

The Mutual Agreement Procedure: Coordinating the Global Tax Orchestra

Konstantinos Taramountas*

ABSTRACT

The OECD and G20, via the Base-Erosion and Profit Shifting (BEPS) project, have recently taken measures under Action 14 to improve tax dispute resolution mechanisms by promoting the timely resolution of treaty-related disputes via the Mutual Agreement Procedure (MAP). The purpose of this article is to understand how the existing tax dispute resolution mechanism works in the context of the MAP and to evaluate its suitability, effectiveness and efficiency. In this context, this article examines whether the emergence of new legal technology could complement the MAP and supplementary arbitration, and proposes both theoretical and practical solutions aimed at making the tax dispute resolution mechanism more effective by speeding up resolution, attracting both developed and developing countries, as well as coordinating competent authorities.

INTRODUCTION

By analogy to an orchestra, the Articles under the OECD Model Tax Convention (MTC) constitute the instruments which the various treaty partners are called to use in order to eliminate double taxation and further develop their economic relations. The Mutual Agreement Procedure (MAP) under Article 25, however, enjoys a special attribute, as it is, instead, the baton which has provided a medium for competent authorities to communicate their concerns on the divergent interpretations and applications of their bilateral treaties, since the foundation of the international tax regime.¹ As a result, it ensures the proper

* LLB (Reading) (First Class) '17, LLM in Taxation (LSE) (Distinction) '18, Winner of the Pump Court Tax Chambers Prize in Taxation '18. Trainee Lawyer at Elias Neocleous & Co LLC, Cyprus. The author can be contacted at ktaramountas@gmail.com.

¹ League of Nations, *Committee of Experts on Double Taxation and Tax Evasion, Double Taxation and Tax Evasion* (Publications of the League of Nations C. 216. M. 85. 1927) <http://biblio-archive.unog.ch/Dateien/CouncilMSD/C-216-M-85-1927-II_EN.pdf> accessed 15 May 2018, 12;

functioning of the treaties and safeguards that taxpayers are subject to taxation in accordance with it.²

Its significance was not overlooked by the OECD Base Erosion and Profit shifting (BEPS) project, endorsed by the G20, at their first attempt to revamp the international tax regime since its establishment by the League of Nations.³ Action 14 does not directly assist with countering BEPS but, as the OECD mentions, is essential to finding ways to improve the effectiveness of the dispute resolution mechanism, in order to ensure that the transition to the new international tax *acquis* is as smooth as possible.⁴ However, a successful performance requires the conductor to coordinate the plays of the different players. Accordingly, this paper argues that mediators play a vital role in this novel global tax orchestra. They can successfully act as the conductors who will coordinate the behaviour of treaty partners in order to find a common ground to enforce new treaty provisions in accordance with their agreement and, therefore, produce a coherent tax policy ‘melody’.

Having said that, the persistence of rich countries in promoting mandatory arbitration under Action 14 is at odds with the OECD’s attempt to make the dispute resolution mechanism more effective.⁵ If some countries lack experience in using MAPs and are hostile towards the existence of a third party adjudicator, then one may legitimately wonder how an arbitration clause can become a mandatory Alternative Dispute Resolution (ADR) mechanism and enjoy uniform consensus among countries in its application. Regardless of whether fiscal sovereignty issues are not well grounded from a theoretical perspective, from a political point of view, they cannot suddenly disappear.

For example, under Article 13 of the League of Nations MTC 1927 needed to ‘confer together and take the measures required in accordance with the spirit of this Convention’.

² JS Wilkie, ‘Article 25: Mutual Agreement Procedure’ in Richard Vann (eds) *Global Tax Treaty Commentaries* (Amsterdam IBFD 2017) 48.

³ OECD, *Action Plan on Base Erosion and Profit Shifting* (OECD Publishing 2013) <<https://www.oecd.org/ctp/BEPSActionPlan.pdf>> accessed 15 May 2018.

⁴ *ibid* 23.

⁵ OECD, *Making Dispute Resolution Mechanisms More Effective, Action 14 - 2015 Final Report* (OECD Publishing 2015) <<http://dx.doi.org/10.1787/9789264241633-en>> [hereafter Action 14] accessed 15 May 2018.

In this regard, it is argued that mediation does not clash with any political issues that might be raised by aggrieved parties and can provide the means for a collaborative forum where countries' issues can be identified with the view of increasing the likelihood of compromise. Further, mediation can be seen as an intermediary step towards making countries more familiar with the idea of having a third party involved in their tax disputes and encourage their use of arbitration in the long run.

1. MUTUAL AGREEMENT PROCEDURE: STATUS QUO

Lack of Finality: issues of double taxation

The OECD has long acknowledged that the MAP mechanism is not a panacea and 'is in certain respects a less than perfect instrument'.⁶ One of the major drawbacks of the procedure is that Article 25(2) does not impose any obligation on the treaty partners to reach an agreement or ensure a congruous application of the treaty provisions. Instead, treaty partners are only expected to 'endeavour' to resolve such issues, meaning that competent authorities carry the 'duty merely to use their best endeavours *and not to achieve a result*'.⁷ This stance is well illustrated in the leading case of *DA 11/2013*, where the 2nd Circuit Court on Administrative Matters of Mexico held that the Mexican competent authorities were not obliged to find an agreement with the Swiss competent authorities via MAP, and, therefore, the taxpayer's rights were not infringed when the competent authorities failed to find a final solution to the issue.⁸

Taxpayers enjoy some flexibility in addressing their issues, since they can simultaneously have access to both the MAP and domestic remedies.⁹ Nevertheless, unilateral domestic remedies do not adequately eliminate double

⁶ OECD, *Transfer Pricing and Multinational Enterprises: Three Taxation Issues* (OECD Publishing 1984) <http://www.keepeek.com/Digital-Asset-Management/oecd/taxation/transfer-pricing-and-multinational-enterprises_9789264167803-en#page12> accessed 15 May 2018, para 39.

⁷ OECD, *Model Tax Convention on Income and on Capital: Condensed Version 2014*, (OECD Publishing 2014) <http://dx.doi.org/10.1787/mtc_cond-2014-en> accessed 15 May 2018, [hereafter OECD MTC 2014] Commentary on Article 25, para 37.

⁸ Oscar Echenique Quintana and Jorge Correa Cervera, 'Tax Treaty Disputes in Mexico' in Eduardo Baistrocchi (eds) *A Global Analysis of Tax Treaty Disputes* (CUP 2017) 515.

