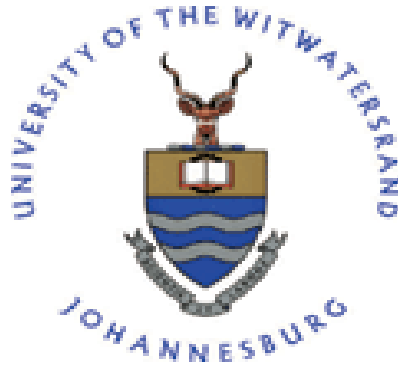




A critical analysis of gaps and challenges in transfer pricing in Africa:

A mining focused outcome.

Alexander M. Le Grange

(Student number: 855956)

School of Mining Engineering

University of the Witwatersrand

Johannesburg, South Africa.

Supervisor: Dr Gordon Smith

A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Masters of Science in Engineering by advanced course work and research.

Date: 17 March 2017

Declaration

I declare that this report is my own, unaided work. I have read the University Policy on Plagiarism and hereby confirm that no plagiarism exists in this report. I also confirm that there is no copying nor is there any copyright infringement. I willingly submit to any investigation in this regard by the School of Mining Engineering and I undertake to abide by the decision of any such investigation.

Signature:**Date:**

i. Abstract

It is estimated that US\$50 Billion is attributed to illicit financial outflows from Africa each year. This has created an environment in which African tax administrations have placed political pressure on industry and in particular the mining sector, to account for this erosion of tax bases across the African continent. Transfer pricing abuse by multinational enterprises in the mining industry has been attributed to a large portion of these illicit outflows. This report sets the objective of understanding African transfer pricing challenges, both general and mining specific, as well as initiatives addressing these challenges so as to identify the subsequent synergies and gaps that exist between the two. The following general challenges related to transfer pricing on the African continent were identified namely; effective policy and legislation addressing transfer pricing, sufficient skills and capacity in tax administrations, effective document requirements pertaining to transfer pricing transactions, access to comparable data databases and exchange of information between tax administrations. In addition to these general challenges, two mining specific challenges were identified namely; the complex nature of vertically/laterally integrated mining value chains and inadequate understanding by tax authorities of mining related transactions along the value chain in terms of function, asset and risk of each transaction. Of the six initiatives identified in the literature, the World Bank Group and Centre for Exploration Targeting sourcebook on transfer pricing in African Mining as well as the African Tax Administration Forum tax programs were selected through an Analytical Hierarchy Process as being the best aligned to deal with the challenges mentioned. Synergies between these two initiatives were identified in the areas of transfer pricing policy and legislation alignment as well as transfer pricing skills and capacity building. Gaps were identified under the practical ability to implement the outcomes from the World Bank Group sourcebook which requires a centralised body and multinational transfer pricing model positioned and able to carry out the transfer pricing recommendations from the sourcebook such as effective audits and skills and capacity building programs. The report concludes with a basic framework of how such a Multi-National Transfer Pricing Unit under ATAF might function, as a possible solution to addressing this gap.

ii. Acknowledgements

I would like to thank my mentor and supervisor Dr. Gordon Smith for his encouragement, guidance and patience during the writing of this report. His support and example has been a great motivation for me. I would also like to thank my ever supporting wife and best friend, Kathy.

iii. Contents

1. Introduction	1
1.1 Background	1
1.2 Objectives and Methodology	1
1.3 Scope of Research	2
2. Literature Review	3
2.1 Transfer pricing explained.....	3
2.2 Distinct issues underlying Transfer Pricing.....	5
2.3 The evolution of Transfer Pricing Convention and Regimes and associated challenges	6
2.3.1 Transfer Pricing Convention	7
2.3.2 Transfer Pricing Regimes	8
2.4 The Challenge of Transfer Pricing for the Developing World.....	9
2.5 Transfer Pricing: The story of Africa and Mining.....	12
2.5.1 Illicit Outflows from Africa and the importance of Mining.....	12
2.5.2 Mining Tax Regimes	13
2.5.3 Transfer pricing legislation in Africa	15
2.5.4 Challenges around Transfer Pricing on the African Continent	15
2.5.5 Transfer pricing challenges in the Mining Sector	17
2.5.6 On going literature on Transfer Pricing and Mining In Africa.....	23
2.5.7 OECD BEPS Action items background	25
2.5.8 Summary of challenges and initiatives	28
3. Key Learnings from the six Initiatives	29
3.1 Base Erosion and Profit Shifting (BEPS) Action items focused on Transfer Pricing	29
3.1.1 Action items 8-10 (The concept of aligning transfer pricing with Value Creation)	29

3.1.2 Action Item 13 (The concept of transfer pricing documentation).....	31
3.1.3 Key learnings and concepts	32
3.2 The Global forum for Transparency and Exchange of Information for Tax	35
3.2.1 Introduction to the EOIR and AEOI.....	35
3.2.2 Key Learnings from Global forum for Transparency and Exchange of Information for Tax	35
3.3 The Extractive Industries Transparency Initiative or EITI.....	37
3.3.1 Introduction to EITI.....	37
3.3.2 The EITI standard and key learnings.....	37
3.4 UN practical manual on transfer pricing for the developing world.....	39
3.4.1 Building Transfer Pricing Capacity In Developing Countries (The establishment of a Transfer Pricing Unit)	39
3.4.2 The Concept of the comparability Analysis	41
3.4.3 Effective documentation.....	41
3.5 African Tax Administration Forum ATAF	44
3.5.1 Introduction to ATAF.....	44
3.5.2 The four major Tax programs at ATAF	44
3.6 World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.....	47
3.6.1 Summarising the key challenges	47
3.6.2 Alternative transfer pricing methods	48
3.6.3 Building skills capacity within African tax administrations	49
4. Relating African Challenges to the Six Initiatives	53
4.1 Understanding and aligning the challenges faced by African Tax Administrations	53
4.1.1 General Transfer challenges faced by African Tax Administrations	53
4.1.2 Specific Transfer pricing challenges linked to transfer pricing in Mining....	55
4.1.3 Major Efforts and Learnings from the Six Initiatives	55

4.2	Comparison between challenges and initiatives	57
4.2.1	Background and the MCDM Approach.....	57
4.2.2	Selection of the AHP procedure	58
4.2.3	Understanding the Weighting of Criteria	59
5.	Results: Analysing and discussing the results of the AHP Analysis.....	66
5.1	Analysis and discussion of AHP results	66
5.2	Considering the Specific Transfer pricing challenges linked to African Mineral Resources.....	68
5.3	Synergies and Gaps	68
5.3.1	Synergies	68
5.3.2	Gaps	71
6	A proposed ATAF MNTPU Model.....	73
6.1	The scope of the ATAF MNTPU Model	74
6.2	Key Outcomes	74
6.3	Member States	75
6.4	Funding and Skills Arrangements.....	75
6.5	On-going skills development	76
6.6	MNTPU Function and staff	76
6.6	Challenges.....	76
6.7	The ATAF MNTPU Model	77
7	Conclusion.....	79
8	References	84

iv. List of Figures

Figure 1: A typical mining value chain (Source: Guj, et al., 2017).....	20
Figure 2: Outcomes of the AHP Analysis on Alternatives (Section 4.1.3) (Source: Transparent Choice, 2017)	65
Figure 3: The Four major initiatives of ATAF	73

v. List of Tables

Table 1: Summary of initiatives and challenges as identified in the literature review...	28
Table 2: Required skills associated with various phases of transfer pricing process (as proposed in section 7.1 of the sourcebook) (Source: Guj, et al., 2017)	50
Table 3: Transfer Pricing Synergy and Gap Matrix for General Transfer Pricing Related Challenges	61
Table 4: Ranking the Criteria	63
Table 5: Analysis and discussion of the AHP results as displayed in Figure 2.....	67
Table 6: ATAF Member States	75

vi. List of Abbreviations

AEOI – Automatic Exchange of Information
ALP - Arm's Length Principle
AHP – Analytical Hierarchy Process
APA - Advance Pricing Agreement
ATAF -African Tax Administration Forum
ATO – African Tax Outlook
BEPS - Base Erosion and Profit Shifting
CET - Centre for Exploration Targeting
CIT - Corporate income tax
CPM - Cost Plus Method
CUP - Comparable Uncontrolled Price
DTA - Double taxation agreement
EITI - Extractive Industry Transparency Initiative
EOI - Exchange of Information
EOIR - Exchange of information on request
FDI - Foreign Direct Investment

G20 – Group of Twenty

IM4DC - International Mining for Development Centre

IP - Intellectual Property

MCDM – Multi-criteria decision Making

MNE - Multinational Enterprise

MNTPU – Multi National Transfer Pricing unit

OECD - Organisation for Economic Co-operation and Development

TP - Transfer pricing

UN - United Nations

WBG - World Bank Group

WHT Withholding Tax

1. Introduction

1.1 Background

It is estimated that US\$50 Billion is attributed to illicit financial outflows from Africa each year. This has created an environment where African tax administrations have placed political pressure on industry and in particular the mining sector, to account for this erosion of tax bases across the African continent. Although these illicit outflows are multifaceted, transfer pricing and the abuse of it by private sector organisations make up one dimension of the problem. The second dimension comes in the form of lack of suitably guided transfer pricing legislation and the capacity and expertise by tax practitioners across the continent to enforce it.

Transfer pricing is not a new concept in tax practice and has been well documented by organisations such as the OECD or Organisation for Economic Cooperation and Development since the 1970s. Since then a number of initiatives in the form of practical guides, reports and sourcebooks have been started by organisations such as the OECD, UN and World Bank Group (WBG) to address transfer pricing issues with more recent work being focused on developing nations and in particular the resource sector of African states.

With much having been covered in the way of transfer pricing literature this report aims to investigate current transfer pricing literature in order to understand the gaps and challenges related to transfer pricing faced on the African continent, and align these outcomes with the mining sector.

1.2 Objectives and Methodology

In order to gain an acceptable understanding of the challenges related to transfer pricing on the African continent, the following objectives have been achieved in this research report:

1. Conduct a comprehensive review of the current literature on transfer pricing with a focus on Africa and the African Mining sector so as to identify high level challenges experienced by African tax administrations related to transfer pricing as well as some of the initiatives that have been started in response to these challenges.
2. Conduct a comparison analysis by means of a suitable and academically accepted decision making process to determine which initiatives align with the challenges identified in the literature so as to identify synergies between initiatives and areas

where gaps still exist. This synergy/gap analysis should only consider the initiatives most representative of African transfer pricing challenges.

3. In the case where gaps are identified, a practical solution with a focus on the mining sector must be recommended.

1.3 Scope of Research

This research is scoped to only consider learnings/outcomes identified in initiatives considered in the literature.

The research report aims to align with the outcomes of these initiatives as part of a collaborative effort and not try to disprove or discredit them. The framework based model from this report will be forward orientated and used to align current efforts around transfer pricing.

Although topics applicable to other industries affected by transfer pricing may be covered in the literature, these will not be discussed in detail. The author acknowledges that transfer pricing is a multi-sectoral issue, however owing to the challenges faced by the extractive sector, this sector will be the focus of this report.

2. Literature Review

2.1 Transfer pricing explained

Transfer pricing is defined as the price allocated to a transaction taking place between two related entities normally within a Multi-National Enterprise or MNE, operating with entities in multiple tax jurisdictions or countries. (UN Department of Economic and Social Affairs , 2013) These transactions are normally associated with physical goods, intangibles or services. When transactions like these take place between related entities (often referred to as intra-firm transactions) a price must be set within a controlled environment. If the same transaction took place between two unrelated entities this would be regarded as an uncontrolled transaction. This uncontrolled transaction forms part of the arm's length principle which states that transfer prices should reflect a value as close to the uncontrolled transaction as possible, as if the market was the driver behind setting the price and not some internal controlled factor. (UN Department of Economic and Social Affairs , 2013). When transfer prices are manipulated by an MNE to transfer profit to a lower tax rate jurisdiction in order to avoid tax payments associated with actual profits, this is known as transfer mispricing.

Although transfer pricing seems to be a simple concept, its application in defining a suitable transfer price is the more challenging part. (UN Department of Economic and Social Affairs , 2013)

In order to determine an arm's length comparable transfer price, certain processes need to be followed:

1. Transactions need to be evaluated by both the taxpayer and the tax receiver according to a comparability analysis to establish a transfer price. A comparability analysis uses a range of comparable transactions from some form of a database to determine a centre point price. The comparable transaction may come from an internal source such as a similar transaction between the enterprise in question and an external entity or from an external source such as similar transactions seen from unrelated enterprises operating in the same market. (UN Department of Economic and Social Affairs , 2013)
2. The transfer price can be calculated using several methods which provide a framework to the process. These methods are split into **traditional methods** (Comparable uncontrolled price method or CUP, Resale Price Method or RPM and Cost plus Method or CP) and **profit based methods**. Traditional methods allow the

taxpayer to choose a transfer price and method that most accurately reflects the arm's length price. Profit based methods (Profit comparison method or TNMM and profit split method) assign a transfer price based on the profits that arise from a transaction. (UN Department of Economic and Social Affairs , 2013). These methods are regarded as the most commonly used methods, however other alternatives exist such as Advance Price Agreements (APAs), the "sixth" method and Safe Harbours, but these so called unconventional methods will not be covered here. (Guj, et al., 2017). The OECD (Organisation for Economic Cooperation and Development) accepted methods are described in more detail below (*the first three are considered the traditional methods whereas the last two are classified under profit methods and are less frequently applied*) :

- 2.1 **Comparable uncontrolled price method (CUP)** which directly compares the transaction price with an uncontrolled similar transaction. (UN Department of Economic and Social Affairs , 2013)
- 2.2 **Resale Price Method (RPM)** which determines the transfer price if the goods in question were to be re-sold to an independent enterprise. This method includes a suitable margin to account for selling and operating expenses with a suitable profit margin. (UN Department of Economic and Social Affairs , 2013)
- 2.3 **Cost plus Method (CP)** which accounts for cost incurred by a supplier of a product as well as a margin to account for suitable profit given the market conditions. This method differs from the resale method in that it only considers the transaction to be between related enterprises. (UN Department of Economic and Social Affairs , 2013)
- 2.4 **Profit comparison methods (TNMM)** which seeks to compare net profit realised from a transaction in comparison to a similar independent transaction. (UN Department of Economic and Social Affairs , 2013)
- 2.5 **Profit split method** which combines the profit realised by both entities involved in the transaction and splits this according to what would have been realised in a similar transaction if both the entities were independent and acting under the arm's length principle. (UN Department of Economic and Social Affairs , 2013)

From the methods described above it becomes clear that arm's length principle is common to each method, but each method is distinctly different in its analysis. This is often a problem for tax administration in choosing the most suitable method. (OECD, 2010)

2.2 Distinct issues underlying Transfer Pricing

Under the concept of transfer pricing there are many issues that have added to the challenges of application of the methods described above. This section of the review will aim to define and discuss these issues, with the objective of creating a good understanding of the origin of many challenges around transfer pricing largely due to these concepts.

1. Documentation requirements: At every step of the transfer pricing process and application of the arm's length process, certain documentation requirements must be met by the taxpayer. These documents carry the objective of clarifying the method used by the taxpayer in defining the transfer price as means of first approach audit tool for the tax authority. (UN Department of Economic and Social Affairs , 2013) Transfer pricing documentation can be broadly classified under 3 main requirements namely:

- a. Enterprise documents which aim broadly to state the standing of the MNE such as shareholder profiles and general business profiles. (UN Department of Economic and Social Affairs , 2013)
- b. Transaction documents which aim to give details around each international transaction carried out by the MNE (UN Department of Economic and Social Affairs , 2013)
- c. Computation documents which aim to justify and explain the rationale used to calculate each international transaction transfer price as well as the method used (Underpinned by the arm's length principle) (UN Department of Economic and Social Affairs , 2013)

Additional documentation requirements may be required by tax administrations under different domestic laws (explained in the following section) with regards to documentation. One such issue highlights the concept of “contemporaneous” documentation which is documentation proving that a comparable transaction needed in the application of the arm's length principle is defined within the same time period that the documentation is compiled. This concept and its application have been open

to differing interpretations, causing much dispute between taxpayers and tax authorities. (UN Department of Economic and Social Affairs , 2013)

2. Concept of intangibles: Intangibles highlight the aspects of a transaction that are not so easily defined such as research and development, marketing expenses and intellectual property associated with a transaction. More often than not the application of the arm's length principle and comparability analysis in these cases are not so easily defined. The comparability analysis is the foundation of many of the traditional transfer pricing methods including the CUP, RPM and CP methods. This unclear application is largely due to the fact that most intellectual property (IP) and associated marketing around a certain product are unique to that product, and not easily definable in an uncontrolled transaction. Furthermore the problem associated with intangibles is further compounded by the varying forms in which these transactions take place. An example of this would be the royalty associated with a license agreement sold as part of a package related to a specific transaction. (UN Department of Economic and Social Affairs , 2013)

3. Intra-Group Services

This is defined as a service provided by one entity within an MNE to another. (UN Department of Economic and Social Affairs , 2013) An example of this could be corporate charges provided by a head office to an entity within a separate tax jurisdiction for technical or financial services. Intra group services are difficult to define and often need to be looked at from the perspective of how much benefit they afford to the entity receiving the services. The logic is that if the services were not available internally, would the entity use an external party to provide the same services in an uncontrolled transaction? Often services are so specialised that suitable comparable transactions are difficult to find for means of a comparability analysis. (UN Department of Economic and Social Affairs , 2013)

2.3 The evolution of Transfer Pricing Convention and Regimes and associated challenges

It is important to place transfer pricing within the context of its development and evolution in order to understand its implications within the developing world and in

particular amongst African states. Transfer pricing as a principle is a collection of economic ideas on how a market place in a static form may behave with relation to intra-group or cross border transactions amongst associated subsidiaries within a particular organisation or multinational enterprise. (UN Department of Economic and Social Affairs , 2013) This idea is then translated and applied to a market place that is constantly changing either through policy implications or other mechanisms such as globalisation. (UN Department of Economic and Social Affairs , 2013). Under the concept of transfer pricing there are two main broad bodies of work, that fall under the UN (United Nations) and OECD model conventions as well as the subsequent guidelines that make up the different transfer pricing regimes. These are discussed below.

