emergency.

A blanket imposition of temporary sovereign immunity for all emerging market sovereign debtors being pursued in the US courts in the context of efforts to protect fiscal capacity or debt restructuring efforts in a worsening economic environment provoked by the global pandemic strikes us as easily satisfying the conditions for such emergency action. To go back to the Iraq immunity shield and the Venezuelan asset trading prohibition, the core justification for each of these executive orders has been that instability in the foreign nation in question could impose significant externalities on the United States. With the Covid-19 pandemic, where the externality faced by the US is the danger that the virus will mutate and spread instead of being quashed out of existence (should the developing world not be able to deal with the pandemic), the case for executive action is even clearer.

The upside of the US President’s Executive Order is that it can be done instantaneously. It only works, however, if the US administration is one that is concerned about global welfare and the negative effects on the US of a severe downturn in the emerging market world. And even assuming that this is the case, the order only protects emerging market sovereigns from legal actions brought in the US. That represents considerable protection for the small set of countries where the majority of their foreign currency transactions are with the US; however, this is but a subset of the emerging market world.

to Section 203(a)(1)(B) of the International Emergency Economic Powers Act (IEEPA) as the relevant statutory text. That provision gives the President, upon a declaration of national emergency, broad powers with respect to ‘any property in which any foreign country or a national thereof has an interest.’ The OLC’s opinion admitted to some difficulty in accepting the proposition that IEEPA ‘delegated to the President extraordinary authority to suspend for the time being the operation of a co-equal branch of government [the Judicial Branch] in certain class of cases.’ Nevertheless, the OLC concluded:

We are of opinion that the President’s power to regulate or prohibit the exercise of rights, powers, or privileges with respect to foreign property, must be read to include a power to regulate or prohibit the exercise of rights, powers, or privileges through the prosecution or adjudication of claims with respect to foreign property in court—a power that he may exercise in addition to his power to prevent the transfer of, or the creation of interests in, foreign property.

Opinions of the Office of Legal Counsel, vol 4A at 236, 239–41 (1980), Presidential Power to Regulate Domestic Litigation Involving Iranian Assets.

29 Adam S Zimmerman, ‘Presidential Settlements’ (2015) 163 University of Pennsylvania Law Review 1393.
30 For a discussion of the externalities issues in the smallpox context, see Scott Barrett, ‘The Smallpox Eradication Game’ (2017) 130 Public Choice 179. The abstract of the article says it all:

Why did the world succeed in eradicating smallpox? Though eradication is a global public good, theory suggests that it should not have been vulnerable to free riding. Some countries, however, lacked the capacity to eliminate smallpox. Success thus depended on the other countries providing assistance. Theory suggests that this public good also should not have been vulnerable to free riding. However, financing proved challenging, even though the global benefit-cost ratio for eradication exceeded 400:1. Contrary to what theory suggests, what may have been the greatest achievement of international cooperation ever was not inevitable. Indeed, it very nearly failed.
As for the other major financial jurisdiction, the UK, our understanding from talking to legal experts is that a US-style Presidential Executive Order is not a likely option. However, in contrast to the US, the UK has shown the ability and willingness to pass protective legislation to help poorer nations against litigation by so-called vulture funds.  

D. Option 4: the necessity defence

Options 2 and 3 would be effective. However, they depend on political will and an inclination on the part of the powerful nations (particularly the US) to assist the broader global community. Absent that willingness, or while that willingness is being generated, more temporary solutions may be required.

One possible avenue is to appeal to the obscure and rarely granted doctrine of economic necessity in international law. Under Article 25 of the International Law Commission’s (ILC) draft Articles on Responsibility of States for Internationally Wrongful Acts, a state may invoke necessity to excuse its non-performance of an ‘international obligation’ if non-performance is the only way to address ‘a grave and imminent peril’, as long as non-performance does not seriously impair an essential interest of the ‘State or States towards which the obligation exists’.

The scope of the doctrine is narrow. It may only be invoked as a justification to breach obligations if there is ‘grave and imminent peril’ for the citizens of the country in need and an essential interest of the other side is not ‘seriously impair[ed]’. The ILC’s draft Articles go on to explain that even if the foregoing conditions are satisfied, the state may not invoke necessity to excuse the violation of an international obligation that ‘excludes the possibility of invoking necessity’. The defence is also unavailable if the state in question is even partially responsible for causing the problematic state of affairs.

Almost every sovereign debt crisis in our lifetimes has been caused in part by local mismanagement. Given that, the necessity doctrine should almost never be applicable. But that is, in a sense, the virtue of the doctrine—it is only applicable in the rarest of circumstances when the country in question is in dire need, it is not at fault in

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31 The context for this legislation was the concern that, following the grant of debt relief by the Official Sector to a number of extremely poor and highly indebted nations (HIPIC countries), distressed debt specialists would use the opportunity to try and obtain full recovery on their debts. See International Monetary Fund, ‘The International Architecture for Resolving Sovereign Debt Involving Private-Sector Creditors: Recent Developments, Challenges and Reform Options’ (23 September 2020) 27–28.