⁹ *Visakhapatnam Port Trust* [1983] 144 ITR 146 (SC).

taxation. As seen in *Pierre Boulez v. Commissioner*, a case dealing with income characterisation, Boulez's income from performances in the United States were ultimately subject to double taxation after the US and German competent authorities were unable to reach an agreement via MAP.¹⁰ This was because the domestic legal remedies involve only the domestic competent authority and the taxpayer, whereas the other treaty partner, who is not a party to the dispute, is still entitled to follow its domestic legal provisions and tax accordingly.

Despite Article 25 traditionally being subject to various criticisms for lacking finality,¹¹ Altman's historical analysis demonstrates great reluctance from the OECD to make any substantial changes to address this problem.¹² One of the main attempts of the OECD to improve the procedure comes from an online manual (MEMAP) which comprises of twenty-five 'best practices' of how states can administer MAPs.¹³ Unfortunately, the term 'best practices' is a 'bogus' label, because, as the OECD supports, sometimes what is described as 'best practice', "is not necessarily the 'best' approach to resolving a problem or issue in a particular case."¹⁴ Thus, it is not surprising that these practices were not generally followed by the competent authorities, leaving taxpayers subject to double taxation.¹⁵

In the 1900s, when the early spill-over effects of globalisation started to reveal the weaknesses of existing international tax technology, 'both the volume and the complexity of the cases with which the MAP has to deal' with increased.¹⁶ As a result, the OECD launched a report¹⁷ to contribute and finally crystallise the

¹⁰ (1984) 83 TC 584.

¹¹ see Michelle Markham, 'Seeking New Directions in Dispute Resolution Mechanisms: Do we Need a Revised Mutual Agreement Procedure?' (2016) Bulletin for International Taxation 82.

¹² Zvi D Altman, *Dispute Resolution under Tax Treaties* (2005 Doctoral Series Academic Council) 37-66.

¹³ OECD, 'Manual on Effective Mutual Agreement Procedures (MEMAP)', <<https://www.oecd.org/ctp/38061910.pdf>> accessed 15 May 2018 [hereafter MEMAP].

¹⁴ *ibid* 5.

¹⁵ Marlies de Ruiter and Edward Barret, 'OECD Work on the Resolution of International Tax Disputes' (2012) W.C.R <http://www.worldcommercereview.com/publications/article_pdf/629> accessed 15 May 2018.

¹⁶ OECD, 'Improving the Process for Resolving International Tax Disputes' (OECD 2004) <www.oecd.org/tax/treaties/33629447.pdf> accessed 15 May 2018, 4-5.

¹⁷ OECD, 'Improving the Resolution of Tax Treaty Disputes', <<https://www.oecd.org/ctp/dispute/38055311.pdf>> accessed 15 May 2018.

arbitration provision into the OECD MTC (2008) under Article 25(5), as a supplementary measure to the unresolved intergovernmental tax disputes via MAP.

The fact that the OECD regarded arbitration as a suitable measure under Article 25 does not imply that states have been enthusiastic to include it in their double tax treaties. In particular, despite its inclusion in the MTC since 2008, Wijnen's and Goede's research on over 1,811 double tax treaties from 1997 to 2013 reveals that only 127 include an arbitration provision.¹⁸ More accurately, Pit shows that after 2008, an arbitration provision could only be identified in 72 double tax treaties.¹⁹ This data has forced the OECD under the Public Discussion Draft on BEPS Action 14 to support that the 'adoption of MAP arbitration has not been as broad as expected'.²⁰ That said, the inclusion of the footnote under Article 25 which allowed states to reserve their rights not to adopt arbitration (given some undisclosed 'national law, policy or administrative considerations') indicates that the OECD has acknowledged from the start that it would lack a uniform application.²¹

The structural issues of MAP and tax arbitration

One of the main deficiencies of the MAP procedure is that the taxpayer's rights under the treaty at stake become an object at the hands of the tax officials who are granted much discretionary power to decide to what extent, if at all, the taxpayer's concerns are justified. The tax authority's controlling power over the taxpayer's right is somewhat unquestionable, as seen in *Yamaha Motor Corp v. United States*, and the taxpayer cannot compel the tax authorities to initiate a MAP with their partner after they decline the taxpayer's request.²² As a result, some countries such as Germany usually take this advantage to induce taxpayers to enter into audit settlements with them – whereby the latter agrees to waive its rights

¹⁸ Wim Wijnen and Jan de Goede, 'The UN Model in Practice 1997–2013' (2014) Bulletin for International Tax 118, 142.

¹⁹ H M Pit 'Arbitration under the OECD Model Convention: Follow-up under DTCs: An Evaluation' (2014) 42 Intertax 6/7 445, 466.

²⁰ OECD, 'Public Discussion Draft on BEPS Action 14: Make Dispute Resolution Mechanisms More Effective' <<http://www.oecd.org/ctp/dispute/discussion-draft-action-14-make-dispute-resolution-mechanisms-more-effective.pdf>> accessed 15 May 2018.

²¹ OECD MTC 2014 (n 7) Article 25.

²² 779 F. Supp 610 (D.D.C. Cir., 1991).

over MAP as a trade off from escaping penalties.²³ This strategy compels taxpayers to settle rather than struggle with MAPs, even if that means that they may ultimately become subject to double taxation without even notifying the other treaty partner of the improper application of the treaty.

Consequently, as the arbitration clause is only available as an extension to the MAP rather than as a self-standing measure,²⁴ the competent authorities can also ultimately control the taxpayer's access to it.²⁵ This so-called blocking method may render the arbitration clause obsolete since tax authorities can indirectly control whether the taxpayer would have access to arbitration by maneuvering taxpayers' access to the MAP.²⁶

2. ACTION 14: MAKING DISPUTE RESOLUTION MECHANISMS MORE EFFECTIVE

Introductory remarks

The seventeen minimum standards, supported by eleven 'best practices' developed under Action 14 of the BEPS project, constitute the latest attempt of the OECD to further improve the effectiveness of MAPs.²⁷ Since 'not all OECD and G20 countries [were] willing to commit to them', these 'practices' simply act as guidance to the states and are neither binding nor subject to the peer review mechanism under the FTA MAP forum, as is the case for the minimum standards.²⁸

Action 14 aims to address the aforementioned obstacles and encourage the resolution of disputes in order to 'ensure certainty and predictability' for businesses.²⁹ Accordingly, the main pillars of the minimum standards sought to ensure that treaty obligations will be performed in good faith and in a timely

²³ Michelle Markham (n 11) 89.