2.3.1 Transfer Pricing Convention

The UN and OECD along with their guideline documents form the basis for most global legislation and convention around Transfer pricing. The OECD model convention was first released in 1963, with a formal version being made available in 1977. Subsequent to this the UN released their model convention in 1980 (subsequently revised and re-released in 2001) which focused on tax treaties, especially between the developed and developing world. This UN convention has been the basis for many tax treaties within the developing world. (UN Department of Economic and Social Affairs , 2013) Broadly speaking the UN and OECD conventions offer broad guidance on the arm's length principle and its application, as well as procedures to deal with disputes that may arise in its application. There are differences between the OECD and UN conventions but they will not be discussed here. (OECD, 2010)

The developing world has faced many challenges arising from these model conventions and their application, especially in relation to availability of comparable transactions as well as differing documentation requirements to apply both conventions. (UN Department of Economic and Social Affairs , 2013)

The conditions for transfer pricing must ultimately be defined under a regime, and based on law and policy. It must be noted that under tax treaties that deal with transfer pricing under the conventions are not self-executing and require domestic law to be brought into act. (UN Department of Economic and Social Affairs , 2013) The specifics of rules around transfer pricing should be formulated as part of legislation. Most countries in the

world have introduced some form of legislation, but this is normally restricted to cross border transactions above a certain amount. Under most domestic laws, transactions below a certain value or magnitude may not be considered due to the cumbersome processes required to monitor each of these transactions. This has led to a break down in application of the conventions, as well use of anti-avoidance rules outside of the conventions to settle such matters. (UN Department of Economic and Social Affairs , 2013)

In summary, under domestic policy formation, each country should consider legislation that best serves the needs and capability of the country. Some considerations for policy formation include application of arm's length based methods, legal frameworks as well as harmony with any convention based treaties that may already be in place. (UN Department of Economic and Social Affairs , 2013) This need to bridge domestic law and convention created the work that now exists under the OECD and UN guideline documents discussed below.

2.3.2 Transfer Pricing Regimes

The OECD released the first guideline reports around transfer pricing in 1979 and 1984. These reports were then culminated into a guideline document released in 1995. These guidelines are regarded by most OECD countries as the foundation for transfer pricing regulations and policy development within the OECD convention. (UN Department of Economic and Social Affairs , 2013) Transfer pricing regulation and policy is particularly important in ensuring that tax associated with transactions that take place between associated entities within MNEs is correctly identified. Over the last 20 years, many developing economies have become ideal destinations in which to host subsidiaries of many developed nation enterprises mainly due to conducive business conditions and lower labour, energy and resource costs. Subsequent to this phenomenon, many developed nations have also found the need to tighten transfer pricing regulations due to foreign enterprises operating within their borders and paying tax associated with revenue generating activities outside of these developed countries. These tighter and more complex regulations have transferred into many developing nations seeking to ensure that they too keep their tax base intact. (UN Department of Economic and Social Affairs , 2013). The key difference between the two is that most developing countries lack the administrative capacity to be able to effectively implement these newer regulations. One of the key challenges identified around transfer pricing are the multiple methods used by

many MNEs to arrive at a transfer price. Under the OECD guidelines there are 5 methods that may be considered as discussed earlier in this report. (UN Department of Economic and Social Affairs , 2013) The challenges that exist around this include differences that arise between an MNE and a tax authority in the application of any of these methods to calculate the transfer price to be used, due to differing application of the conventions. Further challenges exist when two tax authorities that cover the span of the transaction have a different application of a certain transfer pricing method that equates to different adjustments in each country and thereby causing either too much tax or too little tax to be paid. These differences are sometimes associated with differences in convention. (UN Department of Economic and Social Affairs , 2013).

In 1988 the UN published a report labelled “International Income Taxation and Developing Countries” in which the challenges around transfer pricing in the developing world were highlighted. This report addressed issues faced by developing countries around the manipulation of taxes from MNEs operating within their jurisdictions and the subsequent associated erosion of their tax bases. As an update to this the UN subsequently hosted a conference on Trade and Development or UNCTAD in 1999 where transfer pricing developments were a major theme. (UN Department of Economic and Social Affairs , 2013)

In 2010 the OECD released an updated version of their Transfer Pricing Guidelines which was a revision of the “*Transfer pricing and multinational Enterprises*” document released in 1979 and adopted in 1995. (OECD, 2010). Challenges arising from the implementation of transfer pricing regulations and associated BEPS or Base Erosion and Profit Shifting were further addressed by the OECD through a series of action items, discussed later in this review. *[Refer to section 2.5.7 for an more detailed review of the OECD BEPS items.]*

In 2013 the UN sought to take the lead on transfer pricing regulation in the developing world and released the Practical Manual on transfer pricing for developing countries.

2.4 The Challenge of Transfer Pricing for the Developing World

In order to better understand the need by the UN to develop a manual for the developing world on transfer pricing legislation some key challenges and background need to be explained first.

The OECD principles are widely accepted as the guiding principles for transfer pricing legislation. The foundation of the OECD guidelines is based around the principle of an arm's length transaction. The arm's length principle as defined previously is the price that would be set for a transaction between two unrelated entities in an uncontrolled or open market system. This is the target transfer price or fair practice price considered for transactions that take place between related entities, such as a mine in one tax jurisdiction and a smelter/refinery (from the same company) located in another tax jurisdiction. However under the "arm's length" principle, the UN determined that challenges faced by the developing world required the development of practical guidelines on transfer pricing to assist the developing world, as an aid to the OECD principles. (UN Department of Economic and Social Affairs , 2013)

This manual was developed as a direct need from the developing world for clearer guidance in the development and implementation of tax policy. (UN Department of Economic and Social Affairs , 2013).

Transfer pricing rules as established by the OECD have largely been developed for OECD member countries. These countries are regarded as having developed or advance economies. Placing this in perspective, many developing countries are facing similar challenges experienced in the 1970s and 1990s by many of the OECD nations. However, the capability of many tax administrative systems within the developing world has not kept pace with MNEs from the developed world. (UN Department of Economic and Social Affairs , 2013) Several major challenges faced by the developing world include:

1. Lack of Comparable Transactions: As part of identifying the correct transfer price, a comparability analysis is used. Within the developing world, sufficient comparable transactions are lacking. This is due to the typically smaller domestic markets found within developing countries in which a third party transactions comparable to those made by MNEs are difficult to find. Most developing countries have significantly less local organised operators operating within the tax jurisdiction of the country. Comparable transaction databases exist within the developed world, but the data obtained from these are often very difficult to apply to developing markets. These databases are very costly to access as well, placing burden on the resources of developing tax administrations. In many emerging markets, the problem is often compounded due to the fact that newly established enterprises are involved in so called unexplored transactions, where market related comparable transactions are almost always lacking. (UN Department of Economic and Social Affairs , 2013)

2. Administrative Capabilities: Due to the evolution of transfer pricing and the sophisticated financial arrangements of many MNEs, documentation requirements for transfer pricing have become cumbersome and extensive as many countries have sought to bolster up transfer pricing legislation. Capability within many developing countries' tax administrations to adequately monitor document requirements by MNEs has proven to be lacking. (UN Department of Economic and Social Affairs , 2013)
3. Practical difficulties in applying the Arm's Length Principle: Due to the increase in trade of intangibles and services in highly integrated MNEs, application of the arm's length principle has become increasingly difficult for developing nations to effectively apply. This is largely due to lack of resources within these tax administrations to adequately address each transfer pricing case individually. The challenge however is not only confined to the tax authorities. Many emerging organisations (lacking adequate skills themselves) in the developing world are often challenged in applying and carrying out the arm's length principle in an attempt to comply with transfer pricing requirements. This challenge is more profound amongst smaller and medium size enterprises (SMEs) who do not have the same resources and abilities as their larger MNEs counterparts. (UN Department of Economic and Social Affairs , 2013)
4. Shortage of skills: As stated in point number 2, complex procedures and regulations required to effectively monitor and control transfer pricing practices require specialist skills and experience. In many developing nations, most government departments actively compete with the private sector for the availability of skills. With private sectors normally paying above the average government wage, most tax authorities have been left with serious challenges around skill shortages. This challenge is further compounded when institutions offering training and development that nurture the desired skills are not easily accessible or in the worst case, are not established. (UN Department of Economic and Social Affairs , 2013)
5. E-commerce: The nature of business has significantly changed with the introduction of the web and many web based business models. Tax boundaries are not traditionally defined under these so called intangibles or web based business models and additional skills and resources are required by most developing countries to adequately adjust international tax concepts to these less structured transactions. (UN Department of Economic and Social Affairs , 2013)

6. Location Savings: Most developing nations believe that profit benefits associated with lower production costs (associated with lower labour costs, tax rates etc) afforded to MNEs operating within their tax jurisdictions or borders should accrue to the local tax authority. There are very few guidelines that aid developing countries in collecting revenue associated with location savings. Under the OECD guidelines, location savings should be calculated in accordance with what would have been agreed between independent parties in a similar circumstance. Collection of these location savings has been highlighted as a challenge for many developing nation tax administrations. (UN Department of Economic and Social Affairs , 2013)

Further to this a large portion of developing countries have very small tax bases, with some even having larger aid funds. (OECD, 2012) As a result or consequence of these kinds of extreme conditions many developing countries have very little experience with any form of tax legislation. (Guj, et al., 2017) As a result of this, the G20 have acknowledged challenges faced by the developing world. In response they have urged the involvement of the developed world as well as the MNEs operating in the developing world to build capacity and skills as well as assist in the formulation and discussion around effective transfer pricing legislation formation for developing countries. The Global Forum on Transparency and Exchange of Information for Tax Purposes was formed to aid this process. (OECD, 2009)

2.5 Transfer Pricing: The story of Africa and Mining

2.5.1 Illicit Outflows from Africa and the importance of Mining

It is estimated that over the last 50 years illicit outflows from Africa have been valued at over USD\$1 trillion dollars, which is equivalent to all the aid received by Africa in the same period. (AUC/UNECA, 2012). It is further estimated that some USD\$50 billion leaves Africa in illicit financial outflows every year further compounding the problems associated with poverty, inequality and unemployment. (AUC/UNECA, 2012). It is believed that a large portion of this was attributable to the resource sector. (Guj, et al., 2014)

As highlighted in the illicit outflows from Africa report transfer pricing and BEPS or Base Erosion and Profit Shifting, made up a significant contribution to illicit outflows. These

are considered as key drivers of illicit outflows, with transfer pricing forming part of BEPS. (AUC/UNECA, 2012)

Highlighted in the report on illicit outflows are a number of initiatives aimed at tackling the problems identified in the literature review of this report. Some such initiatives that pose particular interest for Africa are:

1. The Global forum for Transparency and Exchange of Information for Tax Purposes led by the OECD
2. The Extractive Industries Transparency Initiative or EITI
3. Base Erosion and Profit Shifting Project lead by the G20 and OECD
4. UN practical manual on transfer pricing for the developing world lead by the UN Department of Economic and Social Affairs.

However it must be noted that although several initiatives exist that aim to address the problems associated with illicit financial outflows and associated BEPS resulting from transfer mispricing or transfer pricing abuse, these initiatives are often independent of each other and pose no real overarching solutions to the problems faced by African Tax administrations. (AUC/UNECA, 2012)

The importance of mining in Africa is one that adds much context to this literature review. With some 591 mining exploration and extraction companies registered in Africa in 2014 (Guj, et al., 2017) and 17% of global exploration spend being spent in Africa in 2013 (Guj, et al., 2017), many African economies remain dependent of their natural resources for economic stimulation and growth. This is largely due to the undiversified nature of many African economies. Revenues generated from mining operations contain the key to creating diversification in African countries and aid them in the quest to develop less diversified economies less dependent on natural resources.

2.5.2 Mining Tax Regimes

In order to better understand the relevance of transfer pricing and the challenges posed to the developing world, it is necessary to put into context the mining sector within tax regimes, and understand the objectives of tax administrations related to mineral rents and taxes. This section of the review will aim to address this question.

The mining sector has a few characteristics that make it distinguishable from other sectors. Ultimately resources are finite and non-renewable and always owned by the state

and not the mining companies exploiting them. These resources require capital intensive activities to explore and exploit. These investments are long term and carry much higher risks than those seen in other industries. (Guj, et al., 2013)

These risks mean that mining companies will often seek higher levels of return when compared to other industries to justify these risks. Additional to this, mining companies need high levels of profit to drive re-investment as part of their standard business models. However it is the duty of the owners of resources, namely governments and the people they govern to ensure that they extract maximum rent from the mineral resources within their country. This often causes mining companies to seek out countries with lesser rent seeking tendencies as areas in which to operate and invest. (Guj, et al., 2013).

This means that most regimes will always seek to balance rent seeking legislation with the expectations of investors. (Guj, et al., 2013)

Governments generally try to ensure that legal frameworks and tax administrations work under balanced legislation and sound policy which attracts investment but also ensures secured future collection of rents and taxes. (Guj, et al., 2013)

Mining based tax regimes generally consist of a few elements, with the most important ones considered below (Guj, et al., 2013), namely:

1. Mineral royalties, which are normally calculated on production basis and are seen as compensation for exploitation of a countries resources
2. Corporate Income Tax, which is a profit based tax
3. Capital Gain Tax, which is tax for the sale of assets
4. Economic rent based taxes, which are collected during times of so called super profits
5. Government equity, which is a stake issued to the government often in the form of free carry shares and is implemented in many African states.

Transfer pricing may form part of any one of these areas where transactions occur amongst related entities in different tax jurisdictions.

It is clear that tax administrations for mining are very complex as taxes are collected from varying sources and in varying forms. This means that tax administrations often need to be well skilled and resourced to ensure the efficient and accurate collection of taxes. (OECD, 2012)

The challenges for transfer pricing fall squarely under these complex tax regimes. Added to this, transfer pricing became a major concern during the commodity super cycle of the early 2000s when many African mining regimes expressed concerns around super profits realised by mining companies and the lack of correlation with associated tax revenues, as

a result of transfer mispricing (Guj, et al., 2014) This prompted the World Bank Group to commission research in conjunction with the International Mining for Development Centre (IM4DC) and Centre for Exploration Targeting (CET) to address and update current literature on transfer pricing related to Africa and its mining sector. (Guj, et al., 2014) This will be discussed in the proceeding sections. At the time of this research the IM4DC has ceased to exist and its interests now represented under the MEfDA or Mineral and Energy for Development Alliance which is headed up by the original IM4DC partner namely the University of Queensland and University of Western Australia. (Guj, et al., 2017)

2.5.3 Transfer pricing legislation in Africa

As stated earlier in this review, effective transfer pricing legislation based on the UN and OECD conventions that accounts for the arm's length principle are not well entrenched in African legislation. (Guj, et al., 2017) Some countries have some form of legislation in place that accounts for the arm's length principle but lack the correct document requirements and guidance to implementing the legislation. Some of the legislation provide for an APA, but these are rarely implemented. (Guj, et al., 2017).

As part of the research the CET under the World Bank Group carried out in their source book (Refer to section 2.5.6) a survey was sent out to tax and mining government officials in 40 countries in Africa. Responses were received from just under 50% of all the officials that received the survey. In general the responses were of poor quality and incomplete but answers in general indicated that very few of the jurisdictions that responded had any specific transfer pricing legislation in place, and further lacked the ability to carry out audits or focus on any specific industries such as mining. (Guj, et al., 2017)

2.5.4 Challenges around Transfer Pricing on the African Continent

Curtis and Todorova (2011) acknowledge challenges faced on the African continent around transfer pricing, which re-iterate those highlighted by the UN related to the developing World. These are considered below:

1. Based on the arm's length principle or ALS for short, comparable transaction data is very difficult to obtain in African states. Most African states are forced into a

- situation where they must use data from developed countries to obtain comparable transactions, and then adjust these to their local conditions. (Curtis & Todorova, 2011)
2. There is a lack of skills and resources to administer the arm's length principle effectively. There is a lack of lawyers, economists and tax specialists within governmental tax regimes to allow for the processing and regulation of transfer pricing. (Curtis & Todorova, 2011)
 3. A large portion of transfer pricing is classed as intangible. This is largely the intellectual property (IP) that most multi-nationals regard as essential to their profit generation. This may result in the developed economies that house multi-nationals to attain a larger share of the tax, as most corporate value is based on IP. This, coupled with the difficulty associated with regulating intangibles, results in erosion of tax bases for most developing African countries. (Curtis & Todorova, 2011)
 4. Multi-nationals can obtain a cost saving by outsourcing their activities to lower cost countries such as India and China. These supposed lower cost destinations then seek to obtain a share of the tax as profits realised are contributed to by their low cost labour. (Curtis & Todorova, 2011)
 5. Most African states lack sufficient tax treaties. Tax treaties are beneficial in that they help to develop tax regimes through shared information and adoption of standardised policies that may be more suitable than adopting the arm's length principle in policy. Tax treaties also allow for the avoidance of double taxation, which lowers perceived tax risk in a state. The reverse side of the coin is that treaties require a certain level of expertise to correctly negotiate, which may be detrimental to many African states lacking the required expertise/skills. (Curtis & Todorova, 2011)

The OECD summarises the main challenge faced by African states under the theme of lack of information, and the reasons for this become evident in the testimony below. A testimony by an African Tax Commissioner (under ATAF or African Tax Administration Forum) related to perceived challenges experienced by African states was assembled by the OECD in their report on dealing effectively with transfer pricing. The following challenges were identified in this testimony and are discussed below:

1. Information is deliberately withheld by MNEs from tax authorities, making it difficult for tax authorities to audit and monitor transfer pricing practices (OECD, 2012)

