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MASTER'S THESIS

INTERNATIONAL CONSTRUCTION CONTRACTS: AN ANALYSIS OF THEIR NATURE, CONTENT AND DISPUTES WITH RESOLUTION MECHANISMS, PARTICULARLY FROM A SWISS AND TURKISH LEGAL PERSPECTIVE

by

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ULUSLARARASI İNŞAAT SÖZLEŞMELERİ: DOĞASI, İÇERİĞİ VE ÇÖZÜM MEKANİZMALARIYLA BİRLİKTE UYUŞMAZLIKLARININ BİLHASSA İSVİÇRE VE TÜRK HUKUKU AÇISINDAN ANALİZİ

Özet

İnşaat uyuşmazlıklarından nasıl kaçınılacağını anlamamanın ilk adımı, inşaat sözleşmelerinin benzersiz doğasına ve yapısına hakim olmaktır. Buna göre, huzurdaki tez, inşaat sözleşmelerinin yapısının özelliklerini ve karmaşıklığını, inşaat sözleşmelerinin taraflarını ve projenin diğer ilgili bileşenlerini ve arayüzlerini incelemektedir. İnşaat sözleşmelerinin türleri tasarım yükümlülüğünden hangi tarafın sorumlu olacağından ödeme şekline kadar birçok açıdan belirleyici rol oynayacağı için hususiyetle değerlendirilmektedir. Bunların yanı sıra inşaat projelerinde sıklıkla karşılaşılan başlıca uyuşmazlıklar olan varyasyonlar, kusurlar(ayıplı ifalar) ve gecikmeler çoğunlukla FIDIC perspektifinden ele alınmakta ve bu uyuşmazlıklarla başa çıkma yolları işaret edilmektedir. Ayrıca salgın, savaşlar, krizler ve iklim değişikliği gibi istisnai olayların son yıllarda giderek daha fazla gündeme gelmesi nedeniyle mücbir sebep ve ifa güçlüğü kavramları da olası uyuşmazlık kaynakları başlığı altında değerlendirilmektedir. Üçüncü ve son bölümde ise alternatif uyuşmazlık çözümü ve tahkim detaylandırılmakta ve bu yöntemlerin çok katmanlı maddeler üzerinden bir arada kullanıldığı durumlar ve karşılaşılabilecek handikaplar tartışılmaktadır. Yazar çalışma boyunca aşına olduğu iki hukuk kültürü olan Türk hukuku ve İsviçre hukuku ile fiili uygulama arasında karşılaştırmalı değerlendirmeler yapmaktadır.

Anahtar Kelimeler: İnşaat Sözleşmeleri, Varyasyonlar, Kusurlar(Ayıplı İfalar), Gecikmeler, FIDIC, Mücbir Sebep, İfa Güçlüğü, Alternatif Uyuşmazlık Çözüm Yöntemleri, Tahkim, Çok Katmanlı Klotlar

INTERNATIONAL CONSTRUCTION CONTRACTS: AN ANALYSIS OF THEIR NATURE, CONTENT AND DISPUTES WITH RESOLUTION MECHANISMS, PARTICULARLY FROM A SWISS AND TURKISH LEGAL PERSPECTIVE

Abstract

The first step in understanding how to avoid construction disputes is to master the unique nature and structure of construction contracts. Accordingly, the present thesis examines the features and complexity of the structure of construction contracts, the parties to the construction contracts, and other relevant components and interfaces of the project. In addition, it evaluates the types of construction contracts, as they are decisive in many aspects from which party will be liable for the design obligation to the payment method. It will also address potential disputes that are frequently encountered on construction projects: variations, defects, and delays are mostly examined from the perspective of FIDIC and how to deal with them. In addition, the concepts of *force majeure* and hardship are also assessed under the heading of potential sources of disputes, as exceptional events such as pandemic, wars, crises, and climate change have become increasingly relevant in recent years. In the third and final section, alternative dispute resolution and arbitration will be detailed and the cases where these methods are used in combination through multi-tiered clauses and the handicaps that may be encountered will be discussed. Throughout the study, the author makes comparative evaluations between the two legal cultures he is familiar with, Turkish law and Swiss law, and actual practice.

Keywords: Construction Contracts, Variations, Defects, Delays, FIDIC, Force Majeure, Hardship, Alternative Dispute Resolution (ADR), Arbitration, Multi-Tiered Clauses

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CHAPTER ONE:

The Nature of Construction Contracts

1. Exclusive Structure of Construction Projects

Construction projects that are the subject of construction contracts are typically different from other commercial activities due to their inherently complex nature. Projects are shaped according to a myriad of factors such as the employer's tailored requests, the ground structure and the site generally, the available time and place. In addition, volatile global market dynamics, natural effects, and contractor-related reasons directly affect these projects. As a result, the construction industry has always been disputes-prone with its numerous variables and comprehensive structure¹.

While one of the two main subjects of this complex structure wants to minimize costs, the other wants to maximize profits². From this perspective, the interests of the employer and the contractor may appear to conflict. However, the main and common interest of both parties is the continuation of the construction in question and its successful completion in accordance with the construction contract. Otherwise, it can have devastating consequences for both parties. The meticulous preparation of the relevant contracts, the application of standard rules for near-perfect clauses, effective and fast dispute resolution methods are important elements for the contract and the project to remain alive and be completed successfully³.

In this chapter, in order to prepare these contracts meticulously and carefully, the DNA of the construction contracts will first be delved into. The standard rules (mainly FIDIC), which are the RNA of these contracts⁴, which are inevitably applied due to the nature of construction contracts, will also be discussed next.

¹ SCHNEIDER, M., "Mastering the Interfaces - Construction Contracts Drafting for Dispute Avoidance", The International Construction Law Review, 1993, Vol. 10, p.403

² SAHU, R., "The EPCM Delivery Model: A Contractor's Perspective", International In-House Counsel Journal, Vol. 9, No. 36, Summer 2016, p.1

³ SCHNEIDER, M., *supra* note 1, p.403

⁴ CHEN, Y., WANG, W., ZHANG, S., You, J., "Understanding The Multiple Functions of Construction Contracts: The Anatomy of FIDIC Model Contracts", Construction Management and Economics, Routledge 2018, Vol. 36 No.8, p.472

While making these evaluations, for the purposes of illustration, the author will make references to Turkey and Switzerland, which are the two jurisdictions he is familiar with. However, this does not mean that the relevant provisions in the domestic laws of these two legal systems find direct application. The purpose of the illustrations is to demonstrate the perspective of Turkish and Swiss law and to make a comparative analysis. Considerations of procedural law and the place of arbitration, which have a wide scope that must be a subject on their own, will not be discussed in this thesis.

2. Particularities of Construction Contracts

2.1. Custom-Made Projects

Buildings or plants are erected according to the specific needs of the employer. Serial production cannot be mentioned, and the project can only be standardized to a limited level⁵. Key actors, who probably did not have a pre-existing working relationship before, come together in every new project. This also makes standardization impossible. Even if the main actors and plan are the same, factors such as the ground structure and climatic conditions on site make each plan unique.

2.2. Duration

Considering with its numerous variables, the planning, design and implementation processes of these contracts take several years. It might take quite a while for the multilateral actors to come together and to fulfill the legal obligations after the contract conditions are formed. There might be changes that can directly affect the project in this relatively long period of time on a contractual basis. There might also be economic or political changes on a regional or global basis. Another problem that has come to the fore in recent years might be climate change. Moreover, changes might occur in the applicable laws and in the availability and pricing of the necessary raw materials⁶. In this case, the previously determined design might have to change, which in turn might affect the duration of the project.

The parties can also create the design simultaneously with the implementation of the construction in order to eliminate the handicaps brought by the complex structure of the project and duration; in fact, this is often the case.

⁵ EHLE, B., “*Extension of Time Claims and Declaratory Relief in International Construction Arbitration*”, Construction Contract Arbitration and ADR - Papers from the Annual Conference of the European Society of Construction Law, Milan, 10 October 2014, p.63

⁶ SCHNEIDER, M., EHLE, B., “*Internationales Bau- und Anlagengeschäft - vom Vertragsschluss bis zur Streiterledigung*”, Handbuch Internationales Handels- und Wirtschaftsrecht, Helbing Lichtenhahn, Basel, 2015, p.272

2.3. Complexity

This multivariate equation is built over long periods of time because it is often gigantic in size. Structures of this size are also often built by more than one sophisticated party. Therefore, uncertainties and disruptions can arise between sophisticated parties who strive to work in harmony with each other. In this harmony, expertise from different disciplines is needed and it is aimed that they work together in an orderly manner.

On the other hand, it is possible to talk about a bundle of independent contracts. A contract can also be established between the employer and the engineering company, or between the contractor and the sub-contractor. Other possible – ancillary – contracts are insurance, procurement, financing contracts and the like. All these are bilateral relations under the roof of the main contract, the construction contract⁷.

The creation of the design with the project is also a way to manage this complexity and increase predictability, as stated earlier. Furthermore, parties shall be aware of and prepared for the inevitability of disruptions in the face of chaos. In other words, they must be ready to change the planning and figure out the interfaces⁸.

2.4. Construction Site

The worksite is one of the titles that constitute the main factors of construction contracts from both natural and human perspectives. The points that might arise from the unique structure of the construction site and affect the contract and its members can be listed as follows⁹:

- Natural elements such as season, weather conditions, and ground structure might play an essential role in the fate of the project.
- The binding rules of the jurisdiction where the construction site is located shape the content of the contract.
- A foreign contractor needs to bring their own employees to the construction site. In this case, for example visa problems might arise. This issue can also be evaluated in this context.
- The safety and accessibility of the construction site, the transportation of the technical equipment to be used in the field (so-called mobilisation), and the assembly/disassembly processes are the things that are directly affected by the conditions of the construction site.

⁷ KÜNZLE, J., Multiple Contracts and Coordination in International Construction Projects: A Swiss Law Analysis, International Arbitration Law Library, Volume 57 (© Kluwer Law International; Kluwer Law International 2020) p.23

⁸ EHLE, B., *supra* note 5, p.63

⁹ SCHNEIDER, M., *supra* note 1, p.412

2.5. Financial Dimension

It is undeniable that the contracted projects are completed in a long and uncertain period and surrounded a very large piece of land. Given their size, these projects are often worth large sums of money. Therefore, due to the financial benefits of the contractor and the employer, the parties are under temporal pressure.

To elaborate, a possible dispute, or at least a short-term disruption, can mean a loss of profit for the profit-oriented employer. That is to say, the timely completion of the work is important for the employer in order to take delivery of the work as soon as possible, to operate it and to make a profit¹⁰. The profit and loss mentioned here are very high amounts due to the nature of the projects. Moreover, a possible disruption negatively affects not only the employer but also other members and contractors of the project. A contractor has to bear time-related expenses such as rent and interest if the work is not completed on time. Dealing with these large expenses or loss of profits is not straightforward for the parties and will pose a risk to their commercial lives.

As a feature of the commercial world, a negative situation with the domino effect can directly shake the parties in large-budget projects. In other words, any inability to cope will have a chain effect on all subjects of the project, not just the insolvent debtor. Because negativity in the project can trigger delays, planning difficulties, and disruption of the payment plan. The quick and effective resolution of the dispute is fundamental at the exact point.

The final thing to cite about the financial dimension is that the parties to the construction contracts mostly cover the project costs and expenses with the loans they get from international credit institutions. The parties also face the danger of default during the construction period and, inter alia, as mentioned above, time pressure thereof.

2.6. International Scope

Construction contracts are often concluded in an international setting. The international status is seen not only by the credit facilities provided by international financial institutions, but also by the inclusion of parties from different cultures and legal systems in the contract¹¹.

In particular, the need for external resources is inevitable for projects such as dams, bridges, and power plants in developing countries. This resource includes technical and human resources as well as financial resources and allows these projects to be carried out with parties subject to different jurisdictions¹².

¹⁰ EHLE, B., *supra* note 5, p.63

¹¹ SCHNEIDER, M., EHLE, B., *supra* note 6, p.273

¹² AKINCI, Z., *Milletlerarası Özel Hukukta İnşaat Sözleşmeleri*, Dokuz Eylül Üniversitesi Hukuk Fakültesi Döner Sermaye İşletmesi Yayınları, No.73, İzmir, 1996, p.7

This international scale further increases the importance of construction contracts, which is the governing law of construction projects. As a matter of fact, when there is a lack of clarity arising from the contract, the interpretation differences of the parties familiar with different cultures and legal grounds¹³ will also bring about conflicts and disputes alone.¹⁴ The issue of interpretation is something that is shaped by their own mental and social world that the individual can do within their own sphere of tradition¹⁵. In other words, the role of the *genius loci*¹⁶ is undeniable.

In addition, the loss or differentiation of meaning in translations is also a frequent situation in international contractual relations. Today, the deterritorialization¹⁷ approach of law has intensified with the fact that the national borders are as invisible as possible and the commercial custom "*lex mercatoria*", especially in business, has opened up more space for itself. At this point, the standard rules, which are often an inseparable part of construction contracts, also serve for the uniformization of the meaning and the clarity of the contracts.

2.7. Voluminous Documentation

Construction contracts often consist of a series of voluminous documents in addition to the main contract, which determines the basic conditions. Depending on the type of construction and its needs, the relevant documents vary¹⁸. In other words, it cannot be said that all documents will be used in every construction project. These documents are:

2.7.1. Plant Description/Specification

It is the document that limits the scope of the construction contract and the project¹⁹. The project definition specified in this document is very critical in terms of the interests and rights of the parties. Additional payment requests and disputes might arise when the project definition is not clear. Besides, it can be seen that the specification is also classified into two technical and performance specifications in some approaches²⁰. In this distinction, the technical specification is considered

¹³ SCHNEIDER, M., *supra note 1*, p.418

¹⁴ The contractual elements, traditions, and basic legal principles of the jurisdictions of the parties vary. Although the difference between civil law and common law countries comes to mind first in this regard, this dissimilarity certainly draws attention among civil law countries. So much so that, although there are mostly similar articles in the Turkish legal system, which directly codifies the Swiss Civil Code, it can be shown how different the practice and culture are. In this dissertation, since construction contracts will be viewed from the perspective of both legal systems, the shadow of the aforementioned distinction will be clearly reflected.

¹⁵ LEGRAND P., "The Impossibility of "Legal Transplant" in Watson, A., *Legal Transplants*, 2nd Ed., University of Georgia Press, 1993, p.112; GLANERT S., LEGRAND P., "Foreign Law in Translation: If Truth Be Told" in FREEMAN, M., and SMITH, F., eds. *Law and Language*. Oxford University Press, Oxford, p. 523

¹⁶ *Genius loci*: A concept that expresses the unique characteristics and atmosphere of a place. See GLANERT S., LEGRAND P., *supra note 15*, p.529

¹⁷ *Ibid*

¹⁸ SCHNEIDER, M., EHLE, B., *supra note 6*, p.277

¹⁹ JENKINS, J., *International Construction Arbitration Law (Second Edition)*, Arbitration in Context Series, Volume 1 (© Jane Jenkins; Kluwer Law International 2013) p.14

²⁰ *Ibid*

together with the design. It is commonly seen in "build-only" contracts, where the design is largely completed before the contract is established. Performance specification is found in "turn-key" contracts where the framework and project standards are determined.

2.7.2. Design

The prominence of the design in a construction contract depends on the type of contract and who is responsible for preparing the design. Project, the design of Engineering, Procurement & Construction (EPC) contracts shall be very detailed, as it is necessary to specify exactly what the employer requests. Likewise, for Build-Only contracts, the employer has a bespoke demand. Here, the expected project is transplanted into a contract with the detailing of the design²¹. In these types of contracts, it is important that the design is detailed and well-drawn. Because the design is prepared by the employer and the implementation is expected accordingly. However, the design might not be expected to be complete from the start. Even if the employer prepares the design, a need for revision or amendment might arise and the design can be developed by the contractor.²²

In Design-Build and Construction Management Contracts, the creation of the design is the contractor's responsibility. In these contracts, as stated in the previous title, a more superficial framework is drawn for the design as a performance specification and demands are made.

Additionally, in circumstances where the contractor is in charge of creating the design, the employer might reserve the right to accept it for their own protection. That reservation might cause disputes, especially when confirmation is delayed or the design is not approved for implausible reasons. In order to avoid this dispute, the parties might specify in the contract under which conditions the employer has the right to refuse the design. Or, a provision might be added that the design is implicitly approved unless the design is rejected within a certain period of time.²³

2.7.3. Bill of Quantities (BoQ)

One of the documents that can be seen in the content of many construction contracts is the bill of quantity (BoQ). All work to be done in the BoQ is displayed separately and the price per relevant unit is determined for each item: the unit type, quantity, and total price are displayed together with the unit price.

The BoQ is evaluated differently depending on the contract type and preferred payment model. This document is critical for contracts (re-measurement contracts (see p.12) wherein the employer agrees to pay the contractor by the quantity of work completed rather than in a lump sum. Therefore, although the total price is written in this document, the most important thing is the unit price. The total price is an estimate. At the end of the work, the contractor re-measure the amount of work

²¹ Ibid

²² SCHNEIDER, M., *supra* note 1, p.405

²³ SCHNEIDER, M., *supra* note 1, p.405

they have done and receive it from the employer according to the unit price in this document²⁴.

In fixed price/lump-sum(see p.12) or construction management (see p.16) contracts, which are other models, the price is determined at the beginning of the work and paid to the contractor. Therefore, the contractor has to bear the additional costs and expenses. The contractor is at risk for more than the total price shown in the BoQ.

