

So, why can't Iran have the bomb?

by
Luke Smith

*Thesis presented in fulfilment of the requirements for the degree
of Master of Arts in Political Science in the Faculty of Arts and
Social Sciences at Stellenbosch University*



Supervisor: Prof. Pieter Fourie

December 2021

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third-party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

December 2021

Copyright © 2021 Stellenbosch University
All rights reserved

ABSTRACT

In May of 2018, The USA withdrew from the ground-breaking Joint Comprehensive Plan of Action (JCPOA) which was designed to stagnate Iran's rate of nuclear development and push back its nuclear breakout. In January of 2020, tensions between the USA and Iran reached a tipping point following the US assassination of Iranian Lieutenant-General Qasem Soleimani. Iran's nuclear development continues to be the source of major international concern as the USA and notable institutions such as the United Nation Security Council make efforts to isolate the Islamic Republic in order to forcibly restrict its nuclear development. Iran's noteworthy isolation under economic sanctions has had detrimental effects on its economy, political and social well-being and has further strained its relationship with the international community.

The proliferation of nuclear weapons throughout the international system has been a visible trend since the 1940s. However, not all states have been allowed to freely develop their own nuclear capacity. The Arms Control Association (2019) states that there are an estimated 14,000 nuclear warheads globally and that more than 90% of them are divided between only two major global powers, the USA and Russia. However, if we consider the concerns and tensions that have arisen from the nuclear development of states such as Iran, it is clear that institutions such as the UNSC and states such as the USA have made considerable efforts to maintain the current nuclear imbalance within the international system. Ultimately, the research problem for this study is best understood as understanding the systematic failure of nuclear non-proliferation initiatives in restricting nuclear development and preventing regional and global instability that stem from access to nuclear weapons.

This study ultimately addresses the research problem by answering one primary research question: *So, why can't Iran have the bomb?* In order to answer the primary research question, this study challenges the efficiency and sustainability of contemporary efforts to forcibly restrict nuclear development. It further considers an interpretation of structural realism that supports the stabilising effects of nuclear power balancing and applies it to the case of Iran. It has been argued that Iran's nuclear development and breakout may be a catalyst for greater regional instability. However, focusing on the seminal work of Kenneth Waltz, this study views Iran through a lens of structurally defensive realism and presents an argument in which Iran's nuclear breakout balances regional power and threats, in turn stabilising the region. In providing a theoretical solution to the Iranian nuclear crisis, this study acknowledges the role of realist theory in accounting for the past, as well as its limitations in predicting the future.

OPSOMMING

In Mei van 2018 het die Verenigde State van Amerika (VSA) hom onttrek aan die baanbrekende gesamentlike omvattende aksieplan (JCPOA) wat ontwerp is om die tempo van kernontwikkeling in Iran te stagneer en sy kern-uitbreking terug te druk. In Januarie van 2020 bereik die spanning tussen die VSA en Iran 'n kantelpunt ná die Amerikaanse sluipmoord op die Iraanse luitenant-generaal Qasem Soleimani. Iran se kernontwikkeling is steeds die bron van groot internasionale kommer, aangesien die VSA en vername instellings, soos die veiligheidsraad van die Verenigde Nasies (VN), pogings aanwend om die Islamitiese Republiek te isoleer ten einde sy kernontwikkeling met geweld te beperk. Iran se noemenswaardige isolasie weens ekonomiese sanksies het nadelige gevolge vir sy ekonomiese, politieke en sosiale welstand gehad en het sy verhouding met die internasionale gemeenskap verder onder druk geplaas.

Die toename in kernwapens regoor die internasionale stelsel is sedert die 1940's 'n sigbare tendens. Nie alle state is egter toegelaat om hul eie kernkapasiteit vryelik te ontwikkel nie. Die Arms Control Association (2019) het verklaar dat daar na raming 14 000 kernplofkoppe wêreldwyd bestaan en dat meer as 90% daarvan slegs tussen twee groot wêreldmoondhede, die VSA en Rusland, verdeel is. As ons die kommer en spanning weens kernontwikkeling van state soos Iran in ag neem, is dit duidelik dat instellings soos die VN-veiligheidsraad en state soos die VSA aansienlike pogings aangewend het om die huidige kernwanbalans in die internasionale wêreldstelsel te handhaaf.

Hierdie studie spreek uiteindelik die navorsingsprobleem aan deur een primêre navorsingsvraag te beantwoord, naamlik: Waarom mag Iran nie die bom hê nie? Om die primêre navorsingsvraag te beantwoord, betwis hierdie studie die doeltreffendheid en volhoubaarheid van hedendaagse pogings om kernontwikkeling met geweld te beperk. Verder word daar na 'n interpretasie van strukturele realisme gekyk wat die stabiliserende effekte van kernkrag-balansering ondersteun en dit op die geval van Iran toepas. Daar is aangevoer dat Iran se kernontwikkeling en -uitbreking 'n katalisator vir groter streeksonstabiliteit kan wees. Hierdie studie fokus egter op die invloedryke werk van Kenneth Waltz en beskou Iran deur 'n lens van struktureel-verdedigende realisme. Dit bied 'n argument aan waarin Iran se kern-uitbreking plaaslike mag en bedreigings balanseer en op sy beurt die streek stabiliseer. Hierdie studie gee 'n teoretiese oplossing vir die Iraanse kernkrisis en erken die rol van die realistiese

teorie in die boekhouding van die verlede, asook die beperkings daarvan om die toekoms te voorspel.

ACKNOWLEDGEMENTS

First and foremost I would like to thank Prof. Pieter Fourie for his guidance and supervision. Your familiarity with my character, strengths and weakness largely made the completion of this study possible. I would like to thank my parents, Peter and Gisela for all that they have done for me. You have supported me and my decisions, regardless of the cost, and continue to do everything in your power to help me succeed. I am eternally grateful for your love and support. I am privileged to have you both. I would also like to issue a sincere thanks to my aunt and uncle, Alexis and Derek. Both of you have played a pivotal role in my upbringing and have been the pillars of my High School and University career. Without you, my time in South Africa would not have been possible.

Table of Contents

DECLARATION	I
ABSTRACT.....	II
ACKNOWLEDGEMENTS	V
LIST OF FIGURES.....	X
LIST OF ACRONYMS AND ABBREVIATIONS.....	X
KEY INFORMANTS	XI
1 INTRODUCTION.....	1
1.1 BACKGROUND AND RATIONALE.....	1
1.2 RESEARCH PROBLEM.....	6
1.3 RESEARCH QUESTIONS	7
1.4 THEORETICAL FRAMEWORK	8
<i>1.4.1 Dominant theories of International Relations</i>	<i>8</i>
1.4.1.1 Liberalism.....	8
1.4.1.2 Marxism.....	9
<i>1.4.2 Traditional realism</i>	<i>10</i>
<i>1.4.3 Neorealism.....</i>	<i>10</i>
<i>1.4.4 Offensive/defensive realism</i>	<i>11</i>
<i>1.4.5 The security dilemma.....</i>	<i>12</i>
<i>1.4.6 The balance of power.....</i>	<i>12</i>
1.4.6.1 The balance of threat	13
1.5 METHODOLOGY	13
<i>1.5.1 Research design.....</i>	<i>13</i>
<i>1.5.2 Research Methods.....</i>	<i>14</i>
1.6 ETHICS.....	15
1.7 STRUCTURE	16
2 IRAN'S NUCLEAR HISTORY.....	18
2.1 INTRODUCTION	18
2.2 THE INTRODUCTION OF NUCLEAR WEAPONS AND THE COLD WAR	19
<i>2.2.1 The strategic relevance of Iran.....</i>	<i>20</i>
2.3 NON-STATE ACTORS AND NUCLEAR APPLICATIONS	21
<i>2.3.1 The IAEA and NPT</i>	<i>21</i>
<i>2.3.2 Applications of nuclear technology.....</i>	<i>23</i>
2.4 IRAN'S NUCLEAR HISTORY	24
<i>2.4.1 Origins of Iran's nuclear programme</i>	<i>24</i>
<i>2.4.2 The Islamic revolution</i>	<i>26</i>
<i>2.4.3 The Iran-Iraq war.....</i>	<i>27</i>

2.4.4	<i>Iran's clandestine nuclear efforts</i>	29
2.4.5	<i>A decade of failed negotiations</i>	30
2.4.5.1	2000 – 2005	30
2.4.5.2	2006 – 2011	32
2.4.5.3	2011 – 2013	34
2.4.6	<i>The JCPOA</i>	36
2.5	CONTEMPORARY CIRCUMSTANCES	37
2.6	CONCLUSION	38
3	STRUCTURAL REALISM AS A THEORETICAL FRAMEWORK OF ANALYSIS	40
3.1	INTRODUCTION	40
3.2	TRADITIONAL REALISM	41
3.2.1	<i>Origins and contributors</i>	42
3.2.1.1	Thucydides and power.....	42
3.2.1.2	Machiavelli and morality.....	42
3.2.1.3	Hobbes and anarchy.....	43
3.2.2	<i>Core values of Realism</i>	43
3.2.2.1	Human nature	43
3.2.2.2	Power politics	44
3.2.2.3	Global anarchy.....	44
3.3	CLASSICAL REALISM IN THE 20TH CENTURY	45
3.3.1	<i>E. H. Carr's critique of liberalism and liberal utopianism</i>	45
3.3.2	<i>Morgenthau's principles of realism</i>	46
3.3.3	<i>The development and modernization of realism during the Cold War</i>	47
3.4	STRUCTURAL REALISM/NEOREALISM	48
3.4.1	<i>Main Contributors</i>	48
3.4.1.1	Waltz and structural realism	48
3.4.2	<i>Principles of structural realism</i>	48
3.5	SCHOOLS OF NEOREALIST THOUGHT	50
3.5.1	<i>Offensive realism</i>	50
3.5.2	<i>Defensive realism</i>	51
3.6	SECURITY DILEMMA	53
3.7	BALANCE OF POWER	54
3.7.1	<i>Balancing of threat</i>	54
3.8	COUNTER-PROLIFERATION THROUGH A LENS OF STRUCTURAL REALISM	55
3.8.1	<i>Why do states chose nuclear development?</i>	56
3.8.2	<i>Why does the international system restrict nuclear development?</i>	57
3.8.3	<i>Counter-proliferation through Mearsheimer's lens of neorealism</i>	58
3.8.4	<i>Counter-proliferation through Waltz's lens of neorealism</i>	59
3.9	NUCLEAR DETERRENCE	60
3.9.1	<i>Nuclear symmetry</i>	61
3.9.2	<i>Nuclear asymmetry</i>	61

