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MOVING MARITIME BOUNDARIES: CHANGES IN COASTAL LAND SOVEREIGNTY, RIVER COURSES, SEA LEVELS, AND MARITIME DELIMITATION LAW

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Abstract

In February 2009, the International Court of Justice rendered a judgment delimiting a maritime area of the Black Sea between Romania and Ukraine. The very next month, Indonesia and Singapore concluded a treaty delimiting their maritime boundary in the western part of the Strait of Singapore. Although these two delimitations occurred by different means (adjudication and negotiation), years later, they raise the same question: can a subsequent event move a maritime boundary? As a matter of lex lata, the answer is probably “no”. As a matter of lex ferenda, however, this Article questions whether the law governing land boundaries should also apply to maritime boundaries in light of key differences between land and maritime boundaries.

Keywords: *Maritime boundaries, delimitation treaty, uti possidetis, natural prolongation-based approach, stability of borders.*

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“Chile seems to start from the assumption of the absolute immobility of a frontier as a condition of its validity. Nothing in this world is completely immobile. Cicero recognized this long ago when he said of material things: Omnia alia incerta sunt, caduca, mobilia. . . Similarly, Thomas à Kempis, in a classical work of Christian mysticism, meditates on the things of this world and sees them passing sicut nubes, quasi naves, velut umbras. . .”¹

I. INTRODUCTION

In February 2009, the International Court of Justice (ICJ) rendered a judgment delimiting a maritime area of the Black Sea between Romania and Ukraine.² The very next month, Indonesia and Singapore concluded

¹ Application for Revision and Subsidiary Interpretation of the Award of 21 October 1994 Submitted by Chile (Argentina/Chile), Decision, 22 RIAA 151 (13 October 1995), para. 53.

² Maritime Delimitation in the Black Sea (Romania v. Ukraine), Judgment, [2009]

a treaty delimiting their maritime boundary in the western part of the Strait of Singapore.³ Although these two delimitations occurred by different means (adjudication and negotiation), years later, they raise the same question: can a subsequent event move a maritime boundary?

In the case of the Black Sea, the subsequent event is none other than Russia's annexation of Crimea in March 2010. As the Court made clear in its judgment, it had considered the coast of Crimea as part of Ukraine's coast in drawing the delimitation line.⁴ Assuming, for the sake of this hypothetical, that Russia's annexation of Crimea was lawful, what would happen to the delimitation line established by the ICJ judgment? Would it remain valid? Would it have to move? Would the judgment simply become null and void?

In the case of the Strait of Singapore, the subsequent event is the sinking of Pulau Nipa (Nipa Island). When concluding the delimitation treaty, the parties had considered Pulau Nipa to form part of Indonesia's baseline in drawing the delimitation line.⁵ Assume, once again for the sake of the hypothetical, that rising sea levels have changed the legal status of Pulau Nipa such that it can no longer form part of Indonesia's baseline. What would happen to the delimitation line established by the treaty? Would it remain in force? Would it have to move? Would the treaty simply become invalid?

As a matter of *lex lata*, the answers to these questions are not entirely clear. One could make a strong argument that the *Black Sea* judgment would remain valid, though it would of course only be binding on Romania and Ukraine, and would not prejudice any maritime claims of Russia in the Black Sea. One could also make a strong argument that the Strait of Singapore treaty would remain in force. Nevertheless, one cannot help but notice the absurdity of the situations. The *Black Sea*

ICJ Reports 61 (3 February 2009).

³ Treaty between the Republic of Indonesia and the Republic of Singapore relating to the delimitation of the territorial seas of the two countries in the western part of the Strait of Singapore (signed 10 March 2009, entered into force 30 August 2010), 2713 UNTS 163.

⁴ Maritime Delimitation in the Black Sea (Romania v. Ukraine), Judgment, [2009] ICJ Reports 61 (3 February 2009), pp. 94, 102, 114, paras. 168, 214-216.

⁵ Lilian Budianto, "Indonesia restores key maritime baseline of Nipah Island: Foreign Ministry", *The Jakarta Post* (6 February 2009).

delimitation line would be based on an outdated geopolitical scenario, and the Strait of Singapore treaty would be based on an outdated baseline. The question thus arises: can subsequent events potentially justify the movement of maritime boundaries?

The Article is organized as follows. Section II explains how and why the law governing boundaries makes it very difficult for subsequent events to move boundaries. Section III then explains why, for policy reasons, it should be easier to move maritime boundaries than land boundaries. Section IV examines four subsequent events that could potentially justify the movement of maritime boundaries. Section V then concludes the Article with some normative observations.