Ultimately, in spite of the fact that the BoQ is a document in line with the spirit of the re-measurement payment model, it can also be seen in contracts where different payment methods are applied. Hence, it must not be assumed that every contract with BoQ is a re-measurement contract. The BoQ on a contract must be carefully evaluated based on the payment method and contract type.

2.7.4. Contract Price

In construction contracts, there is a clause setting out the payment model of the contract. As there might be costs such as procurement, transportation, and visa procedures, there is usually an advance payment in this clause.

One thing to be noted with this document is the following: The party that faces the risk of meeting unforeseen expenses in lump-sum contracts is the contractor²⁵. As mentioned before, taking into account the duration of the construction contracts and the price variability, it would be a safety belt for the contractor to put an annotation on this clause for a price change or to allow at least a limited price increase.

2.7.5. Payment Schedule / Milestones

It is very rare for contractors to receive a one-off payment for the completion of the work. Regular cash flow is of vital importance, especially in large-scale construction contracts, which are the main focus of the thesis. For this reason, it is good practice that payments are made to the contractor at certain intervals. The parties can agree on a payment plan according to a certain time interval or the percentage of completion rates of the project, or by determining milestones²⁶. Payment according to a certain percentage of the progress of the construction, or payment for reaching the milestone, both provides cash flow for the contractor and incentivizes the contractor to perform the work and complete the project. Moreover, while encouraging the contractor, it also enables the employer to follow the development of the project.

2.7.6. Others

In addition to all these, it includes operating documents such as a project schedule, an organizational chart, geological conditions, and safety, health, and environmental

²⁴ JENKINS, J., *supra* note 19, p.14

²⁵ JENKINS, J., *supra* note 19, p.25

²⁶ *Ibid*

instructions. Furthermore, these contracts sometimes include specific insurance certificates, bank guarantees, and inspection documents.

A handicap about contracts and their annexes is the preparation of documents with habits and misconceptions. One of the mentioned documents might be essential for one contract but not for another. Or the condition in one might conflict with the condition in another or the main contract. To avoid this, it makes sense to create a hierarchy between the contract and its annexes²⁷. Thus, when there are possible contentious conditions, which condition to apply is determined by this order.

2.8. Need for Flexibility and Reformation

The construction industry was examined with diverse titles. As can be seen in detail above, it can be said that disruptions and delays are almost inevitable in this industry²⁸ with its international dimension, complex contract structure, long duration, and diverse internal and external factors. Therefore, with the construction contracts, it is aimed to make this network of relations as smooth as possible. The first step in preventing disruptions or disputes is a comprehensive construction contract prepared with a meticulous and flexible structure. These internal and external factors must be taken into consideration during the drafting process, and contract terms must be arranged in a way that the building process can be adapted to changes and delays. Moreover, throughout the process, countless correspondences and meetings and claims & counter-claims occur. For this reason, the parties must keep their communication channels open and must not set out an intransigent approach²⁹.

3. Parties of a Construction Project

In construction projects, a main contract and the principal relationship and many dependent or independent relationships and sub-contract networks can be mentioned under it. The parties and members in this complex structure are respectively:

3.1. Employer (Owner-Client-Customer)

It is the permanent party of the principal construction contracts. They are the people who enter into this professional relationship with the contractor or contractors in light of their own needs and demands. Since the employer is the main beneficiary in the conclusion of these contracts, the expectation of the employer must be taken into

²⁷ SCHNEIDER, M., EHLE, B., *supra* note 6, p.278

²⁸ EHLE, B., *supra* note 2, p.63

²⁹ SCHNEIDER, M., EHLE, B., *supra* note 6, p.274

account even if all factors or other parties have a say.³⁰ Because those who ordered the project will run or use it for themselves after this project is finished.

The employer can be a natural or legal person, and a legal entity can be not only a private legal entity, but also a government agency. Especially in large projects, it is seen that the party holding the title of employer is the public legal entity³¹.

The employer might establish a contractual relationship with one or more contractors in a construction contract. In this case, there is no contract between the signatory contractors.

Further, it could be seen that the employer has established a contractual relationship with engineering companies in order to supervise the work and provide technical support. Because the employer is the part of the construction contracts that needs technical information and support. They can work with the engineer in order not to be at a disadvantage against the contractor, who is a sophisticated party.

3.2. Contractor (Entrepreneur)

The party that has the technical competence and capacity to perform all or part of the work in the roof construction contract to the employer.

The contractor might undertake to perform the entire work or contract with the employer for only part of the project. For the first, the contractor is called the main or general contractor. In the latter one, it could be seen that the employer signs individual agreements with numerous contractors, and these contractors have no contractual relationships with each other³². The issue of the harmony of the relations network that is not based on this contract is also important for the survival of the project.

The contractor can be a natural or legal person, or it can also be a joint venture or consortium without legal personality. The fact that these contracts are often worth large sums of money also leads to the formation of consortia with international participation. In addition to sharing the financial burden, these consortia also play a fundamental role in the transfer of technology and culture, allowing for the convergence of differences.

3.3. Subcontractor(s)

In cases where technical knowledge or qualification is required within the project, contractors generally enter into subcontracts with other construction companies or suppliers for the work to be done. Based on the main contract, a contractor could outsource work or a part of that work to a third party. The contract might not be only between the main contractor and the subcontractor. The subcontractor might also outsource the work to another subcontractor.

³⁰ SCHNEIDER, M., *supra* note 1, p.405

³¹ JENKINS, J., *supra* note 19, p.13

³² AKINCI, Z., *supra* note 12, p.10

The point to be noted here is that there is generally no contractual relationship between the employer and the subcontractor(s) unless there are some subcontractor guarantee obligations. Nevertheless, employers sometimes wish to participate in the selection and nomination of the subcontractor. As doing work well serves the interest of the employer, they might include in the construction contract certain minimum standards or lists of candidates for subcontractors to be appointed in the roof contract with the contractor³³.

3.4. Engineer / Architect

The employer might sign a contract with an engineer or architect, depending on the needs of the project. The content of this contract determines the scope of the duty of the engineer. Sometimes only the design can be requested from the engineer³⁴. Or they might be in charge of supervising the construction work. Moreover, it can also be agreed that the engineer is in the decision-making position (interim payments or claims and the like) under the main contract. With all these duties, it can be said that the prominent aim of the engineer or architect (according to the nature of the contract), who is one of the sophisticated members of the project, is to prevent delays and disruptions from the first stage. Apart from that, the engineer has no contractual ties to the contractor³⁵.

The standard rules mostly contain provisions regarding the engineer's functions and powers. The role and effectiveness of the engineer will be discussed in more detail in the standard rules and continuation titles of the thesis.

According to the approach in many civil law countries, the engineer is not a representative of the employer or the contractor. They are generally supposed to be a neutral administrator of this principal relationship. However, contrary to this approach, in the Swiss tradition, the engineer is authorized by the employer and is their representative. The certification authority and impartiality of engineers are not recognized in Swiss law³⁶. This characterization is also in line with the view of the FIDIC Red Book³⁷.

3.5. Quantity Surveyor (Cost Consultant/Engineer)

The quantity surveyor's task is to make measurements and valuations about the project and the material to be used in the project. Huge projects often have a quantity surveyor. They are the one who prepares the bill of quantities by determining the quantities thanks to the design and technical documents in the project. In particular recently, they have also taken on additional duties such as the tender process in

³³ SCHERER, M., SCHNEIDER, M., *"International Construction Contracts Under Swiss Law: An Introduction"*, Construction Law Journal, 2007, Vol. 23, No. 8, p.563

³⁴ Ibid, p.561

³⁵ KÜNZLE, J., *supra note 7*, p.138

³⁶ Peter Gauch, *Le contrat d'entreprise* (Zurich, 1999), Nos 47-64, pp.15-21; Michael E. SCHNEIDER and Matthias SCHERER, "Swiss Country Report", in R. Knutson, *FIDIC contracts* (Kluwer, 2005), pp.315 and 322; Tercier, loc. cit. No.3896, p.569. (cited in: SCHERER, M., SCHNEIDER., *supra note 10*, p.561)

³⁷ FIDIC Red Book, 1st Ed. 1999, Sub-Clause 3.1.a

projects and advising on the disputes that arise. Although the quantity surveyor is not referred to in standard rules such as The New Engineering Contract (NEC) and The International Federation of Consulting Engineers (FIDIC), one or more of the contractor employer or engineer works with the quantity surveyor³⁸.

3.6.Others

Depending on the content of the contract and the size of the undertaking, other persons and functions, such as health and safety personnel, foreman, engineer representatives can be seen in a project. In addition, guarantors providing financing to insurance companies are also involved in projects.

4. Obligations of Parties

4.1.Contractor's Obligations

4.1.1. Execution of the Work

The primary obligation of the contractor is to perform the work in question in in line with the specifications agreed in the contract on the date agreed upon. However, again based on the sort of contract the parties choose, the method by which the work will be performed is at the discretion of the contractor as long as it is safe and serves the contractual purpose.

According to the type of contract, the content of the specification and design to which the contractor is bound varies. Therefore, as an example, in a Turnkey contract and a Build-Only contract, the performance debt of the contractor differs due to the detail of the design.

On the other hand, the contractor might outsource the performance obligation to a subcontractor. Hence, the contractor is liable towards the employer for the work performed by the subcontractor. According to this phenomenon, subcontracting is the except rather than the rule in the Swiss and Turkish legal systems³⁹. Namely: In accordance with the regulations in Art. 364 of the Swiss Code of Obligations (hereinafter SCO) and Art. 471 of the Turkish Code of Obligations (hereinafter TCO), the contractor has to do the work they have committed themselves. However, it is regulated that the contractor can have someone else do the work unless the individual nature of the contractor is important in the execution of the work.

³⁸ HUGHES, W., CHAMPION, R., MURDOCH, J., *Construction Contracts Law and Management*, Routledge, Fifth Edition (2015), p.24

³⁹ SCHERER, M., SCHNEIDER, M., *supra* note 33, p.563

In fact, in a decision of the Swiss Supreme Court⁴⁰, the subcontractor made a mechanics' lien⁴¹ against the unpaid amount they should have received from the contractor. Since the subcontractor is authorized to make the lien, this lien on the work has been deemed the contractor's defect in the main contract concluded with the employer.

Finally, it must be emphasized under this heading that the contractor must perform the work free from defects and in accordance with the agreed standards.

4.1.2. Duty to Inform

The prudent side of the construction contract is the contractor compared to the employer. Therefore, the contractor has a duty to disclose to the employer any circumstances that could adversely influence the performance of contract. Contrary to popular belief, this is a very critical assignment. Because in cases where the contractor violates their own duty to inform, the contractor might become liable for the damages that could have been prevented if the employer had been notified.

In addition, it is worth mentioning a striking decision⁴² of the Swiss Supreme Court on the subject: In its decision dated March 2018, the Court pointed out that contractors have a wide duty of care and loyalty to employers. Accordingly, the contractor's obligation to provide notice does not end even if the contract is terminated and even if the reason for the termination is an employer breach. The contractor, who did not fulfill their obligation to inform in the decision, had to cover the damage incurred by the employer even though the main contract was no longer in effect.

4.1.3. Delivery of the Work

The contractor must hand over the work to the employer at the end of the work. The delivery of the work is taken place by sending the completion notice due to the nature of the work subject to the contract⁴³.

The delivery of the work has significant implications for the transfer of responsibility and risks, and for the beginning of the statute of limitations. In addition, in construction contracts, the parties usually determine partial payment for post-delivery.

⁴⁰ Supreme Court Decision, 104 II 348 of December 14, 1974, *Trajan v Beton Bau*. (cited in: SCHERER, M., SCHNEIDER, M., "International Construction Contracts Under Swiss Law: An Introduction", Construction Law Journal, 2007, Vol. 23, No. 8 pp.559-569)

⁴¹ Article 839 of the Swiss Civil Code entitles contractors and subcontractors to lien in proportion to the price corresponding to the equipment or work if the other party violates their obligation to pay. (cited in: SCHNEIDER, M., SCHERER, M., EHLE, B., MOSS, S., LENOIR, C., *Switzerland, Getting the Deal Through. Construction in 27 jurisdictions worldwide - 2017*, Law Business Research Ltd, 2017, p.141-142)

⁴² Swiss Supreme Court, 4A_273/2017, 14 March 2018 (cited in: SCHERER, M., MOSS, S., "Contractors' Obligation of Diligence and Duty to Inform Persist Even After Termination" in *International Law Office, Newsletter (Construction)*, 2 July 2018)

⁴³ The concept of completion here does not mean perfect completion. Liability for defects occurs after delivery. In Switzerland and in the international conjuncture, completion is perceived as "substantial completion".

4.1.4. Statutory Obligations

In addition to these core obligations, the contractor undertakes a number of additional duties beyond the construction work. At the first stage, the contractor must meet the legal requirements and obtain the necessary approvals for the execution of the project. Insurance should be made and financial guarantees should be provided before the start of the project⁴⁴. This obligation can be seen as part of an obligation to perform.

4.2. Employer's Obligations

4.2.1. Payment of the Contract Price

The payment of the agreed price in exchange for the work in accordance with the established payment schedule is the employer's most fundamental contractual obligation towards the contractor⁴⁵. Since the payment methods alone shape the character of the contracts, they should be dealt with under headings. Payment Methods in order:

- 4.2.1.1. Fixed Price / Lump Sum: It is a method in which the employer pays the contractor a total specified price. This price includes the cost of the work and the profit of the contractor. Additional compensation may be requested from the employer only in a limited number of determined conditions⁴⁶. In contracts where this method is applied, the certainty of the cost is an advantage for the employer. Although it may seem advantageous, it would be misleading to apply this method in projects where there is a lot of uncertainty. A common subject of the dispute is which work or variation is covered by the contract and which is not. It is a method compatible with turnkey contracts where the design is outlined.
- 4.2.1.2. Unit Price / Re-Measurement: It is a method based on the re-measurement and payment of the number of each work and material written separately at the end of the work, over the unit price determined at the beginning. The document called Bill of Quantities (BoQ) is very important here. In this document, the quantity, unit price, and total cost are specified for each expense item. This document, which was prepared at the beginning of the work, is only an estimate for the re-measurement model. The most important point of BoQ is the unit-price for this method. At the end of the

⁴⁴ SCHNEIDER, M., EHLE, B. *supra* note 6, p.280

⁴⁵ SCHERER, M., SCHNEIDER, M., *supra* note 33, p.564

⁴⁶ JENKINS, J., *supra* note 19, p.22

project, Quantity Surveyors re-measure and the cost is calculated over unit price⁴⁷.

On the other hand, a Bill of Quantities can be found in construction contracts regardless of the payment method. So the presence of BoQ in a contract does not mean that the Unit-Price is set as the payment method. In fact, for instance, the BoQ in a lump sum method goes beyond an estimate of the total cost and becomes binding on the contractor and employer. Parties must be careful in this regard.

- 4.2.1.3. Cost-Reimbursement / Cost-Plus: In this method, a profit fee is determined in addition to the construction costs and paid to the contractor. It would be more reasonable to use this method in innovative and high-risk projects⁴⁸. Because in such complex works, even if a lump sum price is determined by considering all possibilities, the unpredictability of the project puts the parties at risk. Beyond the estimation, a realized risk can be a heavy burden to the contractor if the cost-plus method is not chosen. In this method, it is important that the cost is reasonable and appropriate since the employer does not want to make an unlimited commitment. Inspection tools play an active role in this method as to whether this conformity exists or not. Because whether the costs are reasonable and fit for purpose is a potential common dispute in contracts where this method is applied.

4.2.2. Non-Hindrance and Collaboration

Just as the contractor is under the obligation to perform the work in a construction contract, the employer also has an implicit duty not to prevent the contractor from doing his work⁴⁹. In addition, the employer takes the necessary steps for the contractor to fulfill their own obligations in accordance with the contract, and does not prevent this⁵⁰.

That is to say that this obligation has both dimensions. The employer is not a hindrance to the work done first. Then it provides the necessary cooperation so that the work can be completed by the contractor⁵¹. In fact, it is among the obligations of the employer to take over the work completed within this scope without delay⁵². Moreover, it is the employer's duty to make the construction site accessible and available for the contractor to utilize. It is also the employer's duty to supply the

⁴⁷ SCHNEIDER, M., EHLE, B., *supra* note 6, p.275

⁴⁸ JENKINS, J., *supra* note 19, p.21

⁴⁹ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.187

⁵⁰ *London Borough of Merton v Stanley Hugh Leach Ltd*, 1985 32 BLR 51, (Joint Contracts Tribunal (JCT) standard rules were referenced in the contract in UK.)

⁵¹ SCHNEIDER, M., EHLE, B., *supra* note 6, p.281

⁵² Pursuant to SCO, Art.91, TCO Art.106, If the creditor who is presented with the act of doing or giving refrains from accepting without a just cause, they will be in default. This duty is also a requirement of the principle of good faith regulated in Article 2 of the Civil Codes of both countries.

utilities (water, energy) and obtain the necessary permits and accept provided design for the construction to take place⁵³.

4.2.3. Duty of Notice for Defects

The employer is obliged to notify the contractor of any defects that exist after receiving the work finished by the contractor. Therefore, taking over the work and the acceptance of the work are two different phenomena. It is one of the employer's obligations to receive the work from the contractor even if it has defects. However, the concept of acceptance means that the work has been delivered without any defects. Therefore, the employer must inspect whether the work is defective after delivery of the work. If the employer does not inspect the work or clearly admits it albeit its defects, they forfeit the right to remedy⁵⁴.