²⁴ OECD MTC 2014 (n 7) Commentary on Article 25, paras 63-64.

²⁵ Gerrit Groen, 'Arbitration in Bilateral Tax Treaties' (2002) 30 (1) *Intertax* 3, 19.

²⁶ Ehab Farah, 'Mandatory Arbitration of International Tax Disputes: A Solution in Search of a Problem' (2009). 9(8) *Florida Tax Review* 705, 734-736.

²⁷ Action 14 (n 5).

²⁸ *ibid* 12, 16 (element 1.6).

²⁹ *ibid* 11.

manner, promote the prevention and timely resolution of treaty-related disputes, and ensure that the taxpayers who meet the procedural requirements have access to the MAP.³⁰

The Impact of Action 14

That said, all signatory countries under the Multilateral Instrument (MLI) must therefore first and foremost implement Article 25(1)-(3) into all of their tax treaties via Article 16, subject to some minor reservations and alternatives.³¹ As exemplified, this means that they will need to ensure that the MAP mechanism is in place and any agreement will be implemented notwithstanding (1) ‘any time limits in the domestic law’,³² (2) whether the application of any ‘treaty anti abuse provisions have been met’,³³ and (3) any audit settlement between tax authorities and the taxpayer which in the past precluded access to the MAP.³⁴ Given that countries shall now publish detailed guidance on how a taxpayer can have access to the MAP,³⁵ the procedural access requirements are becoming more transparent, thereby diminishing the discretionary power of the competent authorities to block them.

Furthermore, special attention must be drawn to the element 3.1, as it changes the wording of Article 25(1) of the OECD MTC and enables the taxpayer to initiate MAP in ‘either contracting state’ rather than only ‘to the competent authority of the Contracting State of which he is a resident’.³⁶ From an economic perspective, it is a win-win situation for both taxpayers and states, as the issue will be addressed directly to the relevant authority which can resolve the matter unilaterally at the initial stage, in an efficient and timely manner, and by avoiding

³⁰ *ibid* 12.

³¹ *ibid* 13 (element 1.1); OECD, *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (2016) Treaties IBFD [hereafter MLI]; OECD, *Model Tax Convention on Income and on Capital: Condensed Version 2017* (2017 OECD Publishing) <http://dx.doi.org/10.1787/mtc_cond-2017-en> accessed 15 May 2018 [hereafter OECD MTC 2017].

³² *ibid* 26 (element 3.3).

³³ *ibid* 14 (element 1.2).

³⁴ *ibid* 19 (element 2.6).

³⁵ *ibid* 18 (element 2.1), 26 (element 3.2).

³⁶ *ibid* 22.

any unnecessary costs of bilateral negotiations.³⁷ From a policy perspective, the above changes together can immensely impact how MAPs will be administered in the future. Namely, the power to initiate a MAP is gradually shifting towards the taxpayers, who can now address the issue to the contracting state that is usually more sympathetic to MAPs.

Whilst the abovementioned steps point to the right direction, the proposals do not adequately address the fact that the treaty partners are not yet compelled to resolve MAPs. Instead, according to element 1.3, accompanied by a change in the commentaries on Article 25 para 5.1,³⁸ countries shall only ‘*seek* to resolve their MAP cases’³⁹ based on some vague and general criteria which are generally not expected to compel the parties to find a solution. In particular, as the procedure remains substantially opaque behind the closed doors of the two competent authorities, they can still deviate without any substantial justification. As the BEPS Monitoring Group has correctly highlighted, this minimum standard will be lessened from a political commitment to an ‘empty’ and ‘hollow’ promise.⁴⁰

‘Mandatory’ binding arbitration

In respect to mandatory ‘binding’ arbitration, the final report outlines that, once again, it has not found a consensus amongst the participants of the BEPS project. Therefore, it is only part of the MLI as an optional measure to the signatories,⁴¹ and the taxpayers can legitimately wonder whether the label ‘mandatory binding arbitration’ binds states to resolve their matters via arbitration.

The removal of the footnote under Article 25(5) as a minimum standard may indeed increase transparency regarding countries’ positions on tax

³⁷ J.S. Wilkie (n 2) 19.

³⁸ OECD MTC 2017 (n 31) Commentary on Article 25 para 5.1.

³⁹ *ibid.*

⁴⁰ BEPS Monitoring Group, ‘Comments on BEPS Action 14: Make Dispute Resolution Mechanisms More Effective’ <<https://bepsmonitoringgroup.files.wordpress.com/2015/01/ap-14-dispute-resolution.pdf>> accessed 15 May 2018.

⁴¹ Action 14 (n 5) 41.

arbitration, but is nevertheless not enough to overcome the sovereignty issues posed by some of them.⁴²

3. CAN MEDIATION PROVIDE AN ALTERNATIVE MEANS FOR IMPROVING MAPS?

Introductory remarks

While one can notice that Action 14 is substantially based on MEMAP's best practices, Dalton criticises that mediation, which was also included in the MEMAP, has been 'entirely overlooked'.⁴³ Kahneman's view based on prospect theory, cited by Van Hout, argues that less powerful parties are more willing to settle, while more powerful parties prefer an independent adjudicator.⁴⁴ By analogy, as arbitration is mainly promoted by the rich members of the OECD, it may explain why it is the only alternative to the dispute resolution mechanism, while also indicating that mediation can be a more attractive choice to the less powerful, developing countries.

Based on Van Hout's comparative analysis on the use of tax mediation in the United States, the Netherlands, Belgium and Canada, it is said that approximately 85% of tax disputes end with an agreement in a timely manner.⁴⁵ Further, from the developing countries, mediation requests via the Mexican ombudsman, who is an independent third party represented by PRODECON, have ended with 75% partial or total agreement between the tax authorities and the taxpayer.⁴⁶

On the one hand, the data demonstrates that regardless of whether the mediator is an independent third party, part of the tax authorities, or comes from

⁴² *ibid* 17 (element 1.7).

⁴³ Joe Dalton, 'Unlocking MAP disputes: Is mediation the Key?' (2013) *International Tax Review* 14, 14.

