Cairo University

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Master of Law & Economics

Thesis

Unforeseen Contingencies in Government Contracts: A Closer Look at the Egyptian Administrative Law at the midst of a Currency Crisis

Mahmoud Mohamed Hany

Supervisors

Prof. Dr. Thomas Eger

Professor at Faculty of Law, Hamburg University

Dr. Amr Abbas

Lecturer at Faculty of Law, Cairo University

Declaration

I declare that I have authored this thesis independently, that I have not used other than the declared sources / resources, and that I have explicitly marked all material which has been quoted either literally or by content from the used sources. I acknowledge the supervision and guidance I have received from Professor Dr. Thomas Eger and Dr. Amr Abbas. This thesis is not used as part of any other examination and has not yet been published. The submitted written version corresponds to the version submitted via email and on an electronic storage medium.

Mahmoud Mohamed Hany

1 May 2018

Cairo, Egypt

Table of Contents

List of Abbreviations

CBE	Central Bank of Egypt
ECC	Egyptian Civil Code
EGP	Egyptian Pound
IMF	International Monetary Fund
US	United States of America
USD	United States Dollar
WWI	World War One
WWII	World War Two

1. Introduction

The Central Bank of Egypt ("CBE") on 3 November 2016 decided to adopt a free floating exchange rate regime and abandon its longstanding pegged exchange rate system. This transition resulted in the Egyptian Pound ("EGP") losing 100% of its value by end of 2016 against other foreign currencies such as the US Dollar ("USD"). The CBE also announced a bundle of measures including interest rate hikes to control the inflationary wave that will result from the flotation of the EGP on the same day. In a similar vein, the government as part of its economic reform deal with the International Monetary Fund ("IMF"), announced increases in the prices of oil and electricity in addition to subsidy cuts.

Although these decisions were praised by economic experts and seen as inevitable step toward Egypt's transition to a stable and sustainable free market economy, however, undoubtedly, these decisions had great implications on Egyptian government, businesses as well as individuals. The main result of these decisions was Egypt seeing its inflation rate soaring to 35% and in some commodities it reached more than 100%. This is mainly because Egypt is an importing country and even local industry depend primarily on imported raw materials and machinery.

One of the most important consequences of the flotation decision and high inflation rate were their impact on contractual relations especially long term contracts. Accordingly, there has been an ongoing controversy over whether parties in contracts whose obligations have become more costly or extremely burdensome due to the devaluation of the EGP can ask for relief or adjustment of their obligations. For example, in the wake of devaluation decision some contractors who work with the government threatened to stop construction works unless the government compensates them for losses due to the devaluation.

In this thesis, I will mainly focus on answering this question with respect to government contracts. Whether parties who enter into contracts with the government can ask for excuse or compensation as a result of the unforeseen consequences that make the performance of their obligation extremely

burdensome or costly. Moreover, are the devaluation and ensuing inflation considered exceptional circumstances that justify excuse or compensation.

It should be noted that the Administrative Courts in Egypt already have a doctrine (i.e. doctrine of *imprevision* or unforeseen circumstances) that deal with such unforeseen circumstances. Further, the Egyptian parliament passed a law in 2017 that compensates the contracting parties in government contracts for devaluation losses based on a certain formula.

This thesis will use a qualitative, descriptive and comparative approach in answering the research question from an economic point of view and using the language of economics. I will try to answer the above questions based on the efficiency of excuse or enforcement of contracts when unforeseen circumstances arise as stated in the prevailing literature in law and economics. Further, based on this literature review, I will evaluate the Egyptian doctrine of unforeseen circumstances as applied by Administrative Courts in Egypt from the economic point of view. Therefore, a normative approach will be employed to describe the desirable legal rules and make policy recommendations.

This thesis is divided into four main parts. I will first start by introducing the relationship between contract law and economic efficiency which is central to our analysis. Following this, I will review seminal past literature related to the topic. Third, a brief overview on the history of inflation and monetary depreciation in Egypt will be given. Last but not least, I will evaluate the Egyptian doctrine of unforeseen circumstances from economic perspective.

1.1. Illustrative Cases and Scope

The below cases are to illustrate the problem and research question in this thesis. The cases are inspired from cases before Administrative Courts in Egypt and I will make reference to them throughout thesis.

Case (1): The Ministry of Education enters into a construction agreement with a contractor to build three schools at a specific area within a certain timeframe. During the performance of such contract the

price of concrete rises by almost 100% due to the devaluation of the EGP. The contractor stops performance and asks the Ministry of Education for compensation or to excuse him from performance.

Case (2): A public hospital enters into an agreement with a medical supplier of chemical substances. After the conclusion of the contract and before delivery, the price of chemical substance, subject of contract, rises by more than 500% in the global market and the supplier supplies 25% of the contracted quantity and claims that he would not be able to deliver the rest with the agreed upon prices.

It should be noted that the scope of this thesis is limited to events that make performance of obligations more onerous or costly than expected at time of conclusion of contract particularly due to inflation and depreciation of currency. This thesis do not take into account events that renders performance of obligations impossible.

1.2. Note on Terminology

The terms used to describe the circumstances that render contractual obligations more burdensome or costly will vary along this thesis. In all cases, terms such as ‘unforeseen circumstances’ ‘unforeseen contingencies’ ‘exceptional circumstances’ ‘impracticability’ and ‘unexpected events’ are all meant to be synonyms.

Furthermore, the following terms: ‘promisor’ ‘debtor’ ‘seller’ ‘obligor’ and ‘payee’ will be used interchangeably. They are meant to point out to the party that is adversely affected by the unforeseen circumstances. This party usually has an obligation to do so something rather than paying a sum of money.

On the other hand, terms such as ‘promisee’ ‘creditor’ ‘buyer’ ‘payor’ and ‘obligee’ will be used interchangeably to point out to the party seeking performance after the unforeseen circumstances. This party usually has an obligation to pay a sum of money rather than doing something.

2. Introduction to the relationship between Contract law and Economics

Before proceeding to the literature review discussing the desirability or the undesirability of the doctrine of unforeseen circumstances, it is of utmost importance to draw attention to some basic concepts of Contract law and Economics. At this part, I will mainly identify relevant key law and economics concepts that are necessary to the analysis and evaluation of the doctrine of unforeseen circumstances.

2.1. Contracts and its Types

The word "contract" can mean three different things: (1) series of operative acts of the parties expressing their assent, (2) a physical document executed by the parties; or (3) legal relations resulting from the operative acts of the parties.[1] A basic definition of a contract that would be useful is "an agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law <a binding contract>".[2]

Examples of contracts would be similar to cases (1) and (2) mentioned above.[3] However, there is a distinction between two types of contracts: instantaneous contracts and deferred contracts.

An example of an instantaneous transaction or a contract would be a consumer buying a good at a supermarket. The consumer pays the price and the cashier hands over the on the spot. On the other hand, a deferred transaction or a contract would be like a construction contract. A promise to build and the owner promises to pay upon completion. A deferred contract is one which its performance spans over a considerable period of time.[4]

[1] Stephen Spurr, *Economic Foundations of Law Second Edition* (Routledge 2010) 124
[2] Bryan Garner, *Black's Law Dictionary* (8th edn, 2004) 970
[3] See sub heading 2.1
[4] Richard Austen-Baker and Qi Zhou, *Contract In Context* (1st edn, Routledge 2015) 104-105

Deferred transactions creates strategic opportunities that can be taken advantage of as well as uncertainty. This uncertainty exposes parties to risks and benefits that they had not taken into consideration.[5]

Accordingly, contract law provides rules to make parties comply with their obligations either by requiring performance or compensation. Therefore, contract law facilitates efficient contracting by enforcing efficient contracts[6]

2.2. Motives to Enter into Contract

Shavell identifies four economic reasons that explain why parties might choose to enter into a contract:[7]

(a) Future provision of goods and services: parties enter into contracts to make sure that they can have a certain good or service at specified points in the future. For example, a restaurant that enters into supply contracts to make sure it is supplied with its daily needs of meals ingredients.

(b) Sharing of risks: contracts are good device for sharing or reallocation of risks. For example, an insurance contract by which a risk averse insured pays premiums to a risk neutral insurer. Another example of sharing of risks would be a fixed price contract by which the promisee assigns the risk of any price changes to the promisor.

(c) Differences of opinion about future events: This would be similar to transactions in securities and durables where buyers and sellers have different of opinion about values.

(d) Timing of consumption: A typical example is loan agreements and other financial arrangements between borrowers and lenders.

[5] Hugh Beale, William Bishop and Michael Furmston, *Contract* (Oxford University Press 2008) 74.
[6] Richard Austen-Baker (n 4) 104-105.
[7] Steven Shavell, *Foundations Of Economic Analysis Of Law* (Belknap Press of Harvard Univ Press 2004) 296-297.

2.3. Economic Functions of a Contract

Since the purpose of contract law is to effectuate the desires of the parties, then the best criterion to evaluate rules of contract law is that of economic efficiency. Although the use of economic efficiency criterion to evaluate legal rules is highly controversial, it is inevitable in the field of contract law. A contract law that is not founded on the concept of efficiency is largely futile.[8]

A contract is a method by which a properly functioning economy directs its resources to the most valuable use. One of the features of contract is that both parties can increase their utility by entering into it. A contract is not a zero sum game where one party's gain means another party's loss. For example, when a foreign investor decides to enter into a joint venture with a domestic investor in another country, both parties expect to gain from such contract at the time of contracting.[9]

Furthermore, a contract helps in achieving allocative efficiency. Allocative efficiency requires that resources are put to its most valuable use. For example, if a seller wants to sell his car for EGP 10000 it is reasonable to assume that he values it less than EGP 10000, otherwise the seller would not sell the car. It is also reasonable to assume that the buyer values it more than EGP 10000. Let's assume that the seller values the car by EGP 9000 and the buyer by EGP 11000. Therefore, a transaction between both parties will make both parties better off by EGP 1000 and creating a joint surplus of EGP 2000 from such transaction. Those EGP 2000 are the social benefit from the transaction by shifting the resource form the lowest value user (seller) to highest value user (buyer).[10]

Therefore, one would expect the economic analysis to explain much of contract law as it is the law of the market. Economic analysis of contract law relies on the fact that when people engage in voluntary exchange (a money for a good) they maximize value.[11]

---

[8] Posner RA Rosenfield, 'Impossibility And Related Doctrines In Contract Law: An Economic Analysis' (1977) 6 The Journal of Legal Studies 83, 89.
[9] Hans-Bernd Schäfer and Claus Ott, *Economic Analysis Of Civil Law* (Edward Elgar 2004) 273.
[10] Richard Austen-Baker (n 4) 105.
[11] Michael Bales, 'Introduction: the Purposes of Contract Law' (1983) 17 Valpariso University Law Review 613, 620.