2. MNEs at times will bombard tax authorities with seemingly unimportant information in an attempt to keep attention away from information crucial to making correct assumptions related to transfer prices. (OECD, 2012)
3. Management fees associated with a head office external to the country are often fixed as percentage of revenue attained and do not necessarily relate to the cost value of services provided. Often at times most MNEs will have sufficient management or technical resources within the entity in question with no clear justification for management fees associated with an external head office. Further compounding this, is that information related to corporate charges are often withheld by MNEs, stating that access to such information is not possible by the entity receiving the service. (OECD, 2012)
4. The use of tax havens is still a major challenge experienced on the African continent. MNEs will often sell their products at a perceived reduced price into a tax haven which simply acts as a means to re-invoice and sell on the product at a much higher price. Often these tax haven entities provide African tax administrations with very little information, compounded by the lack of documentation from entities operating within the African tax jurisdictions. (OECD, 2012)
5. Most African states have very limited access to transfer pricing databases such as Amadeus and Orbis, further compounded with lack of experience and skills to apply information related to these databases once obtained. (OECD, 2012)

2.5.5 Transfer pricing challenges in the Mining Sector

Transfer pricing in terms of the resource sector refers to the value assigned to a transaction related to the trade of a resource, service or other related intangibles that takes place between related entities within a Mining Company operating in multiple tax jurisdictions. Transfer pricing abuse arises when prices are manipulated so as to shift profit to low tax paying regimes or jurisdictions, normally in a cross border type transactions. (Mullins, 2010). However the resource sector has often been regarded differently to many other sectors especially within the developing world where economies are geared towards primary industries. One such example includes when transfer pricing rules are applied within the same tax jurisdiction related to a disparity between tax rates for different sectors. (Mullins, 2010). In particular, the resource sector may be prone to this as governments aim to capitalise on tax earnings from the resource sector in a bid to stimulate economic growth. Resources are generally considered tangible and have well

established open market prices. This may make transfer prices for resources easily comparable, however the resource sector is also made up of many intangibles such as services, which are harder to compare to open market similar transactions. It is estimated that these transactions may make up as much as 30% of all international transactions. In mining, transfer mispricing may occur at any stage of the mining value chain. (Guj, et al., 2013). This is due to the multi-national nature of most mining companies, where stages of the processing cycle may take place in different countries and therefore different tax regimes. (Guj, et al., 2013). Many multi-nationals have co-owned or common holding companies outside of the tax jurisdictions where the mineral product is originally extracted. Problems arise when the mineral product is sold in a form such as a concentrate or raw ore form that has no comparable arm's length market transaction on which to base the transfer price. When the product is sold in its first arm's length transaction, the price may have no bearing on any transfer price before that. This ultimately leads to administrative challenges for governmental regulatory agencies involved in tax collection to accurately determine the amount of tax that must be paid (UN, 2011). There are many opportunities for transfer pricing abuse in the resource sector. These are considered below:

1. Firstly the different stages of the resource value chain may occur in different tax jurisdictions. (Mullins, 2010). Where a resource is extracted, processed and sold, these steps to market may occur in very different tax jurisdictions. More importantly, the further down the value chain the transaction takes place the higher the risk associated due to the increase in value along the value chain. (Mullins, 2010) [*Refer to section 2.5.5.1 for an important elaboration on the mineral resource value chain*]
2. Secondly, fees charged to resource companies for administrative, technical and managerial services from entities within the same MNE may be escalated to above their true value to reflect manipulated profits in high tax jurisdictions. (Mullins, 2010)
3. Thirdly, MNEs operating in the resource sector have the opportunity to license intellectual property within low tax jurisdictions, which is not a true reflection on where the intellectual property generates value. (Mullins, 2010)
4. Lastly, resource sector MNEs may have contracts established to facilitate the leasing of capital goods from related entities, at escalated costs, thereby blurring the true value associated with resource based activities. (Mullins, 2010)

Despite these opportunities for transfer pricing manipulation, basic transfer pricing legislation founded on accepted principles should be able to negate this risk (Mullins, 2010). It must however be noted that most credible mining companies would rather abide by the law and have vested interests in the development of communities within which they operate. On the reverse side of the coin, challenges also exist for MNEs in that databases needed to benchmark comparable arm's length prices to transfer prices are often non-existent in most African countries. MNEs attempting to act in good faith will need to ensure that arm's length comparable data is made available not only to their own organisations but to the regulatory agencies under which they operate. (Guj, et al., 2013). Workshops conducted under the G20 have identified the mining sector in developing countries to be most vulnerable to transfer mispricing. (Guj, et al., 2014)

In aiming to address the challenges faced by the resource sector, there must be a sequence of alternatives to ensure that all resource based transactions, both tangible and intangible are easy to monitor and ensure value is correctly channelled. Traditional approaches to defining resource related transfer prices has been discussed previously.

Another alternative to the traditional approaches that are available to MNEs and tax administrations is the use of an APA or Advanced Price Agreement (as discussed earlier), which is a methodology that allows authorities and MNEs to agree on an acceptable transfer price or methodology to obtain a transfer price for future transactions. This is of particular importance to the resource sector, due to the long term and capital intensive nature of the resource business as well as the revenue collectable from the resource sector by tax authorities. (Mullins, 2010). However APAs are typically negotiated over 3-5 year periods and do not align with most long term resource contracts. (Mullins, 2010) APAs can be advantageous, but rely on certain assumptions made at the time the APA is negotiated. In the resource sector, these assumptions may serve to damage the MNE or reduce revenue collection by tax authorities depending on which way the commodity markets swing. (Mullins, 2010). APAs require extensive transfer pricing expertise within tax administrations and often place a high demand on compliant tax payers, which coupled with complex negotiations are some of the reasons they have not been popular amongst African states. (Guj, et al., 2017) It is also noted that APAs are not based on the arm's length principle. (Guj, et al., 2017)

Although arrangements such as APAs are considered complex, the alternatives to correctly monitoring and implementing transfer pricing principles, such as the arm's

length principle or the comparability analysis, form part of a multidimensional problem on the African continent. (Guj, et al., 2017). Transfer pricing processes are often carried out by tax administrations in parallel with many other complex tax tasks (Guj, et al., 2017). It is for this reason that many African countries have considered the implementation of non-arm's length based methods. The most notable examples are the use of fix margin methods where OECD accepted methods have been difficult to apply by countries such as China, Brazil and India. (Guj, et al., 2017). In response to this many global NGOs have come out in support of non-arm's length based methods as proposed by the Independent Commission for the Reform of International Corporate Taxation, as a means for the developing world to successfully bridge the seemingly large tax skills gap. (Guj, et al., 2017). This point has been rejected by the OECD, which is in favour of maintaining globally accepted transfer pricing thinking as supported by organisations such as the UN, WBG and the ATAF. (Guj, et al., 2017)

2.5.5.1 The Mining Value Chain

The mining value chain can be defined as the activities related to mining, that represent the varying stages of value added to a mining product from exploration to sale and marketing of the product. (Guj, et al., 2017) Figure 1 below shows the various stages of the mining value chain.

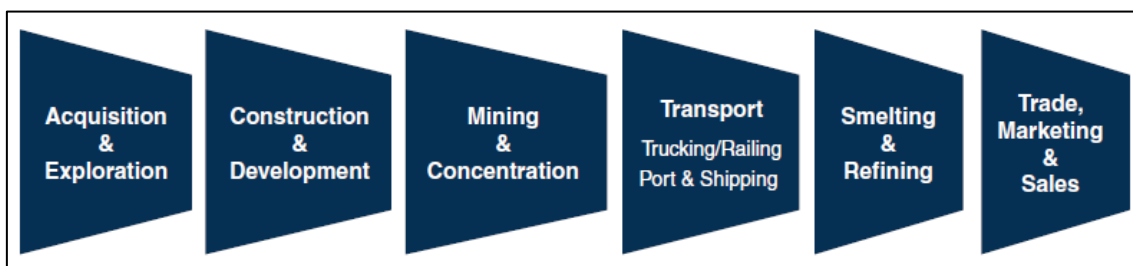


Figure 1: A typical mining value chain (Source: Guj, et al., 2017)

Depending on the type of mineral that is sold, mining MNEs may have different levels of integration along the value chain. Precious metal and iron ore producers tend to be more vertically integrated to the value chain by selling a refined product whereas base metal producers may be less integrated and sell a product in concentrate form. Junior miners tend to be less vertically integrated and largely focus on exploration. (Guj, et al., 2017). Large MNEs tend to be largely vertically integrated, but this integration is often spread

over a region where services and beneficiation facilities are centralised, often at times in different tax jurisdictions to where the mineral is extracted. (Guj, et al., 2017).

At various stages along the value chain a host of services are required by each stage. These services are regarded as transactions that are either carried out with related (associated with the mining) MNE customers and suppliers, or external entities not under the control of the MNE or a mix of the both. (Guj, et al., 2017) These transactions will either fall into a primary function (directly associated with the value chain) or a secondary function (seen as “lateral” input ins to the value chain such as financial and corporate services). (Guj, et al., 2017). Within these functions, the board of an MNE may assign responsibility centres to different activities within the value chain. The three major responsibility centres are:

- Cost Centres: Concerned with core and non-core operational activities (focused on controlling costs and being cost efficient) (Guj, et al., 2017)
- Revenue Centres: Concerned with sales and marketing (focus on maximising sales volumes but not concerned with cost of production) (Guj, et al., 2017)
- Profit Centres: Concerned with core market and external customer activities with focus on profit contribution and quality. (Guj, et al., 2017)

MNEs stand to gain more benefit by ensuring that operations are managed as “profit centres” as this allows them to be classified on a stand-alone basis, making the connections between related entities considered “cost centres” or “revenue centres” less distinct. It is therefore of critical importance that African tax administrations understand the difference between activities associated with cost centres, revenue centres and profit centres to ensure that these activities are correctly associated and value add from each of them is correctly understood. (Guj, et al., 2017)

In the case of transactions between related parties there are three important concepts that need to be explained:

- Transaction between related entities are assigned a transfer price, and these transactions may occur at any stage of the value chain (Guj, et al., 2017)

- Customer type transactions or outbound transactions normally involve the transfer of products to a related party such as copper concentrate supplied to a related smelting and refinery entity. (Guj, et al., 2017)
- Supplier type transactions are related to the receiving of services or good from a related entity and can include anything from corporate to financial services, technical services or intangible items such as IP and R&D. (Guj, et al., 2017)

The impact related to these outbound and inbound transactions can be very high, given the scale of the mining industry and the revenues associated with the estimation of some of these transfer prices. (Guj, et al., 2017). These outbound and inbound transactions can also be mapped to see what activities take place within a particular tax jurisdiction, so as to correctly understand associated costs and profits. This mapping must consider the function, asset and risk of each transaction known as the aspect of FAR (function, asset, risk). It is therefore crucial that African tax administrations have a very clear understanding of the state of vertical integration of MNEs operating within their jurisdictions. (Guj, et al., 2017)

In order to understand typical transfer pricing transactions, the FAR (function, asset and risk) aspect of each transaction must be clearly understood.

- Function: This refers to the primary and secondary functions associated with the mining value chain. Most secondary functions such as financial, corporate and legal services are subject to a transfer price when these services are offered to primary functions from related entities. (Guj, et al., 2017). It is important for tax authorities to identify different functions and activities and make sure that they are categorised correctly and clearly understood. (Guj, et al., 2017)
- Assets: This refers to the typical assets associated with each stage of the mining value chain and can either be classified as tangible or intangible. Tangible assets such as plant and equipment have very clear market prices which can easily be linked to a generated NPV depending on the cost and revenue generated by each asset. In theory this should lead to a fairly straight forward link to a comparable arm's length data. However in practice differences arise, as the value of an asset in the market is often not well linked to its NPV. (Guj, et al., 2017) Intangible assets such as exploration

permits, mining permits, specialised skills and expertise or even IP are widely regarded as more difficult to identify and account for when compared to tangible assets. Intangibles should be analysed from a risk perspective. Therefore, only entities within the MNE that control the greatest amount of risk associated with an intangible asset are expected to receive remuneration. (Guj, et al., 2017) Entities that do not control the risk but receive risk adjusted returns from intangible assets are a red flag that some transfer mispricing may be taking place.

- **Risk:** The key concept under risk associated with a transaction is to understand the level of control associated entities within an MNE exercise of a risk. Entities with the greatest control over a risk should be allocated the greatest return. (Guj, et al., 2017). In terms of the arm's length principle this means that the transfer price chosen in a transaction (if correctly assigned) would ensure this risk adjusted return for such entities. (Guj, et al., 2017). Risks can be classified as either external such as market, currency, social, political, natural and environmental. Internal risks are linked to operation elements such as exploration, mining, processing and selling of mining products. (Guj, et al., 2017) African tax administrations can achieve great benefit by carefully considering the risks associated with each level of the value chain and who assumes those risks amongst the related entities within an MNE.

2.5.6 On going literature on Transfer Pricing and Mining In Africa

As mentioned in section 2.6, the International Mining for Development Centre (IM4DC) and Centre for Exploration Targeting (CET) under the World Bank Group (WBG) were commissioned to assemble and update research on transfer pricing in the mining space under a source book format entitled *Transfer Pricing in Mining with a Focus on Africa: A reference guide for practitioners* referred to as the **source book or report** for simplicity purposes in this section of the review. This source book was subsequently released in January of 2017, at an advanced stage of this research. Due to this the literature in this review has been obtained from both the IM4DC briefing notes as well as the source book itself. This source book is regarded as the most up to date literature and thinking on Transfer pricing related to Africa and Mining.

When concern was raised by many African states that revenues from mining did not seem to match up with the commodity super cycle of the early 2000s, the World Bank Group commissioned research to be carried out by the CET or Centre for Exploration Targeting

in 2013 around transfer pricing and its links to the mining sector. (Guj, et al., 2017). The result of this research was the report released by the World Bank entitled “*How to improve Mining Tax Administrations and Collection Frameworks*” which is discussed earlier in this literature review. This publication was a monumental step forward for African countries, and is still used as a basis for many workshops and training events hosted across the continent today. (Guj, et al., 2017)

Yet despite these advances (including those made by the UN through their practical manual for transfer pricing and the BEPS Action Items), it is still considered crucial that knowledge and research be developed around the fields of transfer pricing in mining. Reasons for this include factors as listed below that place large amounts of strain on resources of African tax administrations:

- Complex tax minimisation strategies employed by MNEs that still fall within legal practice. (Guj, et al., 2017)
- Application of arm’s length principle through effective legislation remains a challenge for developing countries (largely due to lack of sufficient information) (Guj, et al., 2017)
- The mining sector remains complex and involves many high value transactions along complex value chains, intangible transactions and transactions that have very few benchmarked equivalents to assess the validity of transfer prices. (Guj, et al., 2017)
- Many developing countries still maintain tax contradicting policies such as tax holidays and other similar incentives as a means to attract foreign direct investment. These tax relief initiatives often form part of wider fiscal tax policies within countries and tend to create a misalignment between transfer pricing administration and attracting FDI. This leads to African countries often not being able to capitalise on mining revenues when the resource sector is on an upswing. (Guj, et al., 2017)

These factors culminated in the need of the research activities carried out by CET under the World Bank Group.

2.5.7 OECD BEPS Action items background

Due to the integration of many national economies as well as the merging of markets on an international scale, severe pressure has been placed on many political institutions to re-think tax laws that have become redundant, ineffective and unable to deal with tax base erosion and profit shifting or BEPS by MNEs operating in multiple tax jurisdictions. (OECD/G20 , 2015). Globalisation in the way business is conducted has seen significant increase in recent times, through the moving of many production based industries to low cost or developing countries and the strengthening of service/financial industries remaining in higher cost or developed countries. Through enhanced technology and telecommunications, globalisation and cross border trading has flourished allowing developing countries to benefit from foreign direct investment (FDI) and job creation as well as economic growth but also allowed the establishment of MNEs operating in multiple countries and facilitating cross border transactions. (OECD, 2013). Cross border trading creates the potential for double taxation, as MNEs seek to move goods from a country of origin, closer to targeted markets normally located outside of the country of origin. (OECD, 2013) In order to foster economic growth for both countries involved in the transaction, clear and concise tax legislation is required (OECD, 2013). Associated with these cross border transactions is a certain level of risk. In the context of this literature, this risk pertains to the manipulation of tax legislation by MNEs through aggressive tax planning to assign costs or profits to entities within the MNE that result in a tax favourable outcome. (OECD, 2013). In 2013, the Organisation for Economic Cooperation and Development (OECD) sought to consolidate these challenges and address BEPS through the implementation of 15 action items. Before these action items are listed, some background on transfer pricing thinking at the time is needed.

2.5.7.1 Background on challenges prior to BEPS Action Items

Certain challenges were highlighted by the OECD in 2013 related to BEPS. Foremost, was the challenge that arose when countries did not consider the impact of their own domestic tax legislation in relation to that of other countries linked to MNEs operating within their borders. This lead to double taxation as countries sought to protect their tax sovereignty. Bilateral tax agreements are the most common form of attempting to correct/control the double tax risk, but does not account for possible misalignment between tax regimes (OECD, 2013). Misalignment in this instance refers to the goals

that tax regimes aim to achieve through their tax policy. It is however noted that not all cross border transactions lead to BEPS, nor do all transactions pose the risk of double taxation. (OECD, 2013). BEPS is only a risk when the tax rules between two countries over which a transaction takes place allow for tax avoidance. This is referred to as *double non taxation* when neither tax authority receives a tax or *less than one taxation* when taxation less than is regarded as fair in at least one of the countries is observed or collected. The risk of BEPS happens when the income generated from an activity is separated from that activity. In other words, the economic activity generating the revenue for the MNE does not pay tax in the same jurisdiction as the activity. This may occur as a direct result of poor tax legislation or poor application/implementation of the legislation in one or both of the involved countries. In the cases of the bilateral tax agreements, BEPS is at higher risk when bilateral tax agreements are established between two incompatible tax authorities, allowing MNEs to avoid paying any tax or part of a tax through what is known as aggressive tax planning. (OECD, 2013).