⁴⁴ Diana Van Hout, 'Is Mediation the Panacea to the Profusion of Tax Disputes?' (2018) 10 (1) *World Tax Journal IBFD* 19.

⁴⁵ *ibid*.

⁴⁶ Edson Uribe, 'Tax Mediation, Administrative and Judicial appeals in Mexico: A quick overview' <<https://taxpayerightsconference.com/abstracts-papers/tax-mediation-administrative-and-judicial-appeals-in-mexico-a-quick-overview/>> accessed 15 May 2018.

the developing or developed world, they can ensure a smoother interaction between the taxpayer and the local tax authorities, as well as facilitate the effectiveness of resolution of disputes and address the excessive and increasing volume of litigation. On the other hand, however, these numbers alone do not encapsulate whether, and to what extent, mediation can be better utilised in practice. For example, mediation is not used in the international tax context, even though the Commentaries on Article 25 of the OECD MTC already contemplate ADR techniques other than arbitration ‘on an ad hoc basis as part of the [MAP]’⁴⁷. Tax mediation has therefore been very successful in the abovementioned countries, not only because it exists as an option in their domestic law, but because it is *the taxpayer’s legal right to request it*, with Belgium counting more than 4,000 requests in 2016.⁴⁸

Therefore, though mediation opportunities exist in the international context, some changes from the OECD are necessary to enjoy the fruits of its labour. As Nias comments, mediation needs to be promoted sufficiently by a respectable organisation, such as the OECD.⁴⁹ Otherwise, the status quo is unlikely to change, and the benefits of mediation ‘are likely to pass...by’.⁵⁰

Sovereignty- control- experience

The OECD has long recognised that the effectiveness of MAP is crucial for the proper functioning of the international tax regime. At the same time, though, the OECD held that mandatory arbitration, ‘*would represent an unacceptable surrender of fiscal sovereignty*’.⁵¹ Today, however, some academics reject any sovereignty issues in the strict sense, as ‘states after all, exercise their sovereignty in entering into tax treaties’.⁵² Also ‘an arbitration provision to resolve tax disputes

⁴⁷ OECD MTC 2017(n 31) Commentary on Article 25 para 86.

⁴⁸ Diana Van Hout, (n 44) 20.

⁴⁹ Peter Nias, ‘International tax dispute resolution: Breaking the impasse’ (2016) *International Tax Review* 2, 2.

⁵⁰ *ibid*.

⁵¹ OECD, (n 3) paras 115-117.

⁵² Patricia A Brown, ‘Enhancing the Mutual Agreement Procedure by Adopting Appropriate Arbitration Provisions’ (DRAFT)

<https://webcache.googleusercontent.com/search?q=cache:LNm19g1E32wJ:https://www.wu.ac.at/fileadmin/wu/d/i/taxlaw/institute/WU_Global_Tax_Policy_Center/Arbitration/patricia_brown_-_on_current_trends_in_map.docx+&cd=1&hl=en&ct=clnk&gl=uk> accessed 15 May 2018.

is no doubt desirable as a theoretical matter [to]... ensure that cases are in fact resolved'.⁵³ Further, as the US experience has demonstrated, arbitration pressures competent authorities to find a solution in the MAP rather than to settle disputes with an independent adjudication.⁵⁴ Hence, sovereignty issues, if any, are very minor. This was also the main argument that persuaded the OECD to change its attitude about the suitability of arbitration, thereby inducing most of its members to opt in to an arbitration clause in their double tax treaties.

Moreover, the United Nations Committee of Experts on International Cooperation in Tax Matters still appreciates the reluctance of some states to give up their sovereignty to private third-party experts, but raises questions regarding whether such issues are in line with the countries' national interests.⁵⁵ In any case, some main players in the international tax regime consistently raise sovereignty issues by indicating that any further compromise beyond the agreed standards under the BEPS project will inevitably cross the line.⁵⁶ Therefore, one may argue that the constitutional issues are merely being used by tax administrators as an excuse to prevent loss of control over their tax affairs.

However, this is not entirely justified, as there are various issues that induce countries to legitimately step back from mandatory arbitration. Firstly, Hearson highlights that some developing countries have limited exposure to MAPs either because they have limited bilateral tax treaties or less bargaining power in comparison with their developed treaty partners.⁵⁷ This phenomenon is

⁵³ *ibid.*

⁵⁴ SMU-TA CET, 'Tax disputes and the role of MAP and Arbitration' <<https://accountancy.smu.edu.sg/cet/tax-disputes-and-role-map-and-arbitration>> access 24 May 2018.

⁵⁵ United Nations, 'Report by the Subcommittee on Dispute Resolution: Arbitration as an Additional Mechanism to improve the mutual Agreement Procedure' <http://www.un.org/esa/ffd/tax/sixthsession/Report_DisputeResolution.pdf> accessed 15 May 2018, paras. 21-22.

⁵⁶ See for example India; OECD, 'BEPS Action 14 on More Effective Dispute Resolution Mechanisms – Peer Review Documents' <www.oecd.org/tax/beps/beps-action-14-on-more-effective-dispute-resolution-mechanisms-peer-review-documents.pdf> accessed 15 May 2018, 24.

⁵⁷ Martin Hearson, 'The tax treaty arbitrators cometh' <<https://martinhearson.wordpress.com/2015/09/21/the-tax-treaty-arbitrators-cometh/>> accessed 15 May 2018.

visible in most Asian countries⁵⁸, and in BRICS (most prominently Brazil), which had no official report indicating that a MAP was ever concluded until 2015.⁵⁹ Second, developing countries usually lack technical tax expertise. Their tax treaties are mostly politically driven, without thoughtful consideration of their content, and they have relatively low bargaining power when negotiating with a developed partner. Therefore, Hearson persuasively points that mandatory binding arbitration ‘enhances the negative impacts of negotiation oversights’, since its very existence leaves no room for those countries to subsequently tailor the treaty in the analogous context of the time.⁶⁰

The advantage of adopting mediation is that it can make the dispute resolution mechanism more effective by avoiding these political issues from ever surfacing. Although mediation lacks a general definition because of its form and application techniques vary from country to country, in general terms the techniques can be divided into two broad categories: facilitative and evaluative. Both techniques aim to resolve the parties’ conflict by respecting their autonomy, with the latter being more directive than the former.⁶¹ Nonetheless, the facilitative method is more suitable in an international context. It would allow competent authorities to retain control over their tax affairs in accordance with the principle of ‘self-determination’, whereby the parties involved are expected to remain in control and voluntarily decide on the outcome. Further, it avoids issues of sovereignty and enhances the confidence of the less experienced countries into the MAP procedure, thus making them more familiar with the presence of a third party in their disputes.⁶²

The issue of impartiality

The impartiality and independence of the mediator is an indisputable means to providing mutual trust to the parties involved. As expert arbitrators

⁵⁸ Luis Coronado and Jerome van Staden ‘Critical Evaluation of Action 14 Recommendations and the Suggested Way Forward for Singapore’ (2017) 5(2) School of Accountancy Research Paper Series No. 2017-S-62 <<https://ssrn.com/abstract=2993468>> accessed 15 May 2018.