32 For a discussion of this option, in response to the March 2020 sudden stop, see Patrick Bolton and others, ‘Born Out of Necessity: A Debt Standstill for Covid-19’ (2020) CEPR Policy Insight No 103; see also Mark Weidemaier and Mitu Gulati, ‘Necessity and the Covid-19 Pandemic’ (2020) 15 Capital Markets Law Journal 277.

33 International Law Commission, ‘Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries, Article 25. Necessity’ (November 2001).

34 International Law Commission, ‘Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries, Article 25. Necessity’ (November 2001).

35 The defence is also a temporary one; it ceases to operate once the state of necessity has passed. International Law Commission, ‘Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries, Article 27. Consequences of Invoking a Circumstance Precluding Wrongfulness’ (November 2001).
causing the problem, and the counterparty would not be unduly harmed by the contract violation.

As we see it, the concern of any court faced with the question of whether to apply this doctrine will be verification. Tribunals will be concerned about not being able to distinguish between true cases of necessity and fake allegations, which would result in errors and opportunism. To reiterate, the result will be that this doctrine will only be applied in the rare circumstances where conditions in a debtor state are so obviously bad that failure to ameliorate them will cause a humanitarian disaster and it is clear that those bad conditions were caused by some exogenous force.36

The destruction caused by the Covid-19 pandemic seems to satisfy the above conditions. It is hard to suggest that any emerging market nation was at fault in any way for causing the pandemic. One might argue at the margins about whether states took the right steps to deal with the pandemic and some have probably taken the wrong steps. But all of these decisions were presumably made in good faith, with governments trying to balance economics and healthcare.

The key to a local court in either the US or the UK applying this doctrine, we suspect, will be whether the Official Sector, along with the governments of those jurisdictions, certify that these are conditions that warrant the applicability of the doctrine. The reason we think that such a certification will be important is that the necessity doctrine is a relatively untested ‘excuse’ doctrine, and common law courts have traditionally been reluctant to find a debtor excused except in the rarest of circumstances.37 A signal from the Official Sector that this is indeed a case that warrants the application of the necessity doctrine—which will almost surely mean approval from key jurisdictions such as the US and the UK—will assure the court that this is not going to cause harm to the system.38 Absent such a certification, persuading a local court to take the radical step of incorporating this doctrine will be an uphill battle.

The defence was recently the subject of litigation in the US for the first time, in the Casa Express Corp v Republic of Venezuela case.39 The case was decided against

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36 Alan O Sykes, ‘Economic ‘Necessity’ in International Law’ (2015) 109 American Journal of International Law 296, 306.
37 For a discussion of the basic common law excuse doctrines and the rarity with which they are granted, see Melvin A Eisenberg, ‘Impossibility, Impracticability and Frustration’ (2009) 1 Journal of Legal Analysis 207.
38 Approval from the countries that constitute the Official Sector on this matter (eg the G20 participants) will also assure the court that the necessity doctrine is a legitimate doctrine of customary international law. This is because a crucial element of determining whether some doctrine is part of customary international law is whether states believe it to be so. Olufemi Elias, ‘The Nature of the Subjective Element in Customary International Law’ (1995) 44 International and Comparative Law Quarterly 501.
39 Casa Express Corp v Bolivarian Republic of Venezuela [2020] 18 Civ 11940 (AT); 19 Civ 3123 (AT) (SDNY, 30 September).

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Venezuela on other grounds (primarily that there was no end in sight for the temporary relief that Venezuela was asking for). Important, for our purposes, however, is that the court did not reject the possible applicability of the necessity defence in a US domestic court in a situation such as that posed by Covid-19.\(^{40}\) If the sovereign debtor is having to choose between paying international creditors or paying for a vaccine, the case for a necessity defence strikes us as plausible. International law scholar Alan Sykes writes:

> Imagine a developing country facing a deadly tropical disease, and suppose that a costly cure has just been discovered. The government may then have an extremely valuable use for funds that it did not have before. Accordingly, to the list of economic exigencies plausibly justifying measures to conserve government funds, we might add certain scenarios in which the government experiences a new and pressing need for funds to address some unanticipated domestic emergency—a public health crisis, a natural disaster, and the like.\(^{41}\)

The last sentence of the quote raises an interesting question. What if the pandemic continues for some significant period of time? At some point, it will have lasted long enough that countries will have engaged in new borrowing; that is, borrowing for which the argument that the pandemic was ‘unanticipated’ cannot be made. The question then is whether the necessity defence would continue to apply. We think so, since there is nothing in the doctrine that says that it only applies to unforeseen contingencies. Further, the fact that one can foresee the possibility does not mean that enough information is available to be able to write a contract provision that covers it. In economic terms, the contract could still be incomplete.