2.3.1. The Completely Specified Contract and the Incomplete Contract

One of the important concepts that are central to our analysis and explaining economic functions of contract law is the distinction between the completely specified contract and the incomplete contract.

A complete contract is one that specifies exactly what parties should do, in order to achieve efficiency, in every possible state of the world. For example, a complete contract will determine the exact conditions under which a seller would have to deliver the good to a buyer, as well as the conditions under which the seller will be excused from performance. Moreover, a complete contract will determine the amount of reliance and the amount of precaution each party should take to ensure performance. [12]

The concept of perfect or completely specified contract is important to law and economics as it is useful in measuring how much in real life contracts deviate from such hypothetical contract. This is similar to perfect competition model in microeconomics.[13]

However, contracts in real life are far from completely specified. This means that parties to a contract can never foresee all contingences and events that might happen during the performance of a contract and put some provisions to govern such events. Therefore, contracts in real life are almost always incomplete.[14]

Contracts in real life are incomplete for a wide variety of reasons**.** First, parties have no incentive to negotiate over low probability events which can be costly.[15] The world is a complicated place and drafting contract terms takes time, effort and cost. Therefore, parties eventually will have to stop refining the language of their contract and begin performance.[16] Second, sometimes the cost of

[12] Richard Craswell, 'The "Incomplete Contracts" Literature and Efficient Precautions' 56 Case Western Reserve Law Review 151, 154
[13] Robert Cooter and Thomas Ulen, *Law And Economics*, (6th edn, Pearson Education 2012) 292.
[14] Steven Shavell (n 7) 299-300.
[15] ibid
[16] Richard Craswell (n 12) 154.

providing evidence to court is high and some contingencies cannot be verified by courts.[17] Third, parties may not be interested to include every single contingency in their contract if they know that there is an opportunity or a prospect to renegotiate contracts.[18] Fourth, in almost all cases there are an infinite number of possible states of the world, so no contract could possibly be complete in listing all possible contingencies.[19]

Further, according to Cooter and Ulen, parties to a contract will voluntarily choose to leave a gap if the actual cost of negotiating over a certain term exceed the expected cost of filling the gap. The expected cost of filling the gap equals the probability of loss martializing multiplied by the subsequent cost of allocating the loss. [20]

To determine whether a contract is complete or not we have to check the rules of interpretation that are applied. For example, a contract that says a party will deliver a good on July 1 could be considered "complete" as it is not leaving any gaps. The seller has to perform this obligation under all circumstances disregarding anything that might happen. But this contract could also be described as "incomplete" if it is instead interpreted as not saying what happens if circumstances prevent the seller from delivering the good on time.[21] Such incompleteness of a contract leaves the door open for interpretation of contracts by courts.[22]

2.3.2. Economic Efficiency of Default Rules

Another function of Contract law is to reduce transaction costs.[23] Transaction costs are the costs of exchange such as search, bargaining and enforcement costs.[24] The more transaction costs parties will incur, the less the profit they will expect from the transaction. If one party believes that the transaction

[17] Steven Shavell (n 7) 299-300.
[18] Ibid.
[19] Richard Craswell (n 12) 154.
[20] Cooter and Ulen (n 13) 293.
[21] Richard Craswell (n 12) 154.
[22] Steven Shavell (n 7) 301-304.
[23] Richard Austen-Baker (n 4) 105-106.
[24] Cooter and Ulen (n 13) 88.

costs will exceed the expected gain from a contract, a party will decide not to enter into a contract. Therefore, transaction costs impede efficient contracting.

Contract law reduces transaction costs by providing default rules. These are the rules which are considered default in absence of agreement to the contrary by the parties. They can be considered a starting point during negotiations and if they are as close to the will of contracting parties (i.e. efficient), contracting parties can save time and money of having to agree on special terms that are different form the default rules. Contract law rules are mostly default rules rather than mandatory rules.[25]

Therefore, courts can supply efficient default rules through supplying terms that parties would have agreed on had they bargained over the relevant risk. This method is called 'hypothetical bargain'. This imitates the contract that parties would have concluded through negotiations. Parties cannot improve such hypothetical bargain through negotiations once more (pareto-efficient).[26]

Default rules play an important role reconstruction of the intention of the parties and increase efficiency. Although Coase hypothesized that contract parties will efficiently allocate risks if transaction costs are zero, this is not always the case. [27] In many cases transaction costs remain high to an extent that contracting parties leave them unallocated. Thus, contract law helps in reducing these transaction cost by supplying efficient default rules.

It is worth noting that distribution of risks does not only affect the total surplus from contract but also the price of a good. If the law shifts more risks to the buyer, the cheaper the good will be and vice versa.[28]

[25] Hans-Bernd Schäfer and Claus Ott (n 9) 278.
[26] Cooter and Ulen (n 13) 294.
[27] Ronald Coase, 'the Problem of Social Cost' (1960) 3 Journal of Law and Economics 1
[28] Hüseyin Can Aksoy and Hans-Bernd Schäfer, 'Economic Impossibility In Turkish Contract Law From The Perspective Of Law And Economics' (2010) 34 European Journal of Law and Economics 106, 113.

2.4. Consequences of a Breach of a Contract

Contract law provides for remedies when one party fails to perform its contractual obligation. This may be the case when the promisor in any of cases (1) or (2) above decides to breach the contract as a result of rising production/performance costs. There are usually several type of remedies available to the injured party (i.e. specific performance, court imposed damages, and liquidated damages), however, at this point, I will mainly focus on the incentives that remedies can provide within the contractual relation.

The presence of such damages provide parties with several incentives:

(a) **Incentive to perform:** if the party who considers to breach the contract knows they will be liable for the loss of profits or incurred expenses by other party, they will refrain from breaching the contract.[29] Hence, a particular damage measure provides a certain degree of incentive to perform, and in general, the higher the damage measure is, the greater the incentive to perform.[30]

(b) **Incentive to rely**: since a damage measure encourages contract performance, it provides contracting parties with incentives to take actions relying on performance. These actions can raise the value of contracts for parties to their benefit. For example, a restaurant owner who expects the construction of his restaurant by a contractor, could hire and train staff and advertise the opening of the restaurant. These actions prior to complete performance by the restaurant owner will increase the value of the contract.[31]

(c) **Prevention:** Another function of damages is to prevent parties from breach of contract as a method of deterrence. For example, degree of fault decides the amount of compensation especially in Arab and

[29] Catherine Elliott and Frances Quinn, *Contract Law* (Pearson/Longman 2011) 345.
[30] Steven Shavell (n 7) 304-305.
[31] Ibid 310.

Middle eastern legal systems. Furthermore, damages prevent parties form disgorgement of profits or running away with gain.[32]

3. Literature Review

In reviewing the previous literature dealing with unforeseen circumstances that render the performance of obligations more costly or burdensome, I will employ a dichotomous approach. This approach makes a broad categorization of arguments put forward by different authors in terms of whether these authors support or oppose the presence of this doctrine in contract law. Following this broad categorization, I will categorize each author's arguments under a sub heading that is salient to the particulars of each argument.

Apart from the dichotomous approach, I will deal with literature that specifically discuss inflation and exchange rate as special form of unforeseen circumstances separately.

3.1. The Case for the Doctrine of Unforeseen Circumstances

There are several authors who support the existence of a doctrine of unforeseen circumstances in law that excuses the promisor in certain cases. Although their justifications are different as below, most of those are of opinion that a law without such doctrine would be operating inefficiently. Therefore, this doctrine is consistent with considerations of economic efficiency.

3.1.1. Efficient Risk Bearing Theories

Posner acknowledges that there is no single framework that can cover all discharge cases or cases in which unforeseen circumstances arise. Therefore, some scholars made subdivisions for studying and differentiating discharge cases (i.e. impossibility , frustration and impracticability).[33]

[32] Ingeborg Schwenzer, Pascal Hachem and Christopher Kee, *Global Sales And Contract Law* (Oxford University Press 2012) 579.
[33] Posner RA Rosenfield (n 8) 85.

However, Posner views that this categorization of discharge cases in not useful. He believes that in all cases involving unexpected circumstances the problem is the same: "to decide who should bear the loss resulting from an event that has rendered performance by one party uneconomical". [34]

Therefore, the problem in discharge cases is one of 'risk allocation'. If we allow discharge then we assign the risk of unexpected circumstances to the promisee. If we consider the non performance as a breach then we assign the risk to the promisor.[35]

Posner argues that from the standpoint of economics if the parties expressly assign the risk, then such assignment is the most efficient on and should be followed. On the other hand, discharge should only be allowed when the promisee is the superior risk bearer. If the promisor is the superior risk bearer then nonperformance should be treated as a breach.[36]

A party can be a superior risk bearer for two reasons:[37]

1- He may be in a better position to prevent the risk from materializing. Discharge would be inefficient if the promisor could prevent the risk at a lower cost than the expected cost of the risky event. In case the promisor was better able to prevent risk, then non performance should be treated as breach an no excuse should be granted.[38]

2- He is the superior insurer. The promisor does not have to be the superior risk bearer, he can be the cheapest insurer. In other words, the promisor can insure against the risk cheaper than the promisee.[39]

The factors that determine which party is the cheapest insurer are the following:

[34] Ibid.
[35] Ibid 97.
[36] Ibid 90.
[37] Ibid.
[38] Ibid.
[39] Ibid 91.

a- Risk appraisal costs: This is the cost of determining probability of risk to materialize and magnitude of loss if risk materializes.

b- Transaction costs are the costs involved in eliminating or minimizing the risk through pooling it with other uncertain events, that is, diversifying away the risk. This can be done either through self-insurance or through purchase of an insurance policy[40]

In sum, Posner urges judges and legislatures when deciding the efficient rules for discharge should only allow discharge in the following case:

1. If the promisor could have not prevented the event rendering the performance uneconomical at a reasonable cost; and

2. The promisee could have insured against the risk rendering performance uneconomical at a lower cost because the promisee was (a) in a better position to estimate (i) the probability of occurrence of the unexpected event (ii) magnitude of loss from such; and (b) could have self insured.[41]

Posner affirms that discharge should not be allowed simply because price changes were greater than anticipated, regardless of which party is the superior risk bearer. Parties should negotiate price anyway, and with little time and effort, put a limit on the promisor's price exposure. If they do not do so, the court will not do it for them.[42] Further, Posner criticizes the traditional "foreseeability" test used by courts to assign the risk of unforeseeable event. This is because if a risk is foreseeable that does not necessarily mean it has been allocated.[43]

Posner tried to make a simple rule of thumb to be followed in most cases that the performer – as opposed to the payor - is generally the superior risk bearer because usually he is in a better position to prevent the risk from materializing and if it cannot be prevented he is better able to estimate the probability of

[40] Ibid.
[41] Ibid 92
[42] Ibid 96
[43] Ibid 100

occurrence and magnitude of loss if the event occurs. Further, performer can often self insure at a low cost by diversifying risk across full range of contractual obligations. In case of doubt who is the superior risk beaer, designating the performer will give more correct results than designating the payor.[44]

Joskow (1977) in his paper - published simultaneously with that of Posner - makes an extensive and detailed analysis of the Uranium market in the US and the application of the impracticability doctrine on the Westinghouse case.[45] In his view the doctrine of impracticability promotes voluntary exchanges and by reducing transaction cost and encouraging efficient use of information and efficient procurement policies by suppliers.[46]

Joskow lists the conditions under which the doctrine of impracticability applies and analyzes the incentives and desirability of such conditions.[47]

(a) Faliure of an underlying condition of a contract must occur.

