The relationship between economics and international regulatory affairs in transition economies and neutrosophic sets: A Review

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Abstract

International regulation is a vital function for countries in transition in terms of guidance to economic prosperity. Transition economies are defined as countries which experience the move to a market economy from a centrally planned economy. This paper discusses the governance and institutional settings of transition economies as well as the economic performance and corruption in these countries. Furthermore, it analyses the challenges in international regulation of countries in transition and proposes application of neutrosophic theory in investigating the abovementioned spheres due to the capacity of this theory in dealing with uncertainties.

Keywords: international regulation; governance; neutrosophic logic; uncertainty; corruption; transition economies

1. Introduction

Institutional environment by and large and regulatory governance specifically, have progressively been seen as a fundamental requirement for a country's competitiveness. If countries are to achieve better governance, it has widely been accepted that the first steps to achieving this is the implementation and sustaining of regulatory reforms. That is, that countries need to establish some form of regulation in order to achieve economic prosperity. This has widely been recognised as being essential by governments and in this way, long term economic growth and development can be achieved.

The Assessment of Regulatory Impact (ARI) plays an important role for improving, developing, enhancing and increasing the transparency of the regulatory decision-making processing. Nowadays, ARI is widely applied in OECD countries compared with developing countries [1]. Current examples where this has occurred are Poland, China and the Soviet Union. In addition to this, trade barriers have been removed and capital controls have gradually been lifted, ensuring that these economies begin to complete with more developed nations. The process of restructuring the financial sector is included in the process of transition whereby countries are able to use methods of adjustment in the wake of macroeconomic shocks which aim to readjust economies to their pre-economic shock states in a less costly manner than their previous regimes allowed. In terms of governance, this is important as it facilitates the move from traditional functioning of national government from often disruptive and corrupt economies into better functioning economies. Corrupt economies only serve to induce social instability and economic failure.

Moreover, it should be mentioned that regulation and economics are social spheres, and the main characteristic of social sciences is the uncertainty. To deal with this issue, [2] developed a new neutrosophic logic and sets theory. Neutrosophy can be explained as a knowledge of neutral thought, which became the main differentiation

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of this new theory from previous fuzzy set theories [3]. In addition, neutrosophic has commenced being applied in various economic spheres like fintech education in marketing [4], analysis of videoconferences in smart learning [5], optimization of SME financing [6], forecasting cryptocurrency volatility [7], decision making [8], [9], poverty [10], and etc.

The contribution of this paper is that it presents reasons for the application of RIA to ODA loans and grants that carry legal and policy conditions by drawing on current debate in the fields of international development and impact assessment as well as proposes the implementation of the neutrosophic theory for dealing with uncertainty. This is necessary due to the total absence of RIA application in this situation, which was discovered through an analysis of IFIs' RIA practices and supported by institutional literature.

The paper has the following structure: Section 1 introduces the necessity and relevance of the given topic. Section 2 describes a methodology applied for conducting analysis. Section 3 discusses the overall economic statement of the selected transition economies, followed by an analysis of the governance, institutional settings, international regulation, and the prospects of neutrosophic application in transition economies. Section 4 draws concluding remarks on institutional quality and regulation of transition economies and applications of neutrosophic methodology in solving uncertainty problem in this sphere.

2. The Used Methodology

The paper explores the effects of international regulatory affairs on the economy of transition countries via different aspects including governance, corruption, investment, and proposes the integration of neutrosophic philosophy, theory, and practice into such kind of exploration. Therefore, the framework of the research methodology was designed in accordance with this purpose and following scientific guidelines [11], [12].

Research methodology includes the following stages [13]:

1) Selection. In this stage the search and collecting of related papers was conducted. Papers were selected from reliable Web of Science and Scopus databases. To conduct the search, the Boolean operators were used together with terms and key words related to topic like “governance”, “corruption”, “transition economy”, “assessment of regulatory impact”, and “neutrosophic”.
2) Classification. Collected papers were classified based on the following inclusion criteria: papers related to transition economies and assessment of regulatory impact were included, whilst conference proceedings were excluded.
3) Analysis. In this stage the analysis of the content was conducted. Furthermore, the review of neutrosophic theory was conducted and its linkage with economic subjects was investigated.
4) Discussion. This is a final stage in which the diffusion of ideas and results of the papers is discussed, and prospects are suggested.