⁵⁹ Philippe T.P. de Oliveira, ‘Action 14 of the OECD/G20 Base Erosion and Profit Shifting Initiative: Making Dispute Resolution More Effective- Did Action 14 “Piggyback” on the initiative?’ (2017) 71(1) *Bulletin for International Taxation*, 5.

⁶⁰ Martin Hearson (n 57) *ibid*.

⁶¹ Diana Van Hout, (n 44) 11, 12.

⁶² *ibid* 26.

come from developed countries, there is a presumption among developing countries that arbitrators are biased. The United Nations Committee of Experts has highlighted the need for an independent impartial arbitrator with experience in taxation and the ability to understand the needs of the countries.⁶³

Regarding the independency of arbitrators, Langford *et al.* demonstrate that in the field of investment arbitration, the practice is dominated by the ‘most powerful and influential arbitrators’, almost half of which simultaneously act as legal counsels.⁶⁴ Although the existence of ‘double hatting’ does not automatically suggest that arbitrators are biased, they pose the respective dilemma taken from Sands: ‘Can a lawyer that spends a morning drafting an arbitral award that addresses a contentious legal issue divorce themselves as a counsel in a different case?’; and even if it is assumed that the arbitrator is indeed impartial, they correctly point out that ‘the perception of bias or conflict remains’.⁶⁵

Fortunately, in mediation, utilising ombudsmen can provide the key to avoiding ‘double hatting’ issues and effectively find a sufficient number of unbiased, independent and experienced mediators who are specialised in the field.⁶⁶ First, the ombudsman’s office in the domestic context is usually assimilated with the local tax authorities, and thus, they already have the necessary experience and knowledge in tax, with no issue of ‘double hatting’ arising. While empirical evidence on the effectiveness of mediation has not demonstrated that mediators must have the relevant tax skills and knowledge, it might be inefficient if the mediator lacks tax knowledge and obstructs the communication of the parties or does not recognise whether they have reasonable positions.⁶⁷ Second, the ombudsmen have also been introduced in developing countries and can be utilised accordingly to avoid the issues posed by them.⁶⁸

⁶³ United Nations (n 55) paras 60-61.

⁶⁴ Malcolm Langford et al. ‘The Ethics and Empirics of Double Hatting’ (2017) 6(7) ESIL Reflection <<https://ssrn.com/abstract=3008643>> accessed 15 May 2018, 5.

⁶⁵ *ibid* 8-10.

⁶⁶ Katerina Perrou, ‘The Ombudsman and the Process of Resolution of International Tax Disputes-Protecting the ‘Invisible Party’ to the MAP’ (2018) 10(1) WITJ.

⁶⁷ Diana Van Hout (n 44) 30.

⁶⁸ P. Baker & P. Pistone, ‘The practical protection of taxpayers’ fundamental rights – General Report, in IFA Cahiers 2015’ (2015). <[http://www.cfe-eutax.org/sites/default/files/Session%20II_IFA%20General%20Report%202015%2C%20Baker%](http://www.cfe-eutax.org/sites/default/files/Session%20II_IFA%20General%20Report%202015%2C%20Baker%20)

According to Perrou's arguments, the concept of ombudsmen can directly be transplanted into the international context and can act as the 'invisible party' in the MAP as part of the competent authorities, with only minor, if at all, legal modifications.⁶⁹ It is nevertheless unclear how sovereignty concerns would be alleviated when the ombudsman would come from one of the contracting states, as she suggests. This would be contrary to the principle of independency and impartiality, making it questionable whether it would enhance the trust of the parties in the procedure. Thus, the use of a third party national would be more suitable to overcoming sovereignty issues and inducing countries to utilise mediation techniques efficiently.

Following Belgium's approach noted above in utilising mediation as ADR when the MAP fails would inevitably require some promulgation costs due to the need to change current provisions and make mediation accessible at the taxpayer's discretion. From an economic perspective, such potential promulgation costs would be outweighed due to the foreshadowed frequency of the MAPs in the post-BEPS era.⁷⁰ Therefore, by utilising an existing position, mediation procedure will come with low enforcement costs for the aggrieved parties.

Game theory perspective

Based on game theory, when individuals interact, their strategic behaviour depends on what their partner is expected to do.⁷¹ Game theory contains many tools which try to encapsulate cooperation problems, with the most dominant example being the prisoner's dilemma. The gist of this paradigm is that without knowing each partner's move, the 'dominant strategy' for each player is to 'defect' rather than to 'cooperate'.⁷² Even though the parties are both 'better off' when cooperating, none of them will risk cooperating blindly on the

20Pistone%2C%20The%20practical%20protection%20of%20taxpayers'%20fundamental%20rights. pdf> p. 90-99 accessed 15 May 2018, (some examples are Greece, Poland, Turkey, Chinese Taipei)
⁶⁹ *ibid.*

⁷⁰ David Weisbach, 'Formalism in the Tax Law' (1999) 66 (3) The University of Chicago Law Review.

⁷¹ Douglas G. Baird et al., *Game Theory and the Law* (1994 Harvard University press) .

⁷² Eduardo Baistrocchi, 'The Use and Interpretation of Tax Treaties in the Emerging World: Theory and Implications' (2008) 4 B.T.R. 352, see the figure and the detailed explanation at 363- 364.

assumption that the other party has the chance to defect, thereby putting themselves into the worst position.