II. MOVING BOUNDARIES

A. POLICY CONSIDERATIONS

The law governing boundaries must balance two policies that promote international peace and security: stability and adaptability. On the one hand, international boundaries must be stable; otherwise, States may freely claim that a boundary should move for one reason or another, leading to conflict in the border area. On the other hand, international boundaries must be adaptable; otherwise, States may have greater reason to challenge the legitimacy of an outdated boundary, once again leading to conflict in the border area. Both the stability and adaptability of boundaries are critical to international peace and security.

The extent to which the law governing boundaries favours stability or adaptability can be seen in the way it deals with subsequent events, in particular, the extent to which subsequent events can move boundaries. If the law were to favour stability, then it would be relatively difficult for subsequent events to move boundaries. If the law were to favour adaptability, then it would be relatively easy for subsequent events to move boundaries.

B. LEGAL RULES

At the present moment, the law governing boundaries favours stability over adaptability. This can be seen from the fact that it is very difficult for subsequent events to move boundaries, a fact that is evident

when looking at the three main types of boundaries: treaty boundaries (boundaries established by treaty); adjudicated boundaries (boundaries established by judicial decision); and inherited boundaries (boundaries inherited from colonial boundaries).

For treaty boundaries, the fundamental principle is *pacta sunt servanda*: “Every treaty in force is binding upon the parties to it and must be performed by them in good faith.”⁶ There are, of course, exceptions to this principle. In particular, Article 62 of the Vienna Convention on the Law of Treaties (VCLT) provides that a subsequent event that amounts to a “fundamental change of circumstances” may be invoked as a ground for terminating or withdrawing from a treaty.⁷ Nevertheless, there is an exception to the exception. Article 62(2)(a) provides that “[a] fundamental change of circumstances may not be invoked as a ground for terminating or withdrawing from a treaty ... [i]f the treaty establishes a boundary”.⁸ As a result, under the VCLT, a fundamental change of circumstances cannot move a treaty boundary. The inclusion of this exception was no accident. The International Law Commission (ILC) noted in its Commentary to the Draft Articles on the Law of Treaties that the exception is meant to prevent the ground of fundamental change of circumstances from becoming “a source of dangerous frictions”.⁹ In other words, the Commission was afraid that States could freely invoke a fundamental change of circumstances to disrespect treaty boundaries, leading to border conflicts. The ICJ has stressed the importance of the stability of treaty boundaries, noting in *Libya/Chad*: “Once agreed, the boundary stands, for any other approach would vitiate the fundamental principle of the stability of boundaries,

⁶ Vienna Convention on the Law of Treaties (opened for signature 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT). Although many States are not parties to the VCLT, many of the Convention’s provisions are widely considered to reflect customary international law.

⁷ *Ibid.*, art. 62.

⁸ *Ibid.*, art. 62(2)(a). This provision, however, has not been accepted by all States. See Malcolm N. Shaw and Caroline Fournet, “Article 62”, in Olivier Corten and Pierre Klein (eds.), *The Vienna Conventions on the Law of Treaties: A Commentary* 1411 (OUP 2011), paras. 20-22.

⁹ International Law Commission, Draft Articles on the Law of Treaties with Commentaries (1966), 2 Yearbook of the International Law Commission 187 (1966), p. 259, cmt. 11.

the importance of which has been repeatedly emphasized by the Court
....”¹⁰

For adjudicated boundaries, the fundamental principle is *res judicata*: “[A] final adjudication by a court or tribunal is conclusive.”¹¹ Once again, however, there are exceptions to this principle. For example, for ICJ judgments, a State can seek revision of an ICJ decision based upon the discovery of a fact previously unknown to the State.¹² As another example, for arbitral awards, a State can seek annulment of the award before a competent court or tribunal. Nevertheless, neither of these cases allows for a subsequent event to move a boundary. Applications for revision before the ICJ must be based on a fact previously unknown to the State seeking the revision, and arbitral awards can be annulled only on, generally speaking—procedural grounds. In short, the principle of *res judicata* prevents subsequent events from moving adjudicated boundaries.

For inherited boundaries, the fundamental principle is *uti possidetis*: newly independent States must respect “the territorial boundaries at the moment when independence is achieved”.¹³ In cases where the territorial boundaries are mere delimitations between different administrative divisions or colonies subject to the same sovereign, “the application of the principle of *uti possidetis* result[s] in administrative boundaries being transformed into international frontiers in the full sense of the term”.¹⁴ In applying this principle, the Chamber of the ICJ in *Burkina Faso/Mali* affirmed the policy considerations behind it. The Chamber noted that the principle’s “obvious purpose is to prevent the independence and stability of new States being endangered by fratricidal struggles provoked by the challenging of frontiers following the withdrawal of the administering power.”¹⁵ It further noted that “[a]t first sight this

¹⁰ Territorial Dispute (Libya/Chad), Judgment (3 February 1994), para. 72.