3. Discussion

This section is aimed at reviewing the economical and institutional situation in transition economies. Each sub-section is devoted to the analysis of the special characteristics of transition economies, including governance, institutional settings, corruption, and international regulation. The last sub-section investigates the neutrosophic theory and its methodology, as well as discusses its application in analysis of institutional quality and international regulation of the countries due to the capacity of the neutrosophic analysis in dealing with uncertainties.

3.1. Overview of transition economies

Transition economies are defined as countries which experience the move to a market economy from a centrally planned economy. This has been seen in countries from Eastern Europe where communism has been the planned method of governance where the state has maintained ownership but has since been overhauled by an economy whereby assets have been sold off to private ownership, thus assisting markets forces to dictate the outcome of these economies. This sub-section provides a brief overview on the economic condition of selected transition countries as well as on the quality of governance and level of corruption in these countries. Furthermore, the information on taken loans from the International Bank for Reconstruction and Development (IBRD) and loans

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from and credits from the International Monetary Fund (IMF) and the International Development Association (IDA) are also given in this sub-section.

It should be noted that the economic is growing fast in countries with transition economies. Figure 1 illustrates the growth rate of GDP in ten selected countries with transition economy, namely Albania, Armenia, Azerbaijan, Bulgaria, Botswana, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Vietnam during the span of 20 years from 2002 to 2021 years. Mainly the growth rate of these countries was rather high, which was negative only during crisis times like financial crisis of 2008 year and pandemic period of 2020. Whereas almost in all countries the growth rate was fluctuating between zero and ten, Azerbaijan's GDP rocketed to just above 40% in 2006, followed by a decline until 2016. The economy of Botswana was the most unstable and unpredictable with its ups and immediate downs during the observed period. The economic growth of other countries was relatively stable.

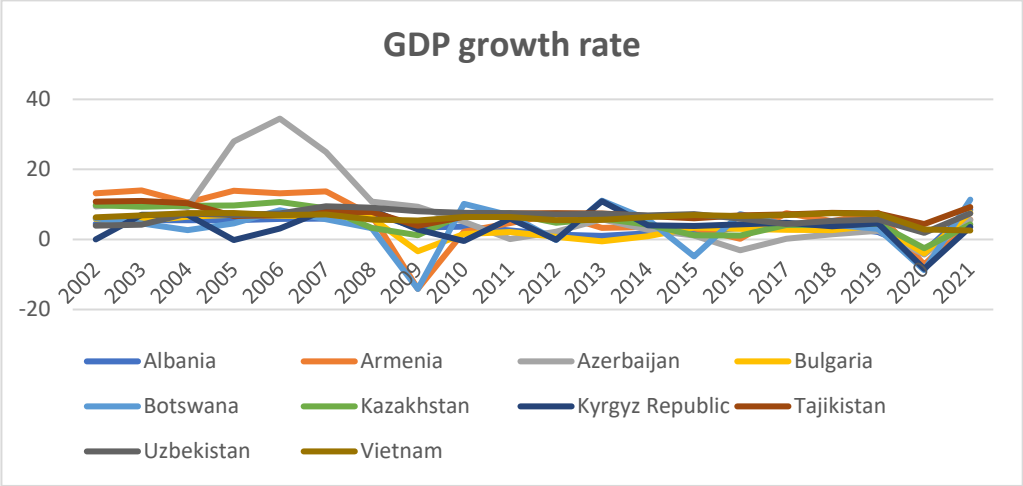

Figure 1: Growth rate of gross domestic product (GDP) in selected transition economies (2002-2021 years) [14]

Figure 2 represents the CPIA quality of public administration rating for selected seven transition economies, in particular Albania, Armenia, Azerbaijan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Vietnam within 17 years from 2005 to 2021. This indicator evaluates the level of civilian central government staff structure, which is aimed at effective design and implementation of government policy as well as rendering services. The quality of public administration ranges between 1 and 6, where the lower the number, the less is the quality. Until 2009 the observed countries had different level of quality, yet in 2009 most of them reached the level of three, after which there was no change in the quality of public administration, the quality got stuck in the level of three for 13 years. A little higher quality level performed Armenia and Vietnam.

