A Circle For A Triangle – Geometry In Aid Of Efficiency In International Arbitration

Hafez R Virjee

The 'iron triangle' has been popularised in international arbitration as an illustration of the limits in the time and cost efficiency gains that can be achieved when set off against the trade-offs on the quality of the process. This article explains that the iron triangle is a misleading representation of how these questions balance out both at a systemic level and at an individual case level. As a result, it is ill-suited for policymaking or as a response to user calls for greater time and cost efficiency in international arbitration. Conversely, once the underlying assumptions have been spelt out and the realities of practice and market conditions factored in, the triangle – and the circle – can provide new insights that can serve as a starting point for a more efficient combination of quality, time and cost in international arbitration, as illustrated by the Delos Rules of Arbitration.

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Hafez R Virjee *

The triangle has been a recurring figure in discussions of efficiency in international arbitration.[1] Described as 'magic' or cast in 'iron',[2] captured within a Venn diagram,[3] inspiration for it has drawn from shoe repair shops in Boston,[4] dry cleaners in the U.S.[5] and financial advisors generally.[6]

The core proposition associated with the triangle is that "*there exists a diminishing marginal utility between the time and costs invested in the arbitration and the quality of the final award. Hence, a choice must be made where the right balance lies, […] and it must be made for every case individually.*"[7]

While this may be true for individual cases, subject to certain qualifications discussed below,[8] the proposition has also been used as a counter to critiques

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[1]   The image appears first to have been coined by Prof. William W. Park: see *Arbitrators and Accuracy*, 1(1) J. Int'l Disp. Settlement 25 (2010), at 28.

[2]   Dr Joerg Risse, *Ten Drastic Proposals for Saving Time and Costs in Arbitral Proceedings*, 29(3) Arb. Int'l 453 (2013).

[3]   Jennifer Kirby, *Efficiency in International Arbitration: Whose Duty Is It?*, 32(6) J. Int. Arb. 689.

[4]   Park, *supra* n. 1, at 28.

[5]   Risse, *supra* n. 2, at 454.

[6]   Kirby, *supra* n. 3, at 690.

[7]   Risse, *supra* n. 2, at 465.

[8]   An additional qualification, which will only be discussed here, relates to the original text omitted in the square brackets, namely: "*and the choice must be made by the parties as process owners*". The responsibility is shared by the parties as contracting parties and their counsel, the parties as litigants and their counsel, the arbitrators and, in the case of institutional arbitration, the institution.

See, further, Hafez R. Virjee, *Activating Arbitration: Four Delos Principles to Achieve Fair and Efficient International Arbitration: Four Principles to Achieve Fair and Efficient International Arbitration*, Delos Disp. Resol. (2017), available at https://delosdr.org/wp-content/uploads/2018/01/Hafez-R-Virjee-Activating-Arbitration-Delos-2017.pdf; Mark Kantor, *Four Parties and Four Sets of Counsel to Every Dispute*, Delos Disp. Resol. (2021), available at

of time and cost efficiency in international arbitration generally: "*[...] some of the comments seem to assume that it's possible to have it all. That arbitration can be fast and cheap and good. That it exists in a magical place where the Iron Triangle doesn't apply. Well, I'm here to tell you that that paradise is where the unicorn lives.*"[9]

The difficulty with such views is that they conflate the individual with the universal and, as a result, are misleading for the purposes of policymaking, that is, responding systemically to the demands of users for greater time and cost efficiency in international arbitration.

This article deconstructs the 'triangle' both to explain the limitations of its current use and its potential as a policymaking tool. It will be seen that expedited rules deal with efficiency by way of exception and that a more robust approach to questions of time and cost is possible, as has been developed in the Delos Rules of Arbitration.

<p style="text-align:center">***</p>

The iron triangle is an equilateral triangle, meaning that all three sides have the same length. It has been drawn in the following manner:

Figure 1. The 'magic' or 'iron' triangle according to Dr Joerg Risse[10]

Dr Joerg Risse explains how the triangle is to be used: "*the parties to an international arbitration must choose now, by inserting a dot indicating their preferences, where their priorities lie: are they willing to maximize the quality of the award, regardless of time and costs? Then the dot will be close to the*

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https://delosdr.org/index.php/2021/01/20/four-parties-and-four-sets-of-counsel-to-every-dispute/ (both last accessed on 26 March 2021).