As Baistrocchi supports, countries are engaged in this dilemma and they enter into harmful tax competition by giving up much of their tax rights (thereby ‘defecting’) in order to attract the highest possible volume of foreign direct investments, which ultimately leads them to the so-called race to the bottom.⁷³ While the seriousness or existence of the ‘race to the bottom’ is debatable among academics, it is generally accepted that, due to globalisation and the increasing mobility of capital, jurisdictions face the far-reaching problem of how to divide their tax bases and allocate tax revenues.⁷⁴ As the international tax regime now stands, the countries are involved in a ‘co-opetition’. They co-operate with their treaty partner by adopting the standard OECD’s provisions rather than choosing a competing legal technology, such the UN model provisions, whilst channelling competition in areas that cannot be regulated by the OECD.⁷⁵

One area where the OECD cannot reach and regulate sufficiently, and therefore incentivises countries to act strategically, is in how treaty partners interpret and accordingly implement the regulatory framework set by the OECD. Upon closer analysis, the OECD MTC is in essence moving towards standard-based provisions with the characteristic of lacking a clear *ex-ante* meaning. This grants substantial discretionary power to the local tax authorities on their interpretation and the scope of their application.⁷⁶ In this setting, states must unilaterally interpret the provisions and allocate their tax revenues without knowing how the other contracting state will interpret the respective provision, i.e. an instance of the so-called simultaneous decision making with imperfect information.⁷⁷ In line with Meadow’s arguments, since the MAP is usually

⁷³ *ibid.*

⁷⁴ Ian Roxan, ‘Limits to globalization: some implications for taxation, tax policy, and the developing world’ (2012) LSE Law Society and Economy Working paper Series, 3/2012, 28-31. <[http://eprints.lse.ac.uk/46768/1/Limits%20to%20globalisation%20\(lsero\).pdf](http://eprints.lse.ac.uk/46768/1/Limits%20to%20globalisation%20(lsero).pdf)> accessed 15 May 2018.

⁷⁵ Eduardo Baistrocchi (n 72) 359.

⁷⁶ Timothy Endicott, ‘The Value of Vagueness’ in Andrei Marmor and Scott Soames (eds), *Philosophical Foundations of Language in the Law* (OUP 2011) 12.

⁷⁷ Douglas G. Baird et al., (n 71) 10.

informal and conducted via emails or telephone,⁷⁸ the competent authorities are ‘still subject to a host of strategic problems...[such as] the giving and getting of information’.⁷⁹ Thus, given the high political pressure in the post-BEPS era, tax administrations are not predicted to be passive umpires. Collecting the maximum possible revenue will become their top priority.⁸⁰ As a result, in cases where national interests pose obstacles to the states in interpreting and/or applying a respective provision, and subsequently struggle to find a solution via the MAP, double taxation opportunities may be created. This will consequently disincentivise cross border investments and create collective action problems.

According to the OECD, however, the mandatory arbitration clause is expected to relinquish countries’ strategic interactions and effectively act as an external authority to regulate the behaviour of the parties and solve the prisoner’s dilemma. Specifically, they note that 90% of MAP cases up to 2013 included one of the twenty countries⁸¹ which have opted in for an arbitration clause under the MLI.⁸² However, as the arbitration clause will only be included if both parties involved have opted for it to apply, these numbers are misleading. Instead, the MLI has paved the way for countries, especially developing countries, to act strategically and reserve their right to an arbitration clause. Therefore, to date, only 26 states have opted for an arbitration clause, which, according to Pit (and by taking into account potential reservation and choices) indicates that only 148 more tax treaties will potentially include it.⁸³ That said, some arbitration clauses also deviate from OECD standards. For example, under the MLI, France, Spain and Sweden reserved the right to exclude arbitration when both competent authorities agree that the case is not suitable.⁸⁴ This renders the taxpayer’s access

⁷⁸ MEMAP (n 13) 27.

⁷⁹ Carrie Menkel-Meadow ‘From Legal Disputes to Conflict Resolution and Human Problem Solving: Legal Dispute Resolution in a Multidisciplinary Context’ (2004) 54 *J Legal Educ* 4, 23.

⁸⁰ Jeffrey Owens, ‘The Role of Tax Administrations in the Current Political Climate’ (2013) *Bulletin for International Tax*.

⁸¹ at the time of publishing, in 2015.

⁸² Action 14 (n 5) 41.

⁸³ H M Pit, ‘Arbitration under the OECD Multilateral Instrument: Reservations, Options and Choices’ (2017) *Bulletin for International Taxation* 568, 588.

⁸⁴ Gerrit Groen, ‘The Nature and Scope of the Mandatory Arbitration Provision in the OECD Multilateral Convention (2016)’ (2017) *Bulletin for International Taxation* 607, 612.

to arbitration subject to either, or both, of the contracting states' consent, an element which in substance diminishes the relevance of this clause.⁸⁵

Further, as the MLI counts 78 signatories,⁸⁶ and these, according to the minimum standards of Action 14, are expected at least to have the MAP in place, it is correctly stated by some tax experts that future disputes via MAP 'are much likely to be with less developed countries' which have not opted for arbitration.⁸⁷

Iterated prisoner's dilemma

Beyond the existence of an external authority, the prisoner's dilemma is solved, and cooperation emerges when the game is played repeatedly. The increasing possibility that the treaty partners will meet again can make their relationship more durable, as the choices made today will also affect their later choices.⁸⁸ Accordingly, if the relationship is, firstly, very durable and, secondly, based on reciprocity, then cooperation can be developed even between enemies, which is similar to the 'live and let live system' during World War I, where the parties engaged in *de facto* cooperation, since they 'knew that their interactions would continue because no one was going anywhere'.⁸⁹ Thirdly, for cooperation to be stable and for the 'tit-for-tat' to emerge, the parties need to recognise the other player's past actions and remember them.⁹⁰

After Action 14, procedural requirements to access the MAP are becoming more transparent and blocking methods less effective. This makes the relationships between states more durable, since it increases the chances of future interaction between treaty partners, thereby increasing their possibility to cooperate. Further, the ability of the states to recognise when the other state

⁸⁵ Lucas de Heer, 'In for a Penny, in for a Pound: Anti-Tax Avoidance Initiatives and Dispute Resolution' *European Taxation* 328, 329.

⁸⁶ Signatories and Parties to the Multilateral Convention to implement tax treaty related measures to prevent Base Erosion and Profit Shifting' <<http://www.oecd.org/tax/treaties/beps-ml-signatories-and-parties.pdf>> accessed 23 May 2018.

⁸⁷ OECD, 'OECD: countries commit to minimum standards on international tax dispute resolution' <<https://www.out-law.com/en/articles/2015/october/oecd-countries-commit-to-minimum-standards-on-international-tax-dispute-resolution/>> accessed 15 May 2018.