A case in point regarding the difficulties in inserting a disaster contingency in debt contracts is that even countries in the Caribbean that are periodically hit by hurricanes find it difficult to include hurricane debt suspension clauses.\(^{42}\) Hurricanes are events that the sovereign and its creditors could not say are unforeseen, or to have been caused by the debtor country in any way. Further, the sovereigns hit badly by a hurricane will have had a clear need to provide basic care to their citizens; one that was more

\(^{40}\) Judge Torres wrote:

> Even assuming [the defence of economic necessity is] viable, and would apply to litigation of financial obligations that are expressly subject to New York state law, they would not justify staying this litigation. To be sure, the dire political, economic, and humanitarian situation in Venezuela may affect Defendant’s ability to satisfy a judgment. OFAC may wish to take that into account in deciding whether to issue a license permitting Plaintiffs to pursue Defendant’s property, and it may be a good reason for Defendant’s creditors to come to the negotiating table to discuss restructuring. But at this stage in these cases, conditions on the ground in Venezuela do not require the Court to postpone the determination of the parties’ rights and obligations.

\(^{41}\) Alan O Sykes, ‘Economic “Necessity” in International Law’ (2015) 109 American Journal of International Law 296, 314.

\(^{42}\) A handful of countries such as Barbados and Grenada have been able to utilize hurricane clauses, but these have all been in the context of bonds coming out of a restructuring as opposed to market issuances. Robin Wigglesworth and Colby Smith, ‘Hurricane Clause in Bonds Helps Countries Struck by Disaster’ Financial Times (London, 2 June 2019) S. Further, the latest variant of this clause—used by Barbados in 2020—requires acquiescence from a majority of creditors to be triggered.
important than paying foreign creditors. Nevertheless, despite the conditions seeming to be appropriate for the necessity doctrine to be at least tried, sovereign issuers have not included hurricane clauses in debt contracts and have refused to invoke a necessity doctrine. There are at least a couple of reasons that could be at work. First, the necessity doctrine is, by its nature, constrained—it provides limited and temporary relief at best.\(^{43}\) Second, there may be costs in the form of ratings downgrades and broader reputational harms.\(^{44}\) Sovereigns, we know from history and research, are loathe to admit to being unable to pay creditors.\(^{45}\) So, they keep paying well beyond when they should, despite the urgent needs of the people. Under such conditions—if the sovereigns themselves are unwilling to ask for assistance—our options will not work.

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Before moving to the empirical analysis, we pause to flag three unspoken premises of the foregoing analysis.

The first is the assumption that there is a need for air cover. A sceptic might reasonably wonder whether there will be any value to providing legal air cover by the time the next Covid-19 induced sudden stop hits. Put differently, will the economic situation have deteriorated so much that the only viable solution will be a full-scale restructuring?

We think it too early to tell. However, assuming that turns out to be the case, we have two answers. First, debt restructurings take time to be worked out. Among other things, the debtor and its creditors need to figure out how much the debtor can pay, while also putting itself on a path to debt sustainability and a return to market access. And air cover will be needed during that period when the IMF or some other credible institution is making sustainability estimations. Second, options 2 and 3 (the UN Security Council Resolution and US Executive Order) discussed above, are ones that can be applied to induce full-scale restructurings. That was what they were used for in the Iraq case (where the immunity blanket was not lifted until almost all of the debt had been restructured). It also bears reiterating that the solutions above may need to be used as complements. It may be, for example, that the necessity doctrine will have to be invoked initially to buy time until options 2 or 3 can be put in place. Going back to the Iraq case, the UN Security Council Resolution global shield was put in place first and was then subsequently followed with a lesser shield in just the US.

\(^{43}\) As an illustration of this point, we do not think that this doctrine will apply under circumstances where the country is able to access the private credit markets to fund its health and economic emergency spending. This is because the necessity defence—by its terms—is a last resort. It applies where a country must choose default on its contract obligation in order to prevent a greater harm from occurring to its citizens, and the country is not at fault for causing the crisis situation. This ‘last resort’ aspect of the doctrine suggests to us that the use of this defence is unlikely to be upheld unless the country is faced with this dire dilemma and has little choice but to temporarily delay payments to creditors.

\(^{44}\) This reluctance to ask for relief has already manifested itself in the Covid-19 context, in terms of some countries being unwilling to avail themselves of the DSSI.

\(^{45}\) This is referred to as the ‘too little, too late’ problem of sovereign debt.
Second, is our presumption that if litigation-oriented creditors are stymied in the legal enforcement of their claims for an indefinite period they will be more likely to join a debt restructuring.46

But this is not a self-evident proposition. True, it happened in Iraq. However, 7 per cent of Argentina’s creditors after its 2001 default were prepared to wait 15 years for a payout. Indeed, might we begin to see a new class of hibernation investor, perfectly prepared to slumber for as long as the legal constraint on enforcement lasts? Hedge funds would put these investments into side pockets attractive only to investors with a tolerance for long duration commitments. Currently, investors in hedge funds tend to want fast returns, but that could change if the returns on waiting are high enough.