¹¹ William S. Dodge, “Res Judicata”, *Max Planck Encyclopedia of Public International Law* (January 2006), para. 1.

¹² Statute of the International Court of Justice, art. 61; International Court of Justice, Rules of Court, art. 99; Statute of the Permanent Court of International Justice, art. 61; Permanent Court of International Justice, Rules of Court, art. 78.

¹³ International Court of Justice, Frontier Dispute (Burkina Faso/Mali), Judgment, [1986] ICJ Reports 554 (22 December 1986), para. 23.

¹⁴ *Ibid.*

¹⁵ *Ibid.*, para. 20.

principle conflicts outright with another one, the right of peoples to self-determination[;] however, the maintenance of the territorial status quo in Africa is often seen as the wisest course".¹⁶ International law thus, for practical reasons, promotes the stability of boundaries at the expense of other interests and values of the international community.

In summary, it is very difficult for subsequent events to move boundaries. The principle of *pacta sunt servanda* and Article 62(2)(a) of the VCLT make it difficult to move treaty boundaries, the principle of *res judicata* makes it difficult to move adjudicated boundaries, and the principle of *uti possidetis* makes it difficult to move inherited boundaries.

III. MOVING MARITIME BOUNDARIES

As a matter of *lex lata*, the law governing boundaries governs both land boundaries and maritime boundaries. There is no question that the principles of *pacta sunt servanda* and *res judicata* apply to, respectively, treaties establishing maritime boundaries and judicial decisions establishing maritime boundaries. As for Article 62(2)(a) of the VCLT, the text makes no distinction between land and maritime boundaries,¹⁷ and in *Aegean Sea Continental Shelf* the ICJ confirmed that the exception applies to continental shelf boundaries.¹⁸ Finally, although there has been some controversy over the applicability of the principle of *uti possidetis* to maritime boundaries,¹⁹ courts and tribunals generally agree that it applies.²⁰

¹⁶ *Ibid.*, para. 25.

¹⁷ VCLT (note 6), art. 62(2)(a).

¹⁸ *Aegean Sea Continental Shelf (Greece v. Turkey)*, Judgment, [1978] ICJ Reports 3 (19 December 1978), para. 85.

¹⁹ See eg *Delimitation of Maritime Boundary Between Guinea-Bissau and Senegal (Guinea-Bissau/Senegal)*, Dissenting Opinion of Mohammed Bedjaoui, 20 RIAA 154 (31 July 1989), paras. 24-26; Suzanne Lalonde, *Determining Boundaries in a Conflicted World: The Role of Uti Possidetis* (2002), pp. 133-134.

²⁰ See eg *Delimitation of Maritime Boundary Between Guinea-Bissau and Senegal (Guinea-Bissau/Senegal)*, Decision, 20 RIAA 119 (31 July 1989), paras. 63-65; *Arbitration Under the Arbitration Agreement Between the Government of the Republic of Croatia and the Government of the Republic of Slovenia*, Signed on 4 November 2009 (Croatia/Slovenia), PCA Case No. 2012-04, Final Award (29 June 2017), para.

As a matter of *lex ferenda*, however, one can question whether these principles *should* equally apply to maritime boundaries. After all, Article 62(2)(a) of the VCLT and the principle of *uti possidetis* were probably designed and developed with land boundaries in mind.²¹ On a theoretical level, in order to assess whether the law governing maritime boundaries should be any different from the law governing land boundaries, one must return to the policy considerations discussed in Section II.A: stability and adaptability.

The concern for stability, although important for both land and maritime boundaries, is arguably more important for land boundaries than it is for maritime boundaries. This is because in the context of land boundaries, there can be people permanently living in the disputed area. If the boundary is not stable, then there could be serious conflicts—potentially armed conflicts—with the residents of the disputed area, as well as the local and national governments supporting them. On the other hand, in the context of maritime boundaries, it is far less common for people to permanently reside in a maritime area (though there are, of course, maritime areas to which people regularly go, such as fishing grounds). As a result, even though conflicts could arise and indeed have arisen in maritime areas, particularly in resource-rich areas, they are far less common and dangerous than the conflicts that could arise in disputed land territory since it is rare for people to permanently live in maritime areas.