3.10	CONCLUSION.....	62
4	A REVIEW OF FORCED NUCLEAR RESTRICTION.....	63
4.1	INTRODUCTION	63
4.2	THE DIFFERENT THEORETICAL PERCEPTIONS OF IRAN.....	63
4.2.1	<i>Iran as a rational actor and the sectarian nature of Middle Eastern regional dynamics.....</i>	63
4.2.2	<i>Iran as a defensive realist state</i>	65
4.2.3	<i>Iran as an offensive realist state.....</i>	67
4.2.4	<i>Iran as a perceived offensive state.....</i>	69
4.3	SANCTIONS	70
4.3.1	<i>Function.....</i>	71
4.3.2	<i>Goals.....</i>	72
4.3.3	<i>Conditions of success.....</i>	73
4.3.4	<i>Sanctions on Iran.....</i>	75
4.4	THE GREATER IMPACT OF IRANIAN SANCTIONS.....	78
4.4.1	<i>Economic impact</i>	78
4.4.2	<i>Political impact.....</i>	79
4.4.3	<i>Nuclear impact.....</i>	80
4.4.4	<i>The effectiveness of sanctions on Iran.....</i>	82
4.5	IRAN’S DEFENSIVELY REALIST RESPONSE TO SANCTIONS.....	84
4.6	JCPOA.....	86
4.6.1	<i>Regulations and restrictions</i>	87
4.6.2	<i>Timeline</i>	89
4.7	THE SIGNIFICANCE OF THE JCPOA AND US WITHDRAWAL	90
4.7.1	<i>The global impact of the JCPOA.....</i>	90
4.7.2	<i>US Withdrawal and the collapse of the JCPOA.....</i>	91
4.8	CONTEMPORARY STATE OF AFFAIRS	93
4.8.1	<i>Peaking tensions</i>	93
4.8.2	<i>The Biden administration</i>	94
4.9	CONCLUSION.....	95
5	SO, WHY CAN’T IRAN HAVE THE BOMB?	97
5.1	INTRODUCTION	97
5.2	“WHY IRAN SHOULD GET THE BOMB”	97
5.3	FOUNDATIONS OF WALTZ’S WORK.....	100
5.3.1	<i>Conventional and nuclear military capabilities</i>	100
5.3.2	<i>Deterrence and rationality</i>	102
5.3.3	<i>The Balance of power (threat) and the security dilemma.....</i>	103
5.4	THE RELEVANCE OF WALTZ	105
5.5	CONCERNS AND CRITIQUES	108
5.5.1	<i>Regional aggression and nuclear engagement.....</i>	109

5.5.2	<i>Nuclear extremists</i>	111
5.5.3	<i>The historical track record of the stability-instability paradox</i>	112
5.5.4	<i>Middle Eastern nuclear arms race and multipolarity</i>	113
5.6	WALTZ, THE JCPOA AND BIDEN	116
5.6.1	<i>An assessment of Waltz, sanctions and global isolation</i>	117
5.6.2	<i>Waltz and the JCPOA</i>	118
5.6.3	<i>Biden and the JCPOA</i>	119
5.7	CONCLUSION	120
6	CONCLUSION	122
6.1	INTRODUCTION	122
6.2	STUDY SYNOPSIS	122
6.3	CENTRAL RESEARCH PROBLEM	123
6.4	RESEARCH QUESTIONS	125
6.5	KEY FINDINGS	126
6.5.1	<i>Secondary research question 1: The sustainability and efficiency of nuclear restriction</i>	126
6.5.2	<i>Secondary research questions 2 and 3: neorealist accounts of nuclear balancing and mitigating regional nuclear tensions</i>	127
6.6	FURTHER RESEARCH	128
6.6.1	<i>Political shifts</i>	128
6.6.2	<i>Iran as a case study of nuclear proliferation</i>	128
6.7	THEORETICAL LIMITATIONS	129
6.8	CONCLUDING REMARKS	130
7	BIBLIOGRAPHY	131

LIST OF FIGURES

Figure 2.4: Iranian Nuclear History

Figure 4.1: Key Requirements and Actions Mandated by the JCPOA

LIST OF ACRONYMS AND ABBREVIATIONS

AEOI – Atomic Energy Organisation of Iran

AMEC – Afro-Middle East Centre

CBI – Central Bank of Iran

CISADA – Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010

DESC – Department of Ethics Screening Committee

DIA – Defence Intelligence Agency

EU – European Union

EU-3 – France, Germany, Italy

GDP – Gross Domestic Product

HEU – Highly Enriched Uranium

IAEA – International Atomic Energy Agency

IR – International Relations

ISA – Iranian Sanctions Act

JCPOA – Joint Comprehensive Plan of Action

LEU – Low-Enriched Uranium

MAD – Mutually Assured Destruction

NCRI - The National Council of Resistance of Iran

NDAA - National Defence Authorisation Act

NPT – Non-proliferation Treaty

P5+1 – UNSC permanent members with the addition of Germany

SWIFT – Society of Worldwide Interbank Financial Telecommunications

UK – United Kingdom

USA – United States of America

USSR – Union of Soviet Socialist Republics

UAE – United Arab Emirates

UN – United Nations

UNSC – United Nations Security Council

WMD – Weapons of Mass Destruction

WWII – World War Two

INTERVIEW QUESTIONS

The following questions were used to guide the semi-structured interviews with the study's key informants:

So, why can't Iran have the bomb?

The secondary questions are:

1. How efficient and sustainable is enforced nuclear restriction as a method of counter-proliferation and nuclear disarmament in the contemporary international system?
2. Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?
3. Could the power-balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions around Iran and the growing regional tensions?

KEY INFORMANTS

Deen, Ebrahim. Interview conducted on 06 November 2020. Mr. Deen is a researcher from the Afro-Middle East Centre (AMEC) based in Johannesburg. His expertise is in political risk and public policy with a focus on South African and Middle Eastern affairs.

Masoud, Fahim. Interview conducted 10 October 2020. Mr. Masoud is a Regional Intelligence Manager at WorldAware, assessing and analysing threats across the Middle East and North Africa. His expertise is in Middle Eastern political risk analysis.

Onderco, Michal. Interview conducted 18 February 2021. Prof. Onderco is an associate professor of International Relations at Erasmus University in Rotterdam. His expertise is in nuclear politics.

Pretorius, Joelien. Interview conducted on 19 February 2021. Prof. Pretorius is an associate Professor of Political Studies at the University of the Western Cape. Her expertise is in Nuclear Diplomacy and counter-proliferation studies.

Van Wyk, Anna-Mart. Interview conducted on 23 February 2021. Prof van Wyk is a Professor in the Department of Politics and International Relations at the University of Johannesburg. Her expertise is in South African nuclear history, International Relations, and global arms control and management.

1 INTRODUCTION

1.1 Background and Rationale

The destructive capabilities of nuclear weapons are unparalleled. These destructive capabilities are best illustrated by the United States' offensive employment of nuclear weapons against Japan in August of 1945. The overwhelming devastation inflicted on the Japanese cities of Hiroshima and Nagasaki largely informed a globally unanimous decision to restrict the use and distribution of nuclear weapons within the international arena. Nuclear proliferation has since been at the forefront of global concerns for most states in the international community. Major efforts to restrict nuclear proliferation largely contradicted many of the predictions regarding the proliferation of nuclear weapons since the 1950s (O'Neil, 2009:39). The actions of the international arena has been informed by the dominant theory of International Relations (IR), structural realism. It was widely believed in the 1950s that, against the backdrop of structural realism, the international system would be flooded with nuclear weapons (O'Neil, 2009:39). This prediction is largely supported by the structural realist impulse to preserve security, and more specifically the notion of deterrence.

Nuclear proliferation has been a growing trend throughout the world since the 1950s and remains a significant concern for the international community. In the contemporary international system there are several institutions that have been established to combat nuclear proliferation in the global order since 1945. The most notable of these are the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the International Atomic Energy Agency (IAEA). In the last decade alone, the acquisition of weaponized nuclear capacity by specific states has caused international outrage and in some cases warranted crisis status. Tensions regarding the nuclear capacity of states such as North Korea, India, Israel and perhaps most notably Iran continue to dominate international concerns.

As nuclear tensions in the last decade continue to heat up, the sustainability of restricting nuclear development and the efficiency of nuclear non-proliferation institutions must be questioned. As we see concerns and tensions rise regarding states such as North Korea and Iran and their nuclear development agendas, it is clear that they are largely the product of a global nuclear imbalance. These nuclear imbalances are largely perceived by other states as looming threats against their own security. In turn states take measures to secure themselves against potential nuclear threats (Tang, 2009:590). For many states this means acquiring a nuclear

capacity themselves. This path of action and its greater impacts largely fall within the scope of the 'security dilemma' as described by Tang (2009) in his contemporary conceptual analysis. A nuclear security dilemma creates further tensions between those with, and those in pursuit of, nuclear weapons. Although these tensions are well illustrated with notable contemporary examples such as North Korea and Iran, one must examine the most relevant and defining example, the Cold War.

The Cold War and arms race that took place between 1947 and 1991 to some extent best illustrate the structural realist argument that nuclear bombs are best utilized as a tool for maintaining peace and stability. The quiet military stalemate between the great superpowers, the United States of America (USA) and the Union of Soviet Socialist Republics (USSR) best represents the conflict-detering capabilities of nuclear weapons. In the case of the Cold War, the pursuit of nuclear development was arguably motivated solely by striving for basic nuclear superiority and reinforcing the global hegemonic power status, and does not constitute an example of the security dilemma (Gavin, 2009/10:32). However, it could be argued that the structural realist ideology of the superpowers compelled them to match each other's nuclear capacities as per the logic of the security dilemma. Few state relationships have seen as much nuclear-oriented tension as that between the USA and the Soviet Union. But neither global superpower embarked upon any kind of direct conflict with one another. Structural realists will argue that this can be credited to the overshadowing threat of mutually assured destruction (MAD) of these states through the launching of their own nuclear capacity (Wallander, 2013:01). It is fair to assume that much of the tension experienced during the Cold War was perpetuated by the pursuit of nuclear weapons. It could be assumed that the nuclear success of both superpowers deescalated nuclear concerns. Some structural realists make the point that this is a testament to the stabilizing potential of distributed nuclear power.

The notion of a nuclear-fuelled international community is daunting and raises many concerns regarding state rationality and how nuclear weapons will be utilized by those perceived as "rogue states" or part of "an axis of evil" (Bush, 2002). There are many theorists and a large body of literature that both supports and challenges this notion of a nuclear balance and its potential to reinforce regional and international stability. The greatest divide among realist scholars comes in the theoretical disagreements between notable IR scholars, Kenneth N. Waltz and John J. Mearsheimer (Krieger & Roth, 2007:369). Although both hail from the structural realist school of thought, the difference in their understanding of the theoretical framework is

rooted in the notion of security and how its achieved and maintained. Waltz would contend that security can be achieved by maintaining the status quo and reinforcing a state's sphere of influence and power, while Mearsheimer would suggest security can only be achieved by the aggressive removal of potential aggressors (Krieger & Roth, 2007:369). Ultimately, the greatest concern regarding the notion of reinforced stability through the distribution of nuclear power comes in understanding how states will utilize their nuclear capacity.

Arguably the most outspoken supporter of greater nuclear distribution was structural realist Kenneth Waltz, who (in)famously published *Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability* in 2012. Ultimately, Waltz argues that equal access to nuclear weapons would make it difficult for states to expand regionally in the light of the notion of mutually assured destruction; this would reinforce the status quo and maintain stability among competing states (Krieger & Roth, 2007:369). Waltz (2012) illustrates that the most likely and most secure outcome of Iran's nuclear proliferation is one where Iran is allowed to develop nuclear weapons with a small degree of restriction and in turn welcomed into the contemporary "nuclear club". He further illustrates the likelihood of this unfolding by pointing out that in the previous two decades most states that have become nuclear powers have gone on to become acknowledged members of the international community and have not used their nuclear capacity in any destabilizing or threatening manner (Waltz, 2012:02). This point is made more compelling once he explains that most states perceived through a lens of structural realism will not be deterred by sanctions or diplomacy in their pursuit of security, which is deeply rooted in a states' military capabilities (Waltz, 1979:126). Waltz (2012) contends that Iran's nuclear developments would distribute nuclear power equally across the Middle East. Middle Eastern tensions previously aggravated by the threat of nuclear conflict would thus be mitigated by the notion of mutually assured destruction.