This provision makes sense in economic terms as it saves transaction costs by gives parties to not alter the terms if their exchange satisfy normal criteria. However, in extraordinary situations, it would require them to work extra hard and allocate risks expressly if they wish to allocate risk differently.[48]

(b) The failure must not have been foreseen at the time the contract was signed

This requirement makes sense if we take into consideration the concept of "bounded rationality" which means that human beings cannot evaluate all possible states of the world.[49] Foreseeability mean that the occurrence of the contingency must have been part of the decision making process of the contractual parties.[50] This condition simply asks a normative question: whether one or more of the parties of the

[44] Ibid 110 - 111
[45] Joskow – Paul L. Joskow, 'Commercial Impossibility, The Uranium Market And The Westinghouse Case' (1977) 6 The Journal of Legal Studies 119, 120.
[46] Ibid 163.
[47] Ibid 150.
[48] Ibid 157.
[49] Ibid.
[50] Ibid.

contracts should have contemplated such contingency and made them a basis for the contract. This gives an incentive for both parties of the contract to efficiently evaluate information about uncertain outcomes and make this information part of the express terms of the contract.[51]

(c) The risk of failure must have not been assumed either directly or indirectly by the party seeking excuse

This does not only cover risks that have been explicitly allocated by the parties through express terms of the contract but also implied allocation of risks even through a fixed price clause.[52] This gives an incentive to courts and parties to examine ordinary business risks that appears to be implicit.[53]

(d) Performance must be impracticable

An increase in the costs of performance alone is not enough to make the contract impracticable and allow discharge.[54] The increase in costs of performance has to be to a certain extent that makes performance unreasonable or extreme.[55] It has been frequently held by US Courts that a ten to twelve fold increase in costs (1000% to 1200%) would be excused, on the other hand, a 100 percent increase in costs would not be enough for discharge.[56]

The rationale behind this requirement is that extremely improbable events are considered to be outside the scope of contract due to the bounded rationality of the parties.[57]

(e) The promisor must have made reasonable attempts to make sure that performance will not fail

A promisor cannot be excused from performance unless he has made all the reasonable efforts to make sure he can supply the promised good or service. For example, if a seller of potatoes makes a contract

[51] Ibid 158.
[52] Ibid 159.
[53] Ibid.
[54] Ibid.
[55] Ibid.
[56] Neal-Cooper Grain Co. v. Texas Gulf Sulphur Co. (508 F. 2d 283) (7th Circuit, 1974); Mineral Park Land Co. v. Howard (172 Cal. 289) (1916)
[57] Joskow (n 45) 161.

to sell potatoes three months from now, and he waits till the day before delivery to buy them from the farmers to discover that the price has risen sharply. At this point, he can only blame himself as he cannot be excused from performance.[58]

This conditions serves two purposes. First, it encourages promisors to engage in efficient procurement behavior (make sure they obtain goods or services at the right time). Second, it punishes sellers who behave opportunistically through their speculative behavior (buying goods last minute). Otherwise, sellers will be encouraged to engage in risk taking behavior which buyers will try to counteract by increasing transaction costs in trying to contractually prevent them from doing so.[59]

(f) Promisor's own conduct must not have created the situation leading to impracticability

This means that the promisor's contracting behavior must not have not caused the impracticability. In many situations, inefficient contracting behavior can cause the impracticability. This requirement encourages the promisor to engage in efficient procurement behavior and prevent large firms from using their market power to manipulate prices.[60]

3.1.2. Extension of Risk Bearing Theories

Bruce (1982) expands the analysis of Posner and puts great emphasis on the duty to mitigate damages for both the promisor and the promisee. In short, Bruce suggests a three tiered test by which a case of impracticability or impossibility should be determined.

First, the promisor has to prove that he has taken adequate measures to ensure performance and mitigate damages. Second, even if the promisor was able to prove the above, he would still be denied discharge in case his costs of insurance against risk was lower than the promisee. Third, in case of failure of the promisor to prove taking adequate precautions, the promisee's damages are limited to the extent that

[58] Ibid.
[59] Ibid.
[60] Ibid 163.

the promisee should have taken adequate precautions.[61] This approach provides incentives to both the promisor and the promisee to ensure performance and mitigate damages.[62]

3.1.3. Price Adjustments

Trimarchi (1991) observes that the existence of an impracticability doctrine is efficient and necessary as it is unreasonable to assume that parties wanted to engage in a gamble. Hence, a legal rule providing for impracticability would be preferred by the parties.[63] However, he refused the superior risk bearer concept as basis for discharge because its unworkable. The law should allow for discharge or adjustment when parties face extraordinary unexpected circumstances.

Trimarchi calssifies extraordinary events that disrupt contract into two types. The first are events that affect certain individuals or groups but not society as a whole. Such risks are subject to statistical computation and can be insured against. An example of this type of risk would be fire. The second are events which affect society as a whole or large sections of it. An example of this type would be a sudden burst of inflation, war or any other global crisis. The latter type of events cannot be assigned to one party as no one is better able to prevent them. Moreover, these risk are not efficiently insurable. Therefore, Posner's theory "superior risk bearer" would be inoperative with regard to such risks.[64]

Trimrachi also makes a very enlightening point regarding impracticability, that most of these unexpected events (e.g. sudden burst of inflation) are accompanied by increase in the value of the contract as well. This could be summarized in algebraic terms as follows

v	Value of goods to the buyer
v*	Value of goods to the buyer after the unexpected event (e.g. inflation)

[61] Christopher J. Bruce, 'An Economic Analysis Of The Impossibility Doctrine' (1982) 11 The Journal of Legal Studies 311, 332.
[62] Ibid.
[63] Pietro Trimarchi, 'Commercial Impracticability In Contract Law: An Economic Analysis' (1991) 11 International Review of Law and Economics 63, 71.
[64] Ibid 66 -67.

c	Cost of performance to the seller
c*	Cost of performance to the seller after the unexpected event (e.g. inflation)
p	Contract price

An ordinary transaction should provide for the following v>p>c. If the costs of performance rise to c*, but c* is still lower than v, the seller must perform even if he will make losses. However, if c*>v , then the seller will breach and pay expectation damages which is v-p.[65]

Now in case of a generalized inflation, it is likely that the buyer's value would also increase not only the seller's cost of performance. Therefore v will rise to v*. The buyer has to perform the contract as long as c*>v* since the buyer's benefit from the transaction exceed seller's increased costs. As for seller's loss it is a mere transfer which pose an issue of distributive justice.[66] Therefore, if the contract is not discharged, the seller will be caught by a wave of increasing costs and depending on the size of its firm and the number of contracts affected by the increasing costs, he may go bankrupt. Further if the buyer is a middleman he can pass the increased cost to his consumers. In case the contract is not discharged, the buyer will get windfall gain.

Timirachi in the above case suggest renegotiation to avoid transactions to be lost as a result of supervening events. There should be a rule that entitles the party seeking relief to be discharged and the party that want to avoid discharge to offer an adjustment of contract price. Timirachi argues that transaction costs here would be lower than free renegotiation.[67]

[65] Ibid 65.
[66] Ibid 74.
[67] Ibid 75-78.

On the other hand, if the unexpected circumstances lead to increasing costs for the seller without increase in value for the buyer c*>v then contract should be discharged. This is because performance would hurt the financial organization of the seller without corresponding benefit to the buyer.[68]

Whether inflation could be a valid ground for discharge of the promisor – according to Trimarchi - depends on the previous trends in the economy concerned. What is considered a normal rate of inflation in one country can be considered unexpected and exceptional in another.[69]

3.2. The Case Against the Doctrine of Unforeseen Circumstances

3.2.1. Damages are the Best Measure to Deal with Unforeseen Circumstances

White (1988) argues in essence against discharge in cases of non performance of contract due to supervening unexpected events. In his opinion, courts should always treat non performance due to unexpected circumstances as a contract breach rather than excuse. Therefore, the court's job in such cases is always to determine the best damage remedy rather than deciding whether the non performing party should be excused or not.[70] In sum, unperformed contracts should never be discharged.[71]

The courts should determine the best damage remedy based on the risk preferences of the contracting parties (i.e. whether they are risk averse or risk neutral) and the degree of control the promisor has on the event causing non performance.[72] However, in all cases, damages will be imposed on the promisor in case of non performance.[73]

[68] Ibid 75-76.
[69] Ibid 80.
[70] Michelle J. White, 'Contract Breach And Contract Discharge Due To Impossibility: A Unified Theory' (1988) 17 The Journal of Legal Studies 353.
[71] Ibid 354.
[72] Ibid 375.
[73] Ibid 361.

The risk neutral party should bear the risk if the other party is risk averse by providing full insurance to the other party. If both parties are risk neutral, then, the party who is less risk averse should bear a larger portion of risk than the more risk averse person.[74]

In the same vein, Sykes (1990) casts a lot of doubt on the efficiency of the impracticability doctrine on risk sharing between contracting parties and examines its effect on reliance expenditures and incentives for mitigation of damages.[75]

Sykes assumes in his model that a contract a price is fixed and due to unexpected circumstances costs of performance rises on the promisor. Then the choice is between using expectation damages or impracticability doctrine.[76]

Under expectation damages, the promisor will perform the contractual obligation as long as the value of performance is greater than the cost of production. However, the downside of using expectation damages measure to deal with unforeseen circumstances is that it fails in allocation of risk sharing. This is because the promisee knows he will receive expectation damages with certainty and the promisor bears the entire risk of increasing costs which may be sub optimal.[77]

Promisees under expectation damages may lack proper incentives to limit reliance and mitigate damages.[78] The promisee tend to overinvest in reliance when expectation damage measure is employed.[79] Further, the promisee when expecting full damages has little or no interest in mitigating his damages. For example, the promisee under expectation damages would have no interest in searching for the service or good in question from another supplier (with same or lower price) or searching for another substitute.[80]

---

[74] Ibid 361
[75] Alan O. Sykes, 'The Doctrine Of Commercial Impracticability In A Second-Best World' (1990) 19 The Journal of Legal Studies 43, 44.
[76] Ibid 51.
[77] Ibid.
[78] Ibid 60.
[79] Ibid.
[80] Ibid 63.