The second major challenge is related to the advancement of the so called “digital economy”. In this form of economy businesses make their profits through the use of digital information and systems to capture value. Trying to base these forms of business and the value creation associated with them, within a particular tax jurisdiction may prove difficult for many tax authorities. It may be more difficult to track and monitor intangible transactions such as these when compared to transactions involving physical goods such as manufactured goods or commodities. (OECD, 2013)

From these concerns and challenges the OECD along with the G20 adopted a 15 point plan/resolution to address the occurrence of BEPS through providing guidance to tax authorities. The 15 point action plan centres on 3 key principles namely coherence of cross border policies, the reinforcing of international requirements under tax laws and standards and lastly the principle of improving and promoting transparency and certainty. (OECD/G20 , 2015). Below is a list, directly quoted, of the 15 action items as established by the OECD in 2013 (OECD, 2013):

1. *“Address the tax challenges of the digital economy*
2. *Neutralise the effects of hybrid mismatch arrangements*
3. *Strengthen CFC (Controlled Foreign Company) Rules*
4. *Limit Base Erosion via interest deductions and other financial payments*

5. *Counter harmful tax practices more effectively (Considering transparency and substance)*
6. *Prevent treaty abuse*
7. *Prevent the artificial avoidance of PE Status*
8. *Assure that transfer pricing outcomes are in line with value creation – Intangibles*
9. *Assure that transfer pricing outcomes are in line with value creation – Risks and Capital*
10. *Assure that transfer pricing outcomes are in line with value creation – Other high risk transactions*
11. *Establish methodologies to collect and analyse data on BEPS and the actions to address it*
12. *Require taxpayers to disclose their aggressive tax planning arrangements*
13. *Re-examine transfer pricing documentation*
14. *Make dispute resolution mechanisms more effective*
15. *Develop a multilateral instrument” (OECD, 2013)*

Action items eight, nine, ten and thirteen relate directly to transfer pricing and will be focused on in Chapter three.

2.5.7.2 Involvement of the developing World

The OECD and G20 acknowledged the need for participation of developing countries in the process of reviewing and developing the 15 action items. As part of this consultative and collaborative process the African Tax Administration Forum (ATAF) joined institutions such as the International Monetary Fund (IMF), United Nations (UN) and the World Bank to contribute to the process through consultative procedures and submissions to add to the action plan which was completed in 2015. The outcome of the process produced what is known as the BEPS package and is now ready for implementation, forming part of the ongoing works which look at the development of a suitable instrument to address the required changes in domestic countries laws as well as through treaty provisions. (OECD/G20 , 2015).

2.5.8 Summary of challenges and initiatives

From the literature analysed in the review section of this report the following table presents a high level summary of the challenges related to transfer pricing on the African continent and the initiatives identified that address to some extent these challenges.

Table 1: Summary of initiatives and challenges as identified in the literature review

<u>Initiatives¹</u>	<u>General Challenges</u>	<u>Mining Specific Challenges</u>
• OECD Base Erosion and Profit Shifting (BEPS) action items 8, 9, 10, and 13 • The Global forum for Transparency and Exchange of Information for Tax • The Extractive Industries Transparency Initiative or EITI • UN practical manual on transfer pricing for the developing world • African Tax Administration Forum ATAF • World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.	• Policy and Legislation Alignment • Skill and Capacity Building • Effective Document Requirements • Access to Comparable Transaction Data • Exchange of Information	• Complex nature of vertically/laterally integrated mining value chains • Inadequate understanding by tax authorities of mining related transactions along the value chain in terms of FAR (function, asset, risk)

From the Table 1 above, the literature has identified six transfer pricing initiatives, five general transfer pricing challenges and two mining specific transfer pricing challenges. The key learnings from the six initiatives will be unpacked in Chapter 3 (in the form of a second, more focused literature survey), and then compared to the challenges in Chapter 4 through means of a MCDM process.

1- It is important to note that this list of initiatives is not exhaustive, but has been scoped from the literature to best meet the objectives of this report.

3. Key Learnings from the six Initiatives

3.1 Base Erosion and Profit Shifting (BEPS) Action items focused on Transfer Pricing

Having defined and discussed BEPS, the report will now focus on particular action items pertaining to transfer pricing, namely action items 8-10 and action item 13.

3.1.1 Action items 8-10 (The concept of aligning transfer pricing with Value Creation)

This concern related to transfer pricing and aligning policy to value creation began in 2012 when many mainstream role players and civil societies began to question the validity of the arm's length principle established by the OECD as the prime tool to deal with transfer pricing. (OECD, 2015). The arm's length principle forms the backbone of many treaties and is even considered in the UN Model Tax Convention. (OECD, 2015) The arm's length principle forms the globally accepted guiding principle or "cornerstone" when it comes to legislation dealing with transfer pricing. This principle was first established by the OECD in 1979, and subsequently revised and updated in 1995 and 2010. (OECD, 2015). The arm's length principle is based on the notion that transactions between associated entities within any MNE take place in the same manner a similar transaction would take place between un-associated entities operating within the same economic conditions. This principle has been effectively used as a tool to identify and deal with transfer pricing but has been vulnerable to manipulation. (OECD, 2015). This manipulation leads to the loss of value created by economic activities within a tax jurisdiction. It was therefore imperative for the OECD to consider additional guidance to the application of the arm's length principle through the BEPS action plan. (OECD, 2015).

The aim of action items 8-10 is to ensure that transfer pricing rules are applied so as to ensure value is created by aligning profits to economic activities that are directly linked to them.

Action item 8 focuses on value associated with intangibles such as intellectual property or services. Action item 9 focuses on risks and risk allocation from a contractual basis. It deals with the allocation of profit to risk, looking at ensuring profits are correctly associated with activities that generate them. Action item 9 also considers returns given to capital funding partners or entities of MNEs to ensure that returns match contributions made by the funding entities. Work under action item 10 focuses on high risk

transactions, in particular those whose scope reduces profits through excessive administration fees or head office overheads as well as transactions that are not characteristic to the usual business carried out by the MNE.

The aim of action items 8-10 will serve to ensure that capital rich, low functioning entities in an MNE no longer bear relevance, and profits are correctly aligned to where they were generated. (OECD, 2015)

In addition as part of action item 10, the OECD and G20 have recognised the need to address the risk of common forms of base erosion. One in particular is the analysis that was done on cross border commodity transactions. The need was identified to establish a more robust framework to deal with these forms of transactions and ensure that transfer pricing assigns the correct value. (OECD, 2013). This concept is a key theme in the developing world, where economies are structured to rely on primary sectors such as mining and the associated trade of mining commodities.

Part of the need for the revision of cross border commodity transactions arose from the pricing method traditionally used for commodity transactions. As part of the guidelines released by the OECD in 2010, no specific provision was made for commodity rules. As a result of this, the “quoted price method” was the generally accepted method in determining the transfer price for commodities. The quoted price method compares a controlled transaction to one or several “quoted” prices obtained from the market. (Feinschreiber & Kent, 2015) This pricing method is complex and assumes that certain legal, trade and financial rules are already in place within the legislation and established. As part of the quoted price methodology, multiple prices are compared in a “relevant period”. The quoted prices are obtained from recognised agencies, however the OECD did not provide any criteria in the original guidelines as to what was considered as a recognised agency. This can lead to the risk of manipulation by MNEs as they seek to select or use the most advantageous quoted price. Adding further to this, the OECD guidelines made no provision for commodity criteria in defining a commodity. This led to disputes between MNEs and tax authorities as to what legally constituted a commodity. An example of this may arise when a by-product of a commodity is traded. (Feinschreiber & Kent, 2015)

In response to these concerns and as part of this revised analysis on commodity transactions, the OECD has added amendments to Chapter 2 to the 2010 transfer pricing guidelines. This includes the enforcing of the comparable uncontrolled price or CUP pricing method as the primary method for transfer price setting in commodity based

transactions. (Feinschreiber & Kent, 2015). The CUP method compares prices charged in a controlled transaction to that in a so called uncontrolled transaction undertaken by a third party. Any discrepancy may indicate manipulation of transfer pricing. The CUP method also removes any risk carried by the quoted price method, in that the CUP method only accounts for a single transaction that occurs in similar circumstances. (Mullins, 2010).

3.1.2 Action Item 13 (The concept of transfer pricing documentation)

As part of the work conducted by the OECD and G20 under the Base Erosion and Profit Shifting Project in 2015, documentation requirements were highlighted as an area that required attention under the principle of transparency and clarity. (OECD/G20 , 2015) In particular, rules and regulations surrounding documentation submitted to tax authorities needed to be clearly established in a standardised approach or standardised template (OECD, 2013). It is important to note that effective documentation is key in establishing good transfer pricing practices. (OECD, 2015). This section within the literature aims to explain the accepted best practice for transfer pricing documentation as reported on under action item 13. This action item outlines 3 steps or reports required by tax jurisdictions from different MNEs operating within that country's tax jurisdiction. Firstly all MNEs must provide governments with details (done from a high level view point) on their global activities as well as outline their transfer pricing policies in a so-called master file. Secondly, MNEs need to provide governments of all transactional details within the specific countries of operation, detailing types of transactions and associated values in a so called local file. This local file should also include analysis carried out by the MNE pertaining to transfer pricing requirements. Thirdly and lastly, MNEs are to provide a country by country report on an annual basis that details all revenue, cost and profit details pertaining to each country in which they operate, as well as the amounts of tax paid and accrued within each country. This report must also detail the activities undertaken by each entity within the MNE, including details on labour requirements, capital spending, earnings and all assets. (OECD/G20 , 2015)

From this documentation governments have the potential to achieve a number of outcomes, including understanding what position and policies MNEs have taken on transfer pricing, allowing governments to correctly allocate audit resources if any discrepancies or high-risk transactions are identified as well as promote a culture of transparency around transfer pricing issues. This point is of particular importance to many African states where resources within tax administrations are particularly scarce

and early identification of high-risk transactions are vital. (OECD/G20 , 2015). Furthermore, the articulation of the document requirements by tax payers will ensure that governments have confidence in how well tax payers have thought out their transfer practices and put in place practices that will aim to achieve some form of consistency. (OECD/G20 , 2015). Secondly, with clear document requirement procedures in place, a system of penalties could be more clearly implemented on MNEs that do not adhere to requirements. This creates a form of transparency and clarity for all involved.

From these 3 standardised requirements developing countries have expressed certain additional requirements to the required documentation. Countries on the African continent, in particular South Africa, have expressed 2 concerns, namely difficulty in obtaining information related to global activities undertaken by an MNE especially when that MNE is headquartered outside of the country in question. Secondly emphasis by developing countries has been placed on details pertaining to royalty payments and service fees paid to international entities, as part of the required documentation. (OECD/G20 , 2015).

3.1.3 Key learnings and concepts

The BEPS action items form a comprehensive list that addresses the challenges discussed in this section. Action items 8-10 address in specific the challenges associated with transfer pricing. One of the key concepts that has come out of these action items was the clear and coherent need to address the current manipulation of the arm's length principle. (OECD, 2015) These manipulations arise due to some of the more abstract conditions (such as intangibles or once off transactions without suitable comparable data) that arise in many transactions requiring the application of the arm's length principle. (OECD, 2015)

Some of the key learnings that have come out of BEPS action items, and in particular action items 8, 9 and 10 are bulleted and discussed below:

- Actual transactions that take place between two parties need to be very carefully delineated in terms of understanding both the contractual relationship between the two parties and the manner of conduct of activities between the two. Conduct or value creation by either party will be regarded as more important than any contractual obligation that exists if the conduct and contractual status do not align

or lack commercial sense. (OECD, 2015) In simpler words, what this means is that the transaction will be aligned to where the value was created and not to where it is contractually assigned. This is fundamental in preventing the allocation of profits to activities that did not generate any of the required value, in ensuring that taxes are correctly captured.

- Another key learning is the concept and application of risk. Risk has become an everyday part of business and no profit seeking organisation is without its share of risk. The manipulation risk however, from a contractual point of view, has been regarded as an element of transfer pricing manipulation. In its action items outcomes the OECD suggest that risk only be assigned to elements within an MNE that have the financial capability to address that risk. This will ensure that risk is not disproportionately shared by elements within an MNE and therefore inaccurately affect costs reported. (OECD, 2015)
- Another key learning is the concept of intangibles and the allocation of benefits that arise from them. The OECD have defined that the ownership of an intangible that generates value in a transaction, does not necessarily afford right of return to the owner. Instead, the party that adopt the most risk or controlling function over intangible elements of a transaction must be delineated as the major contributors in the transaction and value assigned accordingly. (OECD, 2015)
- The final, and most important learning that has come out of the action items is the concept of ensuring that pricing methods and by default comparability analysis, is carried out in such a way to ensure that profits are linked to the most important economic activities that generate them, and not allowed to flow through to elements within an MNE that did not justifying contribute to the profit creation. (OECD, 2015)

From the items that are covered in the key learning discussion above there is a very important theme that is starting to emerge. In order to be able to define relationships, risks, intangibles and ultimately linking these to profit allocations requires a very comprehensive network allowing access to information and subsequently transparency by MNEs in releasing this information to tax administrations that oversee these transactions. A large part of ensuring this access to information is discussed in action item 13 which specifically outlines documentation requirements and guidelines to ensure that transfer documentation requirements are clearly understood by tax administrations.

(OECD, 2015) It must also be noted that a certain level of skill is required by the tax administrations to tackle some of the issues noted above, particularly in cases where the application of the comparability analysis is not so straightforward. This touches on the concept of capacity building and capability within tax administrations and will be covered in section 4.5.

3.2 The Global forum for Transparency and Exchange of Information for Tax

3.2.1 Introduction to the EOIR and AEOI

The Global Forum for transparency and exchange of information for tax was established in the year 2000 with the purpose of providing a multilateral framework between OECD member states and non-OECD member states. The forum was subsequently re-structured in the year 2009 and now forms what is regarded as the accepted standard on information sharing for tax transparency purposes. (OECD, 2009) The forum currently has 135 member nations, as well as 15 global organisations that participate in the forum's activities as observers. (OECD, 2009)

In order to aid member states in the exchange of information, the forum has established the following standards:

1. Exchange of information on request or **EOIR** which is a peer review driven process that rates tax jurisdictions on their ability to adhere to the standard centred on the availability, access and sharing of information. (OECD, 2009)
2. Automatic exchange of information or **AEOI** which like the name suggests is a standard aimed at aligning individual tax jurisdictions. It promotes the effective cooperation between tax authorities to ensure that the correct amount of tax is allocated to the correct jurisdiction, by ensuring that tax authorities have the necessary tools to be able to correctly ensure taxpayer compliance. (OECD, 2009)

The transparency and exchange of information is regarded by the global forum as a mutual benefit to all nations. Tax evasion through means such as transfer mispricing places pressure on global populations needing basics such as water, food, education and health care. Many regard this as a cause that needs to be addressed by both developing and developed nations. (OECD, 2009)

3.2.2 Key Learnings from Global forum for Transparency and Exchange of Information for Tax

One of the key motivations that has come out of the forum is the need for exchange of information and transparency between countries or in particular the tax administrations

that operate within those countries. Transparency was brought to the fore by the G20 in 2009 after the Global Financial Crisis. (OECD, 2009)

The key learning is that through the transparency and effective exchange of information, tax administrations can arm themselves with knowledge about transactions leaving their borders and in particular the tax related details of those transaction, which is crucial in gauging the successful implementation of the comparability analysis. (OECD, 2009)

To ensure that countries effectively share information the following three points are being carried out by the forum:

- Review of the country's laws around the making available of information
- Assess how effective that information exchange is in terms of meeting the goals of both tax administrations involved in the transaction
- Issuing of compliance ratings so as to allow easier recognition by other member nations when requesting information, but more importantly allow poorly rated countries to ensure they have systems in place for improvement.

The forum is developing means to automatically exchange this information (as mentioned in AEOI discussion above) in an attempt to ensure the process of exchange is not delayed through bureaucratic processes which will increase risk for manipulation of government officials tasked with assembling and making this information available. The automatic process will also ensure that costs associated with information exchange are controlled effectively and do not place burden on resources within tax administrations. (OECD, 2009)

It must be noted that the exchange of information processes as suggested by the Global forum AEOI and EOIR processes does more to ensure that opposing tax administrations on both ends of transfer pricing transaction have sufficient information but places very little accountability on MNEs to ensure that they have correctly followed processes such as comparability analysis.

3.3 The Extractive Industries Transparency Initiative or EITI

3.3.1 Introduction to EITI

The EIT is an organisation that was established in Norway and is a non-profit organisation governed under Norwegian law that presently has 51 countries across the globe that implement the EITI standard. (EITI, 2016) . Of the 51 countries that have adopted the standard, 31 have been found to be compliant with the EITI standard and have helped to disclose some USD \$1.9TR in revenues from natural resources such as mineral, oil and gas. (EITI, 2016)

The EITI recognised the right of ownership of natural resources by the people that live in the countries where those resources are found. It also recognises the importance of using these resources for the development of people within the host countries by ensuring that revenue from tax is correctly collected and allocated to key areas within the economies. (EITI, 2016)

The EITI carries out its work through what is known as the EITI standard. Countries that wish to implement this standard need to follow a formal process of pledging themselves as candidates and then undergo an independent review that lasts 2.5 years to ensure that the country meets the requirements as set out by the initiative. These requirements are the foundation of the EITI standard.

3.3.2 The EITI standard and key learnings

The principles that govern the EITI standard were originally agreed on at the Lancaster House conference in 2003, and consist of 12 core principles that form the cornerstone thinking behind the EITI standard. In brief these principles centre around the following 3 main ideas:

- Natural resource wealth must be used to sustainably develop the economies and populations that reside in the countries where those minerals are found (EITI, 2016)
- These natural resources create large streams of revenue that can greatly benefit the countries of origin, provided there is a transparent understanding of these revenues by all stakeholders (EITI, 2016)
- This revenue must be openly disclosed to the public in order to allow the public in partnership with their governments to become active custodians of natural

resource wealth and direct its use in developing their economy and communities (EITI, 2016)

The first key learnings that have come out of the EITI are the active involvement and participation of what it defines as civil society. The EITI defines civil society as any person who is involved in the EITI process actively that represents the greater stakeholder community at large. (EITI, 2016)

The second key learning is the concept of open data. (EITI, 2016). This open data refers to information regarding transactions and information regarding revenue streams in the natural resource arena be easily made available to the public. This easy availability of data is a key incentive to ensure that governments spend revenues effectively and to some extent also places natural resource extractors such as oil and gas companies or mining companies under scrutiny regarding their revenues. Open data is now regarded by the EITI as global emerging best practice when it comes to tax administration and bears similarity to the Global forum for Transparency and Exchange of Information for Tax with regards to their information exchange systems.