5. Types of Construction Contracts

Construction contracts are subject to different classifications. Construction contracts are divided into civil or industrial construction according to the content of the project⁵⁵. On the other hand, another classification method is the distinction made according to the payment method (see p.12). However, in this title, the types that make up the characteristics and structure of construction contracts, which are frequently used and which are referred to in the standard rules, will be discussed.

5.1. Build-Only or Design-Bid-Build

It is the most typical and traditional type of construction contract. It is a contract model in which the employer has the design prepared by themselves or by sophisticated people under their responsibility and expects the contractor to do the construction in accordance with the design⁵⁶. Since these contracts are bespoke construction, the design, and technical documentation must be quite detailed compared to turnkey. An ambiguity or deficiency in them potentially causes escalation.

In these contracts, the employer does not have a contractual relationship with subcontractors and suppliers. However, if the employers so wish, they can directly connect with them through a collateral guarantee or contract. This link provides convenience to the employer in order to supervise the project and ensure the standard in operation and material⁵⁷.

Another advantage of Build-Only contracts is that the employer is responsible for the design and has a direct contractual relationship with the designers and the

⁵³ SCHNEIDER, M., EHLE, B., *supra* note 6, p.281, SCHERER, M., SCHNEIDER, M., *supra* note 33, p.565-566

⁵⁴ SCHERER, M., SCHNEIDER, M., *supra* note 33, p.566

⁵⁵ AKINCI, Z., *supra* note 12, p.9

⁵⁶ SCHNEIDER, M., EHLE, B., *supra* note 6, p.274

⁵⁷ JENKINS, J., *supra* note 19, p.16

contractor, and has the opportunity to control and intervene in the process. In projects where the design is not completed at the time of the contract, the employer is responsible for design development, so the risk is on the employer in matters related to the coordination of design and construction. In cases where this coordination is not provided professionally, the risk of a mismatch between the design and the actual construction is very high. As the non-compliance in the construction of the Berlin Airport posed the threat of delays and price overruns⁵⁸.

On the other hand, since the design and construction processes are to be done by different parties, these interfaces cause the project to take longer.

FIDIC Red Book is the standard rules widely used for Build-Only contracts.

5.2. Turn-Key or Design and Build (DB)

In turnkey contracts, the tasks of designing, building are gathered under one roof by the contractor. The contractor here could be a consortium considering huge projects. The primary obligation of the contractor expands beyond building the structure to make the structure ready for use and to provide all things to do that⁵⁹.

Turnkey, in other words, design and build contracts are ideal to eliminate the conflicts arising from the building/design interface seen in the build-only contracts where the design is prepared and presented under the employer's obligation. However, it does not mean that the risks that occur at the interface of design and build are eliminated. With a Turnkey project, the contractor assumes these risks. On the other hand, the employer's variations requests lead to renegotiations on construction time and cost in turnkey contracts and limit the contractor's liability⁶⁰. Therefore, the employer cannot request it in these contracts as usual.

Commonly preferred standard rules for Turnkey contracts are the FIDIC Silver and Yellow Book, as well as Engineering Advancement Association of Japan (ENAA), Joint Contracts Tribunal (JCT), and NEC4.

Turnkey contracts are used together with the lump-sum payment model due to their nature.

5.3. Engineering, Procurement, and Construction (EPC)

It is the type of contract in which the contractor undertakes all kinds of obligations and the employer does not take any responsibility in these matters. In other words, the Engineering, Procurement, and the Construction are all entirely up to the contractor. It is essential for the contractor to establish both an engineering team and an architectural team in order to provide them. All drawings and technical equipment are ready prior to the setting up the main contract. In addition, the contractor orders the necessary equipment and raw materials and finally carries out

⁵⁸ JENKINS, J., *supra* note 19, p.17

⁵⁹ Ibid

⁶⁰ SCHNEIDER, M., EHLE, B., *supra* note 6, p.275

the construction activity⁶¹. While doing these, the contractor can still outsource the work if needed.

Since EPC contracts are a type of turnkey contract, the contract price and the completion time of the construction must be determined before the construction starts. Apart from that, the size of the work can hinder the control and predictability of the work. There might be uncertainty and a lack of data before the contract is signed. Moreover, the employer might want to follow and supervise every stage of the work with the engineer who has been appointed by the employer. In such cases, the EPC contract must not be preferred.

The FIDIC Silver Book is the popular standard rule by which EPC contract terms are set.

5.4. Build, Operate, and Transfer (BOT)

Public infrastructure projects typically use this sort of contract. Public or public-private partnerships are generally seen as employers⁶². It is valid for projects that can be operated and monetized later. In multilateral and gigantic projects, when it is not possible to cover the cost by the employer, it includes granting a concession to the contractor for the operation of the building for a specific amount of time following the completion of the construction. In this way, the employer's main obligation, making payments, is met by providing a concession.

5.5. Construction Management (CM)

In this contract management procedure, the employer concludes contracts directly with contractors, consultants and architects. In addition, the employer appoints a construction manager to ensure their coordination. The construction manager does not run any construction work. Accordingly, the manager is expected to show reasonable care and attention to reach the budget within the deadline specified in the contract⁶³.

The plus of this model is that in build-only, the design and construction work took more time than in the responsibility of separate people, minimizing this waste of time within the scope of the manager's obligation to coordinate. As a disadvantage, interfaces increase as the employer concludes distinct contracts with the design team, the manager and the contractors. Therefore, the employer is at risk of entering into disputes with a large number of claims and parties.

⁶¹ SCHNEIDER, M., EHLE, B., *supra* note 6, p.275

⁶² *Ibid*

⁶³ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.69

6. Place in Swiss and Turkish Legal System

Construction contracts are not specifically regulated in both Swiss and Turkish Civil Codes. For construction contracts, which are a sub-type of the contract of work, the provisions of the contracts of work are taken into account.

The project, a contract for work is a contract in which the contractor owes the creation of a work and the client owes the payment of a price for it⁶⁴. Apart from these general provisions, there are also regulations regarding these contracts in the laws concerning public procurement. Performance obligation in the first definition is not only performance and diligence obligation, but the result is essential in contracts of work⁶⁵. In this way, it differs from contracts of mandate. The Turkish Supreme Court made this definition in a decision⁶⁶ as follows: “*A contract of work is a contract that includes mutual acts. The contractor's act is to create and deliver the work, and the counteract of the employer is to pay the price of the delivered work. The work is the result of the contractor using his capital, art, and skill.*”

In addition, construction contracts can be mixed contracts with multiple relationship structures. In other words, the contracts between the employer, the engineer, the contractor, and the supplier can be a proxy contract or a sales contract. In these cases, the qualification is made according to the dominant characteristic of the contract in both laws⁶⁷.

For instance, contracts between engineers and architects and the employer or contractor might have distinct purposes. If the contract is committed to the preparation of the design, the result is essential and this is a contract of work. However, if the objective of the contract is to coordinate and supervise the work, this is a contract of mandate. Construction contracts in these countries are also referred to as mixed contracts, as they often include all sorts of combinations⁶⁸.

Moreover, the provisions regarding the sales contract in Turkish law apply to the contracts made with the supplier. In this case, in Swiss law, the United Nations Convention on Contracts for the International Sale of Goods (CISG) is applied if the conditions in the first article of CISG are met⁶⁹.

According to these laws, the primary obligation of the contractor is to perform the work. As a rule, they are expected to perform the work themselves, but

⁶⁴ SCO, Art.363 (cited in SCHNEIDER, M., SCHERER, M., Knutson (Ed.), *FIDIC - “An Analysis of International Construction Contracts: Switzerland”*, Kluwer Law, The Hague, 2005, p.314); TCO, Art.470

⁶⁵ SCHERER, M., SCHNEIDER, M., *supra* note 14, p.560

⁶⁶ 15th Civil Chamber of Turkish Supreme Court, E.2205/3867, K.2006/3594, 14.06.2006 (cited in BİLGİN, İ., *Karşılaştırmalı Hukuk Çerçevesinde İnşaat Sözleşmelerinde Mücbir Sebep*, Yüksek Lisans Tezi (Translation: *Force Majeure in Construction Contracts within the Framework of Comparative Law*), Master's Thesis, Ankara 2019, p.15)

⁶⁷ SCHNEIDER, M., SCHERER, M., Knutson (Ed.), *“FIDIC - An Analysis of International Construction Contracts: Switzerland”*, Kluwer Law, The Hague, 2005, p.315

⁶⁸ Ibid

⁶⁹ SCHERER, M., SCHNEIDER, M., *supra* note 33, p.560

exceptionally, works, where personal quality is not important, can be executed by a third person⁷⁰, as is often the case with subcontractors.

The fact that the work done is defective and in this case, the employer's optional rights, as well as the employer's obligations to accept the work and pay the price are regulated in the law⁷¹.

Finally, in the termination title, termination due to exceeding the approximate price, destruction of the work, termination in return for compensation, impossibility of performance due to the employer, and finally the death of the contractor or loss of ability to perform are regulated⁷².

Although the texts of the law of obligations almost completely overlap between Switzerland and Turkey, this does not mean that Switzerland and Turkey are in the same legal practice at the same level. Law is a culture that does not consist only of the text of the law. These phenomena can be seen in the first article of the Swiss and Turkish Civil Codes, it is stated that when there is no written law, the judge would apply the customary law, otherwise, the judge would act as a legislator. Therefore, if these two countries are considered separately:

Switzerland has a reputation as neutral in both the historical and legal dimensions. Moreover, the SCO, which is the main source of contract law, is concise and easy to understand. The fact that French, German, Italian, and Romansh languages are the main languages in the country and the laws have official texts in all these languages and English, also minimizes the problems that may arise from culture and transplant⁷³. These reasons make Switzerland frequently preferred for foreign investors, either in the applicable law or in the place of arbitration.

On the other hand, construction contracts are not subject to any form condition in accordance with Article 11 of the SCO, as in Turkey. However, this dispersed structure is always done in writing in practice. In addition to being in writing, the parties also apply to model contracts and standard rules when concluding a construction contract⁷⁴. In Switzerland's internal contracts, they commonly apply the construction conditions drawn up by the Swiss Society of Engineers and Architects (SIA). Moreover, although, as a rule, these model contracts can only be applied when they are clearly determined at will, the Swiss Supreme Court has ruled that the conditions of the SIA are implicitly accepted in the dispute between two Swiss-origin parties arising from a construction contract⁷⁵.

⁷⁰ SCO, Art. 364, 1911; TCO, Art. 471, 2011

⁷¹ SCO, Art. 367-374, ; TCO, Art. 474-481

⁷² SCO, Art. 375-379,; TCO, Art. 482-486,

⁷³ SCHNEIDER, M, SCHERER, M., *supra note 67*, p.313

⁷⁴ SCHERER, M., SCHNEIDER, M., *supra note 33*, p.561

⁷⁵ Swiss Supreme Court Decision (SCD), 4C.261/2005 of December 9, 2005 (cited in: SCHNEIDER, M., SCHERER, M., EHLE, B., Moss, S., Cedric, L., "Construction(Switzerland)" in PECKAR, S. and ZICHERMAN S. (Eds.), *Getting the Deal Through. Construction in 27 jurisdictions worldwide - 2017*, Law Business Research Ltd, 2017, pp. 139-143)

Turkey's position can be compared to the Bosphorus, which connects Asia and Europe in its concrete form. Turkey, which is among the developing countries, has a relatively conservative culture in terms of mentality. This republic, which will complete its 100th anniversary in 2023, has made its modernization moves by the state. The state is more culturally involved in this movements. This attitude may not appear in the interests of traders and commercial dynamics. After the 1980s, the country adopted a politically liberal view and made moves to increase international trade and direct investments. It became a party to the International Center for Settlement of Investment Disputes (ICSID) in this process. Then, in 1991, another step was taken to incentivize direct investments by becoming a party to the 1958 New York Convention (hereinafter: NY Convention).

Despite these, there was a provision in the constitution of the country that would prevent the construction contracts from being made by mega projects with foreign investment, and the Council of State did not change this provision until 1999. The competent court for concession agreements made in public or public-private partnerships was the Turkish Courts. When the Council of State saw an arbitration clause in contracts, they considered this clause invalid. It is obvious that foreign investors do not want to be tried in state courts in a way that raises doubts about objectivity and impartiality, especially when these contracts have significant obligations. This provision remained until 1999. Later, it was added to Article 125 of the Constitution that international arbitration could be resorted to in disputes arising from public concession agreements, provided that there is an element of foreignness.

In addition, another assurance was added to the Constitution in 2004 that the international agreements signed duly would be equivalent to the law, and even in case of contradiction, they would be implemented before the provisions of Turkish law⁷⁶. In 2014, the Istanbul Arbitration Centre (ISTAC; <https://istac.org.tr/en/>) was finally established by law. It can be said that it has an international reputation where it works quite efficiently albeit set up by law. In short, in Turkey, arbitration, international commerce, and foreign investment in construction contracts are developing together with the state, despite the state.

7. The Integral Part of Construction Contracts: Standard Rules

While negotiating the contract, the parties to the contracts usually take the time to regulate what happens if things go wrong, among other clauses, and there are always clauses in this regard. The parties generally do not anticipate a disruption when establishing a contractual relationship, so these clauses may not be given due consideration. Even with due attention, as explained in detail above, numerous internal and external factors and their unpredictability make the contract drafting

⁷⁶ Constitution of Turkey, Art.90/5, 1982

process even more difficult. In addition, preparing such a complex and cumbersome bespoke construction contract can turn out to be both costly and time-consuming.

On the other hand, the main subject of the present thesis may seem to be possible disputes and dispute resolution methods for their effective and quick resolution. However, in addition to increasing the effectiveness of the dispute resolution process, taking measures to prevent the emergence of the dispute is the first step. This is why it is critical to understand the parties, types, and documents of the construction contract. For this reason, the first chapter is not only an introduction but also the essence of the subject.

Based on all these needs, model contracts and standard rules have been developed and issued by various institutes. These are the rules that have been tested in many projects and disputes and are updated with new versions when needed. Under this title, a number of standard rules, especially the most well-known FIDIC, will be mentioned.

Other standard conditions widely used in the construction industry are for example the New Engineering Contract (NEC), the International Chamber of Commerce (ICC) Model Contracts, the ORGALIME Model Turnkey Contract for Industrial Works, and the model contracts of the Joint Contracts Tribunal (JCT).

7.1. FIDIC⁷⁷

FIDIC was founded in 1913 by three national societies of consulting engineers in Europe. The purpose of the federation was to protect the interests of the member associations, to inform and develop them⁷⁸. Today, it is an important resource in issuing and executing contracts for large-scale international construction projects. One of the reasons for its widespread use is that the distribution of risks is a fair distribution of rights and obligations between the employer and the contractor. In addition, the fact that different contract types are prepared within FIDIC according to the contract and business types in the sector makes these rules attractive.

On the other hand, another important feature of the FIDIC rules is that the engineer takes part in the project as the employer's representative. The engineer is the person who takes part in the healthy conduct of the relationship between the employer and the contractor and the implementation of the project subject to the contract. It is natural to see the engineer in the FIDIC standard rules, but many other standard rules also include provisions regarding the engineer. Since the sole purpose of these rules is the sustainability of construction contracts and projects and the prevention of disputes, such a mechanism provides a quick and effective resolution for disruptions or disputes that may eventually lead to disputes.

In the FIDIC standard forms, the second and most recent version of which was published in 2017, there was no fundamental change in the risk distribution

⁷⁷ The International Federation of Consulting Engineers

⁷⁸ *FIDIC Golden Principles*, First Edition 2019, p.2

https://fidic.org/sites/default/files/golden_principles_1_12.pdf (last access: 05.12.2022)

compared to 1999. But in general, most clauses are detailed. In other words, the main development of the 2017 edition is how prescriptive it is. Exactly what is expected from each of the parties and what kind of process and procedure will be applied if these provisions are not complied with are regulated. With this version, FIDIC wanted to increase clarity and transparency, focused on solving the issues raised in the 1999 edition and encouraged the dispute avoidance mechanism to be more active⁷⁹.

Accordingly, Clause 20, which was previously gathered as "Claims, Disputes, and Arbitration", is divided into Clauses 20 and 21 as "Employer and Contractor Claims" and "Disputes and Arbitration". The main reason for this distinction is the fact that making a claim does not automatically cause a dispute. With this change, the Dispute Adjudication Board (hereinafter: DAB) has been renamed the Dispute Avoidance/Adjudication Board (hereinafter: DAAB). In DAAB's Procedural Rules, it is stated that the first aim is to avoid disputes, and an implied mediation mission is also assigned to the Board, prior to arbitration⁸⁰.

7.1.1. FIDIC Red Book

The Red Book was first published in 1957 by the London-based Institution of Civil Engineers (ICE), then in 1969 and 1977. Then there is an original version released by FIDIC in 1987. The most common and up-to-date ones today are the First Edition 1999 Red Book and the Second Edition 2017 Red Book (hereinafter: FIDIC 2017).