On the other hand, doctrine of impracticability can limit overreliance problem because the promisee is no longer certain to receive his expectation interest.[81] Further, the moral hazard problem arising from expectation damages that the promisee would not take any precautions to mitigate damages would be eliminated.[82] The promisee would have an incentive for efficient mitigation.

Therefore, Sykes suggests that the impracticability doctrine provides a second best risk sharing device in some cases. However, there are doubts to the usefulness of impracticability doctrine in practice because courts inability to identify relative risk attitudes of contracting parties.[83] d

Sykes is of the opinion that US Courts when dealing with discharge cases have mistakenly relied on the magnitude of discharge or loss while such magnitude has little to do with the efficiency of discharge.[84] Further, these discharge cases did not specify with sufficient clarity how much high increasing costs are high enough to warrant discharge.[85]

Accordingly, since courts are vague and imprecise in terms of they do not provide how they reach a decision that performance of certain obligation becomes impracticable, this can cause investment in litigation.[86] The presence of impracticability as a ground for discharge can give incentive to the party who was disadvantaged by the unexpected circumstances to threaten litigation and invoke impracticability with all costs that will ensue such action. Further, the existence of impracticability doctrine can impede settlement.[87]

In sum, Sykes is skeptical about admitting the efficiency the doctrine of impracticability, however, he is straightforward in proposing that there can be no default rule in contract law that govern all impracticability cases due to lack of information before courts.

[81] Ibid 60.
[82] Ibid 63.
[83] Ibid 60.
[84] Ibid 75.
[85] Ibid.
[86] Ibid 76.
[87] Ibid 83.

In all cases, Sykes recommends: firstly, the legal rule should state explicitly what events would entail discharge. For example, a 500% increase in production costs would be valid ground to invoke impracticability.[88]

Secondly, courts should focus on the risk bearing abilities of the promisor. For example, if the promisor is a publicly held company or a government agency then discharge should be denied. This is because of the risk bearing and risk diversification abilities of the above bodies. In addition, these bodies are typically represented in contractual negotiations by a counsel who can, in the absence of impracticability defense, advise under what conditions contract performance should be excused.[89]

3.2.2. Unforeseeability and Psychology

Triantis (1992), through the use of behavioral models of decision making, argues that the gap filling premise of the doctrine of impossibility is unjustified. He argues against the concept that parties are unable to allocate contractually risks that are unforeseen because while an unknown risk cannot be priced and allocated specifically, such risk still can be allocated as part of a broad package of risks.[90]

The example that he gives in this regard is a contract of shipping cargo to a certain destination. The risk of nuclear plant accident in the Middle East that causes the price of oil to increase sharply might be not easily foreseen or not at all. However, the risk of price increase in oil for any reason whatsoever can be foreseen and allocated by the parties. Therefore, the parties can allocate risks in broad category even if they cannot tell what specific events can happen in future.[91]

Further, Triantis suggests that courts have cognitive limitations that make them unable to allocate contractual risks more efficiently than contracting parties. Courts due to cognitive limitations will often

[88] Ibid 93 – 94.
[89] Ibid.
[90] George G. Triantis, 'Contractual Allocations Of Unknown Risks: A Critique Of The Doctrine Of Commercial Impracticability' (1992) 42 The University of Toronto Law Journal 450, 452.
[91] Ibid 452.

fail to identify the superior risk bearer.[92] Therefore, the application of impracticability doctrine is more of muddy standards rather than bright line rules as court must apply them on a case by case basis.[93] This uncertainty resulting from the different outcomes of courts leads to increasing the ex ante cost of contracting.[94]

In sum, according to Triantis "The continued existence of the doctrine, even if substantially dormant, only serves to preserve the confusion and uncertainty as to its application and scope. The role of contract law should be limited to the interpretation and enforcement of the parties' risk allocations"[95]

3.3. Inflation Related Literature

3.3.1. Inflation and its Effects

Inflation refers to a sustained increase in the general price level. Inflation happens due to monetary and fiscal policy measures. However, some commodities experience a huge increase in their prices without changes in the general price level. The term "inflation" is used here broadly to refer to large price rises caused by government action whether it's accompanied with increase in the general price level or not.[96]

Almost all contracts that include deferred obligations would be affected by inflation or monetary depreciation. An example of such contracts would be construction, loan, mortgage, insurance and lease contracts.[97]

If inflation is anticipated, parties can include the probability of occurrence of inflation into the terms of their contract. However, problems arise when there is a wave of unexpected inflation that parties could

[92] Ibid 480.
[93] Gerrit De Geest, *Contract Law And Economics* (Edward Elgar Pub 2011) 215.
[94] Triantis (n 90) 480
[95] Ibid 484.
[96] Alan Schwartz, 'Sales Law and Inflations' (1977) 50 Southern California Law Review 1.
[97] Keith Rosenn, 'Protecting Contracts from Inflation' (1977) 33 The Business Lawyer 730.

not have foreseen and did not agree on its consequences.[98] The effect of unanticipated inflation is that it redistributes the wealth from one party to the other.[99]

A promisor who promised to deliver a certain good for a period of time might find himself due to a sudden unanticipated inflation in a position where the contract is no longer profitable.[100] In this case the promisee had a kind of windfall profit due to this unanticipated inflation while the promisor will incur a loss. Inflation lowers the real price of a contract and confers a benefit to the promisee. In other words, there are always winners and losers from unexpected inflation.[101]

There are several options that may sound logical to follow here, first, should the party who has been put in a bad economic situation due to the unexpected inflation be relieved from performance of his contractual obligations, or alternatively should the court try to rewrite the contract in a manner to adjust to such inflation. Second, the court can choose to stick to the principle of nominalism and enforce the contract as is without taking into consideration any changes in the economic balance of the contract due to inflation.[102]

3.3.2. Inflation as a Basis for Discharge

There are several arguments that have been put forward to justify courts' intervention to excuse the promisor whose obligations have become onerous due to unanticipated inflation or to amend the obligations of the parties.[103]

[98] Samuel A. Rea, 'Inflation and the Law of Contracts and Torts' (1982) 14 Ottawa Law Review 465.
[99] Ibid.
[100] Ibid.
[101] Ibid 466.
[102] Ibid.
[103] Schwartz (n 96) 5.

The first argument is called "harshness argument". It simply rests on assumption that imposing unreasonable and huge costs due to unanticipated inflation is too harsh.[104] Courts should redistribute losses and gains of unanticipated inflation.[105]

Since any inflation has the effect of redistribution of wealth, this argument makes sense only if the seller costs or losses from inflation exceeds the gain of the buyer that he will be able to make when he resells at the inflationary price.[106] However, in fact, such argument would be inefficient for three main reasons. First, the approach is administratively difficult, courts are unable to have enough facts and determine whether the seller's loss would exceed the buyer's gain. Second, this argument will impair contract stability as parties would be unable to tell whether in case of inflation they should perform or breach.[107]

The second argument that has been put forward is the "desert" argument which means that sellers do not deserve loss nor buyers deserve the gain they both made due to unanticipated inflation.[108] This argument based on acceptable values that people should not bear risks they have not consented to bear or enjoy benefits they have not bought.[109] Excuse according to this theory will minimize such "undeserved" gains and losses.[110]

This theory suffers from major shortcomings as well. The first is that courts would have to identify what was the fluctuation range which parties have foreseen as normal and what would be the fluctuation range that parties have not foreseen. In reality, it is very difficult for courts to identify and reconstruct the parties intention with regards to what the future possibilities of inflation had they made, especially

[104] Ibid 6.
[105] Ibid 5.
[106] Ibid 6.
[107] Ibid.
[108] Ibid 8.
[109] Ibid.
[110] Ibid.

when there is no express agreement.[111] This unpredictability would threaten contract stability and runs the risk of undermining transactional security.[112]

3.3.3. Inflation and Foreseeability

Some authors contend that the evidence regarding whether inflation is predictable or not is inconclusive, hence, any judicial decisions based on the element of foreseeability will be difficult to predict.[113] These authors believe that inflations are foreseeable because prices are function of consumer income and parties must make predictions regarding aggregate demand, fiscal policy and monetary policy which are all public knowledge.[114] The widespread use of escalation clauses in private parties agreements is in itself evidence that inflation is foreseeable.[115] Other factors that can cause rise in prices can be predicted such as wars.[116]

Countries that suffered from a chronic high inflation such as Brazil, Argentina and Chile where average annual inflation between 1971-1977 was 28%, 174.5% and 286.4% respectively, it could be said that inflation is hardly unforeseeable what was unforeseeable was price stability. It is argued that change in prices are typical business risks and one of the purposes of contact law is to let parties fix such risks.[117]

On the other hand, there are some authors who believe that inflation can be unforeseeable and use the failure of many parties to foresee economic changes as an evidence. This is further backed by mistakes even made by professionals who fail to make accurate predictions regarding future prices. [118]

Due to the disadvantages and economic inefficiencies that might result from uncertainty, courts, especially in common law countries have been very reluctant to grant excuse as is even during

[111] Ibid 12.
[112] Ibid 25; Keith Rosenn, 'The Effects of Inflation on the Law of Obligations in Argentina, Brazil, Chile and Uruguay' (1979) 2 Boston College International & Comparative Law Review 269, 283
[113] Schwartz (n 96) 14.
[114] Stanley Kroll and Irwin Shishko, *The Commodity Futures Market Guide* (Harper & Row 1973) 186-193.
[115] Schwartz (n 96) 14
[116] Ibid 15.
[117] Keith Rosenn (n 112) 282.
[118] G. L. Bach and James B. Stephenson, 'Inflation And The Redistribution Of Wealth' (1974) 56 The Review of Economics and Statistics.

unanticipated inflations or rise in prices.[119] Courts consider price fluctuations as an integral part of doing business.[120] In the words of Shwartz courts "have chosen the efficiency case for enforcement over the equity case for excuse."[121]

In fact, parties to a contract have at their disposal a plethora of tools to allocate risks arising from inflation. These tools include usage of index clauses, gold clauses, foreign currency clauses, fixed price with maximum exposure and commodity clauses (referred to collectively as escalation clauses).[122] Parties can allocate inflation risks at a low cost through indexation compared to a court that try to reallocate inflationary gains.[123]