The third unspoken premise of the foregoing is that the prospect of muting the legal rights and remedies of creditors will be a determinative motivation for sovereign debtors.

But a well-tutored sovereign borrower will know that the Argentine holdout creditors from 2001 only succeeded in bringing the country to the negotiating table through the pari passu manoeuvre.47 Traditional legal remedies like attachment misfired. Assuming that a well-tutored sovereign debt restructuring will not make that pari passu mistake again, is it likely that some sovereign debtors will take a ‘sue and be damned’ approach to their legacy creditors?48

III. POTENTIAL MARKET PENALTY: A GREEK CASE STUDY

A concern regarding the options we discuss is that they could reduce the value of contractual commitments and hence have negative spillovers on the global debt market. The argument is simple: if investors find that their contractual rights are being disrespected, they will attach less value to them. Research also tells us though that in situations where stronger creditor rights produce coordination problems, a weakening of those rights—under certain conditions—can increase the value of investments.49

In this section, we bring new evidence to bear on this issue by examining the sovereign debt market impact of the retroactive modification of local-law Greek

46 This point should apply to claims brought in arbitration settings such as the International Centre for Settlement of Investment Disputes (ICSID) as well, since those claims—after they have been converted to judgments—need domestic court systems for enforcement purposes. And the immunity shields would come into play there.

47 For a discussion of the pari passu drama and how Argentina was brought to its knees, see eg Kathy Gilsinan, ‘65 Words Just Caused Argentina’s $29 Billion Default’ The Atlantic (New York, 21 July 2014).

48 For the sovereign that takes the foregoing path, the trick will be to figure out a structure that will allow such a sovereign to continue to borrow in the international capital markets during a period of default on legacy debts without running the risk of legacy creditors attaching the proceeds (assuming again that the pari passu risk can be avoided).

49 Elena Carletti, Paolo Colla, Mitu Gulati and Steven Ongena, ‘The Price of Law: The Case of the Eurozone Collective Action Clauses’ [2020] Review of Financial Studies <https://academic.oup.com/rfs/advance-article-abstract/doi/10.1093/rfs/hhaa140/6050890> accessed 21 March 2021; Kay Chung and Michael Papaioannou, ‘Do Enhanced Collective Action Clauses Affect Sovereign Borrowing Costs?’ IMF Working Paper No 162 (2020); Aitor Erce, Mattia Picarelli and Xu Jiang, ‘The Benefits of Reducing Hold-Out Risk: Evidence from the Euro CAC Experiment: 2013–2018’ (2019) 14 Capital Markets Law Journal 155.
sovereign bonds by the Greek legislature (with the approval of the European authorities and the IMF) to make them easier to restructure.

This Greek ‘retrofit’ was one of the most significant interferences with contractual rights ever in the history of the sovereign debt markets, and resulted in a brutal restructuring for creditors (aggregate NPV haircuts for investors in the range of 55–65 per cent\(^\text{50}\)). Given that the decision to take this radical step was a European decision, the question we explore is whether investors in the bonds of other European governments that shared vulnerability to a similar use of the retrofit technique (i.e., bonds under local law) began discounting the value of their debt instruments following the Greek ‘retrofit’, and following subsequent court decisions that upheld the retroactive modification of the local-law Greek sovereign bonds by the Greek legislature.

We focus on the pricing of debt of other eurozone peripheral borrowers following the Greek retrofit. This is because we are interested in understanding whether the precedent set by the Greek decision had negative spillover effects on neighbouring countries that were perceived to be at risk of financial distress. We are not exploring the immediate effect on Greece itself following the retrofit, because it is not possible to separate the direct effect of the retrofit itself from the underlying economic context that caused the intervention.

Following Randall Kroszner’s 1998 paper on the repudiation of the Gold Indexation Clause we test two opposing hypotheses.\(^\text{51}\) The first hypothesis is that the Greek retrofit precedent undermined sovereign debt markets of the eurozone’s peripheral countries by paving the way for possibly other similar retroactive modifications of the debts of these countries. Expecting a higher likelihood of some form of disfigurement following the Greek retrofit, investors in these countries’ bonds would demand a higher yield, as the many critics of Angela Merkel’s and Nicolas Sarkozy’s Deauville initiative on 19 October 2010 calling for a sovereign debt restructuring process had surmised. The opposing hypothesis is that the Greek precedent could pave the way for other similar debt restructurings in extreme debt overhang situations when restructuring provides needed relief and is preferable to a costly default or deflation. Under this hypothesis bond yields would narrow or remain unchanged.\(^\text{52}\)

\(^{50}\) The actual haircut was arguably a bit less, given that the Greek bondholders taking the exchange were given a number of credit enhancements such as foreign law governing their new bonds, some upfront cash, and the assurance that some official sector lending would be at risk as well if Greece were to default again within the next few years. These enhancements though, we suspect, could not have taken more than a few points off the percentage haircut. For details on the Greek restructuring, see Jeromin Zettelmeyer, Christoph Trebesch and Mitu Gulati, ‘The Greek Restructuring: An Autopsy’ (2013) 28 Economic Policy S13. That said, we suspect that creditors will be much more willing to enter into a cooperative deal if they are given credit enhancements of the type that were given in the Greek context—specifically, something along the lines of the official sector sharing its preferred creditor status with the private creditors at least for the portion of the moneys that they agree to defer payments on.