Waltz's argument is heavily rooted in the theoretical scope of structural realism and how it determines and makes sense of state behaviour. Structural realism has heavily informed the way that states perceive power between one another and has dominated the literature on the Cold War, nuclear proliferation and state conflict (Lebow, Mueller & Wohlforth, 1995; Snyder, 2001/2; Walker & Jeffery, 2005). The utility of structural realism and its relevance in the contemporary international arena has come into question since the end of the Cold War (Lebow, Mueller & Wohlforth, 1995; Glaser, 2003). Structurally realism's focus on balancing power and understanding both state conflict and security makes it the most relevant theoretical

framework in understanding nuclear proliferation and whether and how it should be restricted or distributed.

As mentioned, there are those that have major reservations regarding Iran's continued nuclear development. Another branch of structural realism would argue that although Iran may be a rational actor behaving in its best interest and ensuring its own security, it will then still have the capacity to take on the role of a regional aggressor in pursuit of hegemonic status (Mearsheimer, 2001:77). This argument is best put forward by Mearsheimer's (2001) *The tragedy of great power politics*. Ultimately, Mearsheimer (2001) would argue that the basic instinct of rational state actors to pursue and maximize power will drive nuclear-capable states like Iran into territorial expansion. According to structural realism, greater territorial expansion contributes to a state's sphere of influence and its power (Snyder, 2001/2:155). It is assumed that this branch of offensive realism would ultimately result in states, in this case Iran, using their nuclear status and superiority to destabilize and overtake the region. A more generalised assumption of this theory is that a more a world in which states have greater access to nuclear weapons creates a greater propensity for major conflict. This represents the mainstream concerns around nuclear proliferation which lie at the core of nuclear non-proliferation efforts manifesting as policies and economic sanction to restrict nuclear development. These restrictive efforts are illustrated in the case of Iran.

In May 2018 the USA withdrew from the widely accepted and agreed upon JCPOA. Formulated in July 2015 and then implemented in January 2016, the deal ultimately restricted, but did not halt, Iran's technological advancements towards a potentially weaponized nuclear capacity (Landau, 2018:25). Despite only very minor violations in 2016, the USA withdrew from the deal citing that it did not align with the anti-Iranian stance of the new Trump administration, as it did not effectively restrict Iran's developments and was also described as the "worst deal ever negotiated" (Landau, 2018:25). Following its withdrawal from the JCPOA, the USA has further buried Iran under several rounds of economic sanctions as well as enforcing a greater degree of military presence within the Middle Eastern region in an attempt to restrict their nuclear progress, among other motives (Landau, 2018:25). Throughout 2019 the USA accused and held Iran responsible for coordinating terrorist attacks on US diplomatic and military sites. The USA holds Iran responsible for arming terrorist groups such as the Houthi youth rebels who are blamed for strikes near the US embassy in Baghdad as well as on critical Saudi Arabian pipelines (Al Jazeera, 2020), which is the USA's second greatest

trade partner (Council on Foreign Affairs, 2020). It should also be noted that Iran can be held directly responsible for shooting down a US surveillance drone in June 2019 (Turak, 2020) as well as consistently working towards achieving nuclear capacity in breach of the restrictions placed upon them by the previously agreed upon JCPOA. On 3 January 2020 tensions reached a tipping point after the US-sanctioned assassination of top Iranian general Qasem Soleimani via airstrike (Al Jazeera, 2020).

Another strong supporter of restrictions on Iran's nuclear capability. Israel has a strong nuclear monopoly over the Middle Eastern region (Guzansky & Dekel, 2015:03). This would naturally be perceived as a notable threat to Iranian state security. Israel has been an acknowledged foe of Iran and has been the focus of much anti-Semitic rhetoric that characterises a portion of the post-revolutionary Islamic state (Kaye, Nader and Roshan, 2012:15) and is still responsible for tense regional relations today (Farthi, 2019). Despite having had good relations before the Islamic revolution, Israel and Iran's relationship has for the most part been tumultuous since then and only exacerbated by Israel's regional nuclear superiority and its strong relations with the USA as well as by Iran's own nuclear development (Parsi, 2005:249). Certainly if Iran reaches a weaponized nuclear capacity, Israel stands to lose its regional superiority, diminishing its sphere of influence in the region. This in turn puts a degree of pressure on Israel to address Iran's nuclear efforts, further recontributing to regional tensions. As a region largely characterised by its internal volatility, a single superior nuclear force in the Middle East is likely to have greater regional influence because of its nuclear capacity. A more widely distributed nuclear capacity throughout the Middle East challenges this notion.

As common as the trend of nuclear proliferation has been in the last 75 years, few nuclear efforts have been labelled as being as contentious or tumultuous as that of Iran. Iran has experienced several rounds of economic sanctions, negotiations and restrictive deals, all in an attempt to undermine its nuclear efforts. Despite this, the Islamic Republic continues to pursue the development of its nuclear arsenal. This largely aligns with Waltz's (2012) conception of a structural realist rational state actor that will not be deterred from its pursuit of security. It can be assumed that restricting Iran's nuclear capacity is not at all sustainable and is unlikely to effectively undermine its nuclear programme. This calls into question the efficiency of nuclear non-proliferation efforts entirely. The non-proliferation efforts of the NPT, IAEA and even the United Nations Security Council (UNSC) are largely informed by a narrowly perceived branch of neorealism that attempts to explain the behaviour of states with newly

acquired nuclear capacity. For the most part, these states are assumed to be offensive realists that will use their newly acquired nuclear capacity for aggressive territorial expansion. Within the contemporary global system we still see a global nuclear asymmetry in which only a handful of states have access to a nuclear arsenal all while rational states in pursuit of nuclear security are condemned and constrained, arguably creating greater international tensions around nuclear proliferation. The view of the nuclear non-proliferation movements that structural realism would support an unbalanced nuclear monopoly or oligopoly throughout the world is contradictory in itself. This largely calls for a review and reinterpretation of the structural realist theoretical framework utilized in understanding nuclear non-proliferation.

1.2 Research problem

As mentioned, it has been some 75 years since the deployment of the first nuclear bomb. Since then, there has been a global consensus among political science scholars that the distribution of nuclear weapons within the international arena must be restricted at all costs. The drive to restrict nuclear developments throughout the world is largely rooted in the notion of security. For many of the institutions and states leading the charge on nuclear non-proliferation, the notion of a distributed weaponized nuclear capacity perpetuates conflict. The UNSC openly acknowledges that the “danger from such weapons arises from their very existence” (United Nations, 2020).

However, since the use of nuclear weapons in 1945, no state has actively sanctioned the use of nuclear technology in any open conflict or war. Since 1945, according to the Arms Control Association, nine states had achieved a weaponized nuclear capacity by 2019 and have access to nuclear arsenals ranging between 30 to 6,490 nuclear warheads (Arms Control Association, 2019). The Arms Control Association (2019) further states that there is an estimated 14,000 nuclear warheads globally and that an estimated more than 90% of them are divided between the USA and Russia. This further emphasizes the global nuclear asymmetry throughout the contemporary global arena. It should also be noted that most states that have openly acknowledged their nuclear capacity have in fact gone on to achieve their nuclear goals despite major restrictive and isolationist policies. North Korea has experienced almost 30 years of major isolationist policies including radical economic sanctions, yet despite this it still achieved a nuclear capacity with successful test launches (BBC News, 2017; Al Jazeera, 2020). In the past decade we have seen that nuclear proliferation in itself has created major global tensions. However, it has been observed that global concerns and tensions regarding nuclear

proliferation have dissipated once states have achieved their nuclear capacity and are acknowledged as active and legitimate actors within their regions and the international arena. Waltz (2012) best describes this as a state's acceptance into the international community's "nuclear club" which facilitates a change in the way that the state is perceived and treated.

The dangers of nuclear weapons have never been understated. Since 1945, many nuclear non-proliferation treaties, institutions and policies have been put into place in order to constrain nuclear development and enforce nuclear disarmament in an attempt to maintain global and regional security. However, an account of the last 20 years of nuclear proliferation would suggest a lack of efficient and sustainable nuclear restriction. As a result, the world faces not only a nuclear power asymmetry, but a superiority among those with nuclear weapons over those without. The international arena's nuclear asymmetry encourages tension between states looking to secure themselves through a nuclear capacity, and states that feel their nuclear superiority is being threatened and in turn actively campaign to undermine another state's nuclear development. Ultimately, the research problem or challenge for this study is best understood as understanding the systematic failure of nuclear non-proliferation initiatives in restricting nuclear development and preventing regional and global instability that stem from access to nuclear weapons. This study calls for a review and reinterpretation of the theoretical frameworks pertaining to the nuclear non-proliferation movements, which are deeply rooted in traditional structural realism or neorealism. This study aims to re-examine the role of nuclear weapons as a perpetuating force of global and regional conflict and instability. Using Iran as a unique contemporary case study, this study aims to evaluate Iran's nuclear development as representing a regional and global stabilizing force.

1.3 Research questions

This study is guided by a single primary question, which also makes up its title, and is further supplemented by three secondary questions.

So, why can't Iran have the bomb?

The secondary research questions are:

1. How efficient and sustainable is enforced nuclear restriction as a method of counter-proliferation and nuclear disarmament in the contemporary international system?

2. Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?
3. Could the power-balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions around Iran and the growing regional tensions?

1.4 Theoretical Framework

The theoretical framework of this study plays a pivotal role in understanding the contemporary case of Iran. IR as a field of study is characterised by its theories of analysis (Jørgensen, 2018:09). From this observation it becomes clear that theories of IR play an integral role in understanding and conducting research in this field. A theoretical framework plays two key roles in facilitating research. Firstly, a theoretical framework largely reinforces the rationale and theoretical understanding of the research problem, research questions and research methods and design (Grant & Osanloo, 2014:12). In that sense, the theoretical framework of a study can be considered a “blueprint” and to a greater degree even a guiding force (Grant & Osanloo, 2014:12). Its second role is the analysis of findings and conclusions drawn from the study. A well-established and carefully reviewed theoretical framework legitimises and grounds the findings and conclusion made or observed in a study (Grant & Osanloo, 2014:12). IR as a field of study is made up of several theories that attempt to account for the contemporary occurrences within the international system, most notably causes of war and conditions of peace (Dunne, Kurki and Smith, 2016:03). Among the several acknowledged theories of IR, liberalism, Marxism, realism and their contemporary variants are among the most widely acknowledged and dominant theories.