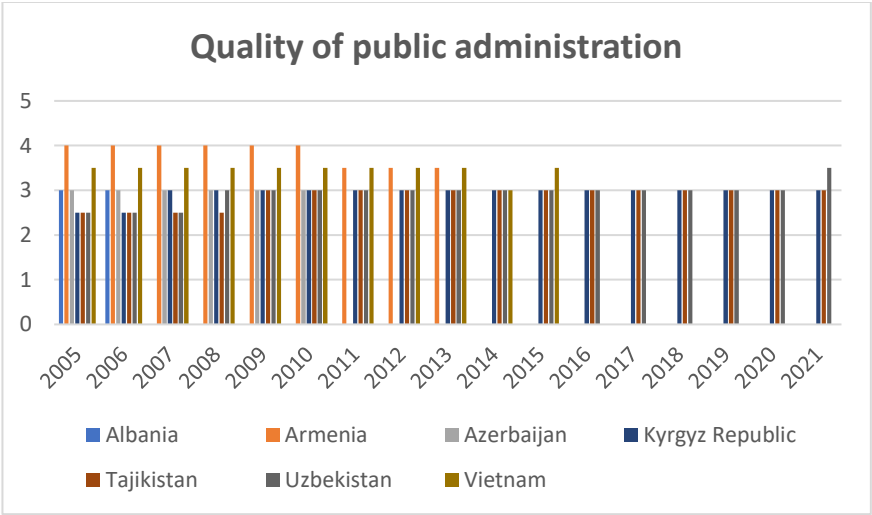

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Figure 2: Quality of public administration in selected transition economies (2005-2021 years) [14]

Figure 3 provides with the information about the trend of change in the level of corruption controlling in selected seven transition economies, namely Albania, Armenia, Azerbaijan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Vietnam during the period of 20 years from 2002 to 2021. The indicator ranges between -2.5 and 2.5, where the lower is the indicator, the lower is the controlling level of corruption. Overall, the level of corruption control is low in these countries except Armenia, in which the situation with corruption had become better since 2019 when the indicator was a bit above of zero. Nonetheless, despite violate fluctuation, in five countries the positive tendency could be observed where the corruption became more controlled. Only in Tajikistan and Kyrgyz Republic the control level of corruption bounced back to the initial point of -1.5 and -1.1 respectively. In case of Armenia, it can be seen that they have a higher level of quality of public administration and higher level of corruption control, from which it can be concluded that both these indicators are linked with each other.

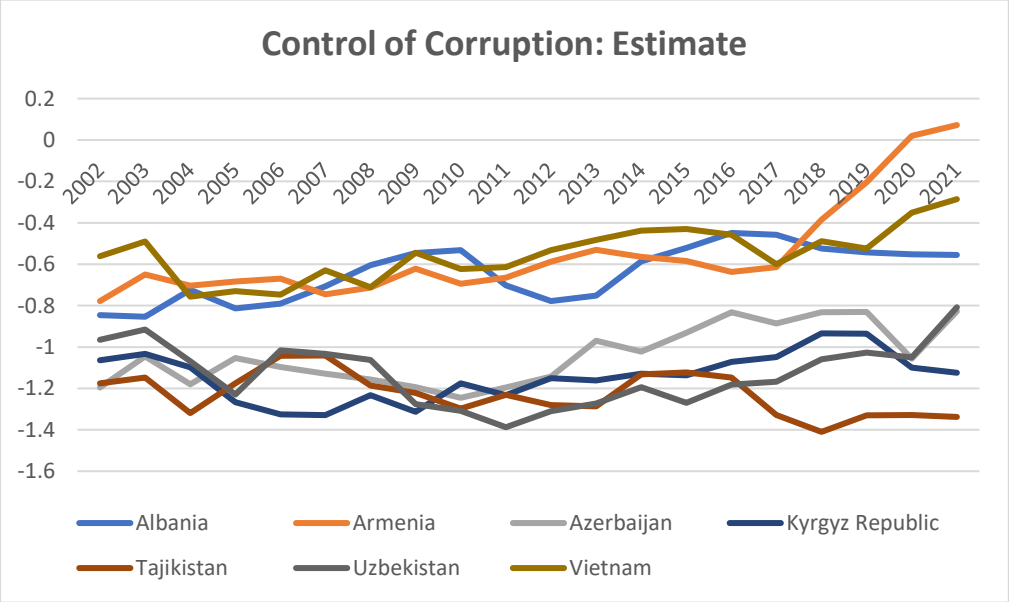

Figure 3: Estimated control of Corruption in selected transition economies (2002-2021 years) [14]

The following two figures show the number of credits lended from IMF and loans from IBRD and credits from IDA in current US$ to ten selected countries with transition economy, namely Albania, Armenia, Azerbaijan, Bulgaria, Botswana, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Vietnam over the period of 20 years from 2002 to 2021.