[9]   Kirby, *supra* n. 3, at 690-691.

[10]   Risse, *supra* n. 2, at 455. This particular triangle appears to be isosceles rather than equilateral.

upper corner of the triangle. Or do they prefer to end their dispute quickly, even by a decision of mediocre quality? Do the parties prefer to save costs as to the arbitrators' fees and remuneration for outside counsel, trusting that the impact on the final award will be limited?"[11]

In other words, the triangle represents how three considerations of equal weight might balance out relative to each other in a given case, hence the use of an equilateral triangle.[12] The closer the 'dot' is to a corner[13] or side of the triangle, the more that corner or side will be optimised and, correspondingly, the less the opposite side (with its two corners) or opposite corner will be. If no choice is made, then the 'dot' remains at its starting position, in the centre of the triangle, and "*an automatism called 'international practice' will step in – and the result is the often criticized long and costly arbitral proceeding.*"[14]

Another way to represent this is as follows, which makes explicit the relational perspective of the triangle:
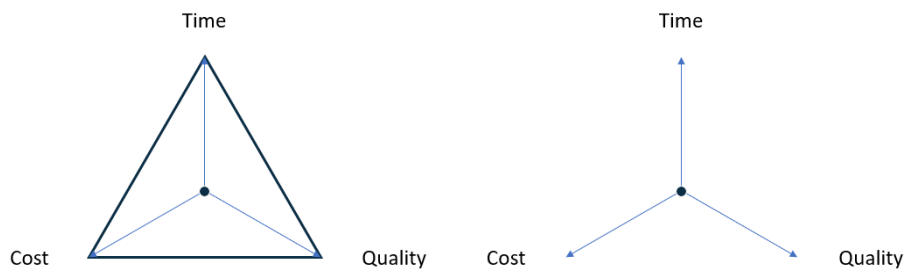
Figures 2a and 2b. The 'triangle' as a relational perspective

For her keynote at the Helsinki Arbitration Day 2015, Jennifer Kirby represented the triangle as a Venn diagram,[15] presumably for the opportunity to comment on the areas of overlap between the three considerations:

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[11]   Risse, *supra* n. 2, at 455.

[12]   See also Park, *supra* n. 1, at 28.

[13]   'Apex' is more commonly used than 'corner'.

[14]   Risse, *supra* n. 2, at 455.

[15]   This appears to have caused some confusion: see Michael W. Bühler and Pierre Heitzmann, "*The 2017 ICC Expedited Rules: From Softball to Hardball?*", (34)(2) J. Int. Arb. 121, at 147-148, which focuses on the labels in Jennifer Kirby's Venn diagram without considering the relational perspective of the iron triangle.
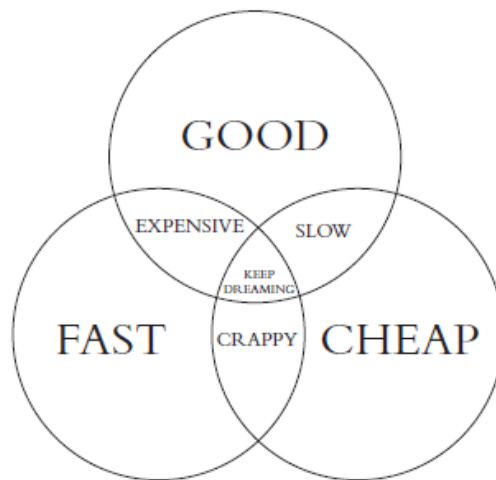
Figure 3. The 'Iron Triangle' according to Jennifer Kirby[16]

Jennifer Kirby says that "*it's important to note that the time and money at issue in the Iron Triangle is time and money that's being spent on the product. To the extent time and money is being spent on things that don't go towards making the product better, that time and expense could be eliminated without reducing quality.*"[17]

This could explain why, for example, an emphasis on quality and speed would increase cost. 'Expensive', however, calls for a comparison with another set of factors giving rise to a less costly procedure; and it is not so obvious that 'good' and 'fast' will necessarily result in a 'product' that is more expensive than if the 'dot' had been left in the centre. If party costs represent 83% of the costs of the arbitration,[18] it is often cheaper overall to have lawyers work intensely for an accelerated proceeding than at a more leisurely pace for the approximately 1.7-2.3 years average duration of a standard arbitration.[19]

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[16]   Kirby, *supra* n. 3, at 690.