3.3.4. Disastrous Inflations as a Special Case

It is important to note that the above analysis does not hold in cases of disastrous inflations where inflation can go up to a case of hyperinflation and currency becomes extremely depreciated. In these cases there is a massive redistribution of wealth that makes it difficult to argue that parties have allocated the risk of inflation.[124] The German inflation after WWI where inflation reached 500% per annum where both legislature and judiciary had intervened to revise contractual obligations. The US also adopted a similar approach with regard to contract expressed in confederate dollars post US Civil War. However, in both cases, only crude justice was done.[125]

It is also worth mentioning that sometimes legislatures in countries with extremely high rates of inflation enact exceptional laws that to protect government's own patrimony or ensure smooth operation of government services. For example, in 1967 Brazil adopted a legislation providing for public works contracts. In 1977, Argentina adopted a similar statute as well.[126]

[119] Keith Rosenn (n 97) 730.
[120] Samuel A. Rea (n 98) 467
[121] Schwartz (n 102) 25.
[122] Keith Rosenn (n 118) 282.
[123] Samuel A. Rea (n 98) 467
[124] Ibid.
[125] Ibid.
[126] Keith Rosenn (n 112)

4. Egyptian Law and Unforeseen Circumstances

4.1. Doctrine of *imprevision* and its History

Before venturing into how unexpected circumstances are dealt with under Egyptian law, it should be noted that Egypt is a civil law country where its judicial system is largely modeled on the French judicial system with a structure of courts and codes similar to that of France. Therefore, the Egyptian legal system is divided into two major subdivisions. Civil courts which oversee disputes between private parties and administrative courts (*Conseil d'Etat*) which deal with disputes between government and private parties. These disputes usually involve administrative decrees or administrative contracts (*contarts administartif*). [127]

Under Egyptian law, unforeseen circumstances which renders the performance of a contract extremely difficult or more costly than expected are dealt with under the doctrine of *imprevision* (hereinafter will be referred to as "theory of unforeseen circumstances"). The origin of this theory – as applied in Egypt – is from French law where French Administrative Courts applied it in the famous case of *Gaz de Bordeaux* in 1916.[128]

There is no single definition for theory of *imprevision*, however, a good description to its essence would be " [doctrine] where a court may annul or revise a contract whenever there has been a substantial and unforeseen change in the economic conditions prevailing at the time the contract was made, rendering performance by the obligor exceedingly onerous, though not objectively impossible"[129]

The doctrine of *imprevision* or doctrine of unforeseen circumstances is provided for statutorily in Egypt as enshrined in article (147-2) of the Egyptian Civil Code ("ECC"). Further, Administrative courts in

[127] Mohamed Salah Abdelwahab, "The Egyptian Legal System" <http://www.nyulawglobal.org/globalex/Egypt1.html#Introduction> accessed May 1, 2018; for French legal system please see Rene David, 'Frustration of Contract in French law' (1946) 28 Journal of Comparaive Legislation and International Law 11

[128] Abdelhakam Fouda, *Consequences of Unforeseen Circumstances and Force Majuere on Legal Acts* (Monshaat Al Maaref 2014) 19 [in Arabic]; E. H Hondius and Hans Christoph Grigoleit, *Unexpected Circumstances In European Contract Law* (Cambridge University Press 2011) 147.

[129] Keith Rosenn (n 112)

Egypt have affirmed and applied such this doctrine to administrative contracts since 1949.[130] I will focus on the application of this doctrine by administrative courts as the scope of this thesis is limited to government contracts.

Article 147 of the ECC states that:

> " *(1) The contract makes the law of the parties. It can be revoked or altered only by mutual consent of the parties or for reasons provided for by law.*
>
> *(2) When, however, as a result of exceptional and unpredictable events of a general character, the performance of the contractual obligation, without becoming impossible, becomes excessively onerous in such way as to threaten the debtor with exorbitant loss, the judge may according to the circumstances, and after taking into consideration the interests of both parties, reduce to reasonable limits, the obligation that has become excessive. Any agreement to the contrary is void*."[131]

It can be deduced from the wording of article 147 of the ECC that the concept of *pacta sunt servanda* (i.e. sanctity of contract) is not absolute. One exception is when exceptional circumstances arise during performance of a contract that threaten the debtor with exorbitant losses. It is even interesting that the drafters of the ECC were keen to state this in the very same article that provides for sanctity of contracts. This approach is completely different from the French Code Civil which does have a similar article.[132]

[130] Abdelhakam Fouda (n 128) 37.
[131] Article 147 of the Egyptian Civil Code No. 131 of 1948.
[132] Ewoud Hondius (n 128) 147-148.

4.2. The Application of the Theory of Unforeseen Circumstances by Egyptian Administrative Courts

4.2.1. Conditions Required to Invoke Unforeseen Circumstances

The Administrative Courts in Egypt generally require six conditions that must be fulfilled in order for a contracting party to invoke the doctrine of unforeseen circumstances. These conditions are the following: [133]

(a) ***An exceptional event must take place***

Both case law and jurisprudence do not provide a succinct definition of an exceptional event. However, it seems that an exceptional event and unforeseeability are two sides of one coin. In many judgements, the exceptional character of the event was based on the fact that it was unforeseeable.

(b) ***The exceptional event must be general in nature***

This means that the exceptional circumstances cannot affect the promisor alone, it must affect all promisors of the same category (e.g. merchants who deal in the same good must all suffer from the consequences exceptional circumstances). Therefore, for example, exceptional circumstances which lead to increasing costs to only one promisor cannot be a basis for invoking unforeseen circumstances.

(c) ***The exceptional event must be unforeseen at the time of conclusion of contract***

All judgements cite this condition as the main reason for application of the doctrine of unforeseen circumstances. Egyptian courts use criterion of reasonable man' when they assess whether a specific event was foreseeable or not. The assessment rests within the discretionary power of courts and judges.[134]

Instances where Administrative Courts ruled that the event was unforeseeable:

[133] Abdelhakam Fouda (n 128); Gaber Gad Nassar, *Administrative Contracts* (Dar Al Nahda Al Arabia 2015) [in Arabic]; Soad Sharkawi, *Administartive Contracts* (Dar Al Nahda Al Arabia 2017) [in Arabic].
[134] Abdelhakam Fouda (n 128) 51.

- An unexpected increase in the price of mercury due to increasing demand in the global market for the manufacturing of hydrogen bombs was held to be unforeseeable.[135]

- A 500% increase in the price of hay that a supplier undertook to deliver was considered to be unforeseeable.[136]

- A 100% increase in stamp duty tax can be regarded as unforeseen.[137]

Instances where claim of unforeseeability was rejected:

- A 25% increase in labor costs due to WWII was held to be could have been foreseen as the construction contract has been concluded after the outbreak of WWII.[138]

- The 1956 Suez War could have been foreseen from the tensions existed in the international arena back then and accompanying rise in prices.[139]

- The Gulf war in 1990 cannot be held as unforeseen as the Middle East back then was already witnessing a long war between Iraq and Iran for more than eight years, and a second Gulf war between Kuwait and Iraq was not unexpected.[140]

- A delay in delivering frozen chicken to a governmental authority due to Black Monday of October 1987 and accompanying increase in shipping prices and fall in US dollar's value was not unforeseen and does not qualify as exceptional circumstances.[141]

(d) ***The exceptional event cannot be evaded or mitigated***

[135] Egyptian Administrative Court, verdict no. 925 of judicial year no.13, dated 9 July 1962.
[136] Egyptian Supreme Administrative Court, verdict no. 877 of judicial year no. 27, dated 21 January 1984.
[137] Egyptian Supreme Administrative Court, verdict no. 5818 of judicial year no. 47, dated 13 March 2007.
[138] Egyptian Administrative Court, verdict no. 495 of judicial year no. 5, dated 5 May 1953.
[139] Egyptian Administrative Court, verdict no. 82 of judicial year no. 1, dated 14 April 1960.
[140] Egyptian Supreme Administrative Court, verdict no. 7583 of judicial year no. 45, dated 2 September 2006.
[141] Egyptian Supreme Administrative Court, verdict no. 5955 of judicial year no. 43, dated 8 May 2001.

To avoid rnegligent behavior, the promisor must prove that the exceptional event that took place was unavoidable and he did all reasonable efforts to mitigate it.[142]This was affirmed by Administrative Court in its judgements including an instance where it rejected a contractor's request to apply the doctrine of unforeseen circumstances because of the increasing cost of price of concrete. The Court held that the contractor's was negligent in buying the necessary concrete required for the construction project, therefore, the doctrine cannot be applied.[143]

(e) The exceptional event must take place before full performance

This is a common sense condition, however, there is an important corollary to this condition that the promisor cannot invoke the doctrine in case of delayed performance. In other words, the promisor must not be in breach of his contractual obligations in terms of timing.[144] For example, it has been held although the increasing costs due the flotation of the EGP is exceptional and unforeseen, a construction contractor who was in delay of performance cannot benefit from it.[145]

(f) The exceptional event must be make the performance of contract extremely burdensome

It is not enough for exceptional circumstances to be unforeseen, however, they must cause huge and extreme losses to the promisor. The administrative courts require that loss must be 'unsual' and foregone profits are not considered a loss. The magnitude of loss is considered through looking into the magnitude of loss within the framework of the contract in dispute only, not with regard to the promisor's financial status. [146]

The administrative Courts judgements are conflicting in terms of what constitutes an unusual loss. Among the instances that were held to be unusual loss were the following:

[142] Abdelhakam Fouda (n 128) 51
[143] Egyptian Administrative Court, verdict no. 382 of judicial year no.4, dated 8 April 1952.
[144] Abdelhakam Fouda (n 128) 51-52.
[145] Egyptian Supreme Administrative Court, verdict no. 22367 of judicial year no. 53, dated 30 November 2010.
[146] Abdelhakam Fouda (n 128) 54.

- 500 % increase in the price of hay of that the supplier has undertook to deliver is considered unusual loss. [147] In another case, it was held that almost 300 % increase in the price of good due to unforeseeable circumstances was held to be unusual loss.[148]

- An increase in the customs of goods that the supplier has agreed to deliver to an amount equal the double of contract price is considered exceptional circumstances. Although in this particular case the price was stated to be fixed and shall not change for any reasons.[149]

On the other hand, there are instances where administrative courts held that loss is usual and does not upset the economic balance of the contract:

- A %125 increase in costs due to increase in the price of raw materials and sales tax rate is not to an exceptional loss that entitles the application of theory of unexpected circumstances.[150]

- A 100% increase in stamp duty tax although unforeseen, it does not justify the application of theory of unexpected circumstances as such increase does not upset the economic balance of the contract.[151]

- A 22% loss in contract price due to increase in wood prices does not entitle supplier to invoke the theory of exceptional circumstances.[152]

- A 20% loss due to the devaluation of the Egyptian pound does not qualify as exceptional loss that justify invoking exceptional circumstances theory.[153]

[147] Egyptian Supreme Administrative Court, verdict no. 877 of judicial year no. 27, dated 21 January 1984
[148] Egyptian Administrative Court, verdict no. 925 of judicial year no.13, dated 9 July 1962.
[149] Egyptian Supreme Administrative Court, verdict no.3733 of judicial year no. 35, dated 11 May 1993.
[150] Egyptian Supreme Administrative Court, verdict no. 2080 of judicial year no. 45, dated 29 April 2008.
[151] Egyptian Supreme Administrative Court, verdict no. 5818 of judicial year no. 47, dated 13 March 2007.
[152] Egyptian Supreme Administrative Court, verdict no. 3562 of judicial year no. 29.
[153] Department of Advisory Opinions and Legislation, advisory opinion (*Fatwa*) no. 290 dated 18/3/2006 file no. 72/2/68.