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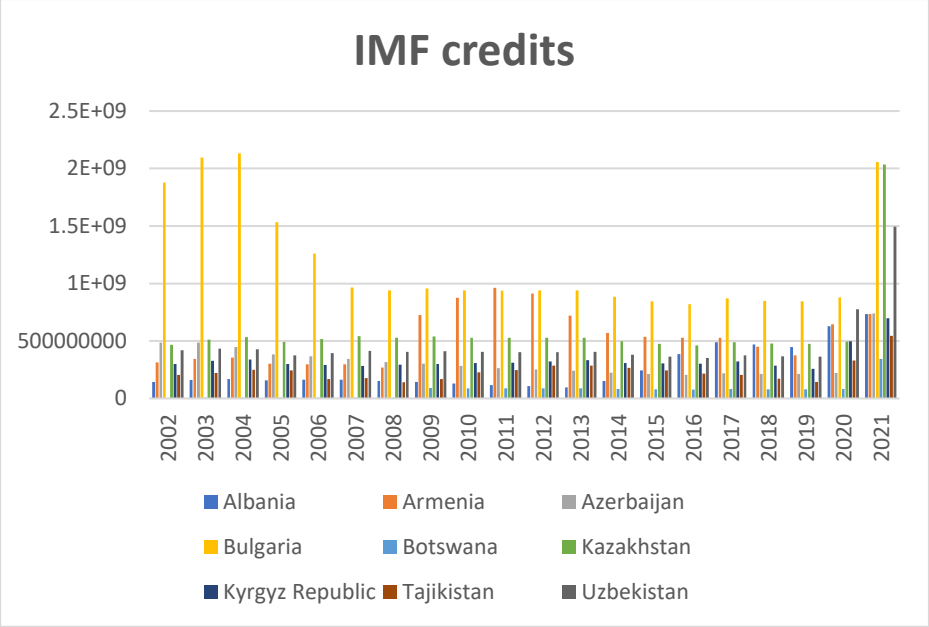

Figure 4: IMF credits provided to selected transition economies (2002-2021 years) [14]

Overall, a significant increase in the amount of provided loans and credits from all given organisations can be observed for all countries. A leader in IMF funding remained Bulgaria, whilst in IBRD loans and IDA credits the positions were changing. If before 2020 Kazakhstan was taking the biggest amount of loans from these organisations compared to other countries, from 2020 Uzbekistan had become a leader in this indicator.

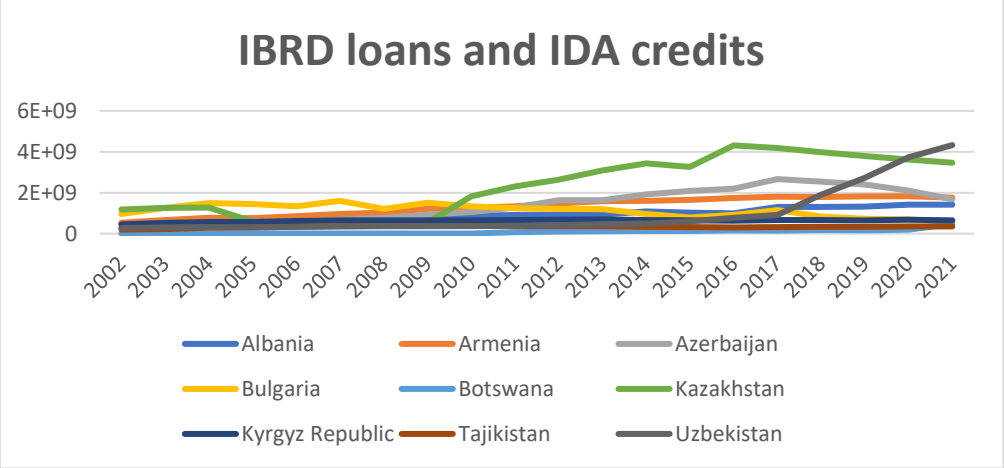

Figure 5: IBRD loans and IDA credits provided to selected transition economies (2002-2021 years) [14]

3.2. Governance in transition economies

After analysing the economic situation in transition economies, it would be interesting to explore the governance situation among them, therefore this sub-section is devoted to investigating the current situation and challenges in governance of transition economies.