1.4.1 Dominant theories of International Relations

1.4.1.1 Liberalism

Liberalism presents itself not only as an academic theory of IR, but as a tradition of political thought rooted in Western civilisation (Jørgensen, 2018:66). Liberalism as a tradition of thought places an emphasis on individual liberties and the marginalization of state intervention (Jørgensen, 2018:66). As a theory of IR, traditional liberalism still pay homage to these features. In emphasizing individual liberties, liberalism acknowledges the rationality of human beings and credits them with the ability to influence or reform the international system (Jørgensen, 2018:67). From this, a contemporary variant of traditional liberal theory, called

liberal institutionalism, emerges that further encourages the role of liberal institutions in reinforcing international peace (Jørgensen, 2018:66). Ultimately, this variant of liberalism would contend that the institutionalisation of the international system will reinforce peace and undermine the prospect of conflict or war. This point is further emphasised by traditional liberal scholars, who believe that greater interstate economic dependence further reinforces peaceful relations and undermines conflict or war (Jørgensen, 2018:66). This aligns with the core concerns of neoliberalism, namely to achieve cooperation among states and other international actors (Dunne, Kurki and Smith, 2016:114). Neoliberalism perpetuates the notion of individual human rationality and that state behaviour in an anarchic state of nature can reinforce cooperation (Dunne, Kurki and Smith, 2016:114). However, for the purposes of this study and the nature of the argument being proffered, liberalism and liberal institutionalism do not offer either a tangible solution to the research problem and questions stated above, or a coherent account of Iran's unique nuclear developmental stalemate.

1.4.1.2 Marxism

Traditional Marxist theory suggests that other dominant theories of IR are limited because of their understanding of the world dictated by prescribed factors such as basic human nature and self-interest or state rationality and self-security (Dunne, Kurki and Smith, 2016:154). Marxism contends that these prescribed understandings of behaviour limit the possibilities of worlds driven by social self-development (Dunne, Kurki and Smith, 2016:154). A core trait of all variants or interpretations of Marxism is a drive to account for the global rise of capitalism outside the logic of a prescribed human nature (Dunne, Kurki and Smith, 2016:154). Marxists believe that capitalism largely acts an organisational force of social life encompassing political, cultural and economic aspects that need to be critically understood in the field of IR and to further understand state and market relations in the international system (Dunne, Kurki and Smith, 2016:153). Contemporary variants of Marxism that became popular during the early 1980s have a greater focus on interpreting IR and the international systems using a political economy approach (Burchill & Linklater *et al*, 2013:114). Despite the end of the Cold War and the global rise of capitalism scholars have argued the contemporary relevance of Marxism. Neo-Marxism aims to understand the relations between states and markets, the international system and the global economy, and to some extent, power and the way it is produced. Marxism and its contemporary variants have been heavily criticised by other IR theorists for largely discounting the roles of nationalism, the state and the balance of powers theory in trying to account for international politics (Burchill & Linklater *et al*, 2013:114). In arguing the

relevance of self-development, the role of capitalism in the international system and the notion that power is produced, Marxism fails to offer a legitimate or theoretically sound account for Iran's demand for nuclear weapons. While Marxism would suggest that nuclear weapons are a currency of power, this study argues that in the case of Iran, nuclear weapons are tools of de-escalation, stability and security. Nuclear weapons as a currency of power is engrained in Marxism's understanding of war and conflict as a structural force driven by imperial capitalism. Marxism as a theory of IR is often overlooked because of its focus on economics and not politics as well as its focus on domestic social relations and not international social relations (Dunne, Kurki and Smith, 2016:153).

1.4.2 Traditional realism

Traditional realism is the oldest and most frequently utilised theory of IR (Burchill & Linklater *et al*, 2013:32). Realism as a school of thought can also be acknowledged as a theory of 'power politics' and has dominated the field of IR with an emphasis on anarchy, power and security (Burchill & Linklater *et al*, 2013:32). Like most theories of IR, realism also emphasises state-centrism and rationality. Traditional realism is firmly rooted in egoistic and self-interested human nature, the lack of international governing forces, anarchy and the influence of state power on security (Burchill & Linklater *et al*, 2013:32). Hobbes (1651) had illustrated the foundation of classical realism with three assumptions about human nature. Hobbes assumes that all men are equal, that they interact within an ungoverned state of anarchy, and are motivated by competition, defeat and victory (Burchill & Linklater *et al*, 2013:34). However, over the last 40 years, realism has largely been reinterpreted and manifested as structural realism or neorealism which builds on the assumptions of Hobbes. The theoretical variants of traditional realism were developed in order to account for contemporary political discourses that could not be accounted for by traditional realism as it was defined by Hobbes.

1.4.3 Neorealism

As a theory, neorealism or structural realism are largely credited to Waltz and his theoretical contributions to traditional realism in his 1979 *Theory of International Politics* (Antunes & Camisã, 2018:02). Traditional realism and neorealism share many similarities, but there is also one core difference. While traditional realism as a theory IR credits state behaviour to an inherently biased and flawed human nature, Waltz's structural realism pays closer attention to the structural factors of political systems that restrain or force state behaviour. Waltz identifies these structural factors or ordering forces as hierarchy and anarchy (Burchill & Linklater *et al*, 2013:37). He further contends that anarchy, as witnessed in the international system, forces

states into a position in which they must support and secure themselves against structural changes and great powers, because nobody else will (Burchill & Linklater *et al*, 2013:37). Neorealism further acknowledges that the global system is structurally influenced by the actions of great powers within it, which in turn force states with lesser capabilities to secure themselves against these changes (Jørgensen, 2018:95). This further illustrates that the only defining difference among states is the levels of respective power and the distribution of capabilities within the global system. Much like Hobbes (1651) and classical realism, Waltz (1979) offers three assumptions or factors that account for state behaviour through a neorealist lens of analysis (Jørgensen, 2018:95). Waltz firstly notes the state of anarchy in the international system in which states must secure themselves (Jørgensen, 2018:95). He secondly notes the minimal differentiation between states in the international system, further acknowledging the presence and impact of great powers (Jørgensen, 2018:95). Finally, he notes the impact of the varying distribution of power and capabilities in configuring the polarities of states within the global system, in turn informing states' behaviour (Jørgensen, 2018:95). Ultimately, neorealism pays closer attention to how other states and their level of perceived power within the anarchy of the international system impact on them and can account for their behaviour and efforts to secure themselves (Antunes & Camisã, 2018:02). Neorealism acknowledges that great powers and the structural restrictions of the international system often force states to secure themselves, but it is not unanimously agreed on *how* states secure themselves.

1.4.4 Offensive/defensive realism

The neorealist understanding of state behaviour is further divided into two schools of thought. Offensive and defensive realism are neorealist schools of thought that share similar concerns about the balance of power and above all else, security. However, where they fundamentally differ is about the capacity of power and as a result security. Snyder (2002) illustrates this point by asking offensive realists, such as Mearsheimer, and defensive realists, such as Waltz, the question; "How much power do states want?" This question ultimately divides neorealists into two groups, namely those who believe in the prioritization of security by maintaining the status quo, and those who believe that security can only be achieved with a clear-cut dominance over rivals and the global system without fear of credible retaliation. However, this hinges on the neorealist assumption that states are inherently rational and act in their self-interest (Donnelley, 2000:07). This can be assumed of Iran, despite radical Islamic history. A definitive analysis of

Iran through a lens of offensive or defensive realist would inform the efforts made to restrict or allow its nuclear development.

1.4.5 The security dilemma

The security dilemma has become a central feature of any realist framework. This thesis will adopt a contemporary conceptualization of the security dilemma. Tang (2009) illustrates his contemporary understanding of the security dilemma with a scenario in which two defensive non-expansive states within an anarchic system have no intention of threatening each other's security. Although neither state has the intention of threatening the other's security, neither state can be assured of the other's future actions. Realist theory dictates, and most states posit, that power is a means towards achieving security, and in turn both states seek to maximize their power relative to each other. As each state accumulates more power, the greater a threat they appear to be to each other. At this point a cycle of competing power-seeking states begins as they continue taking countermeasures against one another through the pursuit of power. This can often lead to conflict or the threat of conflict. It should be noted that the security dilemma is only applicable to defensive states, as offensive states will pursue power in the hopes of becoming great powers or regional hegemonic powers through territorial and militant expansion. Waltz (1959:160) further illustrates the relevance of the security dilemma when considering a neorealist understanding of the global system saying:

Because any state may at any time may use force, all states must constantly be ready either to counter force with force or to pay the cost of weakness. The requirements of state action are, in this view, imposed by the circumstance in which all states exist (Jørgensen, 2018:95).

The realist perception of the security dilemma as a condition of state existence introduces the structural realist theory of power balancing in the global system.

1.4.6 The balance of power

As a core principle of structural realism, the security dilemma largely acts as the foundation for the balance of power theory. As the name would suggest, the balance of power theory ultimately suggest that a greater distributions of power has a greater likeliness of maintaining harmonious relations than a system in which one state has a power monopoly. The structural realist call to maintain a balance of power is not to be mistaken with the notion of "bandwagoning", referring to the formation of alliances in order to maximise survival and

minimise loss in the anarchy of the international system (Burchill & Linklater *et al*, 2013:37). Instead neorealism calls for a balance of power in which states develop their own capabilities.

1.4.6.1 The balance of threat

For the purpose of this study and the argument being made regarding Iran's nuclear development, an equally credible but alternative reinterpretation of the balance of power theory will be utilised. As proposed by Stephan Walt (1987, in Jørgensen, 2018:100), this paper will adopt a theory of balance of threat. The balance of threat theory would contend that states don't seek to balance power but to balance threats (Jørgensen, 2018:100). States reinforcing or elevating their capabilities or power do not trigger power balancing efforts by states unless they represent a legitimate threat (Jørgensen, 2018:95). However, the theoretical nature of this perspective must be emphasized and will be further expanded upon in Chapter 3.

These analytical theories of IR lay the foundation for a critical review of the core unit of analysis, in this case Iran and its experiences with counter-proliferation. The above mentioned models of security and state behaviour further contextualises the contemporary theoretical understanding and efforts of counter-proliferation. This ultimately provides the tools necessary to objectively appraise contemporary attempts at counter-proliferation, answering and addressing the research questions and problems outlined above.

1.5 Methodology

1.5.1 Research design

As described by Burnham *et al.* (2008), research design is best understood as a rational structure of academic research and inquiry. It guides and dictates the structure of how research is conducted and presented. For the purposes of this study, a case study design is best suited to the study. A case study research design serves to provide a detailed account and understanding of a contemporary social, organisational, individual or political phenomenon (Yin, 1993:02). A case study research design would facilitate an in-depth analysis and understanding of a single contemporary case that requires contextualisation (Yin, 1993:13). Case study research design is widely applied in research conducted within the social sciences. A case study research design was selected for this study in order to collect an abundance of detailed information on a single contextualised case. This study hopes to account for the unique contemporary nuclear circumstance or phenomenon of Iran's nuclear development. Iran was selected as the primary case study for two core reasons. Firstly, in the last decade Iran's nuclear development has sparked mass global concern and warranted global restrictive nuclear agreements such as the

JCPOA. Concerns around Iran's nuclear developments are further sustained by its history of internal volatility, poor regional relationships and its perceived "rogue state" status. Iran's history of internal revolution and regional conflict have further contributed to the legitimacy of concerns surrounding its nuclear programme. Secondly, the case of Iran best illustrates the shortcomings of contemporary nuclear non-proliferations efforts. These reasons, combined with the heated nature of the Iran's current nuclear crisis, establishes Iran as the case best suited to this study. It should also be noted that the nature of case study-led research does not support the notion of a representative "sample", but rather focuses on a single case (Yin, 1993:10). This implies that generalizations drawn from this study can only be made on the case examined (Yin, 1993:10/Burnham et al., 2008:64).