⁸⁸ Robert M Axelrod, *The Evolution of Co-operation* (Basic Books 1984).

⁸⁹ *ibid* 129.

⁹⁰ *ibid* 174.

'defects' is expanded since audit settlements are effectively tackled as a minimum standard under Action 14.

Nevertheless, not all treaties are based on reciprocity – or, per Dagan, not all the treaties are symmetrical – since the cross-border investments between them are asymmetrical. This is especially true in tax treaties between developed and developing countries, where the former is mainly a capital exporter and the latter mainly a capital importer.⁹¹ Accordingly, as the OECD MTC grants more power to the country of residence to tax – thereby limiting the level of taxation in the source state – it becomes more difficult to attain cooperation in the context of the MAP when negotiation between the treaty partners is not based on common interpretation, but rather on 'horse-trading' types of discussions.⁹²

Even in durable relationships based on reciprocity, such as those between developed countries – assuming that the investments in both countries are symmetrical – and even if states can recognise when the other state 'defects', solving a prisoner's dilemma and establishing cooperation with blind processes 'can take very long'.⁹³ It is also difficult to expect countries to cooperate in the international framework because their behaviour is unstable and influenced by the context of the time and place.⁹⁴ For example, in Argentina, in times of political instability, tax officials enjoy greater freedom to engage in rent-seeking strategies, and therefore, are only incentivised to maximise their own rent by maximising tax assessments irrespective of the outcome of the case.⁹⁵

Beyond Cooperation: Iterated Prisoner's dilemma and embedded coordination games

Yet solving the prisoner's dilemma would be more complicated than establishing cooperation. What would also be needed, according to game theory,

⁹¹ Tsilly Dagan, 'The Tax Treaties Myth' (2000) 32 *NYU Journal of International Law and Politics* 939; Eduardo Baistrocchi (n 72) 353.

⁹² Kees van Raad, 'International Coordination of Tax Treaty Interpretation and Application' (2001) *Intertax*, 29 (6-7) 212, 213.

⁹³ Robert M. Axelrod (n 88) 188.

⁹⁴ Eduardo Baistrocchi (n 72) 371.

⁹⁵ Eduardo Baistrocchi, 'Tax Disputes under Institutional Instability: Theory and Implications' (2012) 75(4) *Modern Law Review* 547.

is coordination.⁹⁶ In such case, if the parties start cooperating – in the context of the MAP – it is likely that one state would engage in behaviour which it perceives as cooperative but which is viewed by another state as non-cooperative.⁹⁷ This is likely, as the BEPS project grants much discretion to the parties to infer their own interpretation of the relevant provisions and has not taken into account the cultural diversity which may directly affect such interpretations.⁹⁸ Consequently, since there is no external authority to monitor and guarantee uniform interpretation, international tax disputes are expected to rise dramatically even in the absence of a ‘genuine’ defection.

An example of the above arguments can be seen in Actions 8-10 of the BEPS project, according to which the new transfer pricing guidelines are ‘inevitably subjective rather than objective’, so that the aggrieved parties can offer their own interpretation without necessarily going beyond their legitimate interpretative boundaries.⁹⁹ Therefore, it would come as no surprise if, for example, given the different role of countries in the economy, the United States argued that ‘value’ is created via Intellectual Property development, but, at the other end of the spectrum, China placed more emphasis on human capital factors.¹⁰⁰

The ‘game’, therefore, is now more difficult; but in its simplest form, there are two alternatives to establish cooperation via iteration, since there are now two cooperative equilibria: **A/A** and **B/B**, highlighted in bold.

⁹⁶ Richard H. McAdams, ‘Beyond The prisoner’s dilemma: coordination, game theory and the law’ John M. Olin Law & Economics Working Paper No. 437 <<https://ssrn.com/abstract=1287846>> accessed 15 May 2018.

⁹⁷ *ibid.*

⁹⁸ Arkadiusz Myszkowski, ‘Mind the Gap: The Role of Politics and the Impact of Cultural Differences on the OECD BEPS Project’ (2016) IBFD.

⁹⁹ Eduardo Baistrocchi, ‘Article 9: Associated Enterprises’ (2017) IBFD <<https://ssrn.com/abstract=3012202>> accessed 15 May 2018.

¹⁰⁰ Mindy Herzfeld, ‘The Case against BEPS – Lessons for Coordination’ (2017): <<https://ssrn.com/abstract=2985752>> accessed, 24 May 2018, 19.

China

United States	Cooperation A: IP development	Cooperation B: Human Capital	Defect
Cooperation A: IP development	6, 4	2, 2	0, 8
Cooperation B: Human Capital	2, 2	4, 6	0, 8
Defect	8, 0	8, 0	2, 2

Although, again, the predominant strategy is for both the US and China to ‘defect’ (with a payback of 8), if the game is played repeatedly, the parties can achieve an equilibrium, either at A/A or B/B. The only chance to achieve cooperation, however, is for them to use the *same form of cooperation, either A/A or B/B, and this would require the parties to coordinate*. Otherwise, each party views each other’s move as a defection ‘requiring retaliatory defection’, therefore causing any cooperative endeavour to fail.¹⁰¹

¹⁰¹ *ibid* 23.

Even if, for example, China and the US agreed to cooperate at 'Cooperation A', where Intellectual Property development has taken place, thereby offering unequal payoffs and leaving China with less than the US, this reasoning is better suited in law, since such an outcome might be desirable to correct injustices.¹⁰² In other words, it is assumed that if justice requires taxation in accordance with the treaty, then it would require one of the parties to cooperate and coordinate its behaviour even if that means agreeing on unequal payoffs.

The role of the mediator in establishing cooperation and coordination

Therefore, it is argued that the role of the mediator in dispute resolution might be crucial in speeding up the process of establishing reciprocity and promoting cooperation between states. Moreover, mediators can coordinate states' strategic behaviour in order to avoid unnecessary misunderstandings. According to a recent empirical study undertaken by Sigman and Ariely on examining how groups reach decisions, they find that small group communication can foster cooperation between the parties and help them reach consensus.¹⁰³

As Van Hout argues, however, mediation is not a 'panacea', and as such, cannot be utilised when the parties in the dispute are not willing to cooperate by any means.¹⁰⁴ As Sigman's and Ariely's research reveals, the difference between groups that have reached a consensus and those who have not is that the members of the latter group had extreme opinions, which increased their confidence therein and leads them to overlook the legitimacy of the other party's arguments¹⁰⁵ Therefore, one way of promoting cooperation is, according to Axelrod, 'to teach people to care about the welfare of others'.¹⁰⁶ For example, in society, it would be easier to achieve cooperation if adults shape their children's behaviour in such a way that 'new citizens' would not only consider their own position but also the position of others.¹⁰⁷ The parties should not be expected to act altruistically, but

¹⁰² *ibid.*

¹⁰³ Mariano Sigman and Dan Ariely, 'How can groups make good decisions?' <<https://youtu.be/JrRRvqgYgT0>> accessed 15 May 2018.