There is a notion that only good governance leads to the prosperity of the economic state, however, if there is an excess of regulation by the state, this could lead to a deterioration in trade and hinder the development of that country [16], [17],[18]. Further studies allude to this and add to the theories. For example, Kirkpatrick [1] added that countries are required to bear in mind the future of investment which is a vehicle that leads to economic prosperity. When countries are governed well, this leads to investors inducing funds into that country to drive the economy towards more prosperous outcomes. If countries are poorly governed in developing countries,

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investors tend to turn away from that country as they may be concerned about the continuing levels of corruption which will lead to social and hence, economic unrest. Politicians are required to concentrate on arming themselves under the governance of less corrupt platforms in order to induce foreign investment which allows firms to concentrate on employment, lower welfare and increasing production.

Levy and Spiller [19], have established a different theory to governance and stipulate that there are many forms of governance which need to be less complex and will lead to fewer conflicts. They initially recognise that even in developed countries, the issue surrounding regulatory change for good governance is new and that countries need to look at making these issues much less complex. If there are straight forward methods to ensure that issues of accountability and transparency are present, then this will lead to positive outcomes by inducing greater understanding [20]. Indeed, the OECD [20] has cited that there is one major element when it comes to good governance and that is to ensure that there exists a good framework for governance. In the past, countries were concentrated on regulation and deregulation in their practices and this according to the OECD is not an acceptable form of good governance. If a framework of adequate procedures is adopted from previous successful implementations, then this will give rise to better economic prosperity for countries and that this regulation from the adopted framework will ensure that regulation will continue through the course of time.

There are various parts of regulation which make up a fully functioning regulatory body under the above idea by the OECD. The idea for a proper government is that these regulations should not be seen as separate parts, but they should be seen as once whole component driven by individuals much higher up the ladder in central government. If regulators view governance as separate parts, there will be an inevitable misunderstanding and a lack of initiatives to bring these components together. The individuals higher up in central government are those who should be wholly responsible for bringing about the rules of transparency and accountability which then ensures that issues of ideas such as corruption and fraud present to a much lesser degree. Central governments should look at transparency as being the most important practice particularly in developing countries and they are required to develop rules based on existing rules but enhance new ones as well.

3.3. Institutional settings in transition economies

When analysing the economic situation and governance level of the countries, it is also important to make research on the institutional settings of the countries. Thus, this sub-section discusses the institutional settings of transition economies.

Granovetter [18] states that the institutional setting and the country framework is essential to enhance regulatory reform. If countries are to build proper reforms, they are then required to acquire a much better framework upon which to build rules and regulations. One should recognise that every country has its own different rules and regulations when it comes to governance. These characteristics take the form of social, legal, and political to name a few and this needs to be considered. Therefore, the setting of the institution in different countries is fundamental in enhancing reform changes for any country. He continues to state that the OECD studies are still very relevant and the models they use are vital for looking at economies which are in transition. There are many studies which look at transitional economies and their regulatory changes and this field of research continues to grow. The World Bank [20] concentrates on transitional economies with their efforts concentrated on how their policy has developed over time. Their study looked at the regulation of businesses over time. Stern and Holder [21] looked at Asian countries and regulatory systems but their study was limited to only the changes in certain types of industries therefore their results cannot be included as part of a typical comprehensive study along with that of the World Bank [20]. Also, Minogue and Carino [22] provided a study on nations in transition but they too looked at a specific section of regulatory change. However, a more comprehensive study to note was that of Kirkpatrick [23] provided an in-depth analysis of how studies should be wary of using Regulatory Impact Assessment (RIA) as an assessment tool. They tool 40 countries in transition and survey-based techniques to evaluate regulatory change. They did, however, omit to cover many important aspects of regulatory change.

Further studies completed by the OECD [24],[25],[26], taking Mexico and South Korea as transition countries found there were elements of better governance when they switched from ‘regulation and deregulation’ to ‘better regulatory governance’. Their study was done in conjunction with the EU and publications [26], These publications stated that there is a certain amount of confidence that can be derived when countries know the

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extent to which less developed nations have shifted their regulatory policies in accordance with a proper framework to achieve their intended targets.