\(^{51}\) Randall Kroszner, ‘Is it Better to Forgive Than Receive? Repudiation of the Gold Indexation Clause in Long-Term Debt During the Great Depression’ CRSP Working Paper 481 (1998) <https://econpapers.repec.org/RePEc:wop:chispw:481> accessed 21 March 2021.

\(^{52}\) A third hypothesis is that markets did not care. This hypothesis would also be consistent with no effect on bond yields.
We find no evidence of a discount being applied to the bonds of the ‘peripheral’ euro area nations after the Greek restructuring.

This finding is consistent with prior research on events such as the abrogation of the gold clauses. Our findings suggest that, if carefully done, ex-post intervention in debt contracts in debt overhang situations far from undermining debt markets can sustain them by facilitating debt restructuring when it is needed.

In what follows, we begin by looking at the market effect of the passage of the Greek Bondholder Act of 2012 (which implemented the retrofit) and then study the market impact of the most prominent court rulings on the multiple challenges that investors brought against the Greek government’s actions in Greek local courts, foreign sovereign courts, European courts, and arbitration tribunals.

In all cases the legal claims of bondholders were rejected. Given the extreme nature of the actions that the Greek government took, this outcome was by no means assured, especially since many of the challenges were brought in non-Greek courts. Inasmuch as these rulings were a ‘surprise’ for the market, they allow us to conduct multiple event studies that examine the European sovereign debt market reactions to these decisions.53 Drawing from the legal literature on this litigation, we focus on the following four key events.54

(i) 23 February 2012: Date of the legislative action (the Greek Bondholder Act) taken by the Greek government to retroactively insert ‘collective action clauses’ in local-law governed sovereign bonds.

(ii) 23 March 2013: Date of the Greek Council of State decision of affirming the legality of the Greek Bondholder Act of February, 2012 and rejecting investor challenges on expropriating/takings grounds.55

(iii) 9 April 2015: Date of the ruling of the tribunal formed by the International Centre for Settlement of Investment Disputes (ICSID) on the arbitration cases brought by Postovabanka and Istroykapital SE against Greece.

(iv) 21 July 2016: Date of the ruling of the European Court of Human Rights in the case of Mamatas and others v Greece, again rejecting investor challenges on expropriation/takings grounds.

53 We mean ‘surprise’ in the econometric sense that there was uncertainty about the outcomes of these cases—since creditors were sure to have a strong case that there had been a violation of their property rights, but the government was also likely to have a strong case that it had been acting to deal with a public emergency. That uncertainty about outcome is revealed in the numerous lawsuits that were threatened, and then filed, immediately after restructuring. The degree of uncertainty was probably different across different sets of courts, with courts outside of Greece perhaps being expected to show less deference to the actions of the Greek government imposing haircuts on local investors. For our purposes, what is key is that there was uncertainty about the outcome.

54 The key cases are identified in a number of articles analysing the aftermath of the Greek retrofit. Sebastian Grund, ‘Restructuring Sovereign Debt Under Local Law’ (2017) 12 Capital Markets Law Journal 253; Astrid Iverson, ‘The Future of Involuntary Sovereign Debt Restructurings: Mamatas and Others v Greece and the Protection of Holdings of Sovereign Bonds Under the ECHR’ (2019) 14 Capital Markets Law Journal 34.

55 Note that while the court indicated its decision on Saturday 23 March 2013, the decision was officially published on Sunday 31 March 2013. We focus on 23 March because there was no new information provided on 31 March.
As a first step, we plotted the sovereign spreads of Irish, Italian, Portuguese, and Spanish 10-year government bonds (computed as the difference between the 10-year yields of these countries and German 10-year yields) around the dates described above. Figure 2 shows the spread for a 60 trading day window centred on each of the foregoing episodes. Each episode is marked by a solid vertical line; in the top right panel, the day that the Greek Council of State decision was issued (31 March) is marked with a dashed line. The figure does not show any obvious jump in spreads around the events that we study.\(^{56}\)

Next, we conducted a formal event study by focusing on a 33 trading day window around the episodes listed above (30 trading days before the episode and two trading days after the episode) and testing whether the change in spread around the episode was higher than the change in spread in the month that preceded the episode.\(^{57}\)

Formally, we estimated the following model separately for each of the four peripheral countries:

\[
S_t - S_{t-1} = \alpha + \sum_{i=1}^{5} \lambda_i L_i + \theta E + \sum_{i=1}^{2} \phi_i F_i + \varepsilon_t
\]

where \(S_t\) is the spread on day \(t\), \(L_i\) is a dummy variable that takes value 1 \(i\) days before the event, \(E\) is a dummy variable that takes value one on the day of the event, and \(F_i\) is a dummy variable that takes value one \(i\) days after the event. The parameters \(\lambda_i\), \(\theta\), and \(\phi_i\) show whether the daily change in spreads around the episode was significantly different from the pre-episode period.