1.5.2 Research Methods

Due to the nature of this study and use of a case study research design, the research conducted and conclusions drawn from it are for the most part guided by qualitative data. Qualitative data most commonly refer to data observed, documented or recorded and is not numerical in nature (Barakso, Sabet and Schaffner, 2014:192). In examining the case of Iran's unique nuclear circumstance, this study will collect data from secondary sources in the form of books, academic journals, news articles and websites. As I am a student of Stellenbosch University, the majority of journal articles, books and other online sources were accessed through the institution's online academic database. The collection of secondary data largely refers to the review and analysis of data that has already been captured and analysed on the topic being researched (Burnham et al., 2008:43). Secondary resources collected for this paper, for the most part, cover basic IR theme such as contemporary structural realism, nuclear proliferation and security studies in the light the experience of contemporary Iran.

This study has collected a small amount of primary data in the form of loosely structured interviews with experts in the fields mentioned above. Primary sources refer to data that were largely part of or produced by or in relation to the event or phenomena being explored (Burnham et al., 2008:187). Key informants in these fields were identified using snowball sampling. Snowball sampling refers to a process of sampling in which the researcher uses his/her initial contacts to recommend credible and relevant informants (Burnham et al., 2008:107/8). Snowball sampling is best utilised for in-depth interview research and serves to provide specific and credible sources of information from which tentative generalizations regarding the case can be made (Burnham et al., 2008:108). A handful of key informants have

been interviewed at the discretion of the researcher in addressing and answering the research problem and questions. This study hopes to make generalizations about the nuclear restriction of Iran from primary data collected from interviews with key informants and experts in the mentioned fields of study guided by snowball sampling.

1.6 Ethics

Ethics plays a critical role in conducting legitimate social science research. Ethical considerations become notably important during the collection of primary qualitative data. Ethical considerations have been taken into account in this study's limited collection of primary data in the form interviews. All primary data presented within the study have been collected within the ethical restrictions and boundaries set out by Stellenbosch University's framework policy for the Assurance and Promotion of Ethically Accountable Research (Stellenbosch University, 2009).

Ethical considerations and the way they are understood are largely influenced by different cultural and intellectual traditions and experiences (Burnham et al., 2008:282). As a result, social scientists and researchers increasingly rely on institutional ethics committees to appropriately constrain or guide their research (Burnham et al., 2008:82). All research conducted through Stellenbosch University is subject to approval by the Departmental Ethics Screening Committee (DESC). Following a screening and review of the study proposal by the DESC, the study was determined as a low-, medium- or high-risk assignment and may be subject to changes as determined by the ethics committee (DESC Process, 2020). Only low- and medium-risk research assignment are likely to be approved while still being subject to changes per request of the DESC (DESC Process, 2020). Before the collection of primary data, the researcher received DESC approval.

All interviews conducted for the purpose of this paper represents the thoughts and opinions of theoretical specialists in the fields of nuclear proliferation, structural realism and Middle Eastern studies. All the primary data collected for this study take the form of loosely structured interviews with specialists in the above-mentioned fields. All participants interviewed have signed an informed consent agreement, as is the norm for the collection of primary qualitative data in the form of an interview (Barakso, Sabet and Schaffner, 2014:192). This agreement of informed consent informed subject that their participation is entirely voluntary and that there was no monetary compensation. All participants interviewed will further be informed of the

purpose and utility of the findings acquired during interviews as well as how and where the findings will be disseminated. All interviews conducted have been stored on the researcher's personal electronic devices in order to maintain an agreed upon confidentiality should interviewees ask to remain anonymous.

Despite the undisputed importance and relevance of ethical considerations that need to be examined when conducting research within the social sciences, this study ultimately serves as an ethically minimal-risk research assignment, in which the only primary data collected are the views and opinions key expert informants and authorities in their respective fields.

1.7 Structure

Chapter 1 of this study serves as a contextualisation of this study's relevance to the contemporary international climate. It further outlines the formation of this study's main research problems, questions and goals. Chapter 1 outlines the theoretical framework for this study in its attempt to address, answer and resolve the problems, questions and goals it has set out. This chapter outlines the research methodology and research designs employed by the study in answering its primary and secondary questions. This includes an account of how and why these methodologies and design were chosen and how they serve the aims of the study. It also includes a critical account of the ethical considerations in this study.

While Chapter 1 largely focuses on contextualising the study and its relevance, Chapter 2 provides a deep contextualisation and profile of this study's main case, Iran. Chapter 2 focuses on a historical account and profile of contemporary of Iran by critically reviewing its history since the mid-1940s. This includes a critical review of Iran's regional and international conflicts as well as its nuclear development over the last 75 years. This provides a deeper understanding of Iran's perceived presence within the international arena has contributed to its unique nuclear circumstance. Finally, the chapter outlines Iran's contemporary nuclear scenario and sets the scene for critical review of Iran as a case study.

Chapter 3 is a literature review of the theoretical framework that has largely dominated the mainstream understanding of nuclear non-proliferation and security studies. The chapter offers a critical review of traditional structural realism or neorealism and how this has influenced nuclear non-proliferation strategies and efforts. It will provide a critical overview of the literature that has largely defined structural realism or neorealism and dominated IR as a field

of study. This will include a critical focus on the work of the most significant of structural realism's theorists, namely Jervis (1999), Glaser (1997/2003), Mearsheimer (2001/2013), Walt (1997) and Waltz (1979/1995/2012), among others. This chapter will further explore a contemporary understanding of the security dilemma, as outlined by Tang (2009) and Glaser (1997). This, coupled with a greater understanding of the notion of mutually assured destruction, should contextualise the theory underlying the argument being put forward in the study.

Chapters 4 and 5 apply the theoretical framework and literature review outlined in Chapter 3 to the case study, in this case, Iran's contemporary nuclear circumstance. Chapter 4 focuses on a review of the contemporary measures taken by the nuclear non-proliferation movement to restrict Iran's nuclear development and stabilise the tensions that have risen in response. This is reviewed against the backdrop of the structural realist framework and perceptions of Iran outlined in Chapter 3. In doing so, chapter 4 aims to illustrate the shortcomings of contemporary nuclear non-proliferation institutes, treaties, regulations and policies' in mitigating the growing nuclear proliferation tensions. Chapter 5 illustrates the counter-argument. Also against the backdrop of the structural realist framework outlined in Chapter 3, Chapter 5 explores the notion of distributed nuclear power in the Middle East as critical stabilising force in the region.

Chapter 6 concludes this study and presents its findings as well as making recommendations for future research and noting the shortcomings of the study. It summarises the conclusions drawn from Chapters 4 and 5 directly addressing concerns regarding the sustainability and efficiency of enforced nuclear restrictions as well as the potentially stabilising impact of Iran as a nuclear power. In doing so, the combined conclusions from Chapters 4 and 5 provide further commentary on the research problem and the primary research question.

2 IRAN'S NUCLEAR HISTORY

2.1 Introduction

In order to answer and address the research problem and research questions stated in Chapter 1, a context must be provided for the case study and core unit of analysis. To evaluate the sustainability, efficiency and theoretical interpretations of contemporary nuclear non-proliferation efforts and explore the positive consequences of the distribution of nuclear power, Iran has been elected as a case study. This chapter provides a detailed account of Iran's nuclear development and the diplomatic measures taken to restrict this. In contextualising Iran and its experiences, this chapter lays the ground for answering the first research question, namely; *How sustainable is enforced nuclear restriction as a method of nuclear non-proliferation and nuclear disarmament in the contemporary international system?*

Iran's nuclear history must be understood within the context of two of this studies core themes: proliferation and counter-proliferation. In better understanding the severity of counter-proliferation efforts in relation to Iran's documented rate of development, a basic progression of nuclear technology is also provided. This ultimately lays the foundation for an appraisal of contemporary nuclear non-proliferation initiatives in the international system. Although Iran's nuclear programme has been widely publicised since the start of the 21st century, its nuclear history is often overlooked and poorly archived. This can be attributed to the radical change in Iran's regime and the forced clandestine nature of its developments because of its isolation by the West. This should be taken into account when analysing the global scepticism about Iran's nuclear goals. In further unpacking Iran's nuclear timeline, several failures to mitigate nuclear tensions, restrict proliferation and maintain diplomatic negotiations become evident.

This chapter begins by contextualising the initial development of nuclear weapons and how that in turn precipitated the Cold War. It then outlines the strategic relevance of Iran during the USA's attempt to contain Soviet influence. This illustrates the role of the USA in facilitating Iran's initial nuclear developments. The chapter then discusses the major non-state actors within the counter-proliferation movement as well as the different applications of nuclear technology to better contextualise the counter-proliferation efforts against Iran's nuclear development. Finally this chapter offers a comprehensive account of Iran's nuclear history in six phases beginning with its relations with the USA in the 1950s and concluding with the US-sanctioned assassination of General Soleimani in late 2019.

2.2 The introduction of nuclear weapons and the Cold War

Iran's nuclear history is best understood within the context of the historical narratives of the Cold War. The introduction of nuclear WMDs in 1945 played a role in ending WWII and acted as the catalyst for the USA-USSR arms race. The Middle Eastern region, and Iran in particular, had strategic significance throughout the Cold War and facilitated the region's Western-supported nuclear proliferation in Israel, Iran and Saudi Arabia. With that in mind, this chapter goes on to outline the global introduction of nuclear weapons in the 1940s, the role nuclear weapons have played in defining the Cold War and how the Cold War facilitated the beginning of Iran's nuclear programme.

The world was introduced to nuclear weapons in August 1945 when the USA dropped atom bombs on Hiroshima and Nagasaki (Rogers, 2000:12, 13). These first and last detonations of a nuclear weapon in another country redefined the strategic calculations of security within the international system (Joyner, 2005:511). It also redefined the understanding of state power projection within the international arena (Joyner, 2005:511). The sheer destructive capabilities of nuclear weapons provided an opportunity for weaker states to develop their own capabilities and so adjust the balance of power within the international system, which was at the time dominated by two or three superpowers. Prior to the introduction of nuclear weapons, a state's capacity to project power or influence within the international system was determined by a calculation based on its territorial resources and conventional military capabilities (Joyner, 2005:512/Mearsheimer, 2001:03). However, the introduction of nuclear weapons undermined this calculation. WMDs offered an opportunity for weaker states to establish themselves within the international system. This in many ways sparked a global nuclear arms race in which the biggest contenders were the USA and the Soviet Union during the Cold War.

Following its deployment of nuclear weapons in Japan, the USA made major efforts to develop a greater nuclear arsenal and separated itself from nuclear co-operation agreements with war-time allies such as the UK (Rogers, 2000:13). This illustrates that the USA was attempting to reinforce its nuclear monopoly and perceived international hegemonic status. It is believed that by the end of 1945 the US had six other nuclear weapons and that by the end of 1948 it had 50 functional bombs at its disposal (Rogers, 2000:13). At this point the USA was relying on its nuclear arsenal to deter the looming Soviet threat (Kaysen, McNamara & Rathjens, 1991:13). The USA's growing nuclear arsenal and international hegemonic status inspired the Soviet

Union to balance power within the international system by developing its own nuclear programme (Kaysen, McNamara & Rathjens, 1991:13). In 1949 the Soviet Union successfully conducted its first nuclear detonation, sooner than the USA had expected this to happen (Rogers, 2000:13). During this time there was little effort to restrict or control the global rate of nuclear proliferation under the guidance of the UN and by 1950s the USSR-USA arms race was fully underway.