3.4. Corruption in transition economies

It should be mentioned that there is a big challenge in governance and institutional settings that is called corruption. As it can be seen from Figure 3, the capacity of countries in transition in controlling corruption is too low. Thereupon, this sub-section discusses the reasons and consequences of corruption in transition economies. Hellman et al. attempted to analyse how firms under international regulation changes try to control the state in transitional economies. They defined this relationship as the "capacity of firms to influence the formation of the basic 'rules of the game' (i.e., laws, rules, decrees, and regulation) through illicit and non- transparent private payments to public officials" [27]. Their research proposes that institutions can be what they call 'grabbing hand' states where officials take economic rents which are not due. They also achieve to shape legislation to suit themselves, acting against the interest of those who enable them to thrive. This may lead to a greater corrupt society, a trait which is not welcomed by the country, the government, or its people. Corruption takes the form of such activities which includes bribery and therefore allowing officials to distort rules. This type of influence on the state is not one which allows a country to thrive and sustain much needed economic prosperity. Hellman et al. developed a framework for assessing corruption where they divided countries into two distinctive groups; one where corruption was thought to be pervasive and one which most certainly was not. They used 22 different economies. This separation of countries was called 'capture economies. They used information from the 1999 Business Environment and Enterprise Performance Survey (BEEPS) but their methodology did not allow the outside world to give their own ideologies as to what the firms were involved in, rather, they concentrated on the activities at firm level. Thus, all results were conducted at firm level with corruption indices drawn to evaluate levels of corruption. The authors wished to establish how the different forms of corruption had affected their business activities.

Using varying degrees of partitioning, the authors give an average of the indices which allowed them to assess how firms assess corruptive influences. They defend their methodology by stating that 'state capture' is used by firms who wish to see how competing firms who have control of the state are able to be overtaken in terms of creating a new market share for themselves and 'out-performing' the powerful firms which seem to be in charge of many resources. This ultimately feeds into the fact that powerful firms who control state resources are duty bound to produce public goods at cheaper prices since they control a larger capacity in which to do so, and this then enables them to develop the market economy. This study was made more robust by Kaufmann and Kraay who from their study of Moldova, Russia, Ukraine, and Azerbaijan (as some of their examples) found that 30 percent of the nations had been negatively affected by state capture. The use of this type of approach has been used in literature where governments should concentrate on building certain relationships. There are those that exist which are deemed to be good for the prosperity of countries, for example the relationship between excellent governance and public institutions and growth in investment and incomes, e.g., [27],[28].

3.5. International regulation in transition economies

In supporting countries with transition economies, the international regulation is important to get them in a higher level of development, improve their governance and institutional settings. This sub-section discusses the challenges faced by international regulation in transition economies.

International regulatory change in transition economies is confronted by more and greater troubles than in developed countries. A specific issue in this debate lies in the fact that developed countries are essentially vastly different to developing countries in that the framework for regulatory reform between them tends to be different. The literature refers to these models as 'best practice' models. In developed countries, one cannot adopt a 'one-size-fits-all' strategy to all developing countries because they do not possess the social, economic, and political landscape as developed countries. This one-size-fits-all analogy has been termed 'fatal remedies' in the literature by researchers [29]. They often use the low- and middle-income earners in their examples and assess less developed countries as being different because they do not possess the necessary resources required for the implementation and sustaining of good governance. They tend to refer to the social and political issues which prevent them from effective regulation changes which will serve them positively in the long run. Hood [29] states

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that these countries are required to look further than simply changing the reforms which will make their markets efficient, however, in his work, he does not state which areas these countries are required to concentrate on. Stern and Holder [21] looked at Asian countries and regulatory systems but their study was limited to only the changes in certain types of industries therefore their results cannot be included as part of a typical comprehensive study along with that of the World Bank [20]. If there are straight forward methods to ensure that issues of accountability and transparency are present, then this will lead to positive outcomes by inducing greater understanding [26].

These studies have identified the problem which exists and how much there is yet to be done on establishing firm relationships between international regulatory reform and economics in transitions countries. It also serves as a reminder as the development state has important functions and it will always be the subject and object of reform and it is likely to maintain regulatory responsibilities than in countries that are developed. Hood [29] stated that there are many differences between national systems and any attempt to apply one type of reform at an international level which seems to be ideal to all countries is almost certain to instigate what he calls 'fatal remedies. Overall, what should be realised is that poverty and corruption in many countries are the products rather than the causes of under development and those who wish to assist these countries must understand that political cultures will form externally derived economic and managerial reforms as opposed to being transformed by them. These publications stated that there is a certain amount of confidence that can be derived when countries know the extent to which less developed nations have shifted their regulatory policies in accordance with a proper framework to achieve their intended targets. This has been seen in countries from Eastern Europe where communism has been the planned method of governance where the state has maintained ownership but has since been overhauled by an economy whereby assets have been sold off to private ownership, thus assisting markets forces to dictate the outcome of these economies.