[17]   Kirby, *supra* n. 3, at 691.

[18]   ICC Commission report, *Decisions on Costs in International Arbitration*, ICC Disp. Resol. Bulletin (2015)(2), 3.

[19]   This broad statement naturally comes with a number of assumptions, notably as to counsel's fee structure and funding structures more generally, and the relative duration of the accelerated calendar. Incidentally, such an accelerated procedure also frequently has the benefit of being more profitable for counsel (as distinguished from total revenue), meaning it can be a win-win on arbitration costs for all involved. Of course, strategic considerations, for instance, may militate against speed.

Regarding the average duration of arbitral proceedings, see, *e.g.*, ICC Dispute Resolution, *2019 Statistics*, at 17: "*The average duration of proceedings in cases that reached a final award was 26 months, compared to 28 months in 2018, and is calculated on the basis of all said cases, including those where the proceedings were suspended by the parties for any length of time. The median duration of proceedings was 22 months, compared to 24 months in 2018.*"; Alison Ross, *LCIA releases data on duration and costs of cases*, GAR, 3 November 2015, which reports an

Similarly, an emphasis on 'quality' and 'cost' may not necessarily entail a procedure that is slower than if the 'dot' had been left in the centre: if the charge-out rate for counsel at an international law firm in a major arbitration hub is *x*, and the same counsel moves to a boutique firm and possibly relocates to a jurisdiction where overheads are lower and his or her financial needs are more modest, the overall process will bear the same standard of quality while being considerably less expensive and just as fast, all other things being equal.

The above is simply to say that the 'triangle' cannot be used as a systematic or universal lens through which to apprehend issues of time and cost in international arbitration without factoring in market conditions and the realities of practice.

This is illustrated by the development of expedited procedures in the rules of the leading arbitral institutions.[20] That the ICC has increased the ceiling for the application of its Expedited Procedure Provisions from USD 2 million to USD 3 million[21] suggests that one can have fast and inexpensive, without the result necessarily being "*crappy*".[22]

The following figures develop this point by focusing on the 'quality' consideration in the triangle:

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average duration of cases across all tribunals of 20 months (https://globalarbitrationreview.com/lcia-releases-data-duration-and-costs-of-cases, last accessed on 1 March 2021).

Further statistics on duration were discussed in Katherine Proctor, *Costs and duration – SIAC, the LCIA and the SCC compared*, GAR, 23 November 2016 (https://globalarbitrationreview.com/costs-and-duration-siac-the-lcia-and-the-scc-compared, last accessed on 1 March 2021). As stated by the author, the comparisons are of limited use without further information as to the methodology used by each institution. For present purposes, an assumption has been made that the ICC and LCIA caseloads have a sufficiently comparable profile (*e.g.*, distribution of cases along the spectrum of amounts in dispute; complexity; procedures) that they can be considered together.

[20] Evolution since 2008: 2008 – DIS issues Supplementary Rules for Expedited Proceedings; 2010 – SCC publishes Rules for Expedited Arbitrations; 2012 – SCAI Rules incorporate provisions on expedited proceedings, followed by the HKIAC in 2013, SIAC in 2016 and the ICC in 2017. To place Delos in context, it was established in early 2014.

[21] ICC Arbitration Rules (2021), Appendix VI, Art. 1(2).