It should be noted here that administrative courts, only in few cases, refused to apply the doctrine of unforeseen circumstances when the contract price was fixed. For example, administrative courts held that:

- An increase in the price of bitumen and cement does not allow a contractor who contracted with a governmental authority to ask for an increase if the contract price was fixed and stated that price cannot be changed.[154]
- A contractor cannot claim price differences due to increase in price of raw materials as long as he agreed on a construction contract with a fixed price. Even if the performance of contract becomes extremely burdensome.[155]

4.2.2. Justification

Both jurisprudence and courts themselves have provided reasons on why courts should apply the theory of unforeseen circumstances when its conditions are fulfilled. The rationale behind the application of this theory in Administrative law is the principle of continuity of public utility. It means that public utilities are extremely important for providing goods and services to people, they always have work without any interruptions. Therefore, when exceptional circumstances arise, the government has to share the consequences to make sure that public utilities are running smoothly.[156]

There has also been another considerations cited by courts in favor of this doctrine such as equity, justice, fairness and public interest.[157]

[154] Egyptian Supreme Administrative Court, verdict no. 32299 of judicial year no. 57, dated 18 April 2017.
[155] Advisory opinion no. 90 dated 18/1/1992 verdict 5/1/1992 File no. 78/2/20 ; Advisory opinion no. 127 dated 31/1/1993 verdict 17/1/1997 file no. 78/2/25; Advisory opinion dated 24/11/2004 verdict 24/11/2004 file no. 58/369
[156] Abdelhakam Fouda (n 128) 113; Egyptian Supreme Administrative Court, verdict no. 922 of judicial year no. 26 dated 20 November 1982; Egyptian Supreme Administrative Court, verdict no. 877 of judicial year no. 27.
[157] Egyptian Administrative Court verdict dated 30 June 1957; Egyptian Supreme Administrative Court, verdict no. 5955 of judicial year no. 43 dated 8 May 2001.

4.2.3. Consequences

The result of a successful claim of unforeseen circumstances is that the promisor will be entitled to a partial compensation to help him overcome the exceptional circumstances. This partial compensation covers the unusual loss that is usually shared between the promisor and the government often on a 50/50 basis. Foregone profits and unusual loss are not compensated for.[158]

The below diagram explains the components of compensation in case of unforeseen circumstances

Foregone profits	Usual loss	Unusual loss
- Borne by the promisor alone. - Not a valid ground for invoking the doctrine of unforeseen circumstances	- Borne by promisor alone. - Not a valid ground for invoking the doctrine of unforeseen circumstances.	- Borne by both the promisor and the government. - Valid ground for invoking the doctrine of unforeseen circumstances.

5. Overview of Inflation and Exchange Rate in Egypt since 1990

I now turn to a brief overview of the situation in Egypt with regard to inflation and the exchange rate of the EGP from 1990s till now.

[158] Gaber Gad Nassar (n 133) 339.

5.1. Implications of the Recent Devaluation of the EGP

On 3 November 2016, CBE decided to fully float the Egyptian pound and renounced its longstanding pegged exchange rate system. Although the move came to the surprise to many, it has been long called for by economic pundits and businesses as well.[159]

Egypt before this decision suffered from foreign currency shortage due to economic setbacks in all sources of foreign currency (i.e. Suez Canal, tourism, remittances and FDI) after the 2011 revolution. The CBE had to artificially prop up the value of the EGP which depleted foreign currency reserves.[160] This led to many pressures on foreign currency which in turn led to a parallel market differential close to 100% only days before the flotation decision by CBE.[161] This shortage in foreign currency had a great impact on everyone especially businesses who were unable to find foreign currency to be used in buying machinery and importing raw materials.[162]

The flotation decision led to EGP losing 100% of its value against other currencies such as USD. A few days later the state also announced a series of price hikes in fuel and electricity in addition to subsidy cuts as part of the economic reform program agreed with IMF.[163] Furthermore, the CBE announced 7% interest rate hikes (the overnight lending rate was 19.75% in December 2017) to control the ensuing inflationary pressure.[164] Moreover, the government introduced a value added tax law which

[159] PricewaterhouseCoopers, "The EGP Devaluation: A New Beginning" (*PwC*) <https://www.pwc.com/m1/en/publications/the-egp-devaluation-a-new-beginning.html> accessed May 1, 2018
[160] Mahmoud Kassem, "Egypt Inflation Falls Sharply as Currency Devaluation Impact Eases" *The National* (January 10, 2018) <https://www.thenational.ae/business/egypt-inflation-falls-sharply-as-currency-devaluation-impact-eases-1.694409> accessed 1 May 2018.
[161] PWC (n 159).
[162] Mahmoud Kassem (n 160).
[163] PWC (n 159).
[164] Hadi Khatib, "How Companies Are Navigating through Egypt's Currency Devaluation Nightmare" *AMEInfo* (16 March 2018) <https://ameinfo.com/money/economy/egypts-currency-devaluation-nightmare/> accessed 1 May 2018.

had a spillover effect and contributed to inflation as well.[165] Currently, EGP had lost approximately 110% of its value since flotation.[166]

Flotation and subsequent measures taken by the government led to drastic consequences. First of all, the rate of inflation soared to 35% which was a 30 year high.[167] It is argued that the flotation of exchange rate leads to inflation through two ways. Directly through the price of imported goods and indirectly through the increase in the price of semi finished goods which feeds through into the production prices and then consumer prices. [168]

Moreover, firms that have debts in foreign currency have been exposed when the value of the Egyptian pound slashed by half after flotation. Manufacturers who use foreign inputs have seen their working capital fall by as much as half. Further, many of these firms and manufacturers were unable to pass new price hikes to consumers as inflation hit their purchasing power as well. Therefore, some firms who faced difficulty in passing on prices to consumers have seen margin erosions.[169]In addition, many employers had to adapt to the new inflation and adjust the salaries of their employees as a result.[170] According to a study, individuals' salaries and wealth were cut by 40 to 60 percent.[171]

---

[165] Salma Shukrallah, "High Inflation Takes Its Toll on Egypt's Shrinking Middle Class" *Ahram Online* (23 October 2016) <http://english.ahram.org.eg/NewsContent/1/64/246377/Egypt/Politics-/High-inflation-takes-its-toll-on-Egypts-shrinking-.aspx> accessed 1 May 2018

[166] "Egypt: Market Reactions to Inflation and Devaluation" *Willis Towers Watson* (17 January 2017) <https://www.towerswatson.com/en/Insights/Newsletters/Global/global-news-briefs/2017/01/egypt-first-signs-of-market-reactions-to-inflation-and-devaluation-pressures-appear> accessed 1 May 2018

[167] "Inflation: EGP depreciation does not explain everything" *BNP Paribas* < http://economic-research.bnpparibas.com/Views/DisplayPublication.aspx?type=document&IdPdf=30085> accessed 1 May 2018.

[168] Ibid.

[169] Heba Saleh, "Egypt Businesses Battle Inflation after Currency Devaluation" *Financial Times* (30 July 2017) <https://www.ft.com/content/f68ddbcc-7146-11e7-aca6-c6bd07df1a3c> accessed 1 May 2018.

[170] Wills Towers Watson (n 166).

[171] "NEWS@AUC | Floatation of the Egyptian Pound: 'Is It Going to Get Better?'" *The American University in Cairo* (2 May 2017) <http://www.aucegypt.edu/news/stories/floatation-egyptian-pound-it-going-get-better> accessed 1 May 2018

5.2. Brief History of Exchange Rate in Egypt

It is worth mentioning that the flotation of the EGP was not for the first time in history. Egypt between sixties and till 1990 maintained 'fixed but adjustable peg in practice' exchange rate system. In July 1990, the CBE adjusted the exchange rate of EGP from 1USD=1EGP to 1USD=2EGP.[172]

In February 1991 and as part of its economic reform program back then, the CBE change from 'fixed but adjustable peg in practice' exchange rate system to 'managed floating' exchange rate system. As a result the EGP was devalued from 1USD=2EGP to 1USD=3.4EGP.

The Egyptian pound remained relatively stable against the USD from February 1991 till December 2000. In January 2001 the CBE announced a 'de jure crawling peg' exchange rate regime. Between January 2001 and December 2002 the Egyptian Pound was devalued three times. First, when CBE adopted that regime 1USD=3.85EGP. Second, after the terrorist attacks of 9/11 in US and its implications on Egyptian economy forced the CBE to make 1USD=4.14EGP. Third, when the Egyptian economy continued to suffer from the consequences and losses of 9/11 attacks especially in tourism sector the CBE had to devalue the Egyptian Pound further to 1USD=4.5EGP.[173]

In January 2003 the CBE announced a 'new free floating exchange rate regime' which was not exactly free floating but rather managed floating as classified by IMF. After this announcement, the EGP lost 20% of its value against the USD where 1USD=5.4EGP. In December, the EGP continued further devaluation and reached 1USD=6.4EGP. The EGP remained fairly stable against the greenback and even appreciated at some points till the revolution of 25 January 2011. The EGP slightly depreciated after the revolution to 1USD=6.1EGP. However, the CBE propped up artificially the Egyptian Pound

[172] Ali Massoud, Thomas Willett, 'Egypt's Exchange Rate Regime Policy after the Float' (2014) 2 International journal of Social Science Studies 1, 3.
[173] Ibid 4.

and decided to adopt a new auction mechanism to prevent the huge losses to foreign currency reserves. This led to the depreciation of the EGP further till it reached 1USD=8.86EGP in October 2016.[174]

[174] Ibid 5.