3.6. Neutrosophic theory and the prospects of its implementation into international regulation affairs

International regulation and the economy are the spheres containing certain degree of uncertainty and inaccuracy. Therefore, this sub-section is devoted to investigating the opportunities of neutrosophic theory application, which can deal with such problems, into those spheres. This sub-section defines neutrosophic theory, its methodology and perspectives of its implementation into international regulation affairs.

To deal with uncertainties and inaccuracies in 1965 [30] developed the Fuzzy Set (FS). A generalisation of Fundamental Sets (FS) and Intuitionistic Fundamental Sets (IFS) is represented by Smarandache's Neutrosophic Sets (NSs). while the FS provides the degree of Truth Membership (TM) of a component in a defined set, the IFS provides both a degree of TM and a degree of False Membership (FM), and the NS provides a degree of TM, a degree of Indeterminacy Membership (IM), and a level of FM. whereas the NS offers the degree of Truth Membership (TM), a degree of False Membership (FM), and a degree of Indeterminacy Membership (IM) [2] with IFS, the FM function is not reliant on the TM function; however, this is not the case with FS, where the FM function is dependent on the TM function. The TM function, IM function, and FM function are each separate and distinct in NS. Smarandache discussed the distinctions between NSs and the several expansions of FSs that are available. An instance of NS that can be traced back to the work of Smarandache is referred to as Single-Valued NS (SVNS). The SVNS was introduced by the initial author, Haibin Wang, during the international symposium that was held in Salt Lake City, Utah, in the United States. To get a great deal of attention from the researchers, NSs and SVNSs have been presented at a variety of seminars and published in a variety of conferences and publications [31].

Vern Poythress contends that to reclaim mathematics and give it back its rightful place in the world, we may at times need a change in the fundamental philosophy behind mathematics. In this context, let us to argue in favour of Neutrosophic logic (NL) as a beginning point as an alternative to the Aristotelian logic that produces so many issues in actual world, as it is the point of departure[32].

In the field of Neutrosophy, it is possible to link a concept to both its opposite and its neutral to derive its common components, as shown by the equation A> non-A> = nonempty set [33]. This is the section of the rare items that is most common! It is a contradiction, yet it is true [34]. Neutrosophic logic, neutrosophic sets, neutrosophic probabilities, neutrosophic data, neutrosophic policies, neutrosophic physics, and neutrosophic algebraic frameworks are all products of neutrosophy [35].

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It is true in a limited scenario, i.e. Hegelian dialectics only addresses the dynamics of opposites ('A' and 'anti-A'), but in our daily life, not only the opposites interact, but the neutrals 'neut-A' among them too [36]. This is because in Hegelian dialectics, only the dynamics of opposites ('A' and 'anti-A') are considered [37]. For instance, if you get into a fight with a guy (meaning that the two of you are opposites of each other), but those who are not on either side of the conflict, including the police, try to mediate and bring you both together again. Neutrosophy is the study of the relationships between opposing forces and their neutral states [38].
When contrasted to other types of logic, NL includes a greater proportion of "indeterminacy" because of unanticipated factors being buried in some statements. Additionally, it permits every part t, i, and f to "boil over" 100 or "freeze under" 0 respectively. For instance, in some tautologies, the value t is more than 100, which is referred to as "overtrue." The Neutrosophic Set is a strong structure that may be used to convey information that is uncertain, imprecise, insufficient, and irregular [39].

There are following preliminaries of neutrosophic sets:

Definition 1

The neutrosophic sets S can be represented in the space x as:

$$S = < x, T_S(x), I_S(x), F_S(x), x \in X > \quad (1)$$

Where the $T_S(x)$ refers to the truth membership function, $I_S(x)$is a indeterminacy membership function, and the $F_S(x)$ is a falsity membership function. The sum of three previous parameters is

$$0 \leq T_S(x) + I_S(x) + F_S(x) \leq 3 \quad (2)$$

Definition 2

The single valued neutrosophic set (SVNS) is regarded as the generalized version of the traditional fuzzy set, the intuitionistic fuzzy set, and the fuzzy set with a single value. Single-valued neutrosophic numbers (SVNNs), which were developed by Wang et al, are used since it is difficult to employ nonstandard subsets in real-life circumstances. This is the case because nonstandard subsets are difficult to use. There are fundamental characteristics that are shared by all set-theoretic operators that are defined on SVNS.