Figure 3 reports the results of this exercise (\(T - 5\) to \(T - 1\) correspond to \(\lambda_i\), \(T\) to \(\theta\), and \(T + 1\) and \(T + 2\) to \(\phi_i\)) with both point estimates and 95% confidence bands.

While the coefficients are sometimes statistically significant, there is no clear pattern. Sometimes spreads increase and sometimes they decrease around the episode. However, the change is never large with no spike in spreads around the announcement dates (something that we already saw in Figure 2). Moreover, the difference in daily changes in spreads before and after the announcement dates is always small, ranging between −20 and 20 basis points in February 2012 and often between −5 and 5 basis points in the other episodes that we consider.

Note that while one can claim that the implementation of the law in 2012 and the Council of State decision in 2013 could have been anticipated by the markets, this is unlikely to be the case for the 2015 and 2016 events that we study.

In Figure 4 we report the results of an exercise similar to that of Figure 3, but where we also controlled for the first two principal components of the spreads of the other countries plus Belgium and France. Specifically, Figure 4 is based on the following

\(^{56}\) While it is standard to study sovereign risk using benchmark 10-year yields, when countries are close to default short-term yields become more volatile than long-term yields. This should not be an issue for the countries we study because none of them was in a near default situation in the episodes studied. In fact, only Portugal had a below-investment grade rating over 2012–16. To make sure that nothing strange happened at the short end of the yield curve we hand collected data on 2- and 5-year Portuguese government bond yields and, by comparing them with 10-year yield, we verified that there was no shift of the yield curve around the episodes studied.

\(^{57}\) We focus on the change in spreads, because spreads are often non-stationary.
Figure 2. Spreads of Irish, Italian, Portuguese, and Spanish 10-year government bonds.
Figure 3. Change in sovereign spreads around the episode.
Figure 4. Change in sovereign spreads around the episode, controlling for the first two principal components of the other countries plus Belgium and France.
model:

\[ S_t - S_{t-1} = \alpha + \rho_1 PC_{1,t} + \rho_2 PC_{2,t} + \sum_{i=1}^{5} \lambda_i L_i + \theta E + \sum_{i=1}^{2} \phi_i F_i + \varepsilon_t \]

where \( PC_1 \) and \( PC_2 \) are the first two principal components of the change in spreads of Belgium, France, and the three excluded countries (for example, when we run the regression for Ireland, we compute the first two principal components of the change in spreads of Belgium, France, Italy, Portugal, and Spain).

There are pros and cons in augmenting the model with \( PC_1 \) and \( PC_2 \). The advantage is that this allows us to control for market conditions at the time, and hence provides a cleaner estimate of the parameters of interest. The drawback is that these controls could absorb part of the effect that we are trying to estimate. It is thus reassuring that including these controls does not alter our baseline results: the events that we study do not seem to have any economically significant effect on Irish, Italian, Portuguese, and Spanish spreads.

While Figures 3 and 4 provide an illustration that the events that we study did not have a significant effect of peripheral spreads, they do not amount to a formal test. We then conducted an event study focusing on cumulated abnormal returns.\(^{58}\) This consisted of a two-step procedure. First, we predicted peripheral countries spreads in the period leading to the events of interest. Second, we compared these predicted spreads with observed ones and calculated 'abnormal' spreads.

We predicted changes in spreads using a mean model (which corresponds to the exercise of Figure 3) and a market model (which corresponds to the exercise of Figure 4). Specifically, we used a 30 trading day estimation window ending three days before the event to estimate the following models (the results are robust to using longer windows):

\[ S_t - S_{t-1} = \alpha + \varepsilon_t \]

\[ S_t - S_{t-1} = \alpha + \rho_1 PC_1 + \rho_2 PC_2 + \varepsilon_t \]

In the second step we used the parameter estimates of the two equations described above to obtain excess (‘abnormal’) changes in spreads as out-of-sample forecast error (ie by subtracting the out-of-sample predicted values \( \Delta \hat{S}_{ct} \) from the actual changes during the event window) and computed cumulated abnormal spreads by adding the excess spreads over time during the event window. We conducted this exercise using a four day event window, starting one day before the event and ending two days after the event (results are robust to longer event windows).
Table 1. Average excess spreads