In summary, open data helps to promote accountability by governments, open public debate forums with easily available data and lastly help combat corruption. (EITI, 2016) It must be noted however that the EITI is more focused on governance, and although it promotes accountability by MNEs it offers very little to ensure that transfer pricing related transactions items are correctly considered and dealt with.

3.4 UN practical manual on transfer pricing for the developing world

The UN practical manual on transfer pricing for the developing World highlights its key learnings under a few very important headings, which are summarised below:

3.4.1 Building Transfer Pricing Capacity In Developing Countries (The establishment of a Transfer Pricing Unit)

One of the key guidelines that comes out of the report described above is the relationship that is developed between a tax policy within a state and its tax administration that is implementing the policy. Skills and human resources need to be ensured and allocated to the tax administration functions by the state. Furthermore these resources need to be further prioritised and allocated within the different tax administration functions to ensure that roles critical to the process of transfer pricing administration are able to be carried out in accordance with the policy. (UN Department of Economic and Social Affairs , 2013).

However a key aspect to consider is the relationship that even a well-resourced tax administration would have with the industries it aims to manage. Non-compliance is a high risk event when there is a misunderstanding on the application of the law by both the MNE and the tax administration. This well-developed relationship between the two is pivotal to ensuring the successful application of transfer pricing practices. (UN Department of Economic and Social Affairs , 2013)

Also key to the initial phases of developing capacity, is to define some form of trade indicators that highlight cross border transactions and in particular focus on major developing economy transactions such as those related to mining, agriculture, industrial products etc. This focus on major industries within a state is key to ensuring that resources are allocated to significant areas that will have the largest impact. (UN Department of Economic and Social Affairs , 2013). These indicators are also a good indication to ensure that policy is aligned with the reality of the country, and is focused in the right areas.

Another key recommendation to developing capacity is the idea of shared learning. The UN practical manual on transfer pricing offers various methods of incorporating a shared learning programme into the tax administration. Such initiatives could include:

- Foreign visits to more developed tax administrations (could be considered for developing countries within the same region or countries with recent experience of similar challenges) for workshops and shared learning sessions (UN Department of Economic and Social Affairs , 2013)
- Shared skill programmes in which personnel from higher capacity administrations could be seconded to developing state tax administrations as part of mutual benefit program. The personnel receive international experience and the tax administration have an opportunity to learn and develop skills within their own functions. The converse arrangement may also offer similar mutual benefits, in which tax officials from developing states are seconded to more developed tax administrations. (UN Department of Economic and Social Affairs , 2013)

As described above the three broad factors to establishing transfer pricing capability within tax administrations are:

- Allocation and prioritisation of human resources.
- Clear and transparent relationships with industry.
- A clear understanding of key sectors (including cross border transactions) within the economy and the correct allocation of resources to the tax administration of those sectors.
- Alignment of tax policy, tax administration and the key sectors.
- Programmes that foster and develop shared learning through exchange type programmes.

However real growth can only be achieved when effective and clear monitoring programs are put into place to ensure that performance of resources and data collected during the initial phases is used to ensure key outputs are recognised and achieved as well as ensuring resources are directed towards improving capacity continually. (UN Department of Economic and Social Affairs , 2013). Effectively the system needs to be continually “fine-tuned” in order to ensure the sustainable effectiveness of tax collection.

3.4.2 The Concept of the comparability Analysis

The subcommittee for the UN manual on transfer pricing had a few disagreements during the compilation of the manual, but one theme (as covered in the literature review of this report) was agreed on by all. That was the concept of the arm's length principle. However this principle remains a principle and is only brought into action through means of a comparability analysis. (UN Department of Economic and Social Affairs , 2013)

The comparability analysis should form the backbone of any transfer pricing policy and legislation, and this is a key element in ensuring that capacity building is supported by the right tools. (UN Department of Economic and Social Affairs , 2013)

The comparability analysis will ultimately determine the transfer pricing method needed as well as clearly define any of the economic characteristics of the transaction. However, the comparability analysis relies on the access to comparable transaction databases for the attainment of the uncontrolled transactions or arm's length transaction. It is in this process where the comparability analysis is most difficult to implement owing to its requirement for information. As highlighted in the literature review of this report, one of the most significant challenges faced by developing countries is gaining access to suitable transactions similar to those within their control. This is further complicated when transactions are related to intangible and suitable comparable do not exist.

In this instance one of the key recommendations described in the report includes the ability of the tax administration to analyse each transaction and understand the burden of compliance, and cost to both the taxpayer and tax administration. If done from a risk assessed approach, transactions without suitable comparable can still be correctly assessed if done so in a pragmatic way. (UN Department of Economic and Social Affairs , 2013) It must however be noted that, to truly implement this dynamic analysis of transfer pricing transactions, a high level of skills are required by the tax administration.

3.4.3 Effective documentation

As part of the practical guideline recommendations as described by the UN, comes the concept of effective transfer pricing documentation. The aim of a set of effective documents is to:

- Ensure that clear details are provided on how taxpayers arrive at suitable transfer prices and if the arm's length principle has been sufficiently applied (UN Department of Economic and Social Affairs , 2013)

- Ensure that some form of deadlines and associated deliverables can be set for taxpayers. (UN Department of Economic and Social Affairs , 2013)

There is no shortage of challenges in ensuring these two simple aims are met by transfer pricing documentation. The practical manual describes a very definitive list of guidelines that can be used as reference to establishing documentation requirements.

However two very key challenges remain (discussed with the recommendations to each challenge):

- These guidelines are defined considering very particular regions and economies in the world and often do not meet the intrinsic requirements of many developing nations. One such example is in the developing world where major parts of the economy are in the SME space. Most modern transfer pricing documentation requirement guidelines pay particular attention to larger MNEs with high volumes of cross border trade, but fail to account for the detrimental effects to SMEs created by tedious and expensive burden of proof requirements needed to fulfil documentation requirements. The recommendations put forward here are to ensure that high risk transactions are targeted such as those conducted by MNEs and that simpler documentation requirements be outlined for SMEs or areas of the economy associated with lower risk or lower value transactions. This implies some form of flexible requirements, implemented through the discretion of the tax administration. (UN Department of Economic and Social Affairs , 2013)
- As discussed in the literature review, the modernisation of business transactions and ever growing global networks have required increasingly more stringent and meticulous policy in order to adequately monitor these so called “new age” transactions. One side effect of this is that documentation and burden of proof requirements have also escalated, creating additional costs as MNEs seek to meet these requirements. One recommendation that the report highlights is the need to simplify documentation requirements by ensuring that the frequency of these often cumbersome submissions are reduced. Businesses do not often undergo major changes to their way of doing business from year to year, and yet the transfer pricing document requirements are normally annual submissions. The value add that is realised from this annual process is often negligible, and if tax authorities maintain a keen focus on high risk items, then this process can be further streamlined. (UN Department of Economic and Social Affairs , 2013) Some more forward thinking recommendations from the report suggest that

documentation requirements be further simplified to general disclosure arrangements, or in more advanced systems, tax administrations have access to data systems within MNEs and automatically retrieve information as needed. (UN Department of Economic and Social Affairs , 2013)

3.5 African Tax Administration Forum ATAF

Due to the current status of ATAF initiatives and the organisation still trying to solidify its membership, this section will aim to discuss more of the challenges and proposed initiatives that will be undertaken by ATAF on the continent in relations to transfer pricing, exchange of information and base erosion and profit shifting.

3.5.1 Introduction to ATAF

The African Tax Administration Forum or ATAF is an organisation founded with the interest of ensuring that tax administration on the continent of Africa is improved so as to realise economic growth and develop the lives of Africans living on the continent. (African Tax Administration Forum , 2016)

ATAF currently has 36 member states and opens its membership to any African state from any region. (African Tax Administration Forum , 2016)

Some of the mandate items that ATAF address include:

- Ensuring the development of African Tax administrations in terms of building capacity that will meet revenue collection objectives (African Tax Administration Forum , 2016)
- Providing a voice and support network for African Tax administrations (African Tax Administration Forum , 2016)

The ATAF recognise the need for capacity building on the African continent, but also the involvement of African states in the global tax discussions. (African Tax Administration Forum , 2016) This much needed influence has been identified as lacking in many dialogues that take place on a global scale.

3.5.2 The four major Tax programs at ATAF

Currently ATAF have identified four major tax programmes for which research and information are being compiled. These include:

- ATO or the African Tax Outlook which will become a sort of practical guide to help African Tax administrations address many issues including the lack of

accessible and benchmark-able data related to tax. This guide aims to make this kind of data readily available which will aid in the development of tax best practices, fiscal policy, tax policy and tax legislation. This manual will also allow for African states to readily access country by country data, and help aid tax administration development by identifying key challenges and associated solutions. The ATO is more of a policy level based transfer of information, and does not aim to achieve exchange of information particular to individual transactions such as those identified in the AEOI in section 4.3. (African Tax Administration Forum , 2016)

- Base Erosion and Profit Shifting or BEPS which will run as a supplementary directive to the OECD BEPS action items. ATAF will aim to conduct a report into the effect of BEPS on the African continent and provide this feedback to the OECD as part of the global dialogue on BEPS. (African Tax Administration Forum , 2016)
- Exchange of information or EOI is an initiative that follows close suit to the AEOI initiative by the *Global forum for Transparency and Exchange of Information for Tax purposes* as covered in section 4.3. ATAF recognises the global nature of business in the modern world and the need to access information for tax administrations that remained confined to have control over their jurisdictions alone. (African Tax Administration Forum , 2016) Since the financial crisis exploded in 2008, some 800 agreements have been signed related to exchange of information and transparency. (African Tax Administration Forum , 2016) Most of these have been signed through the global forum as discussed in section 4.3, but only have 17 African states as representatives. (African Tax Administration Forum , 2016). This challenge is further compounded by the fact that African tax authorities face challenges in terms of policy, legislation, legal instruments, inadequate procedures, processes as well as sufficiently experienced and skilled staff to facilitate the flow of information. (African Tax Administration Forum , 2016)

In response to these challenges ATAF have set up their own EOI program that will be set up between 2015 and 2017 and will consider some of the following elements in the process:

- The EOI will be established over 3 years and be aligned to the BEPS action items. In particular (and not covered in the literature survey), ATAF will

align their EOI program with BEPS action item 6 which focuses on realigning taxation to restore the intended benefits of international standards and prevent the abuse of tax treaties. ATAF regard themselves as the forefront fighter in the “war” against BEPS in Africa, and the EOI program will align with this thinking.

- The EOI program will see the establishment of a competent ATAF linked department in each member country to ensure the facilitation of the EOI processes. The ATAF department will also offer support to member states in the form of training, policy workshops for government officials, contact point with Global forum, technical assistance with implementation of EOI as well as staged development of EOI capability within the member states. (African Tax Administration Forum , 2016)
- Initiate the start of a pilot phase trial of the EOI program in selected countries. (African Tax Administration Forum , 2016)
- The fourth and final tax program from ATAF will aim to collaborate the EOI, the ATO and the BEPS action items into a program that aims to address transfer pricing challenges on the continent. There is still very little guidance from ATAF on how they aim to achieve this, but administrative capability has been flagged as a major concern and challenge in the fight against transfer pricing abuse. (African Tax Administration Forum , 2016). It is hoped that initiatives such as the ATO and EOI will help to foster skills that may be transferrable in areas of transfer pricing such as application of comparability analysis and transfer pricing methods. (African Tax Administration Forum , 2016)

3.6 World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.

3.6.1 Summarising the key challenges

The complex nature of vertically/laterally integrated mining value chains as well as the lack of mining specific understanding and expertise that tax authorities have related to transactions along the value chain (especially related to the nature of various functions, assets and risks along the value chain). (Guj, et al., 2017)

These challenges are compounded by a number of key issues highlighted in the source book including:

- Lack of transfer pricing specific legislation based on the arm's length principle with minimal ability to effectively administrate and audit transfer pricing functions within local tax authorities (Guj, et al., 2017)
- Arm's length transfer pricing methods remain complex and difficult for African tax administrations to implement (Guj, et al., 2017)
- Lack of suitable comparable transaction databases (Guj, et al., 2017)
- Lack of the correct skills and expertise within tax administrations to adequately deal with transfer pricing issues and carry out audits, and in particular related to mining transactions (Guj, et al., 2017)

From the source book, three important themes come to the fore. These are the use of simplified transfer pricing methods, the need to develop skills and capacity within tax administrations, and the need for effective legislation based on the arm's length principle. By and large these issues are echoed in much of the literature and are not necessarily considered new. The source book however does offer guidance on capacity and skills (both legal and building for tax officials aligned to the complexities of the value chain as well discussing possible uses of simpler alternative transfer pricing methods more suitable for mining based transactions. These are discussed below.

3.6.2 Alternative transfer pricing methods

- **Safe harbours**

Safe harbours refer to specialised arrangements between taxpayers and tax administrations that allow taxpayers to forego certain transfer pricing obligations. (Guj, et al., 2017) Safe harbours are normally negotiated for low risk items in terms of only applying to low value, routine transactions. Safe harbours are advantageous for both taxpayer and tax administration as they create certainty around transfer prices used and reduce complications associated with burden of proof by the taxpayer and audit resources by the tax administration. (Guj, et al., 2017). Safe harbours have their drawbacks as well, most notable is that they are negotiated based on the risk of the transaction rather than any arm's length price equivalent. (Guj, et al., 2017). For this reason if they are to be applied to mining applications that are normally characterised by high value, high risk transactions, the rules and criteria for their application need to be clearly understood. (Guj, et al., 2017)

- **Advance Price Agreements (APAs)**

APAs are when a transfer price criteria (accepted comparable data, adjustments etc.) is agreed on in advance between a taxpayer and tax administration. As stated earlier in the literature review (Refer to Chapter2) these APAs are often difficult and expensive to negotiate due to their complex nature requiring additional expertise and skills by both parties. Since skills capacity around transfer pricing and in particular mining aspects of transfer pricing has been highlighted as weakness amongst African tax administrations, APAs are generally accepted as non-suitable for developing African economies. (Guj, et al., 2017). APAs do however offer benefit to countries without suitable transfer pricing legislation as they require no legislative provision for their implementation. They are also a form of audit tool as they require extensive collaboration and information sharing between tax payer and tax administration. (Guj, et al., 2017). This offers the benefit of reduced strain on tax administration authorities to carry out expensive and cumbersome audits. It must be noted that if APAs are going to be used by African states for the benefits described above, that they be sufficiently risk understood and include all forms of transfer pricing transactions including intangibles.

- **The “Sixth” Method**

The so called “sixth” method was introduced after the accepted five transfer pricing methods as described by the OECD, 2010. This sixth method was developed for determining of transfer prices related to commodities and is being successfully applied in most South American countries with the exception of Chile. (Guj, et al., 2017) The sixth method applies a form of “spot price” by assigning the transfer price as the commodity price (in a free market) on the day the commodity is loaded for sale to the final external consumer by a foreign based related entity trading on behalf of the MNE. The sixth method is also considered if the foreign related entity has no proof of adding value to the commodity involved in the transaction. (Guj, et al., 2017) The sixth method does not consider the arm’s length principle which has the benefit of removing cumbersome audits associated with evaluating arm’s length principle application. It has the disadvantage in that because it does not abide by the arm’s length principle it may cause double taxation, which is a disincentive for foreign investment in countries with these kinds of arrangements. The OECD have outlined additions to the CUP method in their action items that cater more specifically for commodities while still adhering to the arm’s length principle.

From the above understanding of safe harbours, APAs and the sixth method, it is evident that there are benefits for their application that place less strain on tax administrations that need to carry out complex audits related to the arm length principle. These methods do have their drawbacks and their risks need to be clearly understood.

3.6.3 Building skills capacity within African tax administrations

A key outcome from the sourcebook is that in order to build transfer pricing capacity within tax administrations related to mining activities, the various phases (as detailed out in Chapter 7.1 of the sourcebook) of the transfer pricing process require different skill sets. Table 2 summarises the key findings that link each phase to the required skills.

Table 2: Required skills associated with various phases of transfer pricing process (as proposed in section 7.1 of the sourcebook) (Source: Guj, et al., 2017)

<u>Phase</u>	<u>Description</u>	<u>Required Skills (General)</u>	<u>Required Skills (Phase specific)</u>
Phase 1 – Case selection	Determining which mining MNE to assess based on understanding the risks and their priority.	• International tax law knowledge • Commerce law knowledge • Industry linked economic knowledge specific to arm's length principle and its application • Accounting knowledge including knowledge of international accounting practices and standards • Expert knowledge in finance related to mining projects • Expert knowledge in risks at various stages of mining projects • Tax auditing skills • Database expertise • IT expertise • Mining industry knowledge • Negotiations skills	Quantitative analysis, ability to blend quantitative and qualitative intelligence, industry economics, IT skills
Phase 2 – Risk assessment	Identifying which risks from selected MNEs need to be considered.		Dependant on different mining hubs such as marketing, corporate, technical, insurance and finance hubs. (Refer to table C.4 in the sourcebook for more detail of the skills required at each of these hubs.
Phase 3 – Audit	Identify conditions of the transaction, conduct a comparability analysis, apply a suitable transfer pricing method and then amend and close out the transfer price if necessary.		Legal, accounting, auditing, industry economics, industry specific knowledge
Phase 4 – Resolution	Used to resolve any disputes that may have arisen from the tax authorities assessment as carried out in phases 1,2 and 3.		Legal, communication, negotiation

From Table 2 it is evident that a wide selection of skills are required to undertake the transfer pricing process with regards to mining based transactions. With shortage of skills and capacity having been highlighted during the literature review, it is difficult to think that most African states have any sustainable programs in place that foster and develop these required skills. The transfer pricing in mining with a focus on Africa sourcebook has suggested the following ideas (listed and briefly described below) as a means to address this fundamental issue:

- **Secondment training**

Secondment training is defined as the practical approach experience training attained by placing a tax official on secondment in a more advanced and experienced tax administration. (Guj, et al., 2017) This secondment would ideally take place during a transfer pricing audit to gain experience and exposure to the four phases as described earlier. These secondments can be varied according to the skills and level of the tax practitioner on secondment. These secondments may also be to attend recognised transfer pricing based training courses such as those run by the OECD.