Definition 3

In the majority of cases involving decision-making, various decision-makers have varied significance values based on the positions they hold and the areas in which they specialize. As a result, it is necessary to ascertain the significance of the role played by each decision-maker. In the event that SVNNs are used for the purpose of assessing decision-makers. The weight of decision makers can be computed as:

$$E_s = \frac{1-\frac{\sqrt{(1-T_S)^2+(I_S)^2+(F_S)^2}}{3}}{\mathrm{a}\sum_{s=1}^{p} 1-\frac{\sqrt{(1-T_S)^2+(I_S)^2+(F_S)^2}}{3}} \quad (3)$$

Definition 4

Every decision-maker in an MCDM scenario has the potential to arrive at a unique conclusion on the variables (based on the breadth of the investigation, factors may be referred to as criteria or metrics). However, in order to successfully complete the phases of the procedure, it is necessary to combine the separate judgements of each step. The aggregation various decision makers can be computed as:

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$$G = \left(g_{ij}\right)_{n*n} = \langle g_{ij}^1, g_{ij}^2, g_{ij}^3, \ldots\ldots g_{ij}^p \rangle = \langle e_1 g_{ij}^1 \oplus e_2 g_{ij}^2 \oplus e_3 g_{ij}^3 \oplus \ldots\ldots \oplus e_p g_{ij}^p \rangle = \left\langle \begin{matrix} 1 - \prod_{s=1}^{p}\left(1 - T_{ij}^{s}\right)^{e_s}, \\ \prod_{s=1}^{p}\left(I_{ij}^{s}\right)^{e_s}, \\ \prod_{s=1}^{p}\left(I_{ij}^{s}\right)^{e_s} \end{matrix} \right\rangle \quad (4)$$

Definition 5

The score function used to compute the crisp value can be computed as:

$$F_S = 1 - \sqrt{(1 - T_S(x)))^2 + (I_S(x)))^2 + (F_S(x)))^2 / 3} \quad (5)$$

On the basis of the notion of complex neutrosophic sets (CNSs), Nasir et al. [40] presented the unique ideas of complex neutrosophic relations (CNRs) and their kinds. Furthermore, these ideas are backed with instances that are appropriate for the context. The degree of membership, the degree of abstention, and the degree of nonmembership are all factors that are considered while evaluating the quality of a relationship in a CNR. Every one of these degrees corresponds to a complex number that is derived from the unit circle in a complex plane.
Christianto and Smarandache [34] proposed a few applications of NL theory in a variety of different domains, like economics theory, among other. NL gives an opportunity to investigate the dynamics of polarities and neutralities. This is a broader use of the concept of dialectics. Furthermore, from an NL point of view, it can be established a reconciliation between the "push" and "pull" types of gravity by assuming that both forces are present. From this point of view, using the concept of neutrosophic theory, which is based on dealing with uncertainties, in managing and analysing international regulation affairs as well as governance and corruption issues, would bring a certain degree of certainty into the world of uncertainty.

4. Conclusion

Overall, it should be realised that poverty and corruption in many countries are the products rather than the causes of under development and those who wish to assist these countries must understand that political cultures will form externally – derived economic and managerial reforms as opposed to being transformed by them.
The process of restructuring the financial sector is included in the process of transition whereby countries can use methods of adjustment in the wake of macroeconomic shocks which aim to readjust economies to their pre - economic shock states in a less costly manner than their previous regimes allowed. If countries are poorly governed in developing countries, investors tend to turn away from that country as they may be concerned about the continuing levels of corruption which will lead to social and hence, economic unrest. A specific issue in this debate lies in the fact that developed countries are essentially vastly different to developing countries in that the framework for regulatory reform between them tends to be different. This ultimately feeds into the fact that powerful firms who control state resources are duty bound to produce public goods at cheaper prices since they control a larger capacity in which to do so, and this then enables them to develop the market economy. They defend their methodology by stating that 'state capture' is used by firms who wish to see how competing firms who have control of the state can be overtaken in terms of creating a new market share for themselves and 'out - performing' the powerful firms which seem to oversee many resources. Politicians are required to concentrate on arming themselves under the governance of less corrupt platforms to induce foreign investment which allows firms to concentrate on employment, lower welfare and increasing production. From the discussions above it is evident that although neutrosophic theory is relatively new branch of science, it has a big power in dealing with uncertainties, which is important in analysis of governance, institutional settings, and international regulation. It should be noted that neutrosophic logic has an impact in relationship between economies as it has a truth, false and indeterminacy values. It is evident that application of neutrosophic logic theory to some scientific domains leads to improvements in those subjects, it can be anticipated that neutrosophic logic theory will be used in many other areas of inquiry as well, including applied mathematics, economics, and possibly physics.

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