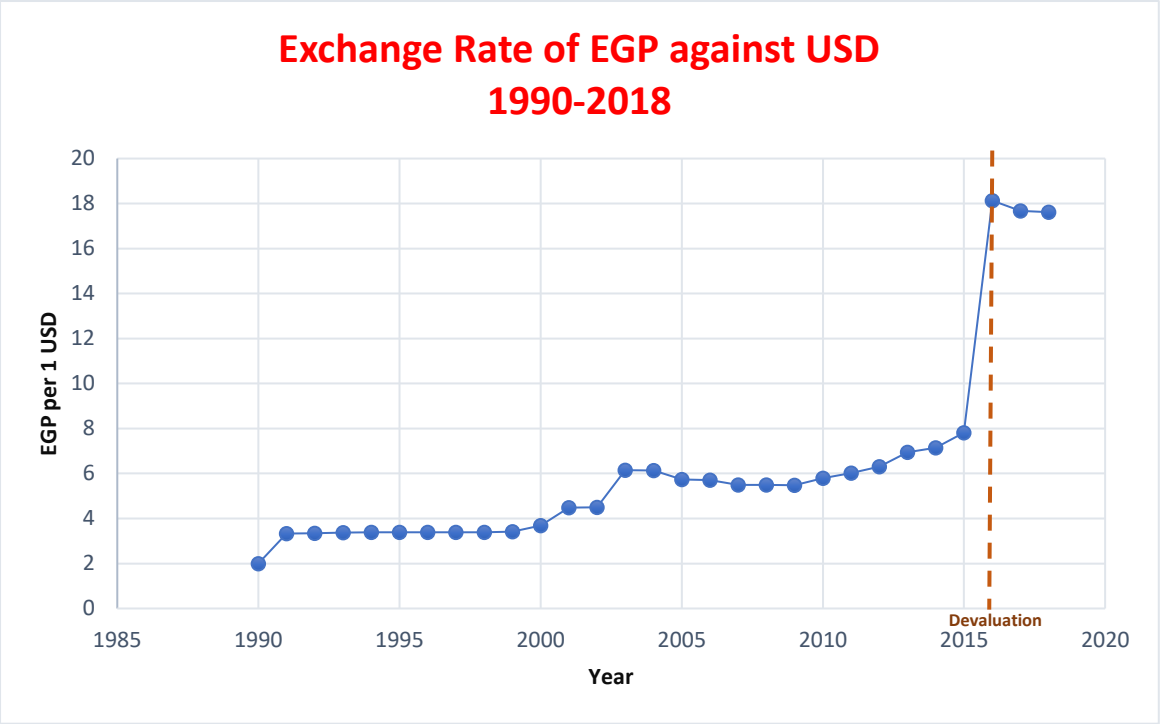

Figure (1)

Exchange Rate in Egypt of EGP per USD from 1990-2018

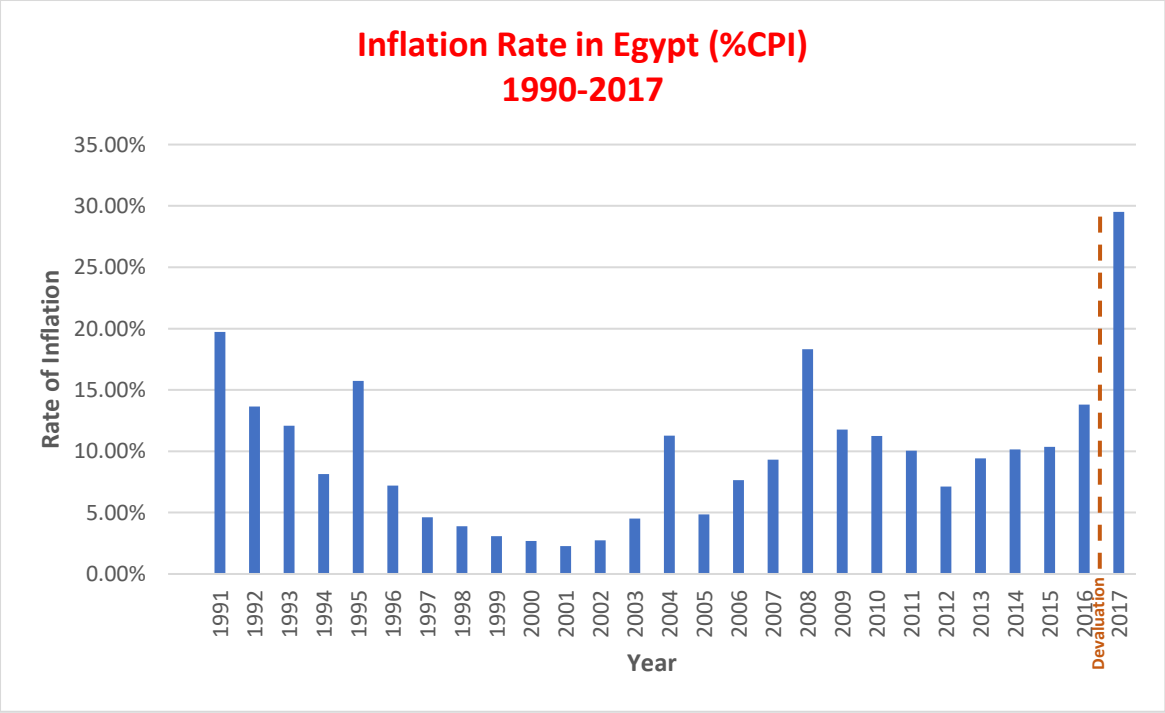

Figure (2)

Inflation Rate in Egypt from 1990-2017

6. Economic Analysis and Evaluation of the Doctrine of Unforeseen Circumstances under Egyptian Law

In our view, the doctrine of 'unforeseen circumstances' as applied by administrative judiciary in Egypt suffers from major drawbacks. It has some upsides, however, its application raises many concerns and gives undesirable incentives to contracting parties. In all cases, the shortcomings of the Egyptian version of the doctrine are not very far from its counterparts elsewhere in the world.

The problems with the application of doctrine of unforeseen contingencies could be summarized into four main categories:

(a) Problem of Inefficient Allocation of Risk

In economics, parties allocation of risks is the most efficient one. However, under ECC and the case law of both the Administrative Courts and Court of Cassation, parties cannot agree to exclude the application of theory of unforeseen circumstances.[175] This means that even if parties impliedly allocate, for example, risk of war or earthquake, the promisor can still claim that such risk was not allocated and demand adjustment of obligations.

This leads to court's in the allocation of risk that parties made. Further, it gives the promisor an incentive for litigating matters that should have not been subject to litigation because of the agreement. On the other hand, it creates uncertainty for the promisee.

Another problem with allocation of risk is in fixed price agreements where parties have expressly chosen to assign the risk of price changes to the promisor. In some instances administrative courts held that the fixed price clause shall not affect the application of unforeseen circumstances and the promisor shall be entitled to extra costs that he incurred.[176]Although in other instances administrative courts ruled

[175] Article 147-2 of the ECC (n 131).
[176] Egyptian Supreme Administrative Court (n 149)

that in case of a fixed price agreement, promisor cannot claim price increases due to unforeseen circumstances.[177]

(b) Problems of Uncertainty

The application of the doctrine of unforeseen circumstances entails deciding first whether the event was unforeseeable or not. Foreseeability does not have a clear cut definition and subject to the discretionary power of courts. Similarly, the concept of 'reasonable man' to assess foreseeability is extremely difficult to be understood from contract ex ante point of view. For example, in many instances wars were ruled to be foreseeable while wars are the usual textbook example on unforeseeable events.[178]

Therefore, application by courts have led to inconsistent approach and confusing judgements. It is submitted that it is hard for courts due to cognitive limitations to determine whether the issue was foreseebale or not.[179] In addition, courts can suffer from hindsight bias.[180]

Furthermore, foreseeability test is criticized as it does not mean that risk has been allocated, parties might have chosen to deliberately leave a gap even if the event was foreseeable.[181]All of this causes uncertainty that increases the ex ante costs of contracting and raises the transaction costs rather than reducing them.

(c) Problem of extensive focus on ex post considerations rather than efficiency

The administrative courts in almost all judgements cite justice and equity as grounds for application of doctrine of unforeseen circumstances. Courts are usually focused on ex post considerations of loss distribution such as the magnitude of loss and usually give little attention to the risk bearing attitudes

[177] Egyptian Supreme Administrative Court (n 154)
[178] Egyptian Supreme Administrative Court (n 139)
[179] Triantis (n 90)
[180] Jennifer Camero, 'The Impossibility of Commercial Impracticability' (2015) 13 University of New Hampshire Law Review.
[181] Posner (n 8)

of the parties. Focus on magnitude of loss does not achieve efficiency as it does not induce risk efficient behavior of parties.

However, it is our view, the application of this doctrine as is might not even achieve 'fairness'. For example, courts require unusual loss of the promisor to apply the doctrine. Courts calculate such unusual loss based on the framework of the contract rather than promisor's financial status. Now, if the promisor's is large publicly held medical company that was going to deliver medicine to a group of poor people with certain illness. can incur losses and the promisee is a poor man with illness still the promisor can ask for adjustment of his obligations.

The Egyptian law also requires that the promisor suffers from 'unusual loss' or 'exorbitant loss'. The Egyptian judiciary sometimes considers 100% loss as unusual and in most cases 100% loss does not qualify as unusual. This creates problem of uncertainty as parties ex ante cannot know what circumstances can invoke this doctrine and will encourage litigation between parties. Therefore, the overall security of transactions and contract stability is undermined.

(d) problem of inflation and currency devaluation

I now turn to whether the recent devaluation by the CBE of the EGP and subsequent inflation can be regarded as a valid reason for application of the doctrine of unforeseen contingencies or not.

In my view, the recent devaluation of the EGP does not and should not qualify as exceptional circumstances for several reasons. First, there have been historical trends in Egyptian economy of devaluation and high inflation. Therefore, the recent devaluation and subsequent inflation could have been foreseen as Egypt was subject to several flotation decisions during the last 30 years including ones with similar magnitude. Furthermore, the idea of liberalization of EGP has always been debated within the Egyptian society due to shortage of foreign currency and the presence of a parallel market especially after the revolution of 2011.

Second, inflation in Egypt did not reach the case of hyperinflation and currency was not extremely depreciated as countries who have passed through this experience and had to adjust contracts either through judiciary or legislature such as Germany post WWI.

Third, although administrative courts have precedents that devaluation and increasing costs can be regarded as unforeseen especially because parties cannot foresee the fluctuation range in case of devaluation decision. However, it is our view that diligent economic actors and individuals can at least expect some gain or loss due to devaluation. 100% loss or gain is usually something that happens within the ordinary course of business.

Fourth, compensation of contracting parties in government contracts will give them incentive not to take precautions against changes in exchange rate as they know that extreme losses due to inflation and exchange rate will be covered by the government in any case.

However, I believe that shortcomings of the application of this doctrine are offset by partial compensation given to the promisor in case of a successful claim of the doctrine of unforeseen circumstances. Accordingly, since a party knows that even if the court rules in his favor for unforeseen circumstances he will only be given partial compensation. This might give an incentive from the contract formation stage (ex ante) for an efficient allocation of risk and mitigation of damages.