2.2.1 The strategic relevance of Iran

As Cold War tensions continued to mount at the start of the 1950s, the USA adopted a different strategy of containment. The Truman administration, the USA introduced a strategy of containment that would become known as “perimeter defence” (Gasiorowski & Keddie, 1990:146). The goal of perimeter defence was to make Western allies of the countries that were on the borders of the Soviet sphere of influence. In this way the USA aimed at containing Soviet influence and restricting the development of its capabilities and territorial expansion. Not only that, but in facing a potentially greater aggressor than itself, the USA turned to alliances with smaller states to reduce the risk of engagement, referred to as “bandwagoning” (Burchill & Linklater *et al*, 2013:38). This was ultimately an attempt to balance power within the international system and counter the level of credible threat the Soviet Union posed against the USA. In turn, the USA provided military and economic aid packages to states such as Pakistan, Thailand, South Vietnam, Taiwan, South Korea and Iran (Gasiorowski & Keddie, 1990:146).

Iran had been a state of strategic significance during WWII. Both the Soviet Union and the USA maintained a notable presence in Iran during the early 1940s. Immediately after the end of the Cold War the Soviet Union and the USA confronted each other over which superpower would continue its Iranian presence (Gasiorowski & Keddie, 1990:146). While the USA persuaded the Soviet Union to withdraw the majority of its troops from Iran, it failed to deliver any form of financial support in the wake of Iranian economic hardships during the late 1940s (Gasiorowski & Keddie, 1990:146). This led to a strengthening of Soviet-Iranian relations. However, by the start of the 1950s Iran had become an acknowledged “vital strategic interest” for the USA in containing Soviet expansion (Gasiorowski & Keddie, 1990:146). Yet, despite its strategic relevance, it still received no significant aid until the inauguration of the Eisenhower administration in 1953.

Iran's strategic value was based on its geographical location in relation to the Soviet Union. The country was located between the Soviet Union and the lucrative oil-rich fields of the Persian Gulf fields but the Truman administration's entanglement in the Korean War at the time distracted it from establishing stronger strategic relations (Gasiorowski & Keddie, 1990:146). Before 1953 growing civil unrest regarding the Anglo-dominated Iranian oil industry saw the rise of Iranian Prime Minister Mohammed Mossadegh. Mossadegh's efforts to nationalise Iran's oil industry further disconnected Iran from the West and pushed it towards possible Soviet relations. But the inauguration of the Eisenhower administration saw a notable change in the diplomatic approach taken towards Iran. Once in power, Eisenhower's administration took measures to provide greater support to states detaching themselves from Soviet influence as well as attempting to persuade neutral states to act in favour of the USA (Gasiorowski & Keddie, 1990:146). This included a staged coup in Iran that displaced Mossadegh's regime and re-established Iran as a major Western ally until the 1978. The USA became a pillar of economic and military support for Iran and further put into motion its nuclear programme in the late 1950s and early 1960s, thanks initially to Eisenhower and later Kennedy. The Kennedy administration continued to solidify Middle Eastern relations in an attempt to minimize the expansion of Soviet influence and safeguard oil access for the West (Summit, 2004:561). Kennedy was happy to support any Middle Eastern state that aided his goals. This subsequently resulted in US economic and military support for states such as Saudi Arabia, Israel and Iran (Summit, 2004:561).

2.3 Non-state actors and nuclear applications

To understand Iran's nuclear history, it is necessary to outline the basic progression of its civilian nuclear programmes and the non-state actors that led the counter-proliferation efforts against Iran. This section is aimed at contextualising Iran's level of nuclear development in relation to the efforts made to restrict it. This will allow for an objective appraisal of the counter-proliferation initiatives against Iran and its nuclear programme.

2.3.1 The IAEA and NPT

The growing global concern about nuclear weapons during the 1950s warranted global attention. The growing nuclear concern also posed serious threat to the USA's international hegemonic status, which at the time was largely reinforced by its superior nuclear capacity. It had become clear that nuclear proliferation threatened to redefine power relations within the international system and as such demanded regulation. Several Western nuclear non-proliferation institutions were established between the 1950s and 1970s to ensure the peaceful

use of nuclear technology. These institutions include the IAEA and the NPT which led the counter-proliferation regime. To fully comprehend the effectiveness of the counter-proliferation moves against Iran, it is necessary to fully understand the roles and historical narratives of the institutions that have informed these roles.

Established in 1957, the IAEA was formed in response to concerns around the multiple applications of nuclear technology (IAEA, 2020). The IAEA takes on many roles within the counter-proliferation regime. While actively advocating and supporting the development of civilian nuclear technologies, its most notable role is forming and enforcing safeguard policies that ensure peaceful proliferation (NTI, 2019/IAEA, 2020). However, it should be noted that these safeguard policies are not formal restrictions (Keltsch, 1987:110). The IAEA itself cannot undertake any restrictive action against states with suspicious proliferating actions. They can only inform the wider counter-proliferation forces of the nature and progress of a state's nuclear development (Keltsch, 1987:110). The reports and regulations of the IAEA reinforces the credibility of stating whether or not a state's nuclear programme is in line with the basic civilian nuclear safeguard protocols (Keltsch, 1987:110). The IAEA ultimately serve as a form of nuclear surveillance.

The NPT is acknowledged as the “centrepiece” of counter-proliferation (Gull, 2000:91). Brokered by the permanent member of the UNSC, the NPT initially opened for signature in 1968 and was further ratified in 1970. The NPT represents the most widely accepted arms control act and further defines the boundaries of proliferation and the goals of counter-proliferation. The foundation of the NPT rests on 11 articles specified to safely restrict global access to nuclear WMDs (Gull, 2000:91). As defined by the UN (2020), the NPT aims to *“prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament”*. In achieving these goals, the NPT is relying on the safeguard protocols outlined and enforced by the IAEA.

The NPT and the contemporary counter-proliferation efforts it promotes have been called into question. As most scholars of proliferation will argue, the international system was never intended to support a zero-proliferation regime and is thus inherently flawed (Joyner, 2005:159). Major leaks of nuclear technology and clandestine nuclear proliferation continue to allow states to achieve nuclear status despite NPT regulations (Joyner, 2005:159). Multilateral

UN diplomatic attempts have been heavily criticised and acknowledged as ineffective (O'Neill, 2009:49). The true motives of the NPT have been questioned. At the time of its formation, the NPT largely demanded that non-nuclear states refrain from pursuing any sort of nuclear development, while established nuclear states (such as the USA and USSR) were not asked to surrender their nuclear capacity or disarm themselves (Sanders, 1987:48). As noted in an interview with Ebrahim Deen (2020), a researcher from the Afro-Middle East Centre (AMEC) based in Johannesburg, *"The NPT itself is a problem, because similar to the UNSC, it allows five major states to have power, while others can't. This maintains the global monopoly of nuclear weapons"*. This means that the foundational goals and initiatives of the NPT are defined in terms of averting *further* nuclear proliferation (Sanders, 1987:48).

2.3.2 Applications of nuclear technology

To fully understand the global concern around Iran's rate of nuclear development it is necessary to outline a basic progression of nuclear fissile material. This helps to separate and differentiate between civilian and military applications of nuclear technology. At the core of Iran's contentious nuclear history is an overwhelming concern about the purpose of its nuclear programme (Broad, 2007). Nuclear programmes can be civilian or military in nature. However, the processes of these nuclear applications are heavily interwoven with one another (Joyner, 2015:517). For example, a fully functioning and developed nuclear energy programme does provide the "expertise, personnel, infrastructure and camouflage" required to further develop a military nuclear weapons programme (Alger, 2009:02). This has complicated nuclear surveillance.

Much of the confusion around the nature of Iran's nuclear programme can be understood in relation to its fuel-cycle process and technology. A nuclear fuel cycle is the process by which energy is produced using uranium as a fuel for nuclear reactors (World Nuclear Association, 2020). In order to use uranium as fuel, it must be enriched (World Nuclear Association, 2020). Naturally mined uranium contains 0.7% of the nuclear isotope U-235 which is isolated for fuel. Almost all nuclear reactors use low-enriched uranium (LEU) (between 3-5% enriched) (Alger, 2009:05). This would suggest that civilian-orientated nuclear programmes would not require the enrichment of uranium beyond 3-5%. Uranium enriched beyond 20% is considered highly enriched (HEU) and warrants concern, but does not represent the level of enrichment required to make a nuclear bomb (Feiveson, 2015). Uranium is enriched using centrifuges which detach the nuclear isotope required to charge nuclear reactors (Feiveson, 2015). This would suggest

that greater access to centrifuges would result in a greater rate of enriched-uranium production. The greater level of enrichment and quantity of HEU presents a greater risk of weaponized nuclear development.

With this in mind, access to a functional fuel-cycle process is critical in establishing a nuclear programme focused on the provision of nuclear energy. However, a state’s access to effective enrichment facilities does present the prospect of it producing weapons-grade materials in the form of HEU (uranium enriched beyond 20%). This is relevant in understanding the global concerns around Iran’s nuclear ambitions.