The concern for adaptability, on the other hand, is arguably more important for maritime boundaries than it is for land boundaries. This is for two reasons. The first reason is that land boundaries are based on history,²² which subsequent events cannot change, whereas maritime boundaries are based on geography,²³ which subsequent events can,

886; Land, Island and Maritime Frontier Dispute (El Salvador/Honduras: Nicaragua intervening), Judgment, [1992] ICJ Rep 351 (11 September 1992), para. 385; Territorial and Maritime Dispute Between Nicaragua and Honduras in the Caribbean Sea (Nicaragua v. Honduras), [2007] ICJ Rep 659 (8 October 2007), para. 156.

²¹ For a history of the principle of *uti possidetis*, see Lalonde (note 19), pp. 10-60.

²² The determination of a land boundary by a court or tribunal is generally based on past treaties, the principle of *uti possidetis*, and *effectivités*, all of which are historical in nature.

²³ See below Section IV.A.

in certain circumstances, change.²⁴ The second reason is that the law governing land boundary delimitation is well established, whereas the law governing maritime boundary delimitation has evolved significantly over the past few decades, and continues to evolve today.²⁵ For these two reasons, the delimitation of a maritime area could produce a different result depending on when the delimitation is effected. That is, the result of a delimitation effected today could be different from the result of a delimitation of the same maritime area effected thirty years ago. And these two results could also be different from the result that would be produced by a delimitation of the same maritime area effected thirty years from now. As a result, there is arguably a greater need for maritime boundaries to be adaptable, such that States who would benefit from a re-delimitation today would not, for example, complain about the legitimacy of an older, outdated delimitation.

This assertion, however, is relative, not absolute. That is, it is not the position of the present author that maritime boundaries must constantly change to conform to new geographical situations and new developments in maritime delimitation law. Rather, it is merely noted that, compared to land boundaries, there is greater justification for allowing maritime boundaries to adapt to new circumstances.

The exact means by which the two aforementioned types of subsequent events (changes in geography and changes in maritime delimitation law) can impact the delimitation of a maritime area is the subject of the next Section.

IV. SUBSEQUENT EVENTS

This Section examines how four subsequent events can impact the result of a maritime delimitation. In order to understand these impacts, however, one must understand the maritime delimitation process. As a result, this Section first provides a brief summary of the maritime delimitation process (Section IV.A). It then examines the four subsequent events in turn. The first three events are changes in geography: changes in coastal land sovereignty (Section IV.B); changes in river courses

²⁴ See below Sections IV.B to IV.D.

²⁵ See below Section IV.E.

(Section IV.C); and changes in sea levels (Section IV.D). The fourth event is changes in maritime delimitation law (Section IV.E). Notably, the Article is not necessarily advocating that any or all of these changes should necessarily justify moving maritime boundaries. Rather, the Article merely wishes to bring attention to these four subsequent events.

A. MARITIME DELIMITATION

Articles 15, 74, and 83 of UNCLOS govern the delimitation of, respectively, the territorial sea, the exclusive economic zone (EEZ), and the continental shelf.²⁶ They do not, however, specify the precise method by which States, courts, or tribunals should delimit maritime boundaries. Article 15 provides that “neither of the two States is entitled ... to extend its territorial sea beyond the median line”, but notes that “[t]he above provision does not apply ... where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance therewith”.²⁷ Articles 74 and 83 are even less helpful. They provide that in, respectively, the EEZ and the continental shelf, the delimitation “shall be effected by agreement on the basis of international law ... in order to achieve an equitable solution”.²⁸

Despite this ambiguity, at least in the context of the EEZ and the continental shelf, international courts and tribunals generally follow the so-called “three-stage approach” first articulated by the ICJ in *Black Sea*.²⁹ As one leading commentary notes, “[t]he jurisprudence since the *Black Sea* case has accorded overwhelming primacy to this three-stage approach in EEZ and continental shelf delimitation”.³⁰

In the first stage, the court or tribunal draws a provisional equidistance line.³¹ This requires the identification of the “relevant

²⁶ United Nations Convention on the Law of the Sea (opened for signature 10 December 1982, entered into force 16 November 1994), 1833 UNTS 3 (UNCLOS), arts. 15, 74, 83.

²⁷ *Ibid.*, art. 15.

²⁸ *Ibid.*, arts. 74(1), 83(1).

²⁹ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment, [2009] ICJ Reports 61 (3 February 2009), paras. 115-122.

³⁰ Stephen Fietta and Robin Cleverly, *A Practitioner's Guide to Maritime Boundary Delimitation* (OUP 2016), p. 54.