It is a product that contains rules according to build-only contracts, which is the most basic form of Red Book construction contracts. Here are some of the main features of this book⁸¹:

- The design obligation is with the employer, but this design obligation can also be left to the contractor when necessary.
- The administration of the contract, the follow-up of the project and contract compliance, the preparation of the progress payments, the making of the payments and the determination of the amount in the time extension when the conditions are met to the engineer. The function of the engineer is critical in these rules.
- The contractor's obligation to notify is also emphasized.
- Protective provisions have been introduced for the contractor to be paid for their work, one of them: The right of the contractor to demand proof of the employer's financial strength.

If the employer cannot fulfill the request in time, the contractor has the right to terminate.

⁷⁹ "FIDIC Red, Yellow and Silver Books, Second Edition, 2017: key changes" Practical Law UK Practice Note w-012-6549, Thomson Reuters

⁸⁰ See EHLE, B., IRWIN, C., "Claims Procedure and Dispute Resolution under the Revised FIDIC Conditions" in Construction Law International, Vol. 14, Issue 1, November 2019

⁸¹ See "FIDIC Red Book (2017)" Practical Law UK Practice Note w-014-9936, Thomson Reuters

7.1.2. FIDIC Yellow Book

The Yellow Book contains the terms of the contract under which the design and construction responsibility rests with the contractor. As explained under the title of Design Build, the contractor prepares and builds the project pursuant the instructions of the employer in these contracts. A lump sum price has been determined as the contract payment method. As in the Red Book, in this book, payments are made according to the work approved by the engineer⁸².

7.1.3. FIDIC Silver Book

It has been prepared for the execution of EPC and turnkey projects. It is recommended to apply this book and rules for Build-Operate-Transfer projects as well. Generally, it is the book used in high-cost works such as infrastructure projects, factories, and power plants. In such works, the project cost reaches very high values and the process takes a long time, so the predictability is at the minimum level⁸³. In line with the FIDIC Silver Book provisions, therefore, international credit institutions, and banks do not accept unit-price or cost-reimbursement payment methods, and instead, prefer the lump-sum payment method for these contracts. Thus, the employer and naturally the credit institution do not undertake the risk of increasing the cost. The most important difference of the silver book is that there is no place for an engineer in this standard rule and contract type. Instead, the employer monitors the progress of the project and arranges the payments accordingly.

7.2. NEC

It was released in 1993 by the Civil Engineering Institute in response to the growing hostility towards the construction industry and contracting procedures at the time. NEC's initial purpose was to cover both construction and engineering projects. Another aim was to define the design responsibility in detail. For these two purposes, the NEC provided the parties with selectable and diversifiable clauses. Another purpose of the emergence of these rules was to avoid heavy legal language and to simplify⁸⁴.

Latham (1994) put forward some basic principles for contracts in this industry and recommended NEC standard rules, claiming that they are better regulated in the NEC. Thereupon, the institute released the third version in 2005 under the name NEC3, after appropriate updates. The most recent version is NEC4, which was

⁸² ALSHADLI, S., "The Formation of Construction Contracts in Turkey and Libya and Comparison of The Rights and Liabilities of The Parties" Phd's Thesis, Ankara, 2019, p.133

⁸³ Ibid

⁸⁴ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.129

released in 2018. NEC3 standard rules and their predecessors have gained widespread use in many places, especially in the UK⁸⁵.

In essence, NEC has a set of general clauses that can apply to all projects. According to the procurement method and contract type to be determined, these basic clauses are combined with other clauses separately⁸⁶.

7.3. JCT

It is an organization that functions as a forum for stakeholders in the construction industry to examine and determine the articles and content of standard-form construction contracts. To solve the problems arising from the use of ad hoc construction contracts, the first standard contract form was prepared in the 1870s with the Builders' Society (today's CIOB) and the RIBA, where the roots of the Joint Contracts Tribunal (JCT) lie. Later, the meetings of these interest groups continued year after year and in 1909 the first national standard rule was prepared. This, and even the examples in the 1980s, contained traces of the first form, 1870. These updates were followed by 2005, 2011, and finally 2016 updates.

The highlights of the 2011 update can be listed as follows⁸⁷:

- The template is more consistent and modernized.
- Despite the criticism that the contract language is heavy, the language is clearer and simpler.
- Provisions regarding subcontractor and supplier candidacy have been removed, and additional importance has been attached to the quantity surveyor.
- some terms renamed: architect - the contracts administrator, defect liability period/rectification period, the extension of time/adjustment of time, and such.
- Litigation was determined as the default dispute resolution method instead of arbitration.

The most striking difference with the last JCT update in 2016 is the revision and simplification of the Payment method. Solution, Interim Valuation Dates' (IVDs) were created, and it was also aimed to increase flexibility in fluctuations⁸⁸.

⁸⁵ "A revised version of NEC2 was chosen for the Channel Tunnel Rail Link project. In addition, the English National Health Service uses the NEC standard rules in its contract: Bridgewater and Hemsley 2006" (cited in HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.130)

⁸⁶ Ibid

⁸⁷ Ibid, p.121

⁸⁸ Maylor, S., Johnson, Helen., "JCT 2016 - What's changed?" https://kennedyslaw.com/media/2192/kennedys_jct_full-analysis-draft.pdf (last access 05.12.2022)

CHAPTER TWO:

Potential Disputes and Force Majeure & Hardship

The inherent potential for disputes resulting from the nature of construction contracts has been cited many times. As a consequence, the first step in preventing disputes is to have the contract and the interfaces between the parties well-defined and organized. Interfaces and uncertainties that might arise from both cultural differences and multilateralism must be handled meticulously, with a margin of flexibility. Omissions, disruptions, or deficiencies that may arise from interface relations, contract types, payment methods, obligations of the parties, and specifically designs can extend to the dispute itself. Therefore, negligence on the basis of the contract and the project in the first chapter may also lead to disputes in this context.

However, in this chapter, no matter how perfectly a construction contract and interface relations are arranged, the disputes that may be encountered will be highlighted.

1. Variations / Changes

Variations to the project and its design are among the most common issues resulting in disputes. Apart from that, considering a long schedule, a large construction site, and a design that progresses concurrently with the construction of the project, variations are completely natural for construction projects. Hence, a well-drafted Variation Clause has paramount importance to avoid these disputes. It may even be a matter of dispute whether a claim is within the scope of variation. It is therefore critical to set boundaries and scope with this clause.

1.1.Possible Variation Cases

A contradiction or different interpretation of the content of the contract by the parties might also trigger disputes arising from variation. Because a request that the employer normally considers to be covered by the contract may be viewed by the contractor as a variation order. In fact, the contractor is not obliged to perform anything that does not exist in the design or technical specification in the contract.

Further, although there is no uncertainty in the essential points of the contract, a need for variation may arise due to internal or external factors that develop later. In this case, disputes may arise regarding the question whether the variation procedure specified in the contract is complied with, and whether additional time and payment should be granted as a result of the variation.

Internal factors mean the parties to the contract, the factors originating from the contractor or the employer. Therefore, in this context, the employer can place a variation order as the beneficiary of the project.

Apart from that, external factors can also lead to variation orders. On the one hand, while the project is being built, on the other hand, there may be a need to change the design according to the project. Moreover, other external factors such as mandatory changes arising from the legislation and the effects of the ground structure may also create the need for variation beyond the will of the employer and the contractor. However, it should be noted that, at least under Swiss and Turkish law, the contractor cannot go beyond the scope of the contract unless the engineer confirms or instruct a variation⁸⁹.

1.2. The Scope of Variations

Variation orders are usually positive orders to include additional elements in the project. This change, which is not specified in the original contract, shall cause an extra cost and might lead to the need to grant the contractor an extension of time (hereinafter: EoT) in the light of the critical path.

On the other hand, there may also be a variation order with a negative order that indicates less than what is claimed in the contract. The contractor performs less than specified in the contract, resulting in a possible reduction in the construction schedule and payment. For this reason, limitations may be envisaged in the employer's variation orders. In this context, it is possible for the employer to deduct the contractor's progress payment with variation, claiming that it is unnecessary, and to give the same work to another contractor? Most legal systems do not allow this⁹⁰, and under Swiss and Turkish Law, this clearly constitutes a violation of the "*principle of good faith*"⁹¹.

FIDIC 2017 Sub-Clause 13.1 also includes a provision on this issue, unlike the 1999 version, according to which a work within the scope of the contract cannot be excluded for the employer or someone else to do unless the parties agree. Otherwise, the contractor has the right to compensate for lost profits and other damages due to the omitted work⁹².

The variation clause shall be prepared by taking these factors into consideration. In addition, the parties may add a clause that sets limits on the amount of variation. In

⁸⁹ FIDIC 2017, Sub-Clause 13.1

⁹⁰ JENKINS, J., *supra note 19*, p.30

⁹¹ SCO, Art.2, TCO, Art.2

⁹² FIDIC 2017, Sub-Clause 13.3.1(c)

this context, each variation clause does not entitle the employer to a comprehensive or fundamental change in the nature of the works⁹³.

Related to this matter, in a decision⁹⁴, under the contract, the defendants were to dredge the canal and deposit the resulting excavation in the same area. Instead, the plaintiffs ordered the defendants to use the dredged material to construct an artificial island, the court decided that this order could not be a variation, but rather a separate contract.

In addition, in another decision⁹⁵ the plaintiff, the principal contractor, subcontracted with the defendant for a portion of the construction work. Accordingly, while there were 22 technical drawings in the original text of the contract, the plaintiff wanted to convert it into a project with 161 drawings with the variation order. As in the previous decision, the court ruled that such a fundamental change could not be made.

1.3. The Role of Engineer in Variations

The engineer is authorized to give instructions on variations in accordance with the standard rules. In the FIDIC conditions, the Engineer corresponds to the Project Manager in the NEC standard form or the Contract Administration in JCT contracts.

Within the scope of FIDIC, the contractor can submit objections to the instruction brought by the engineer. However, it is clearly stated in FIDIC 2017 Sub-Clause 13.1 that the contractor is obliged to make the changes notified by the engineer and is bound by it⁹⁶. In addition to that, the contractor has no right to make changes to the contract without the relevant instruction or the variation being approved by the engineer.

1.4. Valuation Matter

The valuation of the additional payment and time caused by the variation is a critical process. Even if the variation is agreed upon, it might be the subject of dispute. In this regard, while JCT and FIDIC allocate a valuation on unit price or market value through quantity surveyors, NEC standard rules tend to make this valuation over cost differences⁹⁷.

Since variation orders involve a change in the contract, they are generally expected to be in writing, made according to a set of procedures agreed in the contract, and at the instruction of the specific individuals mentioned above⁹⁸.

⁹³ In accordance with FIDIC 2017 Sub-Clause 13.1(a), the contractor has the right to object to the variation, as the variation is unforeseeable given the nature of the work.

⁹⁴ Blue Circle Industries plc vs Holland Dredging Company (UK) Ltd (cited in HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.237)

⁹⁵ McAlpine Humberoak Ltd. vs McDermott International Inc.,

⁹⁶ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.238

⁹⁷ Ibid, pp. 239-240

⁹⁸ JENKINS, J., *supra* note 19, p.31

Further, since the variation creates an additional performance obligation, it includes an additional cost valuation and extension of time, if necessary. In order to avoid disputes in this regard, variation orders shall be made on an informed basis so that in the first phase the employer is aware of the cost, time, and other side effects. For this, contracts often include procedures that include the contractor's estimation of the cost of the potential variation and its impact on the schedule⁹⁹.

Particularly at this point, NEC's "*the clause of early warning*" deserves mention, serving this purpose and allowing the employer to re-evaluate the order in case the contractor's results do not match the expected advantages of the variation¹⁰⁰. Therefore, the benefits of these procedures, which include notifications and warnings, in preventing disputes could not be denied.

Otherwise, contrary to what the employer thinks, the variation order might cause a ripple in the project schedule, and in this case, the entire schedule might be affected by this variation. This can result in unforeseen additional costs and time, and even shaking the foundation of the contract. The risk of ripple effect shall be avoided as it could jeopardize the whole plan¹⁰¹.

2. Defects

Another common type of dispute is defective performance. Defective performance basically means that the work performed is incomplete or defective and hence not in line with the what was agreed in the construction contract or in the documents such as the design or the technical specification. In other words, if the performance agreed in the contract or alternatively that the employer can reasonably expect at the end of the work does not coincide with what the contractor actually provides, that performance is defective.

The reasonable expectation here is that the contractor performs the promised work with at least average-quality material and in accordance with its duty of care. The performance must also serve the purpose, suitability, and usability of the contractually agreed work.

Construction contracts regarding defective performance contain clauses that indicate the rights and obligations of the parties with respect to the allocation of the risk arising from defective performance both before and after the taking-over.

2.1. Before Taking Over

Standard rules usually prescribe a series of inspections and tests prior to delivery. If, as a result of this examination, it is determined that the work, workmanship or material used is defective or not pursuant the conditions agreed in the contract, the engineer may reject the work done¹⁰². In this case, the contractor puts forward their

⁹⁹ JENKINS, J., *supra* note 19, p.31

¹⁰⁰ SCHNEIDER, M., *supra* note 1, p.410

¹⁰¹ KÜNZLE, J., *supra* note 7, p.157

¹⁰² FIDIC 2017, Sub-Clause 7.5

proposal to the engineer for the elimination of the defect. The engineer evaluates this proposal and notifies if there is any issue that they want to be changed, otherwise they give a Notice of No-Objection. If an array of procedures between the engineer and the contractor to rectify the defect fails to yield results, the employer instructs the contractor to repair the defective or damaged work, replace it if necessary, or remove it and redo it¹⁰³. If the contractor does not correct the defect despite this instruction, the employer can do the work itself or have another contractor perform the work at the expense of the debtor contractor (substitute performance)¹⁰⁴.

In fact, the FIDIC 2017 has introduced an open-ended regulation¹⁰⁵ stating that the debtor contractor may also be liable for the work done by someone else. After all, the work has not yet been delivered and the risk is on the contractor.

2.2. After Taking Over

After the employer takes over the work, they must review the work for a while, test it and examine whether there is a defect, especially for complex projects, this includes a lengthy process. In this process, which is called the defects notification period (hereinafter: DNP), the employer must notify the contractor of the defects in the project, and the contractor is obliged to correct the defect upon this notification¹⁰⁶. If the employer does not report a defect that they can detect by testing within the DNP, they are deemed to have accepted the work as it is. Therefore, the investigation phase after the takeover is vital for the employer.

The exception to this are so-called hidden defects that cannot be detected at first glance and that cannot be noticed despite inspection. Therefore, an additional limitations period is usually granted to the employer for such defects, which will exceed the defects notification period. This period varies according to the clause in each construction contract and the applicable law. The employer is required to immediately notify the contractor of the hidden defect that he notices within this period. If the stipulated procedure is followed, the contractor is liable for this hidden defect. Otherwise, the employer is deemed to have accepted the defect. Hidden defects are also called latent defects.

2.2.1. Defects Notification Period (DNP)

How long this period will be is determined by the parties in the contract. By default, FIDIC has a 365-day notification period. This period can be determined longer in projects with extensive and technical details¹⁰⁷.

The employer might request the extension of the defects notification period in cases where a part or a significant part of the work in question cannot be used and tested

¹⁰³ FIDIC 2017, Sub-Clause 7.5(a)

¹⁰⁴ FIDIC 2017, Sub-Clause 7.6

¹⁰⁵ FIDIC 2017, Sub-Clause 7.5(b)

¹⁰⁶ FIDIC 2017, Sub-Clause 11.1

¹⁰⁷ "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81, p.33

in accordance with its purpose due to any defect or damage following the takeover. In this regard, the FIDIC 2017 has made this extension a number of conditions, unlike the 1999 version. Accordingly, this period cannot be extended for more than two years, and the extension of this period can only be made in matters attributable to the fault of the contractor¹⁰⁸.

2.2.2. Remedies Against Defects

If the defect reported within the defects notification period is not remedied by the contractor, there are a number of special remedies. In this case, the employer can have the correction work be performed by another contractor and reflect the reasonable price to the debtor contractor. However, at this point, since the delivery takes place, the debtor contractor is not liable for the work done by the third party, as it was before the delivery. This creates an additional interface risk for the employer¹⁰⁹. Or the employer accepts the work done against non-serious defects, but may demand a price reduction at the rate of defects¹¹⁰. Finally, if the defect or damage in question is a fundamental defect in the contractual work and the acceptance of it cannot be expected from the employer, the employer can reject the work and terminate the contract¹¹¹.

2.3. Serial Defects

Construction contracts may contain clauses for serial defects if agreed by the parties. In projects with components of the same structure but many components, such as a wind turbine, a defect in one component may well occur in all other components. In line with this clause, when such a situation is encountered, the contractor must verify all other components and, if necessary, repair them. Since this clause imposes an excessive burden on the contractor, the contractor is not willing to include this clause in the contract.

2.4. Performance Certificate

According to the FIDIC conditions, the engineer is required to issue a performance certificate to the parties and the DAAB after the DNP determined by the parties or after the contractor has corrected the defects and carried out the necessary tests. A Certificate of Performance means that the employer accepts the submitted work¹¹². It also triggers a series of consequences such as the payment of the rest amount of the retention money¹¹³ and the expiration of the performance security¹¹⁴.

On the other hand, there are comments that it does not constitute evidence that the contractor has fulfilled his performance obligation in a definitive and binding

¹⁰⁸ FIDIC 2017, Sub-Clause 11.2(a),(d)

¹⁰⁹ FIDIC 2017, Sub-Clause 11.4(a)

¹¹⁰ FIDIC 2017, Sub-Clause 11.4(b)(ii), SCO, Art.368/2, TCO, Art.475/2

¹¹¹ FIDIC 2017, Sub-Clause 11.4(d), SCO, Art.368/1, TCO, Art.475/1

¹¹² FIDIC 2017, Sub-Clause 11.9

¹¹³ FIDIC 2017, Sub-Clause 14.9

¹¹⁴ FIDIC 2017, Sub-Clause 4.2

manner within the scope of FIDIC. This means that despite the existence of a performance certificate, the employer might make a claim for a defect, this point is debatable.