|                  | 23 February 2012 | 25 March 2013 | 9 April 2015 | 21 July 2016 |
|------------------|------------------|---------------|--------------|--------------|
| **Mean model**   |                  |               |              |              |
| Ireland          | 1.22             | 5.82          | 0.67         | 1.24         |
|                  | (0.17)           | (0.85)        | (0.45)       | (0.37)       |
| Italy            | 5.11             | 7.46          | 2.96         | 1.16         |
|                  | (0.75)           | (1.04)        | (1.16)       | (0.29)       |
| Portugal         | 16.05            | 12.23         | 3.05         | -0.25        |
|                  | (0.45)           | (1.5)         | (0.91)       | (0.04)       |
| Spain            | 1.15             | 7.68          | 3.33         | -0.92        |
|                  | (0.14)           | (1.43)        | (1.13)       | (0.22)       |
| **Market model** |                  |               |              |              |
| Ireland          | 1.59             | 2.27          | -1.07**      | 0.96         |
|                  | (0.42)           | (1.01)        | (2.15)       | (1.01)       |
| Italy            | 0.12             | -5.51*        | 1.06         | 0.13         |
|                  | (0.04)           | (1.92)        | (1.55)       | (0.1)        |
| Portugal         | -10.29           | 0.07          | 1.30         | -1.07        |
|                  | (0.5)            | (0.02)        | (1.11)       | (0.86)       |
| Spain            | -2.24            | 0.19          | 1.13         | -0.36        |
|                  | (0.31)           | (0.13)        | (1.12)       | (0.28)       |

Notes: Abnormal returns t-test in parenthesis, ** statistically significant at 5% confidence level, *** statistically significant at 1% confidence level.

Defining the excess change in spread as: $A\Delta S_t = \Delta S_{ct} - \Delta \hat{S}_{ct}$ and the length of the event window as $W$, the cumulated change in excess returns is:

$$CA\Delta S = \sum_{i=1}^{i=W} (A\Delta S_i)$$

Note that a positive value of $CA\Delta S$ indicates that the actual spread of a sovereign bond during the crisis episode exceeds the spread that would have likely prevailed in normal times. Thus, a positive value means that during the crisis period the country is doing worse than expected.

We can test if our measure of excess return is significantly different from zero by noting that average daily excess return is defined as $\frac{CA\Delta S}{W}$ with variance $\frac{\sigma_{A\Delta S}^2}{W}$ (where $\sigma_{A\Delta S}^2$ is the variance of abnormal returns during the estimation window), so the $t$ statistics for the average cumulated excess return is given by $\frac{CA\Delta S}{\sigma_{A\Delta S}\sqrt{W}}$.

The results of these calculation, for the different events, countries and for the mean and market model are described in Table 1.
The mean model generates excess spreads which are often positive, but never statistically significant. In the market model, instead, we found that in about one-third of cases abnormal spreads are negative (indicating that things actually improved after the event we describe) and in two cases (Italy in March 2013 and Ireland in April 2015), we found that these negative abnormal changes in spread were statistically significant. Overall, the formal tests of Table 1 corroborated our previous findings that the Greek events we focused on had no significant effect on the borrowing costs of peripheral European countries.

Thus far, we have focused on prices on the secondary market. A different way of coming at our inquiry is to look at the primary market. Specifically, at the ability of vulnerable euro area countries to issue local-law government debt in the wake of the above-mentioned events.

For illustrative purposes, we looked at the debt issuance patterns for Italy, a large (albeit vulnerable) issuer that as a historical matter has tapped both local and foreign markets. In particular, we looked at issuances of Italian 10-year Treasury bonds in the three months around the episodes studied. Table 2 suggests that these episodes are not associated with large changes in the issued amount, in yield and issuance, and bid-to-cover ratio.59 We also note that Italy did not issue large amounts of foreign-law bonds around the episodes studied. In fact, they hardly issued any.

One important consideration for our analysis is the policy stance of the European Central Bank, as its quantitative easing clearly affected eurozone debt prices. Most of the episodes we consider took place after Mario Draghi’s famous speech of July 2012 when the pressure on debt markets was somewhat alleviated by the commitment of the European Central Bank to do ‘whatever it takes’ to save the euro.

One of the episodes studied, however, took place before Draghi’s speech and, although the speech had a calming effect on the spreads of peripheral countries, it did not eliminate country risk. The spreads of peripheral countries after July 2012 bear witness to this. They were still above 200 basis points in 2013 and in most cases above 100 basis points in 2015 and 2016 (Figure 2). We also note that there were several events which did affect peripheral spreads even after Draghi’s speech. For instance, the Italian spread jumped by more than 100 points in 29 May 2018 after revelations about the content of the government programme agreed to by the Northern League and 5 Star coalition. These events further underscore that Draghi’s speech did not fully eliminate country risk.

Even if spreads are influenced by central bank policy, and consequently it is not possible to perfectly isolate the spillover effects of the Greek retrofit, our finding that peripheral debt markets were not significantly negatively impacted does allay concerns that access to debt markets might be compromised following an intervention in debt contracts. For all practical purposes, it is not necessary to isolate each effect completely.