³¹ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v.*

coasts” of the two States, the “relevant area” to be delimited, as well as the “base points” on the coasts of the two States, which are used to construct the equidistance line. It is not clear, however, what can constitute a “base point”. Article 15 of UNCLOS suggests that the base points are “the nearest points on the baselines”.³² The baselines, in turn, are the lines from which maritime entitlements are to be drawn.³³ The normal baseline of a coast is the low-water line along the coast, but the baseline can also be drawn with reference to islands,³⁴ rocks,³⁵ low-tide elevations,³⁶ reefs,³⁷ roadsteads,³⁸ harbour works,³⁹ and can furthermore be drawn as a straight line across deeply indented coastlines,⁴⁰ mouths of rivers,⁴¹ and bays.⁴² To complicate matters, Articles 74 and 83 of UNCLOS do not specify that the base points for the EEZ and continental shelf are necessarily the nearest points on the baselines. Indeed, the ICJ in *Black Sea* observed that the determination of the baseline for measuring the breadth of the EEZ and the continental shelf, on the one hand, and the identification of the base points for delimiting the EEZ and the continental shelf, on the other hand, are “two different issues”.⁴³ As a result, although islands generally have baselines from which maritime entitlements can be drawn,⁴⁴ courts and tribunals have disregarded potential base points on islands in many cases, including

Ukraine), Judgment, [2009] ICJ Reports 61 (3 February 2009), para. 116. The ICJ in *Black Sea* distinguished between “equidistance lines” for adjacent coasts and “median lines” for opposite coasts. *Ibid.* For simplicity, this Article refers to both as “equidistance lines”.

³² UNCLOS (note 26), art. 15.

³³ *Ibid.*, arts. 3, 57, 76(1).

³⁴ Fietta and Cleverly (note 30), p. 33.

³⁵ *Ibid.*

³⁶ UNCLOS (note 26), art. 13(1).

³⁷ *Ibid.*, art. 6.

³⁸ *Ibid.*, art. 12.

³⁹ *Ibid.*, art. 11.

⁴⁰ *Ibid.*, art. 7.

⁴¹ *Ibid.*, art. 9.

⁴² *Ibid.*, art. 10(5).

⁴³ International Court of Justice, Maritime Delimitation in the Black Sea (Romania v. Ukraine), Judgment, [2009] ICJ Reports 61 (3 February 2009), para. 137.

⁴⁴ UNCLOS (note 26), art. 121.

Libya/Malta,⁴⁵ *Eritrea/Yemen*,⁴⁶ *Black Sea*,⁴⁷ *Bangladesh/Myanmar*,⁴⁸ and *Nicaragua v. Colombia*.⁴⁹

In the second stage, the court or tribunal “consider[s] whether there are factors calling for the adjustment or shifting of the provisional equidistance line in order to achieve an equitable result”.⁵⁰ These factors, commonly referred to as “relevant circumstances”, are primarily geographic.⁵¹ Relevant circumstances include, for example, a concave coastline that produces a cut-off effect, a disparity in the length of the two States’ relevant coasts, and maritime features that produce a disproportionate distorting effect on the equidistance line.⁵²

In the third stage, the court or tribunal “verif[ies] that the line ... does not, as it stands, lead to an inequitable result by reason of any marked disproportion between the ratio of the respective coastal lengths and the ratio between the relevant maritime area of each State by reference to the delimitation line”.⁵³ This standard of “marked disproportion” is quite high. As the Court held in *Nicaragua v. Colombia*, the purpose of the third stage is merely “to ensure that there is not a disproportion so gross as to ‘taint’ the result and render it inequitable”.⁵⁴ In fact, no court or tribunal has ever made an adjustment to the delimitation line at this

⁴⁵ *Continental Shelf (Libya/Malta)*, Judgment, [1985] ICJ Reports 13 (3 June 1985), para. 64.

⁴⁶ Permanent Court of Arbitration, *Sovereignty and Maritime Delimitation in the Red Sea (Eritrea/Yemen)*, PCA Case No. 1996-04, Second Stage (Maritime Delimitation), Award (17 December 1999), paras. 147-148.

⁴⁷ *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment, [2009] ICJ Reports 61 (3 February 2009), para. 149.

⁴⁸ International Tribunal on The Law of The Sea, *Dispute Concerning Delimitation of the Maritime Boundary Between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)*, ITLOS Case No. 16, Judgment (14 March 2012), para. 265.

⁴⁹ International Court of Justice, *Territorial and Maritime Dispute (Nicaragua v. Colombia)*, Judgment (19 November 2012), para. 202.

⁵⁰ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment, [2009] ICJ Reports 61 (3 February 2009), para. 120.

⁵¹ Fietta and Cleverly (note 30), pp. 66-67.

⁵² *Ibid.*, pp. 67-68.

⁵³ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment, [2009] ICJ Reports 61 (3 February 2009), para. 122.