On the reverse side, secondments of experienced transfer pricing practitioners to regions or countries with required skills and capacity development may prove to be successful as well. (Guj, et al., 2017)

- **Pooled/collaborative skills development programs**

The viability of developing the required skills for transfer pricing administration and then retaining these skills may prove a challenge too steep to overcome in the short term for many African states. (Guj, et al., 2017). In order to address this, regions may come together to establish so called regional transfer pricing expertise. These could include shared skills, resources, knowledge as well development of shared databases. The OECDs Tax Inspectors Without Borders (TIWB) or the concept of Multi-National Transfer Pricing Units (MNTPU) are some such examples of these kinds of initiatives.

The concept of a MNTPU model first appeared in the literature as an African Legal Support Facility (ALSF) which was commissioned by the African Development Bank among other reasons to build tax capacity on the continent.

The option of developing a MNTPU may seem a very viable initiative to undertake given the skills and capacity challenges on the continent. (Guj, et al., 2017)

A MNTPU would require a host organisation to develop and initiate such an initiative. Some key areas that require thinking before this kind of concept is brought may include, as directly quoted from the Guj, et al., 2017:

- *Potential member countries;*
- *Roles and functions of the unit;*
- *Governance arrangements for the unit;*
- *Resource contribution framework for member countries and international organizations;*
- *and*
- *Joint-knowledge and e-learning platforms, etc.*

4. Relating African Challenges to the Six Initiatives

In order to align the tax administration and in particular transfer pricing challenges with the major efforts and learnings made by the six initiatives to address these challenges, a brief summary and discussion of the findings in the literature is necessary and covered in section 4.1.

4.1 Understanding and aligning the challenges faced by African Tax Administrations

4.1.1 General Transfer challenges faced by African Tax Administrations

From the literature in this report, there are really five major challenges that African Tax administrations face. These are considered below:

- **Policy and Legislation**: The first challenge is the correct alignment of policy and legislation to ensure that tax administrations collect the correct amount of tax, from key sectors in the economy. According to surveys done by the IM4DC, most African states have some form of legislation in place that is based on the cornerstone arm's length principle. The WBG (2017) have however identified that very few African states make guidance provisions for how tax administrations are to apply legislation. Further to this, in the practical manual released by the UN (2013), African states have limited data on the nature of their economies including key sectors in the economy and the nature of cross border transactions of these sectors of the economy. This leads to a misalignment between policy and legislation that incorrectly targets lower risk or less key areas of the economy. One such example, identified in the UN practical Manual (2013), is the case of the SME. Large portions of African economies comprise of SMEs that have lower value cross border transactions compared to many transactions undertaken by MNEs in primary and secondary sectors of the economy.
- **Skills and Capacity**: The second challenge is the notion of capacity within administrations and the availability of the correct human resources and skills, as well have the technical and man-power capacity to meet transfer pricing requirements. The UN (2013), ATAF (2016) and WBG (2017) both recognise that complex processes within transfer pricing require specialised skills and experience within tax administrations. Supporting this notion is the correct allocation of those resources to

ensure that complex items associated with transfer pricing such as the sub-challenges listed below:

- Dealing with intangibles associated with transfer pricing transactions
 - Identifying high risk, high value transactions and correctly assigning resources to those
 - Dynamic application of the comparability analysis, in cases where transactions are unique or lack suitable comparable data
- **Document Requirements:** The third major challenge is the concept of document requirements. This challenge is shared by the WBG (2017) findings, UN practical manual (2014) and the OECD BEPS action items (action item 13) (2013). The challenge for African states can be described as the need for clear documentation requirements for transfer pricing transactions that correctly identifies all required information and processes associated with a transfer pricing transaction, without overstraining resources on the tax administrations as well as ensuring that MNEs are more willing to cooperate by ensuring costs, time and resources associated with meeting document requirements are not detrimental to MNEs and their business. The challenge is further compounded by the fact that some African states have no formal document requirements, or document requirement particular to transfer pricing. (Guj, et al., 2014)
- **Access To Comparable Data Databases:** The fourth major challenge comes in the form of comparable transaction data, and more specifically access to relevant comparable transaction databases. In order to successfully carry out the arm's length principle and by default the comparability analysis, comparable uncontrolled transaction databases are required for audit purposes by tax administrations. The challenge is that these forms of databases do not exist on the African continent in meaningful form. Certain African countries that have the ability to access the expensive databases in the European Union, are often faced with the challenge of not being able to find suitable comparable transactions or requiring to adjust comparable transactions to best represent or "best fit" the conditions of those they wish to analyse.
- **Exchange of Information:** The fifth and final major challenge is the concept of access to information. ATAF (2016) have reaffirmed that even in a global market, many African states still only have access to information within their own tax jurisdictions. The flow of information between tax administrations is crucial to ensure that transactions are correctly monitored on both sides of the border and the

costs/profits are clearly understood and assigned to the activities that created their value. This challenge is further compounded by the fact that African tax authorities face challenges in terms of policy, legislation, legal instruments, inadequate procedures and processes . (African Tax Administration Forum , 2016)

4.1.2 Specific Transfer pricing challenges linked to transfer pricing in Mining

In terms of Mineral Resource related challenges there are two main concepts:

- **Complex nature of vertically/laterally integrated mining value chains**

The mining sector remains complex and involves many high value transactions along complex value chains, intangible transactions and transactions that have very few benchmarked equivalents to assess the validity of transfer prices. (Guj, et al., 2017)

- **Inadequate understanding by tax authorities of mining related transactions along the value chain in terms of FAR (function, asset, risk)**

Lack of the correct skills and expertise within tax administrations to adequately deal with transfer pricing issues and carry out audits, and in particular related to mining transactions- (Guj, et al., 2017)

4.1.3 Major Efforts and Learnings from the Six Initiatives

The major learnings/efforts from the six initiatives are summarised briefly below, as they have already been discussed in depth in Chapter 3.

- **OECD Base Erosion and Profit Shifting (BEPS) action items 8, 9, 10, and 13**

The ability of tax administrations to define transfer pricing transactions and associated entities in terms of contractual relationship or otherwise, associated risks, intangibles and other transfer pricing related items through the upskilling and capacity building of transfer pricing unit within tax administrations and the free flow of information between tax administrations.

- **The Global forum for Transparency and Exchange of Information for Tax**

The free, effective and transparent flow of information between tax administrations either on request (EOIR) or automatically (AEOI). This exchange

of information serves to address the lack of access to information on transactions outside of a tax administrations jurisdiction.

- **The Extractive Industries Transparency Initiative or EITI**

The EITI focuses on 2 major initiatives. The involvement of public in all matters related to mineral wealth as well as what it defines as “open data” in which the public have access to all information pertaining to revenues from mineral resources. The EITI has the same motive as the Global Forum, but is a bit broader in one sense in that it tends not to focus on transfer pricing but rather on good governance of natural resources and mineral wealth and associated revenue streams. In the other sense it is a bit narrower as it only focuses on the extractive industries.

- **UN practical manual on transfer pricing for the developing world**

This manual focuses on developing capacity and skills within tax administrations, ensuring effective documentation systems and procedures are in place and that the arm’s length principle and, by default, the comparability analysis, form the backbone of all transfer pricing legislation and procedures.

- **African Tax Administration Forum ATAF**

ATAF, through its four main tax programmes, focuses on exchange of information, base erosion and profit shifting, developing capacity and skills within tax administrations, policy and legislation reform associated with tax policy on the African continent.

- **World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.**

This initiative is really the only piece of research that currently addresses transfer pricing issues in the mining space in Africa. It aims to do this by helping to develop skills and capacity within tax administrations (such as establishment of MNTPUs) that particularly focus on mapping out typical transaction along the mining value chain, and helping tax administrations identify risks and nature of these transactions.

4.2 Comparison between challenges and initiatives.

4.2.1 Background and the MCDM Approach

In order to understand the challenges faced by African tax administrations in terms of the current initiatives aimed at addressing transfer pricing challenges, this section will aim to compare these challenges with specific outcomes of the main six initiatives identified, and then select a single initiative of the six (preferable) or a series of initiatives (less preferable) that adequately fit (create synergy) with the 7 challenges mentioned in section 4.1.1 and section 4.1.2. This analysis will also form a base discussion of the gaps identified between the initiatives and the challenges and eventually lead into a framework solution addressing the gaps.

The five general challenges listed in section 4.1.1, along with the two, more specific, Transfer pricing challenges linked to African Mineral Resources listed in section 4.1.2 make up multiple criteria by which to effectively assess each of the main initiatives listed in section 4.1.3 of this report.

In order to effectively evaluate multiple criteria decisions, a MCDM or Multi-Criteria Decision Making Approach is required. MCDM has grown as a field of study since the 1960's when large businesses developed the need to make complex decisions involving multiple criteria in a manner as objective as possible. (Triantaphyllou, 2000) Since then many methods have been proposed to solve multi-criteria problems, and in fact the list of alternatives has become expansive. (Triantaphyllou, 2000). Each method is normally based on some form of continuous mathematics model, due the fact that most methods within the MCDM space consider a continuous solution. This elegant approach has not always proved practical in solving MCDM problems. The approach is considered elegant as often methods that use continuous mathematics tend to offer the optimal solution not constrained by the number of criteria. (Triantaphyllou, 2000) A second branch of MCDM literature, evaluates MCDM options as having a discrete solution and base the analysis on discrete mathematics. The word discrete refers to limited alternatives and limited criteria. These solution are often optimised based on limited criteria and tend to offer a far more practical solution although not always as elegant. (Triantaphyllou, 2000).

Due to the limited criteria as well as alternatives shown in sections 4.1.1 and 4.1.3, the nature of this MCDM problem will best be solved through a discrete solution method.

In his book Triantaphyllou, 2000, makes mention of 3 discrete mathematics based methods generally accepted and frequently used by the scientific community as reasonable methods of decision making, namely:

1. The WSM method or weighted sum model.
2. The WPM method or weighted product model
3. The AHP or analytical hierarchy process method.

Foregoing an extensive comparison between these three methods, the author of this report has chosen to make use of the third method listed above, namely the AHP. There are multiple methods that can be considered, however it is widely regarded in MCDM literature that the three mentioned above are most suitable and pose the least number of abnormalities associated with ranking criteria and comparing essentially qualitative options in an objective and logical sequence.

4.2.2 Selection of the AHP procedure

AHP is a MCDM method that can be used to establish measures in many areas where complex decisions are required including those found in the social sciences, where data and criteria remain largely qualitative in nature. (Saaty , 1987). The AHP does this by breaking down complex decision into a hierarchy. (Triantaphyllou, 2000)

AHP helps the decision maker to take subjective evaluation of criteria and then convert these into numerical assignments that carry ranking. (Bhushan & Rai, 2004) Alternatives are then evaluated against a numerical scale that carries the ranking weights of the criteria and this ultimately aligns the decision maker with the best alternative given the ranked criteria. (Bhushan & Rai, 2004) For a more in depth understanding of the mathematics, which uses a system of matrices, pairwise comparisons and computed Eigen Vectors, consult Triantaphyllou, 2000.

Due to the complex nature of computing the AHP (not the main objective of this report), the author of this report has opted to use a free online version of AHP computing software available at www.transparentchoice.com Transparent Choice is an organisation that has partnered with many global decision making expert organisations to develop a host of decision making applications, including AHP. (Transparent Choice, 2017). Transparent Choice software has been formally accepted and regarded by the Multi -Criteria Decision Making Society as listed on www.mcdmsociety.org (MCDM Society , 2017)

Conducting the AHP procedure requires a clear knowledge of the following:

1. Alternatives (listed in section 4.1.3)
2. Criteria (Listed in sections 4.1.1)
3. Weight of Each Criteria.

Item three is elaborated on in the next section of the report.

4.2.3 Understanding the Weighting of Criteria

A qualitative evaluation of the alternatives and criteria was set up in Table 3 below. The purpose of this analysis to gain a “feeling” for the different initiatives (alternatives) and how well they address the challenges or criteria by testing their synergy, as well as identify any possible initiatives that may be eliminated to simplify the AHP process.

This evaluation considers the following analysis.

- Challenges or *Criteria* as needed as input to the AHP are defined in the horizontal rows
- Initiatives or *Alternatives* as needed as input to the AHP are defined in the vertical columns
- One is allocated to a synergy where the challenge is deemed to be adequately addressed
- Zero is allocated to a gap where the challenge is not adequately addressed

- Ratings are totalled horizontally, with a maximum rating of five meaning that the initiative addresses the challenges completely, and a minimum of zero meaning that the initiative failed to address any of the challenges.

Table 3: Transfer Pricing Synergy and Gap Matrix for General Transfer Pricing Related Challenges

Challenges (Criteria) Initiatives (Alternatives)	Policy and Legislation Alignment	Skill and Capacity Building	Effective Document Requirements	Access to Comparable Transaction Data	Exchange of Information	Total
OECD Base Erosion and Profit Shifting (BEPS) action items 8, 9, 10, and 13	0	1	1	0	1	3
The Global forum for Transparency and Exchange of Information for Tax	0	0	0	1	1	2
The Extractive Industries Transparency Initiative or EITI	1	0	0	0	0	1
UN practical manual on transfer pricing for the developing world	1	1	1	0	0	3
African Tax Administration Forum ATAF	1	1	1	1	1	5
World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.	1	1	1	1	0	4

From the matrix defined in Table 3 it becomes apparent that the two initiatives or alternatives that develop the best preliminary synergies with the challenges or criteria are:

- African Tax Administration Forum ATAF (addressing all five of the criteria)
- World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.

On the other hand the Extractive Industries Transparency Initiative or EITI alternative, was viewed to have developed the worst synergy. Based on this Qualitative assessment this alternative will be eliminated from the analysis going forward.

From this analysis we would expect to see similar results from the AHP process as means of a “check” to ensure the process has correctly analysed the alternatives against the criteria. To complete the preliminary analysis considered in Table 3 still requires an analysis of the criteria needs to be considered to objectively “rank” the criteria as required by the AHP. To carry out this analysis a similar matrix as shown in Table 3 will be considered with the following assumptions.

- Challenges or *Criteria* as needed as input to the AHP are defined in the horizontal rows and the vertical rows
- Two is allocated to when the Challenge or *Criteria* in the horizontal row is more important than that in the vertical column
- One is allocated to when the Challenge or *Criteria* in the horizontal row is of equal importance to that in the vertical column
- Zero is allocated to when the Challenge or *Criteria* in the horizontal row is less important than that in the vertical column
- Ratings are totalled horizontally, allowing for criteria to be ranked. (*Note that this matrix will not assign weighting to criteria, but rather the ranking will be used as input to the AHP process to define weighting*)
- The matrix must show inverses (n;m) and (m;n) as being opposite (unless an equal importance is noted) to ensure the ranking remains valid. This will be performed as a form of “cross check”.

Table 4: Ranking the Criteria

Challenges (Criteria)	Policy and Legislation Alignment	Skill and Capacity Building	Effective Document Requirements	Access to Comparable Transaction Data	Exchange of Information	Total
Policy and Legislation Alignment		2	2	2	2	8
Skill and Capacity Building	0		2	2	2	6
Effective Document Requirements	0	0		0	0	0
Access to Comparable Transaction Data	0	0	2		1	3
Exchange of Information	0	0	2	1		3

From Table 3 the criteria can be ranked according, from most important to least:

1. Policy and Legislation Alignment (8)
2. Skill and Capacity Building (6)
3. Access to Comparable Transaction Data (3)
4. Exchange of Information (3)
5. Effective Document Requirements (0)

Due to the equal ranking of Access to Comparable Transaction Data and Exchange of Information, these will be carried into the AHP as single criteria, greatly simplifying the AHP process and ensuring the results are more reliable. From the results shown in Table 3 and Table 4 the AHP analysis was run. The results of the AHP process can be observed below in Figure 2 where alternatives are listed on the vertical axis, percentage (%) weight per criteria is measured along the horizontal axis and each criteria is stipulated by a different colour according to the key shown at the top of Figure 2.