[22] See, *e.g.*, ICC, *ICC unveils revised Rules of Arbitration*, 8 October 2020: "*The 2021 ICC Rules expand the scope of application of the very successful expedited arbitration provisions (Article 30 and Annex VI) by increasing the threshold for their opt-out application from US$2 million to US$3 million.*" (emphasis added; https://iccwbo.org/media-wall/news-speeches/icc-unveils-revised-rules-of-arbitration/, last accessed on 1 March 2021); Alison Ross, *What's in the new ICC Rules*, GAR, 8 October 2020: "*In the interest of increasing time and cost efficiency, the ICC will increase the threshold value of disputes that will be subject to the expedited procedure on an opt-out basis in the new rules, from US$2 million to US$3 million.*" (emphasis added; https://globalarbitrationreview.com/whats-in-the-new-icc-rules, last accessed on 1 March 2021).
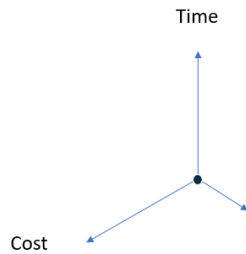
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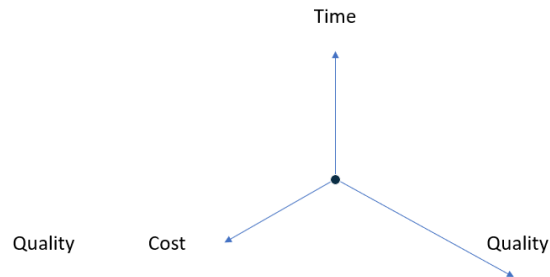
Figures 4a and 4b. Market-adjusted triangles for different amounts in dispute

As will be recalled, 'quality' refers to the quality of the award as well as the quality of the process,[23] and this is generally understood to rest mostly on the shoulders of the arbitrators.[24]

For amounts in dispute of EUR 500,000, there are on the whole more competent potential arbitrators than cases available, whereas it is the opposite for cases in the EUR 500 million range. In figurative terms, the Quality corner of the triangle is much closer to the initial position of the dot in a EUR 500,000 case as compared with the Time and Cost side (Figure 4a), and much further away in a EUR 500 million case (Figure 4b). Two consequences follow from this:

First, the equilateral triangle cannot be applied to disputes generally. The triangle is an interesting analytical tool, but it must be adjusted to reflect market conditions.

Second, for the same reason the equilateral triangle cannot be applied to individual disputes either, save if one postulates that the relative balance of time, cost and quality is equal and one is considering whether to make further adjustments between the three considerations and which ones.

In sum, the device of the equilateral triangle has been a case of substitution heuristic. That having been said, it does contain a genuine albeit different insight: the most effective balance of quality, time and cost is one of equal measure of all three considerations – in figurative terms, of equal distance between the 'dot' and each of the three corners of the triangle (irrespective of whether it is equilateral or otherwise). In the words of Professor Park, "*[t]o*

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23   Park, *supra* n. 1, at 27; Risse, *supra* n. 2, at 455; Kirby, *supra* n. 3, at 689 and fn. 2, 691-692.

24   Park, *supra* n. 1, at 27; Kirby, *supra* n. 3, at 691-692.

fulfil its promise of enhancing economic cooperation, arbitration must aim at an optimum counterpoise between truth-seeking and efficiency."[25]

As it turns out, the point that is placed at equal distance of the three corners of a triangle is also the centre of the circle that circumscribes the triangle;[26] and a circle is the most efficient manner in which to connect three dots.

This geometric poetry can be illustrated by reference to Figures 4a and 4b above. Figure 4a suggests that if you move the 'dot' closer to the Time-Cost side of the implied triangle such as to reach a point at equal distance from the three corners, you could achieve greater time and cost efficiency without compromising on quality, which is the experience derived from the success of expedited arbitration procedures.

Figure 4b suggests on the contrary that you need to move the 'dot' closer to the Quality corner of the implied triangle for the 'dot' to be at equal distance from the three corners, which means you need more time and cost to achieve an equal balance. This, again, aligns with our experience.

Naturally, it is possible to strike a different equilibrium, by placing more emphasis on quality, time or cost, or a combination of any two of these factors; and the actual balance in a given case will in all likelihood depart from one of perfect balance.

Nonetheless, the discussion highlights the potential of the triangle – and the circle – as tools for policymaking in international arbitration. The market-adjusted triangles implied in Figures 4a and 4b help to understand in big picture terms how to achieve an optimal balance. It would follow that the innovations and techniques developed for the purposes of expedited arbitration might also benefit larger arbitrations, with some adjustments.