59 Over 1999–2014, the average bid-to-cover ratio for Italian 10-year treasury bonds was 1.59 with a standard deviation of 0.35, giving a 95 per cent confidence interval of 0.89–2.29. For background, see Roel Beetsma, Massimo Giuliodori, Joel Hanson and Frank de Jong, ‘Bid-to-cover Ratio and Yield Changes Around Public Debt Auctions in the Euro Area’ ECB Working Paper No 2056 (2017).
Table 2. Issuances of Italian Bonds (10-year BTP)

| Issuance (millions of euro) | Yield  | Bid-to-cover ratio |
|-----------------------------|--------|-------------------|
| January 2012                | 2750   | 6.98%             | 1.36 |
| February 2012               | 2200   | 6.08%             | 1.42 |
| March 2012                  | 4688   | 5.5%              | 1.40 |
| February 2013               | 3500   | 4.17%             | 1.32 |
| March 2013                  | 5200   | 4.83%             | 1.65 |
| April 2013                  | 3096   | 4.66%             | 1.33 |
| March 2015                  | 5850   | 1.36%             | 1.53 |
| April 2015                  | 2875   | 1.34%             | 1.45 |
| May 2015                    | 2000   | 1.40%             | 1.59 |
| June 2016                   | 2875   | 1.83%             | 1.44 |
| July 2016                   | 3331   | 2.35%             | 1.35 |
| August 2016                 | 2855   | 1.83%             | 1.42 |

Source: Own calculations based on data from the Italian Treasury.

What matters is the ultimate effect on debt markets, and that effect will always be dependent on IMF and monetary policy. If, as is likely to be the case, authorities are more willing to offer support following a ‘bail-in’, then the prospect of such support should be included in the analysis of the overall effects of a retrofit.

Overall, the results are consistent with the proposition that the markets perceived that interventions such as the Greek Bondholder Act of 2012 would be rare. This was why, for the post-2012 period, it was mandated that all euro area sovereign debt had to contain ‘collective action’ clauses that would make the passage of such an Act unnecessary. And it is also probably the reason why European policymakers repeatedly referred to the Greek debt crisis (and the strategies being utilized to tackle it) as unique—precisely, we think, to assuage the concerns of the markets.

We do not mean the foregoing to suggest that the Greek retrofit was wholeheartedly embraced by investors. In the period between March 2012 and December 2020, Greece itself, when it has had to go back to the debt markets in the wake of the 2012 restructuring, has only been able to issue foreign-law bonds. The point is, however, that neither the choice of the European authorities and the Greek legislature to use the retrofit strategy to deal with the crisis, nor the choice of the various adjudicatory bodies to uphold the legality of the retrofit, caused an increase in borrowing costs for vulnerable European countries.60

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60 This is different from the phenomenon of local-law sovereign bonds carrying a risk premium as compared to foreign-law bonds of the same sovereign in the run up to a restructuring. That phenomenon follows from the fact that the latter are structurally senior to the former and, therefore, will likely be restructured more...
Before concluding, we should highlight that the sovereign debt situation that our proposals seek to ameliorate is not exactly the same as the Greek debt retrofit example. When considering the current debt crisis in poor and middle income countries, what the Greek retrofit precedent shows is how financial markets are likely to respond to a restructuring event when it is evident that restructuring will reduce a debt overhang problem and that the restructuring will be an isolated and rare event. The rhetoric against any intervention in debt contracts, as illustrated by the quotes from prominent market participants provided above, is that such interventions undermine the rule of law and therefore will result in higher borrowing costs for all risky debtor countries going forward. Our premise instead is that political intervention in debt contracts in crisis contingencies, far from undermining the rule of law, can be an efficient way of completing excessively rigid and incomplete debt contracts. Such interventions therefore do not necessarily result in higher future borrowing costs, especially if they are seen to be targeted to address debt overhang situations and are rare. In this broad sense, the Greek retrofit is a highly relevant precedent.

Another interesting case study relates to the recent Debt Service Suspension Initiative (DSSI) promoted by the G20. Research by David Mihalyi, Valentin Lang, and Andrea Presbitero shows that countries eligible for debt relief experienced a larger decline in borrowing costs compared to ineligible countries, and that this decline was larger for countries that received more debt relief. As the authors point out, these results are not in line with the view that ‘such debt relief could generate stigma and signal debt sustainability concerns’.

IV. CONCLUSION

Truly global crises with dozens of sovereign debtors defaulting at the same time are extremely rare events, and therefore it is unsurprising that we have no mechanism available to deal with such a circumstance in an orderly and speedy fashion. However, in the current context, the costs of not having a mechanism in place to deal with such an event are potentially catastrophic. Our article puts forward, at best, some possible ‘band-aids’. The need for a more comprehensive global mechanism has never been more urgent.

significantly. Marcos Chamon, Julian Schumacher and Christoph Trebesch, ‘Foreign-Law Bonds: Can They Reduce Sovereign Borrowing Costs’ (2018) 114 Journal of International Economics 164.

61 David Mihalyi, Valentin Lang, and Andrea Presbitero, ‘Borrowing Costs After Debt Relief’ CEPR Discussion Paper No DP15832 (2020).