2.4 Iran’s nuclear history

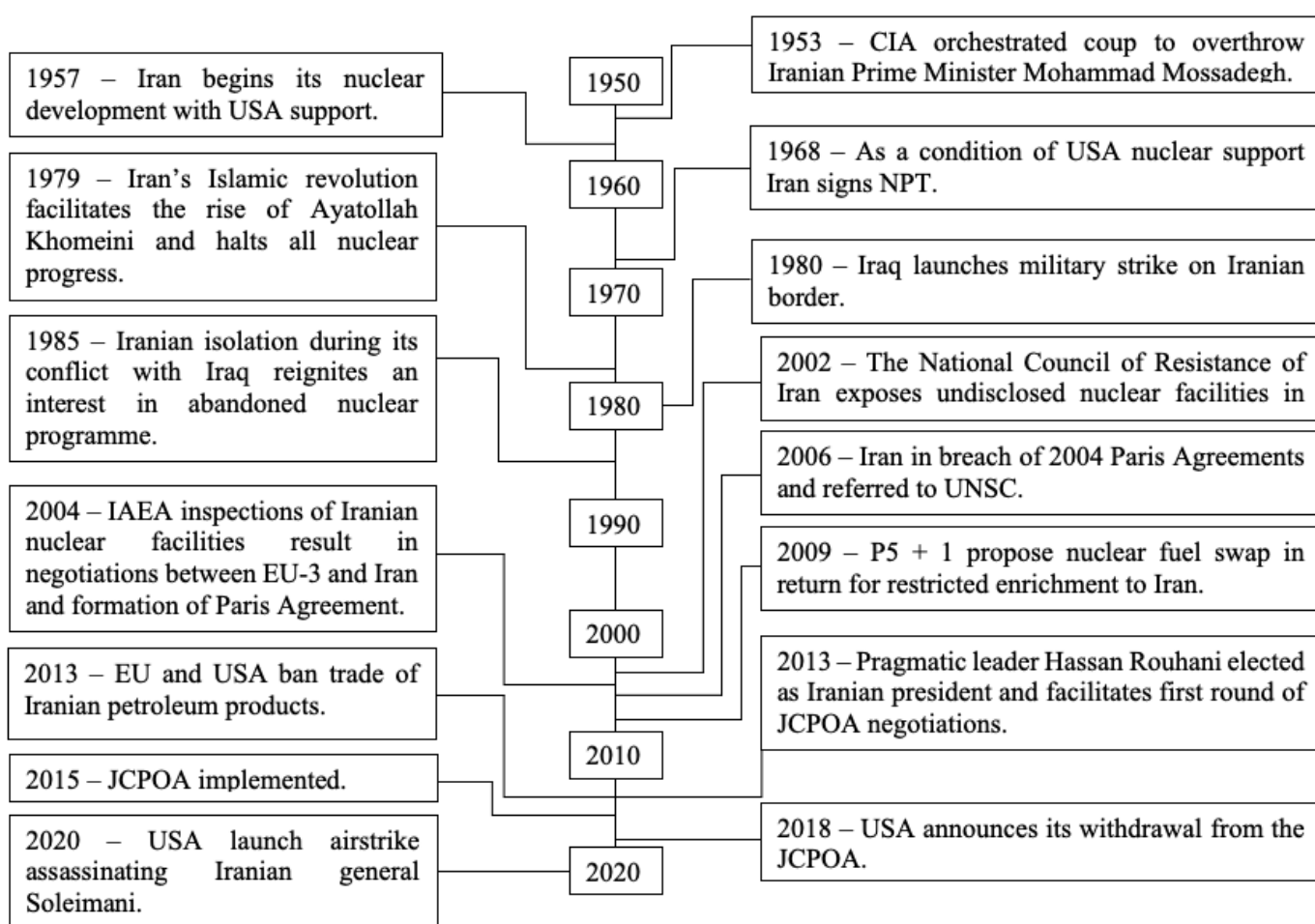


Figure 2.1: Iran’s Nuclear history

Source: The Author

2.4.1 Origins of Iran’s nuclear programme

In 1951 Prime Minister Mossadegh nationalised Iran’s lucrative oil industry which had previously been dominated by Anglo-Iranian oil companies (Efimenco, 1955:954). In the earliest phase of the Cold War both the UK and the USA shared concerns of potentially stronger

Soviet-Iranian relations (Summit, 2004:560). By 1953 a collaborative intelligence operation between the UK and the USA facilitated a military coup overthrowing Mossadegh, subsequently replacing him with Mohammed Reza Shah Pahlavi (Efimenco, 1955:952). The Shah recognised the USA's fear of communism's spread to the Middle Eastern and used this to his advantage in building strong relations with the West (Summit, 2004:560). In securing Western support, Iran also negotiated lucrative developmental agreements. These included military cooperation and the development of Iran's initial nuclear programme (Benjamin, 2018:142). The Shah's rise to power with the aid of Western intelligence and at the expense of democratic progress disconnected him from the Iranian public and set in motion their long-term mistrust of the West (Benjamin, 2018:142).

After the Shah's rise to power, US-Iranian relations continued to flourish, laying the foundation for Iran's initial nuclear developments. By the start of the 1960s Iran was receiving major nuclear support from the USA. After signing a civilian nuclear cooperation agreement in 1957, the USA began to supply Iran with the resources to develop a 5 MWt research reactor (Tehran Nuclear Research Reactor or TNRR) as well as highly enriched uranium fuel (HEU) (Reardon, 2012:10). This reactor would become Iran's core nuclear facility, the Tehran Nuclear Research Centre (TNRC). As another condition of US nuclear developmental support, Iran was asked to sign the NPT in 1968, which was further ratified in 1970 (Reardon, 2012:10). In 1973 the Shah established the Atomic Energy Organisation of Iran (AEOI) and announced an ambitious plan to develop nuclear fuel cycles through the construction of uranium enrichment plants and 22 nuclear reactors with the support of its well-established Western allies (Cirincione, 2006:76). Iran's nuclear programme was complimented and supported by US Secretary of Defence in the mid-1970s, Donald Rumsfeld, and head of Arms Control and Disarmament Agency, Paul Wolfowitz (Cirncione, 2006:76). A year after the Shah announced his nuclear programme, Iran signed Safeguard Agreements citing that all nuclear developments be subject to inspection at request of the IAEA (Reardon, 2012:10). These safeguards are ultimately in place to ensure states are not using their nuclear programmes for the purpose of developing nuclear weapons (IAEA, 2020). Throughout the 1970s Iran went on to sign long-term nuclear developmental contracts with the USA (1974), Germany (1974) and France (1977) (Bahgat, 2006:308). These deals included the provision of nuclear reactors, HEU fuel and investment in foreign enrichment plants and nuclear training (Bahgat, 2006:309).

Iran's nuclear programme was to some extent put into motion by Western support provided in an attempt to limit Soviet presence in the Middle East and oil-rich allies. The Shah's pro-Western outlook and aspirations demanded a large-scale ambitious nuclear programme comparable to its Western allies (Bahgat, 2006:309). Ultimately, the foundation of Iran's nuclear programme was the result of an intimate relationship between Western governments and the Iranian monarchy. Shah's relationship with the West and his modernising efforts largely facilitated his fall from power.

2.4.2 The Islamic revolution

All nuclear work in Iran came to an absolute halt in 1979. Iran's Islamic Revolution forced the Shah into exile, ending the Pahlavi dynasty. The Shah's Western agenda and attempts to modernise Iran through radical social, economic and political reforms under the "White Revolution" were poorly received by the public (Emadi, 1995:01). The Shah's "White Revolution" of 1963 was intended to modernise and elevate Iran to an economic and industrial power (Benjamin, 2018:29). In the eyes of the Shah, these standards were set by Western superpowers dominating the international system. However, the modernising efforts and policies of the Shah turned the Islamic clergy and urban working class against him, subsequently inciting a revolution (Benjamin, 2018:30). Having displaced the Shah, Iran's revolution gave rise to Sayyid Ruhollah Musavi Khomeini, better known as Ayatollah Khomeini. Khomeini was a high-ranking Islamic clergyman who became popular during the early 1960s for opposing the Shah's modern reforms (Ansari, 2010:20). Khomeini, among other Iranians, held greater Western forces accountable for the collapse of Iranian democracy in the 1950s and giving rise to a Western puppet in the form of the Shah (Benjamin, 2018:29). After openly challenging the Shah's policies inciting land appropriation and the reform of women's rights in 1963, Khomeini was arrested; this sparking social unrest and civil riots in Tehran and Qom, among other major cities (Ansari, 2010:20) and cemented his position as a symbol and leader of the Islamic revolution.

Khomeini's strict Islamic principles made him highly critical of the Shah's nuclear programme, further citing it as a "sin" in the eyes of Islam (Pillar, Reardon, Sebenius and Singh, 2020:175). Already viewing the Shah as a puppet of the West corrupting Iran, Khomeini largely discredited his nuclear aspirations as imported Western rhetoric (Bahgat, 2006:309). The Ayatollah emphasized the Western nature of nuclear technology and how it contradicted the basic teachings of Islam. Khomeini's rejection of Western science and technology forced many

of Iran's Western-educated scientists and engineers out of Iran in fear of persecution or simply in pursuit of foreign work opportunities (Reardon, 2012:11). This created a vacuum of Western intelligentsia in Iran, in which educated Iranians fled the state. The fall of the Shah also undermined Iran's Western relationships, resulting in US efforts to bar the previously agreed upon nuclear collaboration (Reardon, 2012:11). The Ayatollah went on to cancel all long-term, ongoing and pending nuclear contracts taken out with all major Western states (Cirincione, 2006:77). Once the Ayatollah had risen to power, the TRNC was the only functional facility remaining from the Shah's initial nuclear programme. A secondary enrichment facility in Bushehr was partially complete, but German company Kraftwerk abandoned its construction after the Shah's exile (Bahgat, 2006:309).

2.4.3 The Iran-Iraq war

On 22 September 1980 Iraqi President Saddam Hussein sanctioned an attack on the Iranian border. The Iran-Iraq war was an amalgamation of historical altercations between the bordering states (Sterner, 1984:129). This included longstanding border disputes, competition over control of the Persian Gulf influence and general Arab/Iranian hostility (Sterner, 1984:130). Iran's revolutionary Shi'i Islam rhetoric and fragile circumstances following its internal revolution provided an opportunity for Iraq to regain control over valuable oil-rich Khuzistan province lost in unresolved land disputes from 1975 (Sick, 1989:230). Iran's severe economic hardship and lack of reliable supply of arms or Western allies left it with a notable disadvantage (Takeyh, 2010:365). Iran's ability to endure an eight-year open conflict with Iraq despite these disadvantages illustrates its resilience and its ability to consolidate power and mobilise the state (Takeyh, 2010:365). The same can be said for its stubborn nuclear efforts following the conflict. Iran's lengthy and devastating war with Iraq played an important role in enlightening Iran's future foreign policy and re-igniting its nuclear development programme.

The Iran-Iraq war spanned eight years and is often considered one of the Middle East's bloodiest and longest conflicts. Despite Iraq's obvious aggression, Khomeini still largely acknowledged the USA as a greater evil that had contracted Iraq to undermine the revolutionary message of the Ayatollah (Takeyh, 2010:367). This assumption was further supported by a lack of appropriate response from the UNSC in mitigating the conflict. Although implementing resolution 479 in September 1980 ordering an immediate ceasefire, Iraq's invasion was not considered an "act of war" (Sick, 1989:235) As a result, Iraq was not directly asked to retreat from Iranian territory (Sick, 1989:235). Iraq experienced no major repercussions for its open

use of chemical weapons throughout the conflict against both military forces and civilian settlements (Sick, 1989:234). The notable failures of the Western-established UNSC in mitigating the conflict further reinforced the Ayatollah's anti-Western agenda.

It is believed that Iran began to revisit its abandoned nuclear programme during the mid-1980s during its war with Iraq. However, at this point Iran as a state still faced major economic challenges and a lack of foreign support (Takeyh, 2010:367). Iran began to track down and offer incentives to any Iranian nuclear scientists or engineers willing to return and work on its revised nuclear plan (Bahgat, 2006:310). By the start of 1985, with a degree of European support, Iran had completed construction on large-scale uranium conversion and fuel fabrication facilities in Isfahan (Reardon, 2012:12). At the same time, the AEOI had begun fuel-cycle research at the TNRC as well as making enquiries over designs for advanced uranium enrichment plants (Reardon, 2012:12). Iran's poor relationship with the international community presented challenges in acquiring legitimate nuclear materials from reliable sources. This was further complicated by the USA's enforced pressure to undermine any sort of foreign support for Iran's nuclear programme (Bahgat, 2006:310). This perpetuated the argument or conspiracy that much of Iran's nuclear development during this time was acquired through black market transactions, further contributing to the global concerns around Iran's nuclear ambitions (Reardon, 2012:12).

The timing of Iran's renewed interest in its nuclear development is significant. A lack of any kind of support while facing a major regional aggressor largely influenced Iran's strategic culture and drove it to redefine its military capabilities (Ahrari, 2001:454). Iran was surrounded by states with significant military capabilities that represented a threat of future potential regional aggressors. Regional states such as India, Israel and Pakistan were all either engaged in major nuclear programmes or had already declared their nuclear capacity (Ahrari, 2001:454). The prospect of another war with one of these states after Iran's long-term conflict with Iraq would have contributed to the demand for a noteworthy nuclear programme and capacity as a deterrent. USA-Iraq relations strengthened during the course of the Iran-Iraq war and may have further motivated Iran's sudden return to its nuclear programme (Cirincione, 2006:77). It should be noted that during the mid-1980s the Ayatollah's health was failing and he died in 1989 (Regencia, 2019). This may have had an impact on loosening the restrictions on the development of nuclear technology and re-establishing Iran's nuclear programme.