An exception to the Certificate of Performance in the FIDIC 2017 is clause 11.10. Accordingly, when the performance certificate is prepared, the contractor continues to be obliged to fulfill it for an action that has not yet been fulfilled.

3. Delays

The contractor is obliged to fulfill the performance promised in the construction contract within the specified time¹¹⁵. The timely completion of the work is in the interest of the employer, considering that it will take over and operate it in order to make profit with it. On the other hand, not only the employer but also the contractor benefits from the timely completion of the work. Otherwise, it increases the period-related expenses such as rent and interest¹¹⁶. However, considering the complex nature of construction contracts, it is very common for delays and disputes to arise due to delays. Therefore, it is important to determine who will bear the consequences of not completing the work on time and for what reason delays occur.

Although there is no definition regarding the delay in the standard rules, the delays in the standard rules have materialized through its consequences¹¹⁷. Accordingly, the issue of which party is liable for delay is shaped according to the EoT and liquidated damages (hereinafter: LDs) clauses of the contract concluded by the parties¹¹⁸.

The delay may be caused by the contractor, or it may be caused by subcontractors beyond the control of the contractor. Further, if the delay has occurred due to a situation where the risk is borne by the contractor, the employer has the right to demand liquidated damages ("LDs") during the delay period, if agreed in the contract.

There may be delays arising from the employer or the employer's team. This gives the contractor the right to EoT and when the conditions are met demand additional expenses arising from delay.

Apart from all these, a delay can be triggered by impartial sources without the involvement of both parties in the contract, such as natural factors, suppliers, or force majeure¹¹⁹.

To look at the issue of which party will undertake the risk for the cases that cause a delay in the project without the intervention of the parties, by exemplifying the weather conditions, in the standard rules:

¹¹⁵ SCHERER, M., SCHNEIDER, M., *supra* note 33, p.567

¹¹⁶ AKINCI, Z., *supra* note 12, p.3

¹¹⁷ COCKLIN, M., "Delay to Construction Contracts", Practical Law UK Practice Note 1-595-4752, Thomson Reuters, p.3

¹¹⁸ AKINCI, Z., *supra* note 12, p.54

¹¹⁹ COCKLIN, M., *supra* note 117, p.3

Generally, the weather is a risk that the contractor must bear if there is silence or unless otherwise agreed in the contract. In other words, in order for the employer to be responsible for delays due to weather conditions, there must be a special reference in the contract. In Sub-Clause 2.26.8 of JCT DB 2011 and 2016 versions, it regulates that the employer assumes the risk in case of *"exceptionally adverse weather conditions"*.

For FIDIC, in the case of *"exceptionally adverse weather conditions"*, similar to Clause 8.4(c) JCT in the 1999 Red and Yellow books, it imposes the risk on the employer. However, the risk distribution is a little more altered and detailed in the 2017 version: *"Unforeseeable having regard to climatic data made available [to the contractor]... and/or climatic data published in the Country for the geographical location of the Site"*

Contrariwise, FIDIC Silver Book, which regulates, EPC and Turnkey contracts, imposes the risk of *"exceptionally adverse weather conditions"* on the contractor in both its 1999 and 2017 versions.

In addition to these, a different approach is adopted in the NEC4 ECC contract (Engineering Construction Contract), which records monthly weather data such as precipitation, temperature, snow, and imposes the risk arising from weather conditions on the contractor¹²⁰. Accordingly, the contractor will be liable unless it can be proven that the aforementioned has happened less than once in ten years. If proven, the risk will belong to the employer. In other words, although NEC4 states that the employer is responsible under exceptional circumstances, it has determined a different parameter unlike the others.

Delays embody in various forms, the common ones being¹²¹:

- Contractor's performance and administrative issues
- Variations in work or design (Another dispute matter, variations can also bring about delays)
- Weather conditions
- Unavailability or shortage of labor and equipment
- Defective design and technical specifications
- Involvement of the employer

¹²⁰ Ibid, p.5

¹²¹ Ibid, p.4

3.1. Types of Delays

3.1.1. Critical / Non-Critical Delays

In a construction contract, all activities necessary for the proper execution of the work until the completion date are determined in advance¹²². For this purpose, the project includes a series of critical activities, and these activities are compiled into a component called the critical path, and a workflow regarding the project's working process and completion date is determined¹²³.

Each delay encountered does not cause a delay in the completion date of the project. Delivery delays that do not influence the completion date of the project and the progress of work are defined as non-critical delays¹²⁴. On the other hand, a delay can trigger an extension in subsequent critical activities, and a domino effect can delay the completion date¹²⁵.

Parties may differ on the issue of whether a delay is critical or not. Therefore, critical path analysis has a very important place in determining this¹²⁶.

3.1.2. Excusable / Non-Excusable Delays

Non-excusable delays occur due to the actions or inaction of the parties. Not providing access to the site by the employer, not providing the promised material to the contractor, not making timely payments are also among the factors that cause non-excusable delay on name of the employer.

Conversely, on behalf of the contractor, factors such as poor management, poor scheduling, inadequate equipment, poor workmanship, etc. can also be a source of non-excusable delay. The responsibility for the latter is on the contractor because the actions or inactions that cause it are under the control of the contractor and in this case the contractor cannot ask for any extension or compensation, whereas in the former they can.

Excusable delays can be split into compensable and non-compensable delays:

- 3.1.2.1. Compensable / Non-Compensable Delays: Non-compensable excusable delays are caused by events such as natural disasters, force majeure that occur beyond the control of the parties to the contract, the contractor, and the employer. Therefore, while non-

¹²² OKEREKE, R., ZAKARIYAU, M., EZE, E., "Extension of Time(EoT) Claims Substantion and Associated Issues in Complex-Multi Stakeholders' Building Construction Contracts", ITEGAM-JETIA, Manaus, v.7, n.31, Nov/Dec 2021, p.24

¹²³ COCKLIN, M., *supra* note 117, p.5

¹²⁴ LARI, M., BHATT, V., GHADGE, A., "Analytic Study of Construction Delays", Proceedings of Sustainable Infrastructure Development&Management (SIDM), 2019, p.3
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3369439 (last access:05.01.2023)

¹²⁵ "Maritz, T. & Prinsloo, H. (2016). A decision support framework for extension of time claims for the JBCC Principal Building Agreement. *Acta Structilia*,23(2),146-109" (Cited in OKEREKE, R., ZAKARIYAU, M., EZE, E., *supra* note 122)

¹²⁶ OKEREKE, R., ZAKARIYAU, M., EZE, E., *supra* note 122, p.25

compensable delays do not grant the contractor the right to be compensated, they give the right to EoT.

Compensable excusable delays refer to delays caused by the employer, not the contractor. Defective design variation requests from the employer, etc. can be given as an example. Contrary to the previous one, since there is a delay attributable to the employer here, in compensable excusable delays, the contractor has both the right to extend the time and the right to compensation.

As can be seen above, there are no obvious borders to diversification. There are interlocking adjectives. As a matter of fact, the employer's inability to access the site was considered as a reason for the non-excusable delay in one publication¹²⁷, while it was expressed as compensable excusable delays in another¹²⁸. This relativity manifests itself even in the most important distinction between critical and non-critical delays and triggers potential disputes.

3.1.3. Concurrent Delays

Non-concurrent delays are in question in cases where each of the delay types discussed above occur independently, and even if they exist together they do not occur simultaneously.

Concurrent delay, on the other hand, is the occurrence of two events that cause delays in the same time period, and one of these events is an event that gives the contractor the right to extend the time, the other is not. The other event may be caused by third parties or by the employer¹²⁹.

From another perspective, the event that caused the delay may not always be a single event, but multiple events may have triggered the delay. The concept of concurrent delay refers to two or more delays that affect the question of whether simultaneous events contribute to the delay, if any, and to what extent. Moreover, the delay may be non-critical, even if there is more than one event causing the delay at the same time. This invalidates the concurrent delay claim.

In case of concurrent delay, neither party has the right to indemnify their damages¹³⁰. Therefore, it is a strategic defense mechanism that both parties can invoke against each other when the event for which an employer assumes the risk and the event for which the contractor assumes the risk occur at the same time. In this direction, for example, in the case of a delay attributable to the employer for which the contractor has the right to time extension and compensation, the employer tries to refute this claim by claiming concurrent delay under the

¹²⁷ LARI, M., BHATT, V., GHADGE, A., *supra* note 124, p.3

¹²⁸ OKEREKE, R., ZAKARIYAU, M., EZE, E., *supra* note 122, p.24

¹²⁹ With a court's illustration of concurrent delays in simple terms: "... no work is possible on a site for a week not only because of exceptionally included weather (a relevant event), but also because the contractor has a shortage of labor (not a relevant event)." Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd 70 Con LR 32

¹³⁰ LARI, M., BHATT, V., GHADGE, A., *supra* note 124, p.3

responsibility of the contractor as a counterclaim. Conversely, the contractor may seek concurrent delay in response to an employer's claim for LDs for a delay attributable to the contractor¹³¹.

Complete concurrency is a rare occurrence, naturally, the method to be used in its detection and determination is important. Programming tools that allow an analysis of the impact of events on the critical path are used to detect concurrent delays¹³². Even against such complex claims of delay, the parties may appoint additional experts. Normally, the evaluation of delays belongs to the engineer/contact administrator/project manager for standard rules in the first place, but in complex projects, parties can appoint experts for programming and delays¹³³.

Concurrent delays are not covered in the JCT and NEC4 standard forms. Therefore, in the case of concurrency, the parties may face uncertainty. If there is no provision regarding concurrent delays in the construction contract, the parties find themselves qualifying the concurrent delay according to the general terms of the extension of time provisions¹³⁴.

FIDIC 2017 has regulated the concurrent delays, but since there is no universally agreed approach at the international level, the parties can add their own special clauses. Concurrent delay is not covered in the JCT and NEC4 standard rules, which causes the parties to experience uncertainty in the concurrency situation.

Nevertheless, the perspective of the Society of Construction Law Delay and Disruption Protocol, 2nd Edition, 2017 (hereinafter: SCL Protocol) on this subject is increasingly being used internationally. According to the SCL Protocol, the contractor's concurrent delay should not adversely affect the extension; furthermore, the contractor can claim extra costs due to delay only when they can separate the costs arising from the employer's delay from the costs arising from themselves¹³⁵.

Another amendment has been made in the last paragraph of FIDIC 2017 Sub-Clause 17.2 in this regard. Accordingly, the contractor may request time extension and additional cost in case of concurrent delay only at the proportion of delay brought about by the employer.

3.2. The Completion Date

In the construction contract, the parties can designate a single completion date for the contractor to complete all work. Or, more often, in large projects, a set of dates is set for the individual completion of the various parts and phases of the work in question. For example, in a multi-unit nuclear power plant, the unit-by-unit transfer to the employer may be dated and partially put into operation. Another advantage

¹³¹ COCKLIN, M., *supra* note 117, p.12

¹³² JENKINS, J., *supra* note 19, p.37

¹³³ COCKLIN, M., *supra* note 117, p.6

¹³⁴ COCKLIN, M., *supra* note 117, p.13

¹³⁵ "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81, p.23

of the latter is that with the completion and taking over of that part, risks such as insurance and security liabilities pass from the contractor to the employer, and the contractor is exempt from the liability of liquidated damages regarding the completed part¹³⁶. For all these points, the completion date is the main starting point for determining the existence of delay¹³⁷.

3.3. Extension of Time (EoT)

The contract provision that gives the right to postpone the completion time, which is determined in the contract and is binding on the contractor, due to a critical delay that is not the responsibility of the contractor in any way, is called Extension of Time.

In many jurisdictions, domestic law does not provide for a contractor's right to extension. There are only legal provisions regarding stopping the work or continuing the performance, but these provisions do not give the opportunity to change the completion date specified in the contract and extend the period. Therefore, construction contracts exclusively contain EoT clauses. These clauses entitle the contractor to a reasonable EoT over a critical delay that cannot be attributed to themselves.

In cases where the EoT right is granted to the contractor, there are a number of other pivotal effects: The EoT provision allows to set a new, later date other than the agreed date in the contract. It also serves time certainty by avoiding a "time at large" scenario¹³⁸. Most importantly, it prevents the contractor from being exposed to any liquidated damages and reserves the right of the employer for any subsequent delay. Therefore, EoT provisions are usually interpreted narrowly, in addition, they must be detailed and well-prepared.

The contractor may be entitled to EoT due to variation, due to unusual climatic conditions, due to a pandemic or government action, and finally because of delays attributable to the employer¹³⁹. Additional provisions can be added by the parties or the situations that cause other EoT can be counted in the standard rules. If the contractor thinks that they have the right to extend the time according to FIDIC, they shall notify the engineer pursuant the procedure in Sub-Clause 20.1 *'Employer's and Contractor's Claims'*.

Whether the delay is a critical delay enabling EoT is determined by critical path analysis. As the engineer can analyze it alone, a team can also assess the critical path.

¹³⁶ JENKINS, J., *supra* note 19, p.33

¹³⁷ WERZ, J., *Delay in Construction Contracts A Comparative Study of Legal Issues Under Swiss and Anglo-American Law*, Freiburg, Universitätsverlag Freiburg Schweiz, 1994, p.43

¹³⁸ The concept of "at large" can be found in construction contracts as a concept that increases flexibility allowing specific changes to be made in the project without the need for any variation request. In this concept, the contractor is expected to complete the work within a reasonable time. As a result, it creates uncertainty in terms of the completion date. See: BELHOUSE J., COWAN P., *"Common Law 'Time at Large' Arguments in a Civil Law Context"* in the 2007 issue of Construction Law Journal No.8, MARKANDA P., MARKANDA N., MARKANDA R., *"Time When at Large in Construction Contracts"* <https://www.markandalaw.com/wp-content/themes/twenty sixteen/pdf/Time-at-large.pdf> (last access: 24.12.2022)

¹³⁹ FIDIC 2017, Sub-Clause 8.4

According to this analysis, there is an order in which all the works in the content of the project are arranged one after the other in the calendar and affect each other from time to time. That is, before one task is finished, another may not begin, or on the contrary, even if a job is delayed, it can be tolerated and does not have a delaying effect on the work behind it. In this latter case, there is a non-critical delay and EoT conditions do not occur. However, in the former, things can go downhill with a domino effect. This gives the contractor the right to EoT with the fulfillment of the other mentioned conditions.

Along with an EoT request, the contractor is expected to take measures to mitigate the effects of the delay, apart from the aforementioned conditions. However, the precaution here does not mean working outside of working hours or allocating additional resources¹⁴⁰. This can be considered more within the scope of the duty of care.

3.4. Entitlement to Additional Expenses and Loss

In a construction contract, the right to an EoT may not automatically mean that additional payments and costs are covered by the employer, although they are often seen together. Of these, the EoT request only includes the extension of the completion date, while the losses and expenses are for the additional costs encountered in process of EoT. These expenses are mostly a series of items such as additional labor time, extra rental costs, overheads, loss of opportunity, profit, and changing working conditions during the delay. The parties can specifically regulate the items that can or cannot be requested in the construction contract¹⁴¹.

To give an example that EoT does not always provide the right to receive an additional payment, although the delay is an employer risk event, in case of delays caused by third parties such as weather events, the contractor may not be able to cover the extra costs from the employer, even though it has the right to extend the time. In this state, the contractor has to bear the cost itself.

Various regulations exist in different jurisdictions regarding the reimbursement of these delay-related costs. For instance, according to German law, the contractor has the right to claim expenses in case of delay caused by the employer's inaction or negligence. In addition, by The German Construction Contract Procedures (VOB), the contractor has to notify the employer of the events causing the delay, violation of this notification obligations the right to claim the additional expenses in question. Otherwise, the contractor loses their right to compensation¹⁴². The importance of the notification obligation is emphasized once. The role of open communication channels and full disclosure of necessary notifications by the parties in preventing disputes has been mentioned above in the nature of the construction contracts.

¹⁴⁰ EHLE, B., *supra* note 5, p.65

¹⁴¹ JENKINS, J., *supra* note 19, p.41

¹⁴² See s.6(1) of the VOB

The contractor's claim for these additional costs can often be attributed to an array of procedural requirements. Establishing the right to extend the time, limiting the loss, reporting obligation, and sufficient evidence to prove the expenses may be stipulated for the compensation of these expenses¹⁴³.

3.5. Liquidated Damages (LDs)

While the contractor is given the opportunity to claim EoT and additional expenses in the construction contracts, the employer can be entitled to Liquidated Damages, where agreed.

Construction contracts have often been the contracts in which the dispute is seen. In this complexity, the proceedings in the process of determining general damages are costly and time-consuming. To avoid at least some of this issue, the parties to the contract tend to predetermine the amount of damages that the employer will be entitled to recover in the event of certain breaches. This predetermined amount is called "*liquidated damages*", "*delay damages*" or "*liquidated and ascertained damages*"¹⁴⁴.

As the usual remedy, LDs finds their place in all standard rules¹⁴⁵. Because if the employer requested damages based on the general damages provisions, the burden of proof would be on the employer and they would be obliged to prove the causality with the other party besides the amount of the damage. In this respect, the existence of the LDs clause provides certainty to the parties¹⁴⁶.