⁵⁴ International Court of Justice, *Territorial and Maritime Dispute (Nicaragua v. Colombia)*, Judgment, [2012] ICJ Reports 624 (19 November 2012), para. 242.

third stage of the process because of disproportionality.⁵⁵

B. CHANGES IN COASTAL LAND SOVEREIGNTY

The first subsequent event that can impact the result of a maritime delimitation is a change in sovereignty over a coastal land area, be it continental or insular. To determine the impact of a such a change on a State's boundaries, one would ordinarily turn to the law of State succession. As the Chamber of the ICJ held in *Burkina Faso/Mali*, “[t] here is no doubt that the obligation to respect pre-existing international frontiers in the event of a State succession derives from general international law”.⁵⁶ Applying this rule to land boundaries is simple: the boundaries of the predecessor State simply become the boundaries of the successor State. Applying the rule to maritime boundaries, however, can be much more complicated. If the coastal land area in question is not adjacent to any other coastal land area belonging to the predecessor State or the successor State, then the maritime boundaries of the predecessor State would probably simply become the maritime boundaries of the successor State. If, however, the coastal land area in question is adjacent to other coastal land area belonging to the predecessor State or the successor State, then the impact of the change in sovereignty on maritime boundaries is far less certain. The reason is that the change in sovereignty can impact the delimitation process in many different ways. In fact, the change in sovereignty can impact the delimitation process at all three stages of the three-stage process outlined above.

In the first stage of the process, the change in sovereignty could affect the identification of the “relevant coasts” of the two States because the predecessor State would have a shorter coast whereas the successor State would have a longer coast. This change in the “relevant coasts” would subsequently impact the identification of the “relevant area” and the “base points”, thereby ultimately impacting the provisional equidistance line. In the second stage, the change in sovereignty could affect the existence of relevant circumstances. It could, for example, create or remove a cut-off effect and/or a disparity in the lengths of the

⁵⁵ Fietta and Cleverly (note 30), p. 603.

⁵⁶ International Court of Justice, *Frontier Dispute (Burkina Faso/Mali)*, Judgment, [1986] ICJ Reports 554 (22 December 1986), para. 24.

two States' relevant coasts. A change in sovereignty over a maritime feature could also produce or eliminate a disproportionate distorting effect on the equidistance line. In the third stage, the change in sovereignty could create or remove a marked disproportion because of the potential changes in the ratio of the respective coastal lengths and/or the ratio of the relevant maritime areas of the two States.

Take, for example, the Crimea situation presented in the introduction. Assuming that Russia's annexation of Crimea was lawful, and the ICJ were asked to delimit the maritime boundary between Romania and Ukraine once again, how would the maritime delimitation line change? The law of State succession is insufficient to answer this question. One cannot simply say that Russia inherits the part of Ukraine's maritime area in the Black Sea "belonging" to Crimea because the ICJ did not make clear which part of Ukraine's maritime area belongs to Crimea as opposed to the rest of Ukraine. One also cannot simply say that the line divides Romania's maritime entitlements, on the one hand, and Ukraine and Russia's maritime entitlements (which have yet to be delimited), on the other. The reason is that the ICJ had taken the coastal land area of Crimea into account when effecting the delimitation.⁵⁷ In particular, the Court had treated the Crimean coast as part of Ukraine's "relevant coast",⁵⁸ which impacted the Court's identification of the "relevant area"⁵⁹ and Ukraine's "base points",⁶⁰ ultimately impacting the provisional equidistance line.⁶¹ The Court had also taken the Crimean coastline into account in the second⁶² and third⁶³ stages of the delimitation process. As a result, it would be very difficult—perhaps impossible—to determine with certainty what the impact of the annexation would be on the maritime delimitation line if the ICJ were to draw it again.

In summary, a change in sovereignty over a coastal land area, be it

⁵⁷ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment, [2009] ICJ Reports 61 (3 February 2009), pp. 94, 102, 114, paras. 168, 214-216.

⁵⁸ *Ibid.*, p. 94.

⁵⁹ *Ibid.*, p. 102.

⁶⁰ *Ibid.*, p. 114.

⁶¹ *Ibid.*

⁶² *Ibid.*, para. 168.

⁶³ *Ibid.*, paras. 214-216.

continental or insular, could impact the result of a maritime delimitation in many different ways. If the law does not allow the maritime boundary to adapt to such a subsequent event, then States could challenge the legitimacy of the maritime boundary line.