7. Conclusion

Circumstances that parties did not anticipate while concluding a contract will continue to exist. Parties who have been subject to huge and extreme losses will remain adamant to claim they are entitled to relief or adjustment as a matter of fairness and justice. This is destined to happen especially in an increasingly economic interdependent world where a crisis anywhere can turn into crisis everywhere.

This thesis intended to ask a question of whether parties should be entitled to relief or compensation when faced by unforeseen events. The existing literature is divided and does not give a concrete answer.

Some believe that a doctrine of impracticability is a must and efficient. The existence of such doctrine reduce transaction costs and give parties incentives for efficient risk bearing and mitigation of damages. Others believe that there is no need for such doctrine and damages are enough deal with unforeseen circumstances. Accordingly, promisor should always be liable for breach. Furthermore, the existence of this doctrine only contributes to uncertainty and contract instability due to vague principles it rests upon.

I have shown that the conditions of application of this doctrine under Egyptian law does not achieve efficiency for several reasons. First, it allocates risk inefficiently contrary to will of the parties. Second, the Egyptian judiciary focuses on distribution of loss rather than efficiency. Third, vague standards that with regard to 'foreseeability' and 'magnitude of loss' creates uncertainty. However, these shortcomings are offset by the fact that promisor's in case of a successful unforeseen circumstances claim will receive only partial compensation.

Last but not least, I have shown that the recent devaluation and subsequent wave of inflation should not and cannot be regarded as unforeseen circumstances. This is mainly because of the frequency of devaluations and high inflations in the Egyptian economy. In addition, inflation and exchange risks are business risks that all parties engaged in business should expect. Parties have multiple tools that can help them in overcoming risks of exchange rate and inflation.

Therefore, it is our recommendation that the judiciary should stick to parties allocation of risks and keep application of this doctrine to absolute minimum only in case of disastrous changes to economic balance that makes a completely different agreement. Further, the government should stop its trend of enacting laws that compensate its contracting parties. There is no conclusive evidence that smooth running of public utilities hinges on aid given to contractors in cases of loss due to devaluation.

References

Books

Abdelhakam Fouda, *Consequences of Unforeseen Circumstances and Force Majuere on Legal Acts* (Monshaat Al Maaref 2014) 19 [in Arabic]

Bryan Garner, *Black's Law Dictionary* (8th edn, 2004)

Catherine Elliott and Frances Quinn, *Contract Law* (Pearson/Longman 2011)

Gaber Gad Nassar, *Administrative Contracts* (Dar Al Nahda Al Arabia 2015) [in Arabic]

Gerrit De Geest, *Contract Law And Economics* (Edward Elgar Pub 2011)

Hans-Bernd Schäfer and Claus Ott, *Economic Analysis Of Civil Law* (Edward Elgar 2004)

Hugh Beale, William Bishop and Michael Furmston, *Contract* (Oxford University Press 2008)

Ingeborg Schwenzer, Pascal Hachem and Christopher Kee, *Global Sales And Contract Law* (Oxford University Press 2012)

Richard Austen-Baker and Qi Zhou, *Contract In Context* (1st edn, Routledge 2015)

Robert Cooter and Thomas Ulen, *Law And Economics,* (6th edn, Pearson Education 2012)

Soad Sharkawi, *Administartive Contracts* (Dar Al Nahda Al Arabia 2017) [in Arabic].

Stanley Kroll and Irwin Shishko, *The Commodity Futures Market Guide* (Harper & Row 1973)

Stephen Spurr, *Economic Foundations of Law Second Edition* (Routledge 2010)

Steven Shavell, *Foundations Of Economic Analysis Of Law* (Belknap Press of Harvard Univ Press 2004)

Journal Articles

Posner RA Rosenfield, 'Impossibility And Related Doctrines In Contract Law: An Economic Analysis' (1977) 6 The Journal of Legal Studies

Michael Bales, ‘Introduction: the Purposes of Contract Law’ (1983) 17 Valpariso University Law Review

Richard Craswell, ‘The "Incomplete Contracts" Literature and Efficient Precautions’ 56 Case Western Reserve Law Review

Ronald Coase, ‘the Problem of Social Cost’ (1960) 3 Journal of Law and Economics

Hüseyin Can Aksoy and Hans-Bernd Schäfer, 'Economic Impossibility In Turkish Contract Law From The Perspective Of Law And Economics' (2010) 34 European Journal of Law and Economics

Joskow – Paul L. Joskow, 'Commercial Impossibility, The Uranium Market And The Westinghouse Case' (1977) 6 The Journal of Legal Studies

Christopher J. Bruce, 'An Economic Analysis Of The Impossibility Doctrine' (1982) 11 The Journal of Legal Studies

Pietro Trimarchi, 'Commercial Impracticability In Contract Law: An Economic Analysis' (1991) 11 International Review of Law and Economics

Michelle J. White, 'Contract Breach And Contract Discharge Due To Impossibility: A Unified Theory' (1988) 17 The Journal of Legal Studies

Alan O. Sykes, 'The Doctrine Of Commercial Impracticability In A Second-Best World' (1990) 19 The Journal of Legal Studies

George G. Triantis, 'Contractual Allocations Of Unknown Risks: A Critique Of The Doctrine Of Commercial Impracticability' (1992) 42 The University of Toronto Law Journal

Alan Schwartz, ‘Sales Law and Inflations’ (1977) 50 Southern California Law Review

Keith Rosenn, ‘Protecting Contracts from Inflation’ (1977) 33 The Business Lawyer

Samuel A. Rea, ‘Inflation and the Law of Contracts and Torts’ (1982) 14 Ottawa Law Review

Keith Rosenn, ‘The Effects of Inflation on the Law of Obligations in Argentina, Brazil, Chile and Uruguay’ (1979) 2 Boston College International & Comparative Law Review

G. L. Bach and James B. Stephenson, 'Inflation And The Redistribution Of Wealth' (1974) 56 The Review of Economics and Statistics

Rene David, ‘Frustration of Contract in French law’ (1946) 28 Journal of Comparaive Legislation and International Law

E. H Hondius and Hans Christoph Grigoleit, Unexpected Circumstances In European Contract Law (Cambridge University Press 2011).

Ali Massoud, Thomas Willett, ‘Egypt’s Exchange Rate Regime Policy after the Float’ (2014) 2 International journal of Social Science Studies

Websites

"Egypt: Market Reactions to Inflation and Devaluation" Willis Towers Watson (17 January 2017) <https://www.towerswatson.com/en/Insights/Newsletters/Global/global-news-briefs/2017/01/egypt-first-signs-of-market-reactions-to-inflation-and-devaluation-pressures-appear> accessed 1 May 2018

"Inflation: EGP depreciation does not explain everything" BNP Paribas < http://economic-research.bnpparibas.com/Views/DisplayPublication.aspx?type=document&IdPdf=30085> accessed 1 may 2018

Hadi Khatib, "How Companies Are Navigating through Egypt's Currency Devaluation Nightmare" AMEInfo (16 March 2018) <https://ameinfo.com/money/economy/egypts-currency-devaluation-nightmare/> accessed 1 May 2018

Heba Saleh, "Egypt Businesses Battle Inflation after Currency Devaluation" Financial Times (30 July 2017) <https://www.ft.com/content/f68ddbcc-7146-11e7-aca6-c6bd07df1a3c> accessed 1 May 2018.

Mahmoud Kassem, "Egypt Inflation Falls Sharply as Currency Devaluation Impact Eases" The National (January 10, 2018) <https://www.thenational.ae/business/egypt-inflation-falls-sharply-as-currency-devaluation-impact-eases-1.694409> accessed 1 May 2018.

Mohamed Salah Abdelwahab, "The Egyptian Legal System" <http://www.nyulawglobal.org/globalex/Egypt1.html#Introduction> accessed May 1, 2018

NEWS@AUC | Floatation of the Egyptian Pound: 'Is It Going to Get Better?'" The American University in Cairo (2 May 2017) <http://www.aucegypt.edu/news/stories/floatation-egyptian-pound-it-going-get-better> accessed 1 May 2018

PricewaterhouseCoopers, "The EGP Devaluation: A New Beginning" (PwC) <https://www.pwc.com/m1/en/publications/the-egp-devaluation-a-new-beginning.html> accessed May 1, 2018

Salma Shukrallah, "High Inflation Takes Its Toll on Egypt's Shrinking Middle Class" Ahram Online (23 October 2016) <http://english.ahram.org.eg/NewsContent/1/64/246377/Egypt/Politics-/High-inflation-takes-its-toll-on-Egypts-shrinking-.aspx> accessed 1 May 2018

Caselaw

Egyptian Administrative Courts

Advisory opinion dated 24/11/2004 verdict 24/11/2004 file no. 58/369

Advisory opinion no. 127 dated 31/1/1993 verdict 17/1/1997 file no. 78/2/25

Advisory opinion no. 90 dated 18/1/1992 verdict 5/1/1992 File no. 78/2/20

Department of Advisory Opinions and Legislation, advisory opinion (*Fatwa*) no. 290 dated 18/3/2006 file no. 72/2/68.

Egyptian Administrative Court verdict dated 30 June 1957

Egyptian Administrative Court, verdict no. 382 of judicial year no.4, dated 8 April 1952.

Egyptian Administrative Court, verdict no. 495 of judicial year no. 5, dated 5 May 1953.

Egyptian Administrative Court, verdict no. 82 of judicial year no. 1, dated 14 April 1960.

Egyptian Administrative Court, verdict no. 925 of judicial year no.13, dated 9 July 1962.

Egyptian Supreme Administrative Court, verdict no. 2080 of judicial year no. 45, dated 29 April 2008.

Egyptian Supreme Administrative Court, verdict no. 22367 of judicial year no. 53, dated 30 November 2010.

Egyptian Supreme Administrative Court, verdict no. 3562 of judicial year no. 29.

Egyptian Supreme Administrative Court, verdict no. 5818 of judicial year no. 47, dated 13 March 2007.

Egyptian Supreme Administrative Court, verdict no. 5955 of judicial year no. 43, dated 8 May 2001.

Egyptian Supreme Administrative Court, verdict no. 5955 of judicial year no. 43 dated 8 May 2001

Egyptian Supreme Administrative Court, verdict no. 7583 of judicial year no. 45, dated 2 September 2006.

Egyptian Supreme Administrative Court, verdict no. 877 of judicial year no. 27, dated 21 January 1984

Egyptian Supreme Administrative Court, verdict no.3733 of judicial year no. 35, dated 11 May 1993.

US Courts

Mineral Park Land Co. v. Howard (172 Cal. 289) (1916)

Neal-Cooper Grain Co. v. Texas Gulf Sulphur Co. (508 F. 2d 283) (7th Circuit, 1974)