¹⁰⁴ Diana Van Hout (n 44) 15.

¹⁰⁵ Mariano Sigman and Dan Ariely (n 103).

¹⁰⁶ Robert M. Axelrod (n 88) 134.

¹⁰⁷ *ibid* 135.

understanding the position of others creates an obligation to cooperate.¹⁰⁸ Following mediation techniques, the mediators can guide parties to view their position in a more neutral and objective way, rather than to ‘see what they want to see’.¹⁰⁹ As the commentary on Article 25 has already appreciated, the mediator can communicate ‘the strengths and weaknesses of each side’ in order for the competent authority ‘to better understand its own position and that of the other party’.¹¹⁰ Similar to Axelrod’s observation, it is not implied that mediation would rebut the presumption that states are self-interest maximisers and would thus start behaving altruistically. Rather, it is argued that mediation would change the way in which they ‘experience justice’ by enhancing ‘procedural justice’.¹¹¹ This would achieve the effect of indirectly enhancing the need to cooperate and achieve substantive solutions. Further, in Shelling’s opinion, communication is sometimes necessary to establish coordination.¹¹² Although he cautions that talk is not a substitute for action, he supports that the participation of a third party can be a way of establishing coordination.¹¹³ The mediator can facilitate an efficient outcome and influence communication through his control, even though ‘his directions have only power of suggestion’.¹¹⁴

Therefore, the advantage of utilising mediation as an ADR in establishing coordination is that it can not only improve the effectiveness of the MAP by teaching the parties to care about the others (and thereby increasing chances of cooperation), but also, prevent future disputes. As Sander puts it, ‘[mediation] ... gets at the underlying concerns and it teaches the parties how to resolve disputes more effectively by themselves in the future’.¹¹⁵ Mediators should not be considered as replacing arbitrators in all cases, since the chance of not reaching a decision is still present. Nevertheless, they can add value in improving

¹⁰⁸ *ibid.*

¹⁰⁹ Diana Van Hout (n 44) 13.

¹¹⁰ *ibid.* 20.

¹¹¹ *ibid.*

¹¹² Thomas C. Schelling, *The strategy of Conflict* (1960 Harvard University Press) 60.

¹¹³ *ibid.*

¹¹⁴ *ibid.* 144.

¹¹⁵ Frank E A Sander, ‘The Future of ADR - The Earl F. Nelson Memorial Lecture’ (2000) 1(5) *Journal of Dispute Resolution* 3, 6.

– but not perfecting – the effectiveness of MAPs whilst also avoiding future disputes from arising in the first place.

4. CONCLUSION

Overall, the above discussion suggests that the post-BEPS era, a time which carries ‘the most fundamental changes to international tax rules in almost a century’,¹¹⁶ would require an alternative approach to avoiding the uncontrolled inventory of unresolved MAP cases from arising. While Action 14 was not an essential component to counter BEPS, the importance of avoiding double taxation still carries the same political significance and deserves some minimum political commitments. These commitments help to gain greater access to MAP, but fail to ensure a positive outcome once the parties have entered into it, as they are yet to have tangible incentives to cooperate.

Of course, in the same way King Midas’ touch turned worthless objects into solid gold, arbitration’s magic touch can turn worthless negotiations of competent authorities into final binding decisions. Although this is undoubtedly correct from a theoretical perspective, Altman’s big picture approach encloses the crux of the problem in four lines:

‘while it would seem that most practitioners and scholars today regard international tax arbitration as the preferred method for resolving international tax disputes...its political science and international relations costs... are substantial enough to prevent the general use of arbitration in international tax disputes for over 100 years’.¹¹⁷

Therefore, even if in theory it may be easy to design a golden MAP resolution mechanism, in the reality of the international tax regime, any reform must also be politically attainable. Mediation, of course, lacks Midas’ touch as it

¹¹⁶ OECD, ‘Centre for Tax Policy and Administration, OECD presents outputs of OECD.G20 BEPS Project for discussion at G20 Finance Ministers meeting’, <<http://www.oecd.org/ctp/oecd-presents-outputs-of-oecd-g20-beps-project-for-discussion-at-g20-finance-ministers-meeting.htm>> accessed 15 May 2018.

¹¹⁷ Zvi Altman (n 12) 94.

does not mandate a resolution to the dispute and should, therefore, not be considered a replacement for arbitration.

Alternatively, mediation can become an extra tool in the taxpayers' dispute resolution toolbox, which they should have the right to request when competent authorities fail to reach an agreement within a standard period of time in the context of MAP. A standard period should be set by the OECD in order to guarantee a clear *ex-ante* threshold for the availability of this right, whilst also ensuring that the role of the MAP as a quasi-diplomatic mechanism, enabling direct communication between competent authorities in an efficient and inexpensive way, is not frustrated. As highlighted, mediation would be unnecessary when parties can resolve their disputes effectively by themselves, and, as a matter of coordination, would not be necessary once the parties have reached a 'focal point'.

In the short term, mediation respects a better balance between the political issues of the states and the stakeholder demands for a better mechanism. The presence of a mediator in intergovernmental disputes can increase cooperation and coordination between the states, facilitate improvement of the settlement of cases in a timely manner, while also helping to reduce future disputes from arising in the first place. At the same time, states can retain control over their tax affairs and, additionally, utilise existing domestic mechanisms of tax ombudsmen to provide an inexpensive, efficient and impartial ADR for them.

Lastly, mediation techniques would enhance trust in the system, induce less experienced, developing countries to use MAPs and weaken any present resistance to any anecdotal arguments for loss of sovereignty. Once developing countries get the necessary experience and familiarity with the procedure, the way would be paved for countries to use arbitration to further improve, and even perfect, the mechanism in the future.