C. CHANGES IN RIVER COURSES

The second event is a change in the course of a river. Aside from manmade causes, the course of rivers may naturally change because of weathering, erosion, deposition, as well as the movement of the Earth's tectonic plates.⁶⁴ Recent research has revealed that “well over one-third of the total length of international [land] boundaries follow rivers or streams that are inherently dynamic natural features”.⁶⁵ In such cases, disputes may arise between States as to whether the current land boundary should follow the current course of the river or stream, or follow the course of the river or stream at the time of the establishment of the boundary.⁶⁶ In theory, the States have the right to make such a decision *ex-ante*. As the arbitral tribunal in *Laguna del Desierto* held:

[O]nce the frontier has been determined on a moving glacier or along a river whose *thalweg* shifts its course, it can happen that the frontier follows the changes in the ice-field or the *thalweg* of the river or that it remains fixed. The option is open for the parties to agree that the frontier shall follow the shifts of the glacier or *thalweg* or to “fix” the frontier at the moment when it is delineated. This is done by indicating the geographical coordinates of the points which make up the frontier line.⁶⁷

It thus follows that in cases where a treaty, judgment, or award establishing a boundary expressly states that the land boundary should always follow the course of the river, then the boundary undoubtedly can change overtime. For example, in its 2003 Demarcation Instructions,

⁶⁴ See Sean D. Willett and others, “Dynamic Reorganization of River Basins”, *Science*, Vol. 343, No. 6175 (7 March 2014).

⁶⁵ John W. Donaldson, “Paradox of the Moving Boundary: Legal Heredity of River Accretion and Avulsion”, 4 *Water Alternatives* 155 (2011), p. 155.

⁶⁶ See *ibid.*, pp. 155-169.

⁶⁷ Application for Revision and Subsidiary Interpretation of the Award of 21 October 1994 Submitted by Chile (Argentina/Chile), Decision, 22 RIAA 151 (13 October 1995), para. 58.

the Eritrea-Ethiopia Boundary Commission specified that the boundary “will move in accordance with any change in position of the middle of the main channel [of several river sections]”.⁶⁸ As a result, any change in the course of the main channel of the river sections would correspond directly to a change in the land boundary between Eritrea and Ethiopia.

Changes in the course of a river can also affect maritime boundaries because, in cases where the land boundary is based on the course of the river, the starting point for the maritime delimitation is often, though not always, selected to be the land boundary terminus. As a result, a change in the course of the river could have a significant impact on the delimitation line, particularly in the first stage where the provisional equidistance line is drawn. This can be seen most prominently in *Nicaragua/Honduras*, where the ICJ held that “the delta of the River Coco and even the coastline north and south of it show a very active morpho-dynamism”,⁶⁹ leading the Court to conclude that “in the current case it is impossible for the Court to identify base points and construct a provisional equidistance line”,⁷⁰ such that it decided to apply the so-called angle bisector delimitation method rather than the equidistance method.⁷¹

D. CHANGES IN SEA LEVELS

The third event is a change in sea levels—most often a rise, but for some parts of the world can be a fall. Sea level changes can cause movements in land boundaries. For example, in a case where sea level rise affects a river that forms a boundary between two States, and the boundary is defined based on the high-water or low-water levels of the river (rather than, for example, the thalweg of the river), sea level rise can cause the land boundary to move.

Changes in sea levels, however, could have a more dramatic impact on maritime boundaries. The primary reason is that changing sea levels

⁶⁸ Eritrea-Ethiopia Boundary Commission, PCA Case No 2001-01, Demarcation Instructions, 25 RIAA 225 (22 August 2003), p. 228, para. 20.

⁶⁹ Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (*Nicaragua v. Honduras*), Judgment, [2007] ICJ Reports 659 (8 October 2007), para. 32.

⁷⁰ *Ibid.*, para. 280.

⁷¹ *Ibid.*, para. 287.

could affect the status of maritime features. Rising sea levels could change a fully entitled island to a rock to a low-tide elevation to a submerged elevation, whereas falling sea levels could lead to changes in the opposite direction. The change in the status of maritime features could affect maritime entitlements, relevant coasts, and base points, thereby impacting relevant areas and provisional equidistance lines, and ultimately final delimitation lines.

Changing sea levels could also impact maritime delimitations in other ways. They could impact the general direction of coasts, affecting the drawing of straight baselines.⁷² They could cause coastal land area to recede (with rising sea levels) or expand (with falling sea levels), affecting the baseline and thus the extent of the coastal State's maritime entitlements.

E. CHANGES IN MARITIME DELIMITATION LAW

The fourth and final event is changes in the law governing maritime delimitation. Maritime delimitation law has evolved significantly over the past few decades, and may continue evolve over the coming decades. As a result, the delimitation of a maritime boundary effected thirty years ago may differ from the delimitation of the same maritime boundary effected today, which may differ from the delimitation of the same maritime boundary effected thirty years from now. The question is whether this change in the law should justify a change in the delimitation line.