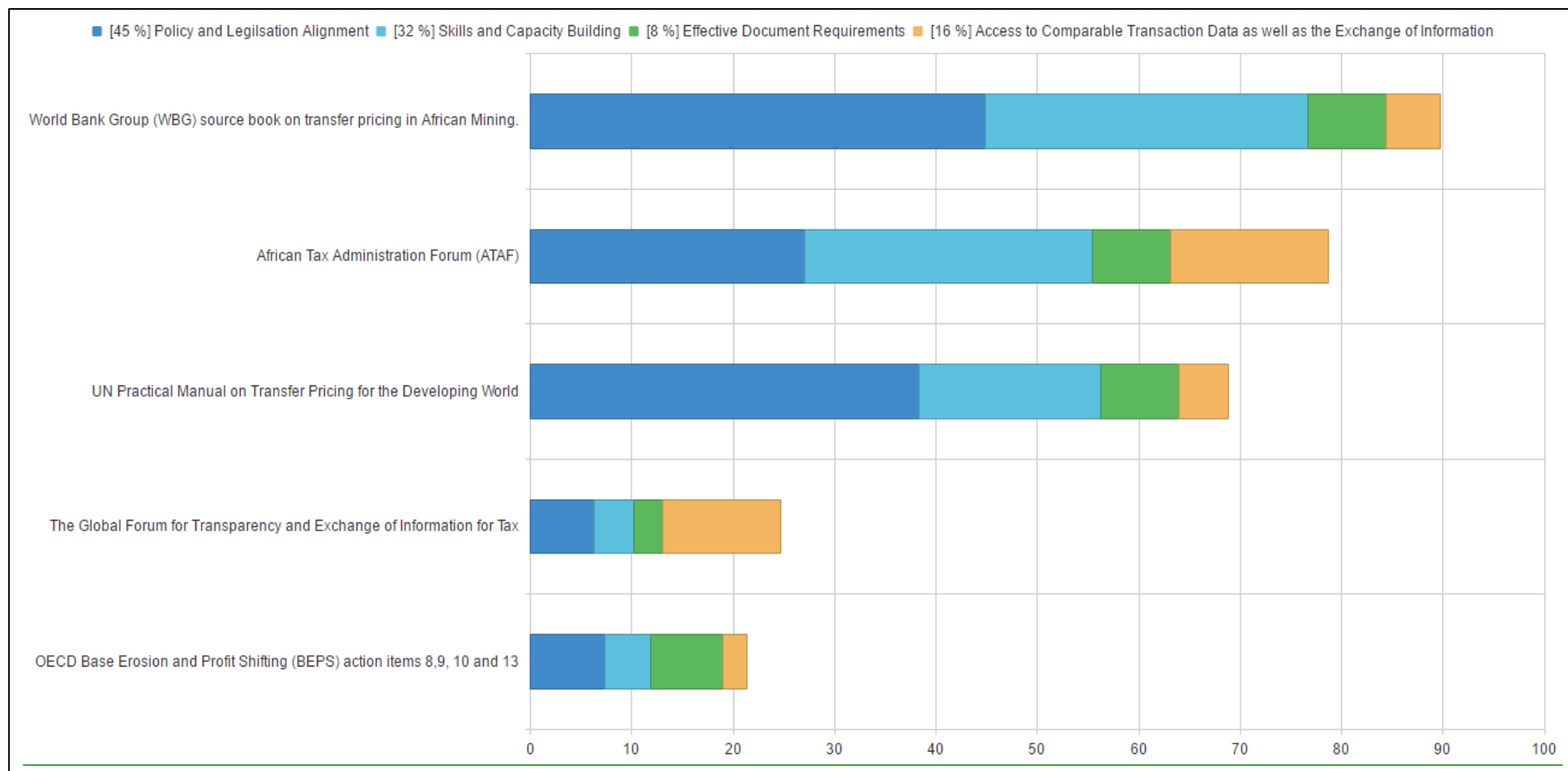


Figure 2: Outcomes of the AHP Analysis on Alternatives (Section 4.1.3) (Source: Transparent Choice, 2017)

5. Results: Analysing and discussing the results of the AHP Analysis

5.1 Analysis and discussion of AHP results

From the AHP results displayed in Figure 2, *World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining* and *African Tax Administration Forum ATAF* ranked as the top two alternatives that adequately satisfy the criteria or challenges experienced in Africa. This is in line with the results from Table 3.

Also from the AHP results displayed in Figure 2, a clear alignment between the ranking of criteria carried out in Table 4 is observed. *Policy and Legislation Alignment* ranked as the most important criteria and also was the heaviest weighted criteria of 45% of the weight. In a similar manner, *Skills and Capacity Building*, *Access to Comparable Transaction Data as well as the Exchange of Information* and *Effective Document Requirements* carried 32%, 16% and 8% of the weighting respectively in agreement with ranking from Table 4. The sum of the criteria is 101%, but this is explained due to rounding off error within the software. (Verified with Transparent Choice, 2017)

The most important observation from this analysis, is to note the spread of criteria over the various initiatives. The spread is indicative of how effectively a certain initiative has addressed a certain criteria. Therefore, the longer the length of any individual criteria (demarcated by colour) when compared to the same criteria in a different initiative would indicate a performance ranking. The proportion of individual criteria per a single initiative is also indicative of possible gaps and synergies. In order to best analyse this, the following Table 5 provides a clearer appreciation for the result.

Table 5: Analysis and discussion of the AHP results as displayed in Figure 2

<u>Initiative</u>	<u>Overall Ranking</u>	<u>Strength</u>	<u>Weakness</u>	<u>Significant findings</u>
World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.	1 st	Policy and legislation alignment	Access to comparable transaction data and exchange of Info	WBG source book has shown good correlation in addressing policy and legislation alignment as well as skills an capacity building. The WBG sourcebook did not deal with access to comparable data and exchange of information as effectively as the ATAF.
African Tax Administration Forum ATAF	2 nd	Skills and capacity building	Effective document Requirements	The ATAF has shown that skills and capacity building is major component of their work. Skills and capacity building ranked slightly higher for ATAF than the WBG sourcebook.
UN practical manual on transfer pricing for the developing world	3 rd	Policy and legislation alignment	Access to comparable transaction data and exchange of Info	Policy and legislation alignment has been a strong theme from the UN practical manual, and effective document requirement guidelines are on par with the ATAF and WBG sourcebook.
The Global forum for Transparency and Exchange of Information for Tax	4 th	Access to comparable transaction data and exchange of Info	Effective document requirements	Although having all of its work focused on Access to comparable transaction data and exchange of Info, the global forum was not efficient as this as the ATAF.
OECD Base Erosion and Profit Shifting (BEPS) action items 8, 9, 10, and 13	5 th	Policy and legislation alignment	Access to comparable transaction data and exchange of Info	Although based on transfer pricing principles, the current context of African challenges related to transfer pricing are not adequately dealt with in the OECD BEPS action items.

5.2 Considering the Specific Transfer pricing challenges linked to African Mineral Resources

The AHP analysis excluded the challenges listed in section 4.1.2 of this report and are specifically related to transfer pricing in the mineral resource sector. However if one had to consider a similar AHP analysis comparing the initiatives to the two criteria as highlighted in section 4.1.2, the analysis would most likely show that the WBG source book on Transfer Pricing in Africa would best fit these challenges. Added to this, the general challenges considered in section 4.1.1 still pertain to mining. This AHP analysis is still then considered valid for general transfer pricing challenges as well as those related to transfer pricing in Mining.

5.3 Synergies and Gaps

For the synergy and gap analysis, the results of the AHP process as presented in Figure 2 will be considered and discussed. **For simplicity purposes, only the results from the WBG sourcebook and the ATAF will be considered in this analysis as these have shown the greatest correlation and suitability within the African context.**

5.3.1 Synergies

Synergies are identified as areas of the AHP analysis that have similar weighting in criteria.

Synergies were evident from the AHP analysis between the WBG sourcebook and the ATAF in the areas of *policy and legislation alignment* and *skills and capacity building*. From the outcomes of the literature, these two elements are considered to be most critical for African tax administrations. Solid legislation based on the guiding principles of the OECD arm's length principle and effective capacity and skills to correctly and effectively implement the transfer pricing processes and procedures, are the fundamental first steps for many African states. There is a similar synergy observed for *effective document requirements* between these two initiatives as well, in that both focus on the strong need for correct auditing and burden of proof processes as well as opportunities to simplify document requirements associated with both.

From the literature, the reasons for this synergy are evident under the following themes:

1. **Practical guidelines**: Both the ATAF through their ATO (African Tax Outlook) and the WBG through their source book for African practitioners recognise the need to breakdown complex transfer pricing arrangements for African administrations. Both initiatives maintain the need for the arm's length principle as the essential backbone to transfer pricing. The WBG sourcebook offers detailed examinations of alternative methods such as APAs or the Sixth method, but only to be applied under special conditions, normally when the risks and processes are clearly understood. This understanding of African based issues around transfer pricing and understanding the need to adapt global practice to match the reality of African tax administrations, who are often operating in resourced constrained and skills constrained environments, has kept these guidelines practical.
2. **Regional Cooperation**: Both the ATAF and the WBG recognise the need for regional cooperation between African tax administration. From the AHP analysis as shown in Figure 2, both initiatives have extensive focus on capacity and skills building for African tax administrations. This synergy is reinforced by the methods that each initiative proposes for these capacity building activities. Under the ATAF, capacity and skills building for African tax administrations is seen as a primary objective to ensure that African tax administrations are sufficiently skilled to efficiently collect tax from economic activities within their borders. This capacity and skills building is centralised and African tax administrations that are members receive opportunities to partake in joint initiatives that strengthen their tax position and the tax position of other member countries. This centralised approach is in line with recommendations from the WBG sourcebook that discusses the function of MNTPU's under some form of centralised body, that would group the necessary skills together and make these transferrable (build capacity) to tax administrations working with the MNTPU. The WBG sourcebook does however differ in some of its recommendations around capacity and skills building. One of the recommendations from the WBG research is that of secondment training of African tax practitioners to more experienced tax administrations. The ATAF does not make mention of these kinds of initiatives but options exist for a centralised body such as the ATAF to take on these kinds of initiatives.
3. **Collaboration with Global Initiatives and Best Practice**: Although there is proof that the so called alternative transfer pricing methods or agreements (Sixth, APAs,

Safe Harbours) such as those seen under application in most of South America, India and China have shown merit, the ATAF and WBG sourcebook have maintained the importance of the OECD guiding arm's length principle. This is clearly evident through the ATAF report that will aim to measure the effectiveness of the BEPS action items in Africa and provide the report to the OECD as part of global dialogue. The WBG sourcebook research is entrenched in the arm's length principle and the need for policy, legislation and procedures to be clearly guided by this OECD based principle. The AHP analysis appears to contradict this statement from the literature at first. From the AHP analysis, the OECD BEPS action items ranked as ineffective at addressing African based challenges. The reason for this is that, many OECD nations already have sufficient policy and legislation in place to address transfer pricing issues as well as the skills and capacity to effectively implement and audit those processes, and therefore are at more advanced stages of their transfer pricing processes. This may not meet the challenges of present day African tax administrations but with work being done around transfer pricing legislation and administrative skills in Africa, the OECD arm's length principle still remains evident as best practice, for both the developing and developed world.

The ATAF has also shown significant collaboration efforts with initiatives such as *Global forum for Transparency and Exchange of Information for Tax purposes* which it has used as the basis for its exchange of information program. Similar synergies are evident in the WBG sourcebook as uncovered in the literature.

As part of their synergy under best practice, both the ATAF and WBG sourcebook recognise the need for access for African tax administrations to comparable transaction databases that are both affordable and suited to transactions on the African continent. Although solutions to this issue are discussed, there appears to be no comprehensive solution to this challenge. One such alternative as discussed in the WBG source book is that of a comparable transaction database joint subscription. Under this kind of arrangement, a few African tax administrations could pool together resources and subscribe to one of these databases. This overcomes the challenge of the cost of such a database, but not the suitability challenge.

5.3.2 Gaps

From the AHP analysis indicated in Figure 2 the areas of possible gaps are harder to identify than the synergies. Gaps are identified as areas of the AHP analysis that have contrasting similar weighting in criteria. In terms of the ATAF and WBG initiatives, this is evident under the criteria of access to comparable transaction data and exchange of information. Under this criteria the ATAF is seen to have better addressed these challenges. This is explained due to the collaboration by ATAF with *Global forum for Transparency and Exchange of Information for Tax purposes* and the introduction of a similar program. Although a relevant finding, this does not align with the most important criteria for African transfer pricing challenges which are policy and legislation alignment as well as skills and capacity building. In order to better identify more significant gaps, a deeper analysis of the literature is required.

Despite the ATAF and the WBG sourcebook reaching various levels of synergy around transfer pricing issue on the African continent, they remain inherently different in their focus. The ATAF focus on four strategic areas as outlined in the literature, of which one key focus area is around transfer pricing. As seen in the OECD BEPS action items, only items 8, 9, 10 and 13 particularly pertain to transfer pricing issues. As confirmed in the literature of this report, transfer pricing forms part of a broader focus on tax base erosion which is reflected under the work of ATAF. Organisations such as ATAF and the OECD remain focused on these larger, more strategic outcomes.

The work as carried out under WBG sourcebook on transfer pricing particular to Africa and mining is part of a very specialised focus on transfer pricing and in particular on mining. The need for this type of research work is evident and clear. Mineral wealth remains the most important activity for generating economic growth and diversifying economies on the African continent. Due to the complex nature of the value chain and the varying levels of functions, assets and risk (FAR) related to transfer pricing transactions applied at each stage of the value chain, this specialised work of the WBG is highly valuable for African tax administrations. As part of their key outcomes, WBG research places focus on legislation based on the arm's length principle, as well as skills and capacity building under initiatives such as MNTPIs or the OECD TIWB (tax inspectors without borders). The problem identified here for the work of the WBG is that these kinds of initiatives require the availability of a centralised body to co-ordinate and undertake required activities. If left as only suggestions to African tax administrations to

facilitate these kinds of activities under their own coordination and resources, the desired outcomes may be less efficient.

So from this understanding we start to see a clear gap emerging. The ATAF have a more strategic approach to addressing issues around BEPS, under which transfer pricing plays a role. Work in the transfer pricing space has been limited for ATAF (as seen in the literature review of this report). Work under the WBG sourcebook has been highly detailed, logically thought out and adapted to be very practical so as to address particular African challenges around transfer pricing in mining. It does however not make provision or offer a definite solution (framework or model) that can be taken on-board by a centralised body capable of carrying out its recommendations. In the WBG sourcebook the idea of MNTPU is identified as a feasible option to address transfer pricing challenges with work on this topic already having been carried out by the African Legal Support Facility (ALSF) which was commissioned by the African Development Bank to develop a centralised MNTPU frame work or model.

A possible solution to address this gap may be the development of a MNTPU under the principles of the WBG sourcebook, co-ordinated and lead by the ATAF as the centralised body. This kind of solution addresses both the short falls in areas related to transfer pricing by the ATAF as well as the lack of a centralised body needed to implement much of the WBG recommendations and solutions.

To understand how this model might look, the next chapter will unpack what this MNTPU arrangement will consider as an initiative under the ATAF.

6 A proposed ATAF MNTPU Model

In order to understand the basis for a proposed MNTPU model, it is necessary to understand how this model would fit under the current ATAF framework. ATAF currently have four tax programs of which one of them considers transfer pricing. Figure 3 shows a graphical interpretation of ATAFs four tax programs and how the recommendations from WBG sourcebook as well as a proposed MNTPU would align.

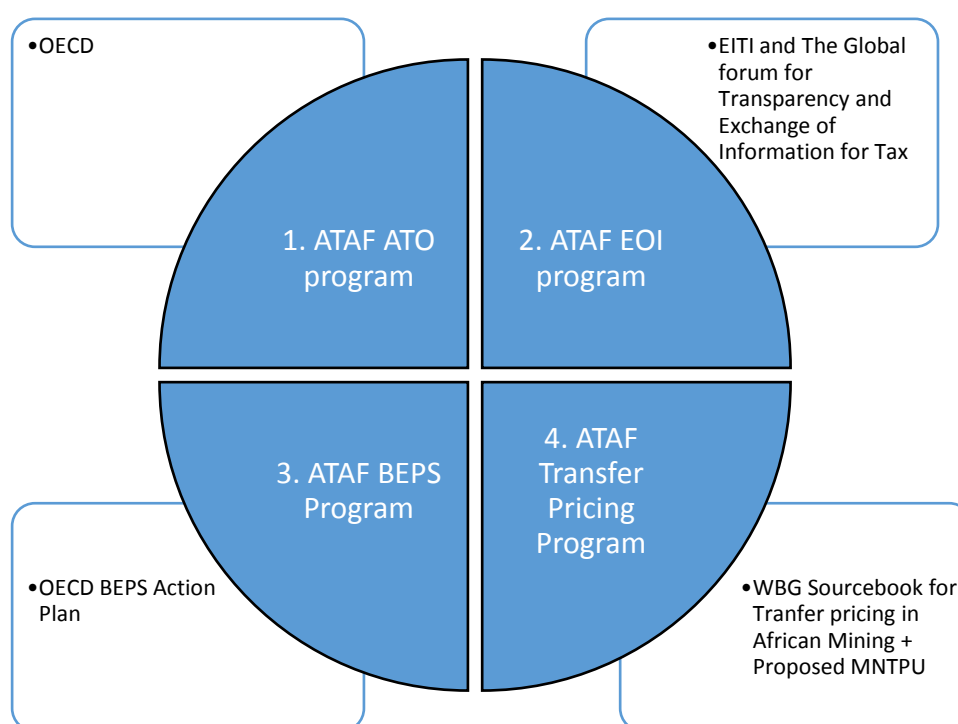


Figure 3: The Four major initiatives of ATAF

From Figure 3 we see that three of the four initiatives by ATAF have some form of link to a related initiative currently undertaking similar work. The ATAF BEPS program is linked to the OECD BEPS action items and the ATAF EOI program is linked to the EITI and The Global forum for Transparency and Exchange of Information for Tax. In order to develop a MNTPU model for transfer pricing with a similar external collaboration component, the ATAF Transfer pricing program will be linked to the outcomes of the WBG Sourcebook for Transfer pricing in African Mining as shown in the fourth quadrant of Figure 3.

6.1 The scope of the ATAF MNTPU Model

The MNTPU will have a mining focused outcome, that will target transfer pricing issues associated with the economically significant mining sector. Whether or not outcomes are transferrable to other sectors such as agriculture and manufacturing will not be considered here.

6.2 Key Outcomes

The ATAF MNTPU will need to be positioned so as to best address the critical outcomes identified in the WBG sourcebook. The outcomes as selected from the WBG sourcebook include the following:

- Carrying out of transfer pricing audits on mining particular transactions for a given period and given member tax administration using the four phase approach as suggested in the WBG sourcebook, namely:
 - Phase 1 – Case selection
 - Phase 2 – Risk assessment
 - Phase 3 – Audit
 - Phase 4 – Resolution
- Provide training to tax administration personnel specific to the mining value chain including the transfer of knowledge and skills associated with identifying function, assets used and risk (FAR) at each transaction stage along the value chain.
- Conduct transfer pricing associated policy and legislation workshops for government officials responsible in areas of tax policy and legislation formation.
- Create a local database that is a practical reflection of typical mining transfer pricing type transactions across the African continent. This database should have the aim of creating a low cost member accessible database with suitable arm's length comparable transactions. (This item would be subject to any confidentiality agreements that may be required by some member nations or MNEs)

These four units would be managed under a central board that would control and allocate resources to each of the four units based on priorities as well as strategic objectives defined by ATAF itself considering input from the OECD.