It also limits the contractor's liability by setting an upper limit on the amount of LDs¹⁴⁷. Further, since there is no burden of proof, it provides significant savings in time and cost to the parties. Finally, the LDs serve the purpose of incentivizing the contractor to duly fulfill its obligation to perform, as well as a deterrent to avoid breach of the contract¹⁴⁸.

LDs are not a demand specific to delays. The parties may also specify LDs as a remedy in cases such as failure to achieve the determined performance results, damage to reputation¹⁴⁹ or unauthorized replacement of critical personnel¹⁵⁰.

On the other hand, another new provision of FIDIC 2017 states that the contractor's upper limit of liability will not be valid in cases such as gross negligence, abuse, fraud, and such¹⁵¹.

¹⁴³ JENKINS, J., *supra* note 19, p.42

¹⁴⁴ "*Liquidated Damages in Construction Contracts*", Practical Law UK Practice Note 9-383-6757, Thomson Reuters, p.4

¹⁴⁵ "*FIDIC Red Book (2017)*" Practice Note w-014-9936, *supra* note 81, p.23

¹⁴⁶ "*Liquidated Damages in Construction Contracts*" Practice Note 9-383-6757, *supra* note 144, p.3

¹⁴⁷ FIDIC 2017, Sub-Clause 8.8

¹⁴⁸ "*Liquidated Damages in Construction Contracts*" Practice Note 9-383-6757, *supra* note 144, p.5

¹⁴⁹ *Ibid*

¹⁵⁰ An award regarding unauthorized replacement of critical personnel: Bluewater Energy Services BV v Mercon Steel Structures BV and others [2014] EWHC 2132 (TCC)

¹⁵¹ FIDIC 2017, Sub-Clause 8.8

Finally, under FIDIC, the employer must duly file a claim for LDs¹⁵².

4. Force Majeure

Force majeure is the concept used to express the events and situations that occur outside the control of the parties in construction contracts that make it impossible for the debtor of the contract to perform their contractual debt or render the contract unenforceable.

In construction contracts, natural disasters such as floods called "*Acts of God*", and events such as war, epidemic, terrorism, and expropriation can be given as examples of force majeure. Construction contracts normally contain force majeure clauses. Where they do not, the force majeure provisions or principles of the law to be applied to the contract will find an area of application. Force majeure releases the debtor from his debt when the event occurs. In other words, after an event that can be described as force majeure, the duty of debtor to perform will be lifted. Since force majeure causes fundamental changes in its consequences, it is generally tied to strict conditions. With the expression of FIDIC, the exceptional event cannot be attributed to the parties and must be beyond the control of the parties. It must also be unforeseeable before entering into a contract and unavoidable and insurmountable once it happens. It can be said that these conditions are elements of force majeure and many international model laws or standard forms refer to these elements.

Since the execution of construction contracts often takes many years, it is open to extraordinary situations, global effects, and unpredictability. Therefore, the parties aim to avoid uncertainty with the force majeure clause. Although force majeure types are counted for the purposes of illustration in many clauses, it is generally referred that the events that will cause force majeure are not limited to these. In force majeure events, it is important whether the event is the elements of force majeure, where, when and how it happened, rather than what it is. In other words, while the same event may be considered force majeure in one place, it may not be force majeure in another place because it is predictable¹⁵³. In the latter, the event in question does not have the effect of eliminating the debtor's debt.

According to the Swiss¹⁵⁴ and Turkish¹⁵⁵ legal systems, force majeure is regulated as if the performance of the debt becomes impossible for a reason that the debtor cannot be held responsible, and the debt will end. According to these systems, three conditions are sought for force majeure: perfection, imperceptibility, and irresistibility. In these two systems, originating from Roman law, force majeure constitutes the exception to "*the principle of pacta sunt servanda*". Conversely, the concept of force majeure is compatible with another Roman law principle:

¹⁵² FIDIC 2017, Sub-Clause 20.2

¹⁵³ TEKİNAY, S., Borçlar Hukuku, Cilt II, İstanbul, 1985, Fakülteler Matbaası, 5. Baskı, p.1346 (cited in BİLGİN, İ., *supra* note 66, p.83)

¹⁵⁴ SCO, Art.119

¹⁵⁵ TCO, Art.136

*"impossibilium nulla est obligatio"*¹⁵⁶, that is: A debt cannot be established on an impossible matter.

On the other hand, under English law, one of the Common Law cultures, the term *"Act of God"* can be called the equivalent of force majeure, but this concept is interpreted very narrowly. Therefore, we can compare the concept of "frustration" with force majeure in the Continental European legal system, including Swiss and Turkish Law. *"The doctrine of frustration"* gained importance in English Law after the devastating effects of the world wars¹⁵⁷. It is also referred to as "impracticability" in American Law.¹⁵⁸

Although it seems like a distinction originating only from the common law-civil law culture, the doctrines of "imprévision" in French law or "Wegfall der Geschäftsgrundlage"¹⁵⁹ in German law are also approaches that add a different dimension to the force majeure approach.

These different approaches increase the importance of supranational law rules, model laws, and standard rules in the name of the mission of law uniformization. In this direction, the concept of force majeure has been discussed in the Principles of European Contract Law (PECL), PICC UNIDROIT (2016 Principles), CISG in ICC Force Majeure Clause and standard rules. Parties may refer to these provisions regarding force majeure within the scope of freedom of contract.

Considering current issues such as war, epidemic, embargo, economic turmoil, and climate change, force majeure provisions have had a critical importance in construction contracts as in all other contractual relations. Therefore, in this thesis, force majeure & hardship are dealt with relatively comprehensively.

4.1. Differences Arising From Impossibility Types

Impossibility under the phenomena of force majeure is subject to various classifications. From this, the initial impossibility issue results in the absolute nullity of the contract in terms of Swiss¹⁶⁰ and Turkish¹⁶¹ law. Teaching contracts whose subject is impossible from the beginning are absolutely null and void. However, even though it is impossible for one of the parties to fulfill its obligation when the contract is concluded pursuant to the UNIDROIT Provision 3.1.3, it does not prevent the establishment or validity of this contract. The initial impossibility is also regulated in PECL in parallel with UNIDROIT. Likewise, the CISG is implicitly compatible with

¹⁵⁶ SCHWENZER, I., *Force Majeure and Hardship in International Sales Contracts*, Victoria University of Wellington Law Review, 2008, Volume 39, Number 4, p.710

¹⁵⁷ CRUZ DE, S.P., *A Comparative Survey of the Doctrine of Frustration, Legal Issues of Economic Integration*, 1982, Volume 9, Issue 2, p.51 (cited in BILGEN, İ., *supra* note 66, p.81)

¹⁵⁸ BILGEN, İ., *supra* note 66, pp.80-93

¹⁵⁹ RIVKIN, D., DAVID W., *"Lex Mercatoria and Force Majeure, Transnational Rules in International Commercial Arbitration"*, Paris 1993, ICC Publication Number: 480/4, p.181 (cited in BILGEN, İ., *supra* note 66, p.85)

¹⁶⁰ SCO, Art.20

¹⁶¹ TCO, Art.27

the other two, as it is drawn up without distinguishing between initial impossibility or subsequent impossibility¹⁶².

Another similar difference is in the distinction between permanent impossibility and temporary impossibility. In the event of a permanent impossibility in domestic law, the debtor's obligation to perform immediately ceases, while the impossibility in accordance with CISG Clause 79/3, PICC Clause 7.1.7, and PECL Clause 8:108 only exempts the debtor from liability for the duration of its validity¹⁶³. In this context, it is seen that some types of impossibility in international approaches do not affect the existence of the contract compared to the domestic laws and it is aimed to keep the contract alive.

4.2. Perspective of FIDIC

Force majeure, which was discussed under the title of Force Majeure under Article 19 in the 1999 FIDIC Red Book, was discussed in Article 18 with the title of "Exceptional Events in the FIDIC Red Book 2017"¹⁶⁴. Considering the different interpretations mentioned above from different legal cultures brought to the force majeure approaches, it can be said that it is more appropriate to regulate the provision in this way. Also, FIDIC did not distinguish between hardship and force majeure. Hardship is evaluated under the title of FIDIC 2017 Exceptional Event¹⁶⁵.

To reiterate, exceptional events in the eyes of FIDIC are events that occur outside the control of the parties and cannot be attributed to any one of them, cannot be taken or foreseen when establishing the contract, and cannot be prevented after the occurrence of the event. In addition to the force majeure elements accepted in Swiss law, perfection, irresistibility, and unpredictability, FIDIC also looks for an externality factor¹⁶⁶. In addition to these basic elements, the causal link and the burden of denunciation play a key role in the evaluation of an event within the scope of exceptional event. Article 136/3 of the TCO regarding the notification obligation is in compliance with FIDIC. According to this: If the debtor does not immediately notify the creditor that the performance of the debt arising from the contract has become impossible and does not take reasonable measures to prevent the damage from increasing, they are liable for the damages arising from them.

In accordance with FIDIC 2017 Sub-Clause 18.1(a)-(f), exceptional events are counted as an example, as in the ICC Model Clause¹⁶⁷. Therefore, the fact that an event is not on this list does not mean that it is not exceptional.

¹⁶² BİLGEN, İ., *supra* note 66, p.47

¹⁶³ BRUNNER, C., "Force Majeure and Hardship Under General Contract Principles Exemption for Non Performance in International Arbitration", 2009, Kluwer Law International, p.259 (cited in BİLGEN, İ., *supra* note 66, p.81)

¹⁶⁴ See "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81

¹⁶⁵ BİLGEN, İ., *supra* note 66, p.102

¹⁶⁶ *Ibid*, p.103

¹⁶⁷ "In the absence of proof to the contrary, following events affecting a party shall be presumed to fulfill conditions (a) and (b) under paragraph 1 of this Clause: (i) war (whether declared or not), hostilities, invasion, act of foreign enemies, extensive military mobilisation; (ii) civil war, riot, rebellion; (iii) currency and trade restriction, embargo, sanction; (iv) act of authority whether

4.2.1. Consequences of Exceptional Events

When the debtor party fails to perform due to an exceptional event, the contract and performance are suspended for the duration of the event, unless the contract is terminated or performed¹⁶⁸.

In cases where war, invasion as well as other events mentioned in FIDIC 2017 18.1(b) to (e) occur, the contractor may claim the costs arising from this exceptional event from the employer. This provision differs from other standard rules. Both the time extension and the costs incurred in FIDIC Exceptional Events are charged to the employer, while in other standard rules, the costs arising from the exceptional event are evaluated impartially. On the other hand, it is clear that in cases where the performance of the contractor is hindered and there is a delay, the contractor will have the right to EoT. The parties to the contract can also arrange the issue of who will bear the costs¹⁶⁹.

In case the exceptional event prevents performance for a long time, both parties may give notice to terminate the contract. If the performance is blocked for 84 days without interruption or for a total of 140 days, piecemeal, due to the event, The contract can be terminated by either party.¹⁷⁰ Termination is the last resort in construction contracts. At this point, it would be in the contractor's interest to have a clause that would include reimbursement from the employer for the costs incurred by the contractor during these expected 84 or 140 days.

Another issue related to Exceptional Events may be a breach of contract that occurs simultaneously with force majeure. The contractor cannot act negligently by taking refuge in the existence of force majeure. In the case "*Classic Maritime Inc vs Limbungan Makmur & Lion Diversified Holdings*"¹⁷¹, Limbungan was obligated to supply the plaintiff with a cargo of iron ore. Despite the occurrence of a force majeure event, the court determined that the defendant Limbungan would not ship the cargo even if the dam had not burst and considered the defendant liable. However, considering the inevitability of force majeure in meeting the costs, the judge still did not impose the costs on the defendant despite the Court of Appeal overturning the decision¹⁷².

lawful or unlawful, compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalisation; (v) plague, epidemic, natural disaster or extreme natural event; (vi) explosion, fire, destruction of equipment, prolonged break-down of transport, telecommunication, information system or energy; (vii) general labour disturbance such as boycott, strike and lock-out, go-slow, occupation of factories and premises." See ICC Clause of Force Majeure, 2020

¹⁶⁸ PECL, Art 8:101/2, Art.9:201, UNIDROIT, 2016, Art.7.1.7/4 (cited in BILGEN, İ., *supra* note 66, p.130)

¹⁶⁹ "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81, p.51

¹⁷⁰ FIDIC 2017, Sub-Clause 18.5

¹⁷¹ See EWHC 2389, 2018

¹⁷² See "*Classic Maritime Inc v Limbungan Makmur SDN BHD* [2019]" EWCA Civ 1102

5. Hardship

Hardship clauses are also indispensable clauses for construction contracts. Hardship can be defined as the difficulty in the execution of the work subject to the construction contract, either due to economic reasons that the parties cannot foresee or due to natural events that the parties are not able to foresee or prevent. In cases of hardship, there is a need to re-establish the deteriorated balance of the contract on the basis of the execution or the cost¹⁷³. In this context, in other words, the hardship allows the parties to re-evaluate the contract's terms or modify the contract to changing conditions.¹⁷⁴.

Hardship clauses do not have as much priority as force majeure clauses. As a matter of fact, while the provisions regarding force majeure were basically discussed in the FIDIC 2017 rules, the same Clause 18 has also found a basement of application for hardship.

UNIDROIT and PECL have regulated hardship and its results more strictly than other international texts and standard rules. Hardship is discussed in UNIDROIT 2016, Chapter Six, Section Two. In article 6.2.1, the contract is binding on the parties with *"the principle of pacta sunt servanda"*¹⁷⁵ and the performance must be performed regardless of the time and load. In other words, as a rule, even if the balance of the contract deteriorates and the contractual debts become very burdensome for one party, the parties must comply with conditions of the contract. In contrast, Clause 6.2.2 regulates the severe deterioration of this balance. In the event that the conditions in 6.2.2 are met, the debtor may request that the terms of the contract be renegotiated within a fair time if the debtor is in hardship. If the other party rejects this request or if it cannot be agreed upon as a result of the negotiations, the parties may resort to dispute resolution methods¹⁷⁶.

6. Force Majeure and Hardship Scenarios With Current Issues Through The Example of A NPP Project in Turkey

For the Akkuyu Nuclear Power Plant Project (hereinafter: Akkuyu NPP), which is the first NPP in Turkish history, in May 2010, the Russian and Turkish parties signed a cooperation agreement involving four reactors with a capacity of 4800 MW and a VVER-1200 power unit in Mersin , on the south coast of Turkey. Within the scope of

¹⁷³ TCO, Art.138

¹⁷⁴ BİLGİN, İ., *supra note 66*, p.136

¹⁷⁵ UNIDROIT, 2016, Art.1.3

¹⁷⁶ RIMKE , J., *"Force Majeure and Hardship: Application in International Trade Practice with Specific Regard to the CISG and the UNIDROIT Principles of International Commercial Contracts"*, Pace Review of the Convention on Contracts for the International Sale of Goods, Kluwer Law, 1999 2000, p.239-240 (cited in BİLGİN, İ., *supra note 66*, p.137)

this agreement, on 13 December 2010, the Russian side established the Akkuyu Nuclear Joint-Stock Company under Turkish law.

The project in question is the first NPP in the world with a Build-Own-Operate (BOO)¹⁷⁷ contract. In addition, the Russian side Rosatom State Corporation has a 99.2% stake in the project, which will cost an estimated \$20 billion¹⁷⁸.

The project is currently still under construction and the contract is still standing, although it has been subjected to numerous different force majeure or hardship events. Since it is not possible to know the content of the contract between the parties, which standard rule and which substantive law is applicable, only a superficial evaluation is aimed in order to embody the previous titles.

6.1. COVID-19

We have been with one of the very rare struggling pandemics in world history in the last 2-3 years. Although life seems to return to normal, performance in many contracts returning has become impossible for a while or permanently. Although FIDIC and many standard rules and international texts do not directly refer to the pandemic, the examples listed are not limiting as mentioned before.

In addition, for the curfews we are subject to in the COVID process; in accordance with the ICC Clause of Force Majeure 2020 regulate that, although legal or unlawful under the sub-article of (iv), they are government orders and fall within the scope of force majeure. Moreover, according to paragraph (v) of the same article, plague or epidemic is also considered within the scope of force majeure.

Even though there is no direct pandemic regulation in FIDIC, if the affected party proves the elements of the exceptional event mentioned in detail above, COVID is also regularly considered an exceptional event. In this context, the affected party must show that it has not been able to perform its obligations, that it has made reasonable efforts to minimize the delay and loss in the performance of the contract caused by the event, and that the effects of the event are unavoidable. Therefore, the contractor is expected to provide the necessary health and safety measures at the

¹⁷⁷ Build-Own-Operate(hereinafter BOO) contracts involve the contractor performing the work in question within a specified period of time and operating the work on its own behalf. In these contracts, the ownership of the project belongs to the contractor and the contractor earns profit from the sale of the goods and services produced by the facility. This is where it differs from the commonly used Build-Operate-Transfer contracts. In BOT contracts, the ownership belongs to the employer and after the construction is completed, the contractor operates the project by leasing it for a certain period of time. In BOO, on the other hand, ownership is with the contractor and is not transferred to the employer. Although Turkey has a considerable reputation in the construction sector, it is possible to see projects in which the balance of benefit on behalf of the state is not considered in these comprehensive public projects. One of the main purposes of BOT contracts is that the employer ensures the construction of the project without any expense, and the said costs are covered by the contractor by operating the project for a while. However, due to the income guarantee provided to the contractors in Turkey, examples where the entire cost of the project is paid to the contractor within a few years within the scope of this guarantee have become widespread. This situation does not serve the purpose of BOT contracts and causes an uncontrolled increase in public expenditures. See <https://railynews.com/2021/05/victory-airport-closed-the-first-quarter-of-the-year-with-61-passengers/>

¹⁷⁸ See <http://www.akkunpp.com/akkuyu-npp-construction-project>

construction site, especially in order to ensure the provision of Article 18.3. This provision should not be ignored in providing the elements of force majeure in terms of COVID.