One key example is the movement from a natural prolongation-based approach to a purely geographic approach to continental shelf delimitations. In the *North Sea Continental Shelf* cases of 1969, the ICJ held that “the rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist *ipso facto* and *ab initio*”.⁷³ At the time, many States concluded continental shelf delimitation treaties that relied on this notion. For example, in 1969, Indonesia and Malaysia concluded a treaty delimiting their continental shelf with a line that

⁷² UNCLOS (note 26), art. 7(3).

⁷³ *North Sea Continental Shelf* (Germany/Denmark; Germany/Netherlands), Judgment, [1969] ICJ Rep 3 (20 February 1969), p. 22.

was closer to Indonesia than Malaysia because the natural prolongation of Malaysia's continental shelf extended further.⁷⁴ And two years later, Indonesia and Australia concluded a treaty delimiting their continental shelf that also placed the line closer to Indonesia for the same reason.⁷⁵ Today, however, if these maritime areas were to be delimited through adjudication, the court or tribunal would begin with a provisional equidistance line, and the natural prolongation of the two States' continental shelves would not be a relevant factor in drawing the final delimitation line. Nevertheless, this new reality has not led to the termination of the many continental shelf delimitation treaties based on natural prolongation.

V. CONCLUSION

As mentioned above in Section III, the concern for stability is weaker for maritime boundaries than it is for land boundaries. And as seen in Section IV, the concern for adaptability is stronger for maritime boundaries than it is for land boundaries, particularly in light of the four subsequent events examined in detail above. As a result, a cogent argument can be made that the law governing maritime boundaries should not necessarily favour stability over adaptability as much as the law governing land boundaries.

This does not, however, necessarily lead to the conclusion that the legal rules discussed in Section II.B—*pacta sunt servanda*, Article 62(2)(a), *res judicata*, and *uti possidetis*—should not apply to maritime boundaries. It could be the case that, even though the concern for stability is weaker and the concern for adaptability is stronger for maritime boundaries when compared to land boundaries, the concern for stability still outweighs the concern for adaptability on an absolute level, even for maritime boundaries. As a result, it may still be justified for the legal

⁷⁴ Agreement between the Government of the Republic of Indonesia and the Government of Malaysia Relating to the Delimitation of the Continental Shelves between the Two Countries (signed 27 October 1969, entered into force 7 November 1969) 9 ILM 1173.

⁷⁵ Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries (signed 18 May 1971, entered into force 8 November 1973) 974 UNTS 307.

rules discussed in Section II.B to apply to maritime boundaries.

If, however, the international community continues to accept the application of the aforementioned legal rules to maritime boundaries, then it must recognize the consequences that would result. Three in particular are mentioned here.

First, there is the possibility that “absurd” situations could arise. This can be seen most clearly in the hypothetical Crimea and Strait of Singapore situations discussed in Section I. A maritime boundary may be delimited on the basis of facts that no longer exist.

Second, in light of such “absurd” situations, States may challenge the legitimacy of these maritime boundaries. This can lead to conflict between States, and ultimately instability in the maritime border areas. For the moment, however, this does not appear to be the case. For example, as mentioned in Section IV.E, many old treaties delimiting continental shelves favour one State over another because they were based on natural prolongation, but the disadvantaged States have not challenged the validity of these treaties on the basis of an evolution in maritime delimitation law.

Third, States may have a strategic incentive to delimit their maritime boundaries earlier or later. For example, if rising sea levels are causing a State’s coasts to recede, the State would be incentivized to delimit its maritime boundaries earlier. On the other hand, if falling sea levels are causing a State’s coasts to expand, the State would be incentivized to delimit its maritime boundaries later, or possibly never. The latter would be problematic if one believes that boundaries should be delimited as soon as possible for international peace and security.

One way of mitigating these consequences, at least for negotiated treaty boundaries, is to take foreseeable subsequent events into account when determining the boundary line. That is, the treaty could expressly state that it would remain in force regardless of changes in geography or maritime delimitation law. Alternatively, the treaty could expressly state that the boundary line will adapt to changing circumstances in a particular fashion. For example, in the recently concluded maritime

boundary treaty between Timor-Leste and Australia, Article 3 specifies certain adjustments in the boundary that would result if Timor-Leste and Indonesia reach an agreement on their continental shelf boundary.⁷⁶

All in all, this Article does not have any specific normative recommendations. However, it is the hope of the present author that greater attention be paid to the facts that maritime boundaries and land boundaries have some fundamental differences, that the law governing land boundaries may not necessarily be appropriate for maritime boundaries, and that there are subsequent events that could potentially justify moving maritime boundaries.

⁷⁶ Treaty between Australia and the Democratic Republic of Timor-Leste Establishing Their Maritime Boundaries in the Timor Sea (signed 6 March 2018).

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