6.3 Member States

The member states that would receive benefit from this MNTPU would consist of the 36 current member states of the ATAF. Benefits would also be available to any country on the continent should they join ATAF. The current member countries from ATAF are listed below in Table 6:

Table 6: ATAF Member States

Benin	Gambia	Nigeria
Botswana	Ghana	Rwanda
Burkina Faso	Kenya	Senegal
Burundi	Lesotho	Seychelles
Cameroon	Liberia	Sierra Leone
Chad	Madagascar	South Africa
Comoros	Malawi	Sudan
Cote Divoire	Mauritania	Swaziland
Egypt	Mauritius	Tanzania
Eritrea	Morocco	Uganda
Gabon	Mozambique	Zambia
	Namibia	Zimbabwe
	Niger	

6.4 Funding and Skills Arrangements

Funding for the MNTPU would be generated in the form of a contribution from each member state. The contribution would be directly linked to:

- Required services and resources of the MNTPU by each member nation
- Complexity of particular issues arising from each member nation (these may cause varying levels of strain on the resources of the MNTPU)

6.5 On-going skills development

A portion of the funding provided by each member nation would be used to ensure that team members of the MNTPU were allowed to attend OECD and other related organisations specific training/workshops related to transfer pricing.

In order to facilitate the inflow of continual talent, high potential tax administration employees could be identified and sent on secondment to accredited universities with transfer pricing type programs and courses so as to acquire the correct transfer pricing knowledge and skills. This would be reinforced with strong on the job training and development for such individuals.

Contributions from member states would need to be sufficient enough to ensure that once talent was attracted into the MNTPU, that it would be retained and not lost to the generally better paying and career attractive private sector.

6.6 MNTPU Function and staff

The MNTPU would have four primary functions within the larger unit. These would be:

1. Policy and legislation Development Unit
2. Transfer Pricing Audit Unit
3. Comparable Transaction Database Unit
4. Training Unit

These unit would be staffed through a broad sweeping recruitment program aimed at attracting the correct skills for each of these units. Personnel of the MNTPU would ideally be African, but foreign recruitment would be acceptable in cases where the necessary home grown skills could not be secured.

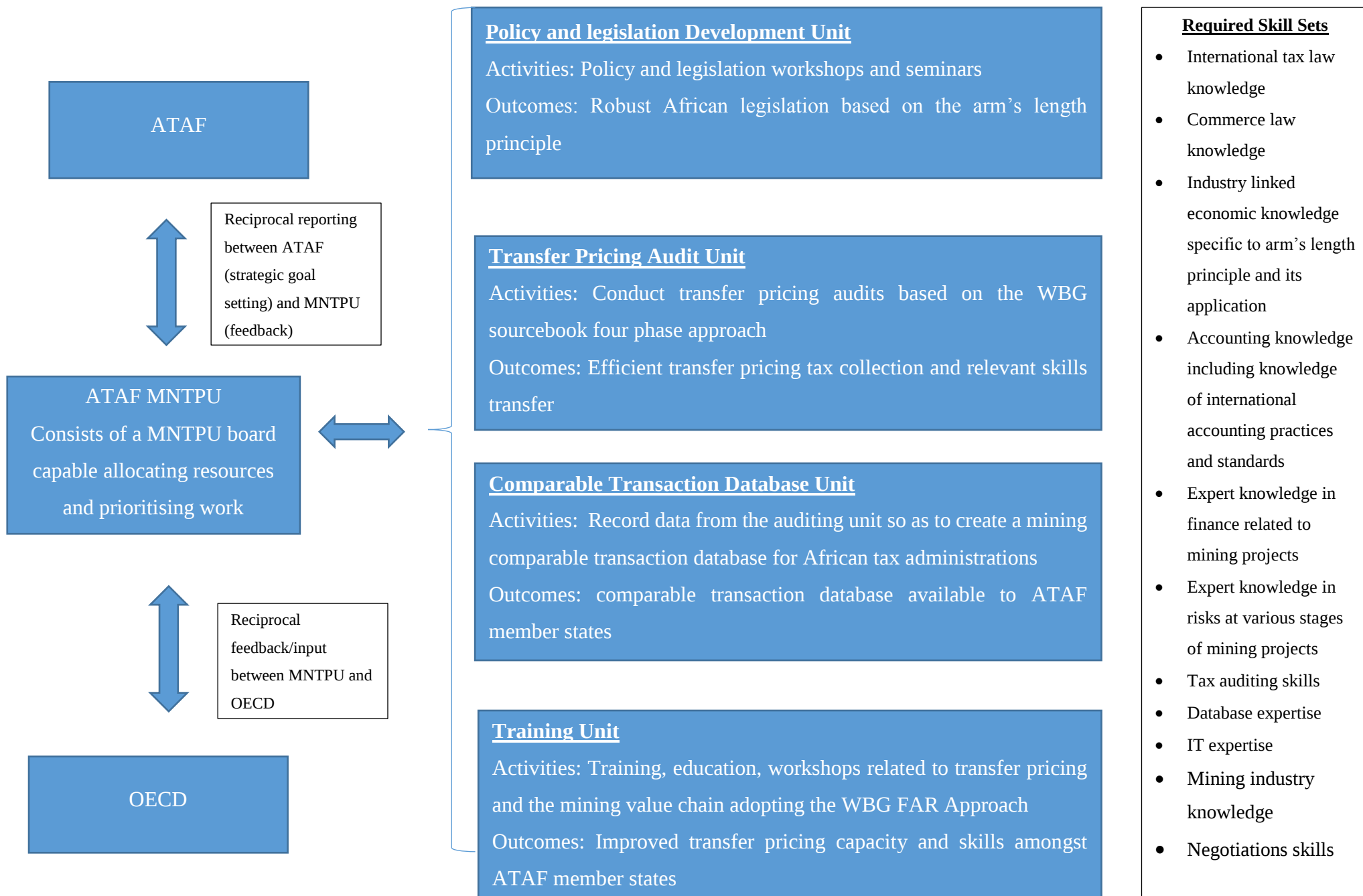
6.6 Challenges

A unit capable of servicing 36+ member nations would need to be extensive and well resourced. In order to make the MNTPU model as practical as possible, the MNTPU would need a ramp up period of at least 3-5 years in order to become effective and fully functioning. During this ramp up certain activities would be scoped according to

available resources. Audits and training would be on a “per country per time period” basis.

6.7 The ATAF MNTPU Model

Considering inputs from sections 6.1 to 6.6 , the following section will define the MNTPU model in the form of a function/flow diagram. The MNTPU model is shown in the diagram below, with brief descriptions of the relationship between the four units and the MNTPU board as well required skills across the four units. It is also important to note that the MNTPU unit would need to have constant communication lines to ATAF as well as the OECD to ensure that work undertaken remains aligned with global best practice.



7 Conclusion

Mining and the potential it creates for growth and diversification of economies on the African continent remains a major focus point for most African tax administrations. African tax administrations have sought to ensure that rents collected from mineral resources within their jurisdictions are maximised and are at par with the prosperity of the mining sector. From this research report it has become evidently clear that transfer pricing and the perceived abuse of transfer pricing by multinational enterprises in the mining space has led to the focus of many international and African organisations on transfer pricing legislation, administration and general practice. This report has identified five general challenges related to transfer pricing as well as two that are particular to mining. In addition to this, six initiatives were identified in the literature that have set out to address these challenges by offering practical guidelines and solutions.

From the literature review of this report, the following challenges related to transfer pricing on the African continent were identified:

- Effective Policy and Legislation based on the arm's length principle was largely lacking through many African states.
- Skills and Capacity to effectively implement the procedures associated with carrying out arm's length principle such as the comparability analysis or transfer pricing audits were largely lacking.
- Transfer Pricing Document Requirements that effectively report on and provide essential data to tax administrations on transfer pricing transactions essential to transfer pricing audits were largely undefined and not required by most African tax administrations.
- Access To Comparable Data Databases that provide tax administrations with the essential data to conduct comparability analysis was largely lacking amongst African tax administrations. Access to these databases is often expensive. Added to this most of these databases consist of international transactions that require some level of adjustment by a skilled tax practitioner to be made applicable to the African context.
- Exchange of Information between tax administrations is another crucial challenge on the continent. Exchange of information ensures that tax administrations understand

the values assigned to commodities or services by other tax administrations involved in a transaction so as to be capable of accurately analysing prices assigned to transactions within their jurisdiction.

In addition to these general challenges, two mining specific challenges were also isolated from the literature:

- Complex nature of vertically/laterally integrated mining value chains.
The mining sector remains complex and involves many high value transactions along complex value chains, where intangible type transactions and transactions that have very few benchmarked equivalents to assess the validity of transfer prices.
- Inadequate understanding by tax authorities of mining related transactions along the value chain in terms of FAR (function, asset, risk).
Lack of the correct skills and expertise within tax administrations to adequately deal with transfer pricing issues and carry out effective audits especially related to mining transactions remains a challenge. This pertains to the inability by tax practitioners to identify function of a unit generating a transaction (profit/cost/revenue centre) as well as the assets required (used to determine the value add) and risk of transfer mispricing.

Having identified the general transfer pricing challenges as well as those particular to the mining sector on the African continent, the literature review of this report has also brought to light initiatives aimed at addressing these challenges. Six initiatives were identified as having addressed these challenges with varying levels of success. These are listed below:

- OECD Base Erosion and Profit Shifting (BEPS) action items 8, 9, 10, and 13
- The Global forum for Transparency and Exchange of Information for Tax
- The Extractive Industries Transparency Initiative or EITI
- UN practical manual on transfer pricing for the developing world
- African Tax Administration Forum ATAF
- World Bank Group (WBG) and Centre for Exploration targeting (CET) sourcebook on transfer pricing in African Mining.

To determine how well these initiatives have addressed the challenges mentioned a synergy and gap analysis was required. In order to conduct a synergy and gap analysis on the initiatives, an analytical hierarchy process analysis was conducted that used the challenges as criteria to rank the six initiatives. From the analytical hierarchy process results the *World Bank Group and Centre for Exploration targeting sourcebook on transfer pricing in African Mining* and *African Tax Administration Forum* ranked as the top two alternatives that adequately satisfy the criteria or challenges experienced by African tax administrations related to transfer pricing.

Synergies were evident from the analytical hierarchy process analysis between the World Bank Group sourcebook and the African Tax Administration Forum in the areas of *policy and legislation alignment* and *skills and capacity building*. From the outcomes of the literature, these two elements are considered to be the most critical as well as elemental for African tax administrations. The major reasons for this synergy were explained due to:

- Practical guidelines

Both initiatives sought to offer practical and suitable applications for the African context around transfer pricing -challenges.

- Regional Cooperation

Both initiatives make use of suggestions and models that offer regional cooperation. This allows African States to pool together resources and expertise to meet transfer pricing objectives.

- Collaboration with Global Initiatives and Best Practice

Both initiatives rely on solid transfer pricing guiding principles such as the arm's length principle, exchange of information and the OECD Base Erosion and Profit Shifting action items.

Gaps were more challenging to identify in the analytical hierarchy process analysis and required a deeper understanding of literature to accurately interpret. In terms of the African Tax Administration Forum and World Bank Group initiatives, gaps were evident under the criteria of *access to comparable transaction data and exchange of information*. Under this criteria the African Tax Administration Forum is seen to have better addressed these challenges. This is explained due to the collaboration by African Tax Administration Forum with initiatives such as the *Global forum for Transparency and*

Exchange of Information for Tax purposes and the introduction of a similar program on the African continent. Although a relevant finding, this does not align with the most important criteria for African transfer pricing challenges which are *policy and legislation alignment* as well *skills and capacity building*. Gaps identified under these criteria would lead to more meaningful outcomes.

Despite the African Tax Administration Forum and the World Bank Group sourcebook reaching various levels of synergy around transfer pricing issues on the African continent, they remain inherently different in their focus. The African Tax Administration Forum focuses on four strategic areas as outlined in the literature, of which one key focus area is around transfer pricing. Organisations such as African Tax Administration Forum and the OECD remain focused on these larger, more strategic outcomes.

The work as carried out under World Bank Group sourcebook on transfer pricing particular to Africa and mining is part of a very specialised focus on transfer pricing and in particular on mining. The African Tax Administration Forum have a more strategic approach to addressing issues around Base Erosion and Profit Shifting, under which transfer pricing plays a role. Work in the transfer pricing space has been limited for African Tax Administration Forum (as seen in the literature review of this report). Work under the World Bank Group sourcebook has been highly detailed, logically thought out and adapted to be very practical so as to address particular African challenges around transfer pricing in mining. It does however not make provision or offer a definite solution (framework or model) that can be taken on-board by a centralised body capable of carrying out its recommendations. In the World Bank Group sourcebook the idea of MNTPU is identified as feasible option to address transfer pricing challenges.

This research report proposes a solution to address this gap in the form of a MNTPU that would consist of four units under the African Tax Administration Forum transfer pricing program as explained in Chapter six. This MNTPU would have the following objectives to be carried out as a service to the African Tax Administration Forum member states.

- Carrying out of transfer pricing audits on mining particular transfer pricing transactions.

- Provide training to tax administration personnel specific to the mining value chain and the nature of transaction along the mining value chain including the FAR analysis.
- Conduct transfer pricing associated Policy and legislation workshops for government officials responsible for these areas.
- Create a comparable transaction database for all mining related transactions

8 References

- African Tax Administration Forum , 2016. *African Tax Administration Forum (ATAF)*. [Online]
Available at: www.ataftax.org
[Accessed 31 October 2016].
- AUC/UNECA, 2012. *Illicit Financial Flow (African Union Commission/United Nations Economic Commission for Africa: High Level Panel on Illicit Financial Flows from Africa)*, New York: AUC/ECA.
- Bhushan, N. & Rai, K., 2004. *Strategic Decision Making: Applying the Analytic Hierarchy Process*. 1 ed. London: Springer-Verlag London .
- Cawood, P. F., 2016. *Transfer pricing and the African Perspective Sourcebook* [Interview] (13 May 2016).
- Curtis, A. & Todorova, O., 2011. *PWC Report: Spotlight on Africa's transfer pricing landscape*. , USA: PWC.
- EITI, 2016. *Extractive Industries Transparency Initiative*. [Online]
Available at: https://eiti.org/sites/default/files/documents/eiti_factsheet_en.pdf
[Accessed 31 October 2016].
- Feinschreiber, R. & Kent, M., 2015. *Understanding the OECD's Commodity Transfer Pricing Regime*. [Online]
Available at: www.taxnotes.com/news-documents/base-erosion-and-profit-shifting-beps/understanding-oecd-commodity-transfer-pricing-re
[Accessed 26 April 2016].
- Guj, P. et al., 2013. *How To Improve Mining Tax administration and collection frameworks: A sourcebook* , s.l.: World Bank.
- Guj, P. et al., 2017. *Transfer Pricing in Mining with a Focus on Africa: A reference guide for practitioners*, Washington DC: World Bank Group.
- Guj, P. et al., 2014. *Transfer Pricing in Mining: An African Perspective (A Briefing Note)*, s.l.: International Mining for Development Centre.
- Guj, P. et al., 2016. *Interim Information Report on Transfer Pricing in Mining An African Perspective*, Netherlands: Shuibregste.

- MCDM Society , 2017. *MCDM Society*. [Online]
Available at: www.mcdmsociety.org
[Accessed 18 January 2017].
- Mullins, P., 2010. *The Taxation of Petroleum and Minerals: Principles, Problems and Practice: Chapter 13, International tax issues for the Resources Sector*. 1 ed. New York: Routledge.
- OECD/G20 , 2015. *Base Erosion and Profit Shifting Project: Transfer Pricing Documentation and Country-by-Country Reporting, Action 13 - 2015 Final report*, Paris: OECD Publishing.
- OECD, 2009. *Global Forum on Transparency and Exchange of Information for Tax Purposes*. [Online]
Available at: www.oecd.org/tax/transparency/about-the-global-forum/
[Accessed 28 August 2016].
- OECD, 2010. *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, s.l.: OECD.
- OECD, 2012. *Transfer Pricing And Developing Countries*. s.l., OECD Publishing.
- OECD, 2013. *Action Plan On Base Erosion and Profit Shifting*, N/A: OECD Publishing.
- OECD, 2015. *Aligning Transfer Pricing Outcomes with Value Creation, Actions 8-10 - 2015 Final Reports, OECD/G20 Base Erosion and Profit Shifting Project*, Paris: OECD Publishing.
- OECD, 2015. *Aligning Transfer Pricing Outcomes with Value Creation, Actions 8-10 Final Reports, OECD/G20 Base Erosion and Profit Shifting Project*, Paris: OECD Publishing.
- Saaty , T., 1987. The Analytical Hierarchy Process - What it is and how it is used. *Journal of Mathematical Modelling: Pergamon Journals* , 9(3,4 and 5), pp. 161-167.
- Transparent Choice, 2017. www.transparentchoice.com. [Online]
Available at: www.transparentchoice.com
[Accessed 20 January 2017].

- Triantaphyllou, E., 2000. *Multi-Criteria Decision Making Methods: A comparative study*. 1st ed. Baton Rouge : Springer Science and Business Media, B.V. .
- UN Department of Economic and Social Affairs , 2013. *Practical Manual on Transfer Pricing* , New York : United Nations.
- UN, 2011. *UN Department of economic and social affairs - An introduction to transfer pricing*. [Online]
Available at:
http://www.un.org/esa/ffd/tax/2011_TP/TP_Chapter1_Introduction.pdf
[Accessed 30 October 2015].