Disruptions in supply chains are also one of the factors that prevent the performance of contracts due to COVID-19. In this respect, FIDIC provides the contractor with the right to extend time in case of an unforeseen shortage of third-party goods or personnel.

As in all other countries and contracts, curfews have been implemented in Turkey within the scope of COVID-19, disruptions have been experienced in the continuity of supply chains and the execution of contracts has come to a standstill from time to time. Naturally, the delays caused by COVID-19 must have been seen in the Akkuyu NPP Construction. As stated before, it is useful to make a general assessment since it is not possible to know the specific provisions of the contract.

6.2. Climate Change

In particular for recent years, the direct effects of climate change have been observed. Despite the fact that the Kyoto Protocol is relevant to this issue, the inclusive effect of this protocol is discussed, especially since countries such as the USA and China, which are large and cause the greatest damage to the atmosphere, are excluded from the protocol¹⁷⁹. For this reason, the more effective Paris Agreement has been prepared. According to the agreement, its goal is to increase global socioeconomic resilience to the threat of climate change in the post-2020 timeframe, in the first place. In the long term, it is aimed to reduce the global temperature increase, which triggers climate change, below 2 degrees Celsius¹⁸⁰.

The Akkuyu NPP has been unexpectedly affected by forest fires caused by climate change for the last two years. In the summer of 2021, wildfires were seen in Turkey and in many parts of Europe.

According to the report of the European Commission Joint Research Center (JRC), 1,113,464 hectares of forests were burned in 39 countries in 2021. Turkey ranked first in this report with 206.013 hectares of burning forest¹⁸¹. The forest fires in 2021 lasted more than a month in Turkey and could not be extinguished for a long time. Despite the measures taken in 2022 summer, forest fires broke out again in the same months¹⁸². This uncontrollable fire advanced and came very close to the Akkuyu NPP

¹⁷⁹ See <https://www.mfa.gov.tr/united-nations-framework-convention-on-climate-change-unfccc-and-the-kyoto-protocol.en.mfa> (last access: 05.01.2023)

¹⁸⁰ Ibid

¹⁸¹ See https://joint-research-centre.ec.europa.eu/jrc-news/eu-2021-wildfire-season-was-second-worst-record-finds-new-commission-report-2022-03-21_en (last access:01.01.2023)

¹⁸² See International Panel on Climate Change (IPCC), "Climate Change 2022: Impacts, Adaptation and Vulnerability" <https://www.ipcc.ch/report/ar6/wg2/> (last access:28.12.2022), See, "Spreading like Wildfire: The Rising Threat of Extraordinary Landscape Fires" United Nations Environment Programme 2022 Report <https://www.unep.org/resources/report/spreading-wildfire-rising-threat-extraordinary-landscape-fires> (last access: 28.12.2022)

and blocked access to the construction site for a while¹⁸³. During this time, work at the construction site stopped. In the ICC Clause of Force Majeure, it can be seen under the title of extreme natural events, this forest fire caused by climate change and the event that the performance is prevented. As emphasized earlier, although there is no direct reference in the contract, the affected party can claim force majeure under unpredictability, externality, unavailability, and non-attributability to the parties.

There is a number of points that should be noted in this regard: In case of fires in the south of Turkey in the same period of the year due to climate change, the 140-day period in FIDIC may come to the fore. However, since the contract and the continuation of the construction are essential, termination should be seen as a last resort. On the other hand, the contract for the Akkuyu NPP project dates back to 2010. So, will the same forest fires be considered force majeure in a similar project in the same region where the contracts were signed in 2022? Since forest fires experienced in the same period for two years can probably no longer be considered unpredictable, since one of the basic conditions of force majeure is unpredictability, these fires are not force majeure for this hypothetical contract. The schedule should be determined by considering the foreseeable events while preparing the contract. The same question is legitimate for other titles. The characterization of force majeure varies according to each event, time, and place.

6.3. Sanctions and Embargos

99.2% of the Akkuyu Nuclear Joint-Stock Company is owned by the Russian Rosatom State Corporation. After the Ukraine-Russian war that broke out in 2022, many countries took numerous sanctions and embargo decisions against Russia. Turkey is trying to play a mediator role as a bridge between the two sides. However, embargoes and sanctions were also included in paragraph (iii) of the ICC force majeure clause. The Turkish party, which is the employer of the contract, may have the opportunity to terminate the contract with the demand for force majeure, citing the embargo and sanctions imposed on the condition that it is in the contract or complies with the terms of the force majeure clause of the contract. The interpretation on this issue, which concerns numerous political dynamics and balances, includes only the legal framework, otherwise it is clear that an issue that transcends the boundaries of vague jurisdictions such as sanctions and embargoes is not just about law.

The same legitimate question can be asked again. The party that has made a construction contract with the Russian partner knowingly about the Russian sanctions will not be able to demand the termination of the contract on the grounds of force majeure based on the embargo and sanctions. Since the war, in other words, given that the sanctions and embargoes are foreseen, it will be preferable for the

¹⁸³ See <https://www.thenationalnews.com/mena/2022/09/07/turkey-battles-wildfire-in-area-close-to-southern-akkuyu-nuclear-plant/> (last access: 28.12.2022)

other party of the contract to conclude the contract by consulting the compliance companies. Because they will not be under force majeure protection.

6.4. Inflation or Fluctuations

According to the data¹⁸⁴ of the Central Bank of Turkey in 2010, when the Russian and Turkish parties established a contractual relationship, 1 US Dollar was equivalent to 1.51 Turkish Liras. According to the data¹⁸⁵ of the Central Bank dated 28 December 2022, 1 US Dollar is equal to 18.70 Turkish Liras on average. In addition, according to November 2022 data of the Turkish Statistical Institute, there is an annual inflation of 84.39% in Turkey¹⁸⁶. Moreover, at the global level, there are both the polar world recreated by the Ukrainian-Russian war, the problems experienced in cheap production and continuity, as well as the disruptions in the supply chain after COVID-19. Another issue at the global level is that the long-term monetary tightening period of the US Federal Reserve (FED), which determines the policies in the reserve currency, the US dollar, as a result of all this conjuncture, is proof that volatility and uncertainties will prevail in the coming years.

In this conjuncture, the party who is adversely affected by the contract may request the adaptation of the contract based on the hardship provision, if the conditions arise. Or, the fluctuation clause, which does not involve as severe a hardship as the concept of hardship, may be in construction contracts. According to this clause, the adversely affected party may request a re-arrangement against the consequences of the above-mentioned dynamics in the contract. In line with the regional and global issues that are handled superficially, it is very likely that the contract has been adapted for Akkuyu, perhaps even several times.

Further, According to the JCT SBC 16 standard form, a debtor in delay cannot request the application of the fluctuation clause¹⁸⁷.

Despite all these chaotic issues, the fact that the Akkuyu NPP is still under construction today is literally a success from the objective perspective. Such success is only possible with a well-organized and well-prepared construction contract.

7. Termination

Termination of the contract is seen as a last resort for both parties, considering the long contract periods and the huge costs incurred. In particular, the complexity of the legal consequences of the termination of the contract should not be forgotten, and the parties should review the results on a practical and legal basis before terminating the contract. The termination process may also be the subject of dispute.

¹⁸⁴ See <https://www.tcmb.gov.tr/kurlar/201005/10052010.xml> (last access: 28.12.2022)

¹⁸⁵ See https://www.tcmb.gov.tr/kurlar/kurlar_tr.html (last access: 28.12.2022)

¹⁸⁶ See <https://data.tuik.gov.tr/Bulten/Index?p=Tuketici-Fiyat-Endeksi-Kasim-2022-45800> (last access: 28.12.2022)

¹⁸⁷ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra* note 38, p.243

If the addressee of the termination request objects to the termination and, in the context of FIDIC, there is a judgment from the DAAB or arbitral tribunal that the termination is for convenience, this decision may be costly for the party requesting the termination.

In addition, unless the clauses regulating the right of termination under the contract expressly specify, it does not exclude the termination provisions of the applicable law.

7.1. Employer's Termination

According to FIDIC 15/1, the contractor is allowed to correct his previous failure and rectify the violation. This provision again complies with the spirit of FIDIC, which aims to resolve a potential dispute amicably. However, despite the Notice of Correct, the contractor's failure to perform correctly gives the employer the right to terminate the contract for cause, provided the violation is material. There may be differences in interpretation as to what is a material breach. On the other hand, if the violation that led to the Notice of Correct is not a material breach, there should be no causal termination¹⁸⁸.

Further, Sub-Clause 15.2 of FIDIC includes the employer's termination for cause. The employer has the option to terminate the contract due to reasons such as the contractor's abandonment of the works or clearly showing his intention not to perform, or the continuation of the suspension and delay, bankruptcy, corruption, and bribery. These are a few of the conditions covered in FIDIC¹⁸⁹.

Against the termination with just cause, the contractor may object and claim that the termination is for convenience. By the DAAB or arbitral tribunal decisions, a decision that the termination is just for convenience triggers additional costs for the employer¹⁹⁰. Therefore, an ill-considered and opportunistic termination for cause action can be costly to the employer¹⁹¹.

Apart from that, the employer has the right to terminate the contract at any moment, provided that notice is given, this is called termination for convenience¹⁹². In this case, the employer has to pay the price of the work done by the contractor up to that point, the loss of profit and other losses and damages from the termination of the contract.

Under Swiss law and Turkish law, in cases where the contractor defaults¹⁹³, the work in question is so defective that it cannot be used, and the employer cannot be

¹⁸⁸ See TYSON, V., "*Clause 15: Termination by Employer*", Corbett&Co International Construction Lawyers <https://www.corbett.co.uk/wp-content/uploads/Clause-15-Termination-by-Employer.pdf> (last access:01.01.2023)

¹⁸⁹ "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81, p.41

¹⁹⁰ TYSON, V., *supra* note 188

¹⁹¹ MOSS, S., IRWIN, C., "*Employer Termination of A Construction Contract*", International Law Office, Newsletter (Construction), 5 November 2018, p.3

¹⁹² FIDIC 2017, Sub-Clause 15.5

¹⁹³ SCO, Art.107.2, TCO, Art.117

expected to accept the work in question, the employer has the right to terminate for just cause¹⁹⁴. In addition, if the contractor did not start the work on time, if the work is delayed, if it is no longer possible to finish the work on time, and if it is certain that the work will be defective, the employer may terminate the contract without waiting for the completion date¹⁹⁵. The defect mentioned in these provisions refers to defects that are too serious for the employer to accept.

The employer, who cannot rely on a just cause, may terminate the contract for convenience. In this instance, the contractor is liable to the contractor for the loss of the remaining part of the contract, including the loss of profit¹⁹⁶.

7.2. Contractor's Termination and Suspension

The right to suspension is lighter than termination, and the right to suspend the contract for a particular period is a contractor-specific right. But suspension and termination are closely related. A reason that gives the contractor the right to terminate the contract can also be used for suspension, but long-term suspension also causes the termination of the contract¹⁹⁷.

For the contractor under the FIDIC conditions, reasons such as the employer's default, failure to make the due payments, bankruptcy, the engineer's failure in issuing the payment certificate, and prolonged suspension are sufficient for the contractor to terminate the contract¹⁹⁸.

Although the provisions regarding the default of the creditor in Swiss and Turkish law are similar to the default clauses here, they do not give the contractor the right to terminate the contract¹⁹⁹.

¹⁹⁴ SCO, Art.368, TCO, Art.475

¹⁹⁵ SCO, Art.366, TCO, Art.473

¹⁹⁶ SCO, Art.377, TCO, Art.484

¹⁹⁷ "FIDIC Red Book (2017)" Practice Note w-014-9936, *supra* note 81, p.42

¹⁹⁸ FIDIC 2017, Sub-Clause 16.2

¹⁹⁹ SCO, Art.91 and onwards , TCO, Art.106 and onwards

CHAPTER THREE:

Disputes Resolution Methods and Multi-Tier Clauses

As mentioned in the previous sections of this thesis, there are numerous factors that can be the subject of dispute in construction contracts. It is not only the issues discussed under the title of potential disputes in the second chapter, but also the nature of the contract, the interfaces between the members of the project, cultural influences, and naturally, it can arise from the human factor. It has been emphasized before that the potential for disruption and dispute is inevitable and therefore the communication channels of the parties should be kept open.

On the other hand, a construction contract is project-oriented and it can be seen as if there will be no dispute. A contract prepared in this way might have heavy consequences for the parties. In the contract and in the post-contract project process, the parties should have a flexible structure that is open to communication and reconciliation. As repeatedly emphasized, it is the execution of the project and the contract by detecting and removing the slightest roughness in everyone's interest immediately. At this point, amicable methods and arbitration come to the fore rather than the traditional litigation method. In construction contracts, the parties can use the adversarial method of arbitration alone or use it as a multi-tier together with non-adversarial methods. The latter is preferred in most standard forms.

1. Conciliation and Mediation

Unlike the adversarial methods, Alternative Dispute Resolution (hereinafter: ADR) methods do not include an arbitrator or judge with decision-making authority. On the contrary, the parties try to resolve the dispute among themselves in ADR either by negotiation or with the help and guidance of a third independent person. The purpose of ADR is not to get to the root of the dispute and to seek justice, but to maintain a commercial resolution and contractual relationship. The continuity of these relations becomes even more important as construction contracts deal with projects that will last for many years. Therefore, ADR methods, unlike adversarial

ways, serve this purpose for parties who want to maintain their commercial relations with the other party and who have empathy and a culture of consensus²⁰⁰.

For low-cost or very minor disputes, ADR method – if conducted in an efficient manner – can save both time and money without going to arbitration, and enable an earlier resolution of the dispute. In addition, applying to ADR before resorting to an adversarial route such as arbitration ensures that the project continues at this stage and that the specified completion date is respected²⁰¹. The parties' lack of communication and flexibility with intransigent approaches prevents the effective use of ADR methods.

There are no clear distinctions between the concepts known as ADR. The fact that it is both a newly developing and flexible field has a great share in this. Negotiations to reach an amicable solution, which is considered as an ADR method in some sources²⁰², cannot be said to be very different from conciliation in terms of method. In other words, conciliation is a concept that includes negotiation. On the other hand, for conciliation unlike negotiation, the parties designate a neutral person as the conciliator. Being under the supervision of a neutral third party also constitutes a common point for conciliation and mediation. Since there is a minor difference in this respect, some sources²⁰³ consider mediation and conciliation under the same heading.

The parties to the construction contract often do not communicate directly. The fact that the engineer and the contractor are in contact during the construction phase may cause the communication between the two parties to be ignored. In conciliation, the parties designate an independent conciliator. The conciliator meets with the parties separately and brings the parties together for negotiation. If, as a result of the negotiation, the parties still cannot resolve the dispute, the conciliator makes a non-binding recommendation to the parties²⁰⁴.

In mediation, on the other hand, the third-party negotiates between the parties in the same way, organizes meetings and tries to find a solution by directing the parties at the time of the negotiation. However, if an agreement cannot be reached, a mediator does not make any recommendation in the same way as the conciliator does. Mediation is the most commonly used ADR method.

It is important for the effectiveness of the mediation that the person to be appointed as a conciliator or mediator has expertise and competence in this field²⁰⁵.

Parties to the contract can include ADR methods in their dispute resolution clauses for reference in case of any dispute. The parties may agree in detail on the procedure

²⁰⁰ HOLLANDS D.E., “*Amicable Settlement of Construction Disputes*”, A Report of FIDIC’s Alternative Dispute Resolution Task Committee, Lausanne, 1992, p.3 (cited in AKINCI, *supra note* 12, p.137), JENKINS, J., *supra note* 19, p.54

²⁰¹ JENKINS, J., *supra note* 19, p.50

²⁰² AKINCI, Z., *supra note* 12, p.136

²⁰³ JENKINS, J., *supra note* 19, pp. 54-55

²⁰⁴ HUGHES, W., CHAMPION, R., MURDOCH, J., *supra note* 38, p.387

²⁰⁵ *Ibid*

of the neutral third party, the procedure of the ADR, in line with their requests, on an "ad hoc basis". On the other hand, the parties can add these methods to the contract by directly referring to the model clauses of the institutions. Although not as much as international arbitration, institutions such as ICC and UNCITRAL, and ICSID also have model clauses regarding mediation. As a result of the reference to these, both how the mediator will be determined and how the mediation procedure will be processed are carried out according to the procedure in the model clause²⁰⁶.

2. Dispute Boards

Unlike ADRs, Dispute Boards are the concept that accompanies the project from the beginning, not from the emergence of the dispute. Especially in large-scale construction contracts, a board consisting of three and rarely one neutral person is appointed with the conclusion of the contract.