The default approach to arbitration today is to have: a standard set of rules which, in practice, are focused on quality, open-ended as to the duration of the procedure and silent as to party costs (other than as regards the power to allocate their recovery and possibly sanctions); and, in the case of institutional arbitration operating on an *ad valorem* basis, to have either in separate provisions or separate rules a procedure for the expedited conduct of smaller value claims. Such an approach, which addresses efficiency by way of exception, is flawed.

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[25]   Park, *supra* n. 1, at 27. It follows that the equilateral triangle is an idealised result, rather than a starting point.

[26]   If you trace the perpendicular bisectors of the three sides of a triangle, the point of intersection is the centre of the circumscribed circle of the triangle, and is situated at equal distance of the three corners of the triangle.

The premise of expedited procedures is to rely on value as a proxy for complexity. They typically provide for a deadline to submit a draft final award to the administering institution. The fact of having a deadline means that the procedural calendar is established starting from the end point rather than in an open-ended manner, which focuses everyone's minds on how to conduct the proceeding within the imparted time. This in turn places a natural limit on the amount of costs the parties can run up which, as seen above, represent the vast majority of the arbitration costs. The result is a procedure that is relatively proportionate in terms of time and cost to the value of the dispute, while preserving quality.

Expanding on the above logic, it should be possible to have different tiers of time-limits for different amounts in dispute, bearing in mind that parties are ultimately free to agree on different arrangements once a dispute has arisen, and that the arbitration rules can allow the tribunal to request a longer time-limit if appropriate, and the administering institution to take the initiative of allowing more time if such is needed.

According to the LCIA's study of costs and duration across awards rendered under its Rules between 2013 and 2016, average and median durations can be determined for different ranges of dispute amounts. The LCIA found a median duration: of 9-10 months for cases below USD 1 million; of 14-16 months for cases in the USD 1 million to 10 million range; of 18-22 months for cases in the USD 10 million to USD 100 million range; and of 18-32 months for cases above USD 100 million.[27]

In this manner, it can be seen how, instead of having a balanced triangle for smaller value disputes and no defined triangle or otherwise above a certain threshold, the better approach in the interest of responding to user demands for quality *with* time and cost efficiency in international arbitration is to provide users with an adjustable triangle, where the balance adjusts to different amounts in dispute, all within one set of rules.

This is the approach that was adopted in the Delos Rules of Arbitration: *ad valorem* time-limits have been set for different stages of the procedure (*e.g.*, to reply to a Notice of Arbitration, to constitute the tribunal, to submit a draft award), save that rather than set a deadline for a final award, which would risk straightjacketing a procedure, deadlines have been set for an award, be it interim, partial or final.[28]

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[27]   LCIA, *Costs and Duration: 2013-2016*, at 10.

[28]   Delos Rules, Arts. 9.5, 8.1, Appendix 4. See also Virjee, *supra*, n. 8, at 19-20, which also notes at 11 that "*the early consideration of certain issues does not entail that the resolution of the remainder of the dispute must be placed on hold until the arbitral tribunal has rendered its*

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The 'iron triangle' has been a popular illustration of the limits in the time and cost efficiency gains that can be achieved in international arbitration when set off against the trade-offs on the quality of the process. The proposition felt intuitively evident, hence its appeal – and the resulting collective substitution heuristic: the 'iron triangle' is an ideal result rather than the beginning of imperfection. To the extent geometry can come in aid of efficiency in international arbitration, the better approach would be to trace a triangle that reflects the actual starting circumstances of a particular case in terms of quality, time and cost, bearing in mind the realities of international arbitration practice; the triangle can then be adjusted to achieve an equal balance between the three factors, *i.e.*, maximise efficiency; in geometric terms, this optimal state is one where the triangle can be swapped for a circle.

If value is a proxy for complexity, as shown by the success of expedited arbitration rules, then by iterating the adjusting triangle approach across the value scale of disputes what emerges is the possibility of designing a single set of responsive rules for all dispute amounts – and, ultimately, greater efficiency for the users of arbitration.

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decision. The proceeding may be organised into parallel tracks to avoid any delay to the overall schedule of the proceedings."