This expert committee observes and inspects the performance of the work at the construction site during the execution of the work. In this way, they play an effective role in resolving the dispute, as they are familiar with both the operation of the project and the expectations of the parties when the dispute arises. Their ability to intervene quickly even prevents a disruption from turning into a dispute. These members, like other conciliatory mediators, are determined from among experts. However, the only distinctive features of the board members are not only their expertise and experience, but also their close monitoring of the project and process from the data beginning.

Although this effective way is very cost-effective for large projects, in small-scale projects, since the probability of dispute is not that much, the appointed and costly board members can be a burden.

Dispute Boards are often part of the standard rules in dispute resolution provisions.

2.1. FIDIC DAAB

The Board, which was organized as the Adjudication Board in the FIDIC 1999 conditions, was reconsidered as the Avoidance/Adjudication Board in the FIDIC 2017 conditions, with the objective to highlight its preventive dimension. Under Art. 20, either the employer or the contractor can make a request. It is the engineer of the project who decides regarding this claim. Within 28 days of receiving the Engineer's determination, the aggrieved party may file a Notice of Dissatisfaction (NOD). Otherwise, the engineer's determination binds the parties. The given NOD activates the DAAB procedure²⁰⁷.

Under the DAAB Procedural Rules, the requirement for the board to meet with the parties regularly and visit the construction site is underlined. In addition, the parties may request to meet with the board off the record. With this feature, the board also assumed the role of mediator. A dispute that comes to DAAB is decided in writing and with reasons, and this decision is instantly enforceable regardless of the objection. If

²⁰⁶ JENKINS, J., *supra* note 19, p.57

²⁰⁷ EHLE, B., IRWIN, C., *supra* note 80, p.10

a NOD is also awarded against the DAAB decision, FIDIC invites the parties to reach an amicable settlement before initiating the arbitration process²⁰⁸.

Therefore, DAAB constitutes the first stage in the dispute procedure of FIDIC in the context of ADR. In the next stages, as mentioned above, amicable means and finally arbitration²⁰⁹.

It should be stated that if the binding DAAB decision is not complied with, the amicable settlement phase can be skipped and the arbitration process can be initiated directly²¹⁰.

3. Arbitration

At the present time, international construction contracts typically include arbitration clauses as the ultimate dispute-resolution mechanism. The traditional method of litigation was gradually replaced by another adversarial method, arbitration. Especially in the developing globalized world, legal stability and predictability in the 20th century have become essential for the universalization of the economy²¹¹. So much so that while a series of recognition and enforcement procedures are required for a foreign court decision to be internationally enforceable, with the 1958 New York Convention, the procedure for the implementation of foreign arbitral awards all over the world has been greatly simplified²¹².

3.1. Features and Advantages

In arbitration proceedings, the arbitrators are determined only for the relevant dispute and focus on that dispute. In state proceedings, judges have to deal with numerous cases and have a heavy workload. In addition, the judge in the state court is not an expert on the relevant dispute. Through arbitration, it is possible to select arbitrators who are familiar with the area of the dispute. It can even be seen that an expert rather than a lawyer is appointed to the arbitral tribunal consisting of three members. This not only reduces the costs of experts but also means that the arbitral tribunal has technical knowledge of the subject in arbitration proceedings²¹³.

Another important feature of arbitration is that it provides confidentiality. In an adversarial trial, the relationship between the parties can become very tense. Since state jurisdictions are generally open to the public, many elements such as contractual secrets and company confidentiality could be revealed, the relationship between the parties to the dispute is no longer sustainable, and the party companies may suffer from reputational damage. However, the confidentiality and privacy of arbitration allows the parties to maintain their relationship and protect their secrets.

²⁰⁸ Ibid

²⁰⁹ SCHNEIDER, M., EHLE, B., *supra* note 6, p.299

²¹⁰ FIDIC 2017, Sub-Clause 21.8

²¹¹ SCHNEIDER, M., “*Investment Disputes - Moving Beyond Arbitration*”, Diplomatic and Judicial Means of Dispute Settlement, Brill, 2014, p.120

²¹² JENKINS, J., *supra* note 19, p.12

²¹³ SCHNEIDER, M., EHLE, B., *supra* note 6, p.298

In state courts, proceedings are carried out within the framework of procedural law of each state²¹⁴. This form of arbitration provides relief from obligations. Although the arbitration rules of institutions include a set of procedures, they cannot be compared to the strict form of state proceedings; in arbitration there is much more flexibility and the parties to the dispute have a say when the specific procedural rules are fixed.

The decision of the arbitrators as a result of the arbitration proceedings is binding on the parties, and easily enforceable in the signatory states under the 1958 New York Convention.

In a construction contract where the employer is a state institution, it is discussed how fair it would be to apply to the jurisdiction of the same state for the settlement of the dispute. Alternatively, the parties from different cultures and languages may be parties to the contract, while in the state court, they have to adhere to the local language, in arbitration, the parties can proceed in the language they want²¹⁵. As stated, arbitration has many advantages as a final resolution mechanism.

3.2. Drawbacks

Arbitration may not always be more economical than state courts. In particular, if the arbitration process is administered by an institution, the institution must be paid in addition to the costs of the proceedings. Moreover, where there is an *ad hoc* arbitral tribunal, it is difficult to determine the appropriate schedule for each arbitrator.

In addition, the arbitration clause in the contract is only binding on the parties and is optional. Therefore, those who are not parties to the contract are not obliged to comply with the relevant decision unless they voluntarily accept it. Under most institutional arbitration rules, the arbitral tribunal is not authorized to unite third parties and other cases under one roof unless they consent. Construction contracts, by their nature, include many parties and interfaces. A dispute between the contractor and the employer may be resolved by arbitration. However, if the necessary measures are not taken, this arbitration decision will not be binding on the subcontractor and the supplier. If consolidation is not achieved within this network of relationships and agreements, different relationships and conflicting arbitration awards may appear. In this case, while it is aimed to save time and cost with the arbitration, on the contrary, a deadlock is encountered and time and money are wasted.

This disadvantage can be avoided to some extent by regulations of institutional arbitration rules²¹⁶. In addition, the parties can determine an “umbrella” dispute resolution clause and decide to integrate it into all subcontracts during the contract negotiation process.

Another disadvantage of arbitration is that since it draws its power from the 1958 New York Convention, it encounters the problem of enforceability in countries that are not party to this convention.

²¹⁴ Ibid, p.297

²¹⁵ SCHNEIDER, M., EHLE, B., *supra* note 6, p.297

²¹⁶ Institutions such as The London Court of International Arbitration (LCIA) and ICC have provisions regarding consolidation. See Jenkins, J., *supra* note 19

3.3. Ad Hoc vs Institutional Arbitration

The parties to the contract may determine their own arbitration clauses in the contract without being bound by the arbitration rules of any institution. In this case, the parties should pay attention to fully arrange the basic arbitration issues such as the way of appointment of the arbitrators, the procedure of proceeding, and the place of arbitration. Following UNCITRAL's model arbitration rules for Ad Hoc Arbitration provide convenience to the parties.

Normally, the institution provides supervision of the processes before the appointment of arbitrators and the supervision of objections to the appointment of arbitrators. However, this is not possible in ad hoc arbitration and if there is a party that complicates the process and is far from cooperation, the arbitration process becomes complicated from the very beginning. Ad hoc arbitration is less costly and more reliable for customary parties with a long business history and relationship. Therefore, not carrying out the arbitration process under the umbrella of an institution may involve a number of risks for the parties.

In contrast to that, although it is much more costly to refer to an institution's arbitration rules in an arbitration clause and to conduct the arbitration process in accordance with their rules, it provides the parties with the assurance of a professional organization. Arbitral institutions contain many specific rules from the selection of the arbitrator to the challenge of the arbitrator and the negotiation procedures. In return for this administrative function, an administrative fee has to be paid. Another advantage of institutional arbitration is that it can be used in a wide variety of contracts, so they have a constantly updated structure as per needs.

4. Multi-Tier Clauses

Although arbitration is widely used as opposed to litigation, it is still a time-consuming and costly adversarial process. However, although the evolution of international trade has enabled us to transition from litigation to arbitration, this evolution continues and the popularity of amicable settlement ways is increasing. Besides, the parties to the contract tend to resolve the dispute functionally as soon as possible and maintain their contractual relations.

In this direction, instead of choosing only arbitration, the parties can determine the methods that can serve to resolve the dispute as multi-tiered beforehand. An ADR and adversarial method can be used in combination, such as Mediation-Arbitration, and Conciliation-Arbitration. Each of the mechanisms detailed above is a tool available to resolve disputes. The multi-tiered clause provides the parties with the opportunity to resolve disputes effectively and flexibly by minimizing delays and disruptions.

However, contrary to its purpose, multi-tiered clauses, if not well regulated, may raise a number of additional problems, such as issues of delay or jurisdiction of arbitration rather than early resolution of the dispute. In this context, the multi-tiered clause may be abused to delay an unavoidable arbitration process or to cause a loss of rights²¹⁷. In order to prevent this, it is useful to set time limits for the parties to apply to the

²¹⁷ SCHNEIDER, M., EHLE, B., *supra* note 6, p.297

preliminary stages. Because applying an ADR method determined in the first stage does not interrupt the statute of limitations and usually no binding decisions are made at the end of an ADR procedure. Therefore, an ADR procedure initiated in bad faith may bring about the forfeiture of the other party.

A legitimate question in this context: In the presence of a multi-tiered clause, is it mandatory or optional to resort to pre-arbitration stages? Considering the question in light of the progressive precedents of the Swiss Supreme Court: In a 2007 decision²¹⁸, the Supreme Court decided that it should be determined by the common intention of the parties whether the preliminary steps are mandatory or optional in relation to a multi-tiered clause. Moreover, the court underlined that if there is no time limit for this first stage, it indicates that this preliminary step is optional. At that time, however, the Supreme Court did not make an assessment of the jurisdiction of the arbitral tribunal if a preliminary stage was mandatory.

The Supreme Court found in 2011²¹⁹ that in a similar dispute where preliminary action was mandatory but not fulfilled, it was a matter of jurisdiction of the arbitral tribunal under Swiss PILA²²⁰ 190/2. The relevant provision includes the setting aside of the award in cases where the arbitral tribunal incorrectly determines its jurisdiction. In accordance with the prevailing approach in the literature, the court commented that the arbitration should be suspended and the parties should be given time to eliminate this mandatory part. However, they did not point out what kind of a decision should be ruled in the relevant case if the pre-arbitration step is mandatory because it is optional.

In another 2014 decision²²¹, the Swiss Supreme Court noted that the DAB process, regulated in Clause 20 under FIDIC 1999, is a mandatory stage before arbitration. However, even if the preliminary stage is mandatory, if one party does not apply in good faith, there is an abuse of right and the other party may skip this stage and initiate the arbitration process.

Finally, the Supreme Court issued a milestone decision²²² in 2016, commenting on the dispute that it had left unanswered for years. It is the first time that the court has made a decision in the face of non-fulfillment of the mandatory preliminary stage before arbitration. As a result of non-compliance with the mandatory first stage, the arbitration decision was annulled due to the arbitral tribunal's lack of jurisdiction *ratio temporis*. The Supreme Court ruled that arbitration should be suspended pending the completion of the mandatory process²²³, which coincides with the 2011 decision. With this decision, the Supreme Court has rendered a decision in line with the spirit and purpose of the multi-tiered clauses. As a matter of fact, the decision to procedurally reject the arbitration application based on the lack of jurisdiction may result in loss of rights since the statute of limitations does not stop, as stated before.

²¹⁸ 4A_18/2007

²¹⁹ 4A_46/2011

²²⁰ Swiss Private International Law, 1987

²²¹ 4A_124/2014

²²² 4A_628/2015

²²³ See SCHERER, M., MOSS, S., *"The Consequence of Skipping A Mandatory Pre-Arbitral Step"*, International Law Office, Newsletter (Construction and Energy), 5 December 2016, See ASSO J., CASEY, A., *"The Swiss Federal Supreme Court Stays Arbitration Proceedings Because The Parties Skipped Mandatory Pre-Arbitral Steps"*, Construction Law International, Vol.14, November 2019

Even if the statute of limitations does not expire, the parties in that dispute have to file a second arbitration application. That means additional costs and time.

In this framework, for multi-tiered clauses in a contract, there should be a time limit for applying to the preliminary stages, and any of the parties should be able to apply for arbitration if the period is exceeded.

Conclusion

Contrary to other contracts, in today's interconnected world construction contracts are contracts in which people from different cultures have to work together for a long time in cooperation with many variables. In addition to the main contract, there are many sub-contracts under the umbrella of this contract. In other words, besides the employer and the contractor who are the parties of the main contract, due to the nature of the construction projects, labor, procurement, and subcontracting, numerous interfaces affect the project and naturally the main contract. In addition, it is very likely to encounter external factors that develop over a long period of time, exceptional events such as natural disasters, and war. Therefore, the first step in preventing potential disputes is not dispute resolution mechanisms, but the healthy establishment of this network of relations and the meticulous preparation of the construction contract.

Only the perfect preparation of the contract is not enough to prevent the dispute, besides, the parties to the contract, the employer and the contractor must act knowing their rights and obligations arising from the contract. Moreover, the parties should be aware of the desired project and contract type and should consider the technical part of the contract and determine the type of contract in line with its objectives and payment plans.

No matter how detailed and meticulous a construction contract is, it is highly likely to encounter a disruption or dispute, as discussed in detail in this thesis. It is impossible to think of and write down every single possibility in a bespoke contract. Therefore, standard rules for construction contracts are often preferred. In the face of the bulky nature of construction contracts and the unpredictability of the project, standard rules provide more comprehensive protection for dispute prevention. The FIDIC Standard Forms, which are frequently referred to in the thesis, are the most commonly preferred. These Forms are often considered more secure as they are universal and are updated in case of any deficiency or need.

The most basic obligation in the construction contract is that the contractor execute the work as agreed in the contract and the employer pays in return. However, while the construction demanded in the contract is in progress, it may change in a positive or negative way. Therefore, construction contracts include a variation clause. In this context, provisions on the limits of variation, who will bear the costs created by the variation and how the amount of these costs will be evaluated should be added. In addition, the contractor may challenge this claim, claiming that a variation request

actually requests a change on the basis of the contract. Disputes may arise as to whether a claim is covered by a variation claim.

The contractor may not have fulfilled the performance obligation he has committed in the contract as required. The work in question may be defective. This can be a subject of dispute in construction contracts. In this case, the FIDIC conditions distinguish between defects before and after taking over. For the defect after taking over, a DNP is determined in the contract and the employer must report the defect within this period. The employer's obligation to test within this period should not be overlooked. Otherwise, it may result in accepting the goods with their defects. In the event of a defect, the employer may have someone else do the work at the contractor's cost, or accept the defect and request a discount in proportion to the defect. Finally, if the defect is critical, the employer can refuse the work and terminate the contract.

Another potential issue of dispute is the delay. The parties agree on the completion of the work in question on a certain date in the construction contract and determine the completion date. There is a delay in cases where this date is exceeded and the completion date of the project is delayed. A delay can be caused by both parties and external influences, so contracts classify delays as employer risk events and contractor risk events and determine who is liable for the delay. When the risk of delay belongs to the employer, the contractor can claim the costs and damages caused by the delay when the EoT and conditions are met from the employer. Conversely, construction contracts provide the employer with the opportunity to claim LDs if the delay is due to contractor risk events.

Whether the delay affects the critical path analysis of the project may be the subject of the dispute. In addition, the party causing the delay can avoid liability by claiming concurrent delay. These are the tricks that can be seen in disputes arising from delay.

Particularly, in recent years, with the emergence of extraordinary conditions such as Covid-19, wars, economic crisis, and climate change, force majeure and hardship clauses have also become one of the clauses that should be emphasized in construction contracts. Although the understanding of force majeure varies in the domestic laws of the countries, situations that occur outside the will of the parties and make the performance of the contract impossible are considered as force majeure and can trigger a series of results until the termination of the contract. For Force Majeure and Hardship, PECL, UNIDROIT and ICC have more extensive provisions, which the parties may refer to. In addition, even if exemplary cases are counted in the clauses, whether an event falls within the scope of force majeure, the elements of force majeure, externality, unpredictability, inevitability, and insurmountability must be ensured. Therefore, each event should be evaluated within the framework of time, place, and conditions.

Further, this unpredictable environment also raises the importance of hardship clauses. In this context, when the performance of the contract becomes seriously difficult, an adaptation of the contract may be requested within the scope of

hardship. In places where intense inflation and market imbalances are seen, hardship clauses, at least fluctuation clauses, provide to eliminate this problem.

When the dispute cannot be resolved despite all preventive mechanisms, ADR and adversarial methods – in particular arbitration – are the last resort for the parties to construction contracts. It is not to determine from whom a dispute in the interests of the parties arises, but to ensure the sustainability of the contract by overcoming that dispute in a reasonable way. In construction contracts, the parties' openness to compromise and communication serves to prevent disputes. Therefore, ADR methods are increasingly prominent. In addition, the parties may determine more than one method for dispute resolution under the title of a multi-tiered clause to be applied step-by-step. Accordingly, the pre-arbitration process is applied for the resolution of a dispute, but if the dispute cannot be resolved, the next steps are applied. As an example, conciliation-arbitration, and mediation-arbitration can be applied in a combined way. A multi-tiered path is also seen within the scope of FIDIC. When a dissatisfaction notification is made against the DAAB decision, the parties try to reach an agreement in amicable ways, and if no consensus is reached, the arbitration process can be initiated within the ICC institution.

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