2.4.4 Iran's clandestine nuclear efforts

On 20 August 1988, both Iran and Iraq agreed to accept the UNSC's ceasefire proposal but with noticeable reluctance on both sides (Sick, 1989:230). Iraq was unable to regain control over any portion of the Khuzistan province and Iran failed to export its Shiite Islamic revolution. Neither state achieved their goals but just depleted their resources and put further strain on their own relations with major Western states and institutions, most notably the USA. This created major challenges for Iran's nuclear development.

Throughout the 1980s, amidst their ongoing conflict with Iraq, Iran approached several foreign nuclear suppliers with the prospect of completing the partially built reactors at the Bushehr facility (Koch & Wolf, 1998:02). The facility was incomplete before the start of the Islamic revolution and faced major setbacks after being the target of Iraqi airstrikes in 1984, 1985, 1986 and 1987 (Bahgat, 2006:310). The facility sustained major damage and demanded foreign attention. Several states including West Germany, Spain and Argentina placed bids for the contract (Koch & Wolf, 1998:02). However, after the collapse of Iranian-US communications in 1979 and the further deterioration of relations during the Iran-Iraq War, the USA made an attempt to undermine Iran's nuclear development (Ahrari, 2001:454). By 1990 the USA had begun enforcing isolating policies and mild economic sanctions, leading to further stagnation of Iran's nuclear progress while also setting an example for other Western states that may have been inclined to provide support (Karacasulu & Karakir, 2008:04). The European Union (EU) hesitated to impose economic sanctions, citing a lack of evidence and rationality in Iran's restricted civilian nuclear development (Karacasulu & Karakir, 2008:04). Despite not imposing economic sanctions, the USA still persuaded EU states to re-think their nuclear support. Many deals being negotiated between Iran and foreign nuclear firms were never completed as a result of US pressure (Koch & Wolf, 2001:02). For example, contracts signed in 1990 by Iran and Spain's National Institute of Industry and Nuclear Equipment to complete the Bushehr facilities were abandoned in response to US pressure (Koch & Wolf, 1998:02).

With Iran experiencing little success in securing nuclear support from Western states, as it had in the past, it was forced to look outside the realm of Western influence. Iran turned to states like China and the Soviet Union for nuclear technologies and support in re-establishing its nuclear programme (Ahrari, 2001:455). The Soviet Union and Iran cemented their partnership in 1989 when Iranian president Akbar Hashemi Rafsanjani travelled to Moscow to finalise various agreements, including prospects of military cooperation (Freedman, 2006:05). A year

later, in March 1990, Iran and the Soviet Union signed their first nuclear agreement, stating that the Soviet Union would complete the Bushehr nuclear facility and provide two more nuclear reactors (Koch & Wolf, 1998:02). However, contractual obligations were postponed because of Iran's financial difficulties (Koch & Wolf, 1998:02). Much like its agreement with the Soviet Union and the Bushehr facilities, Iran also contracted the help of China in establishing a uranium conversion facility in Isfahan (Cirincione, 2006:77). China's response was more immediate than the delayed or postponed status of Iran's agreement with the Soviet Union, but was derailed in the late 1990s after the USA pressured China to abandon its investment (Bhagat, 2006:310). Throughout the late 1980s and 1990s Iran lost contracts with nuclear firms based in Italy, the Czech Republic, Poland and the Ukraine (Koch & Wolf, 1998:02).

It should be noted that Iran's rate of nuclear development between the mid-1980s and 1990s was particularly complicated. The rejection of Iran's Western-style nuclear plan also meant rejecting all the previous safeguard agreements allowing the IAEA to monitor nuclear development within Iran (Cirincione, 2006:77). Hence, the exact level of progress made by Iran during the 1980s and 1990s is not entirely clear. Iran's poorly archived nuclear movements over this decade played a notable role in complicating the diplomatic efforts to follow throughout the 2000s.

2.4.5 A decade of failed negotiations

Iran's nuclear timeline over the last two decades can be characterised by the imposition of major economic sanctions, multiple rounds of failed negotiations and poor relations between Iran and the international community. Iran's nuclear history between 2000 and 2015 can be best understood in three phases of diplomacy and negotiations. The start of Iran's nuclear diplomatic stalemate with the international community can be traced back to 2002. There are several examples of positive and constructive diplomatic negotiations such as the Tehran Declaration (2003), the Paris Agreement (2004), P5+1 fuel swap proposal (2009) and the Moscow step-by step proposal (2011). However, that being said, the majority of the diplomatic efforts made during this time yielded few results and for the most part resulted in additional sanctions and the alienation and isolation of Iran.

2.4.5.1 2000 – 2005

Major concerns regarding Iran's nuclear programme came to light in August 2002. The National Council of Resistance of Iran (NCRI), a small independent Iranian political

organisation based in France concerned with promoting a democratic Iran (NCRI, 2020), held a press conference revealing an undisclosed nuclear facility in Arak (Davenport, 2020). Following the NCRI announcement, Iran was compelled to adhere to basic NPT safeguard protocols allowing the IAEA to conduct investigations into their past, present and future nuclear developments. IAEA inspections revealed multiple undisclosed nuclear facilities including an enrichment plant and active conducting of controlled enrichment tests in Natanz (Bâli, 2014:239). Following the declaration of Iran's secret (previously undeclared) nuclear facilities, the IAEA was invited to document and inspect the facilities. Iran's voluntary cooperation with and adherence to additional safeguard protocols and its suspended uranium enrichment at the request of the IAEA are commonly referred to as the Tehran Declaration (Kazinsky, 2012:02).

By the end of 2003 IAEA inspections had concluded that Iran's nuclear development had been ongoing for an estimated 18 years prior to the inspections (Orlov & Vinnikov, 2005:55). Iran contended that its clandestine nuclear development was the only path available to it under the isolating policies and practices enforced by the USA and the EU, and that its nuclear development was rooted in civilian ambitions (Bâli, 2014:239). Iran took diplomatic steps to avoid UNSC referral and instead entered negotiations with France, Germany and the UK (EU-3) and the IAEA (NTI, 2020). At the risk of facing greater international isolation in the form of sanctions, Iran agreed to adhere to additional NPT safeguard protocols, suspend uranium enrichment and disclose in detail the nature of its nuclear development up until that point (Kazinsky, 2012:02). This is how Iran and the EU-3 concluded the 2004 Paris agreement. However, despite constructive negotiations and Iran's noteworthy compliance with IAEA, communications soon began to deteriorate. Iran's covert nuclear development sparked major international concerns and perpetuated the fear of Iran's nuclear programme as including a military application (Santini, 2010:473).

In 2005, a year after the Paris Agreement, evidence surfaced suggesting that Iran had continued with controlled enrichment tests and had failed to disclose plans to construct another enrichment plant (NTI, 2020). The IAEA demanded Iran fully disclose its nuclear past and future plans, and identify which states, companies or individual scientists were assisting them. Iran, the IAEA and the EU-3 entered another round of diplomatic negotiations. However, they broke down towards the middle of 2005 when Iran notified the IAEA that it would resume enrichment activities (Santini, 2010:476). The EU-3 was notified by Iran that the terms of the

long-term agreement was not to its satisfaction and contradicted previously agreed upon conditions made in 2004 (Santini, 2010:476). Iran formally withdrew from the 2004 Paris Agreement and gave up its voluntary adherence to additional safeguard protocols (Davenport, 2020). Despite only being in breach of voluntary agreements in adhering to additional safeguard measures, the IAEA in collaboration with the EU-3 referred Iran to the UNSC (Bâli, 2014:244).

2.4.5.2 2006 – 2011

After Iran's referral, the UNSC quickly drafted a resolution demanding Iran's immediate cooperation with IAEA officials and enforcing its first round of economic sanctions on the state (Hurst, 2016:546). This was followed by diplomatic efforts and a renewed agreement put forward by EU-3, USA, China and Russia (P5+1). It should be noted that Russia's and China's role in the negotiations was largely supportive of Iran and called into question the severity of the sanctions placed upon it (Ozkan, 2010:27). Throughout diplomatic efforts with Iran, both Russia and China resisted the UNSC call to enforce sanctions (Ozkan, 2010:27). The P5+1 offered an incentive package not dissimilar to the 2004 Paris Agreement. The package included the supply of advanced civilian nuclear technology, but insisted that suspended uranium enrichment be a prescribed condition for any negotiations (Reardon, 2012:17). Iran failed to meet the preconditions of the negotiations and in July 2006 was put under renewed sanctions enforced by UNSC resolution 1616 (Hurst, 2016:546).

The resolution demanded that Iran suspend uranium enrichment, banned the trade of all nuclear technology with Iran, and further froze the assets of several individuals and organisations that had been identified as assisting Iran's previous nuclear development (NTI, 2020). Iran openly stated it would continue to develop its nuclear programme despite its being in breach of UNSC resolution 1616. The UNSC continued to intensify sanctions until 2008, when Iran once again agreed to enter another round negotiations (Reardon, 2012:18). The P5+1 proposed a new incentive package which included access to reactor technology, granted economic support and access to LEU in return for Iran's halted enrichment programme (Reardon, 2012:20). This was an attempt to depress Iran's progress and to enter into legitimate long-term negotiations. Days before the deadline of the new incentive package and the UNSC's next round of sanctions, Iran announced it would not be persuaded to abandon its nuclear path (Bowley, 2008). In 2009 Iran disclosed to the IAEA that it was in the process of developing another enrichment facility that would raise enrichment to 5% (NTI, 2020).

The introduction of a new White House administration in 2008 offered new diplomatic opportunities for Iran and the P5+1. The Obama administration advocated for a strategy of “engagement” in which the USA stated a willingness to enter negotiations without Iran being forced to adhere to the demands of the UNSC, namely to suspend its enrichment programme (Hurst, 2016:546). This resulted in successful communication for the first time since 2006. In 2009 negotiations between the P5+1 and Iran began and were centred on a proposed fuel swap. Iran was experiencing difficulty enriching what uranium it had at its disposal as a result of UNSC enforced sanctions, while also having almost depleted its nuclear fuel reserve. The P5+1 proposed allowing Iran to export an estimated 1,200 kg of natural uranium (to be further enriched) and in return receive LEU (Hurst, 2016:547). However, negotiations once again fell through once the P5+1 contested Iran’s proposal. The P5+1 insisted that Iran first export its natural uranium to be enriched, and upon its return it would be supplied with LEU (Hurst, 2016:547). As a result of further failed negotiations in 2009, the UNSC placed Iran under further restrictive economic sanctions, despite China’s reluctance (Ozkan, 2010:27).

As a regional stakeholder of the Middle East, Turkey had been a noteworthy presence in mitigating tensions around Iran’s nuclear efforts (Üstün, 2010:20). With nuclear concerns of its own in mind, Turkey, in full cooperation with the P5+1, was present in negotiating an outcome that would facilitate a degree of regional stability in the Middle East (Üstün, 2010:20). Turkey experienced a considerable economic backlash from the regional instability stemming from Iranian sanctions, such as its lengthy conflict with Iraq (Üstün, 2010:20). As perceived by Russia, China, Turkey and Brazil, increased UNSC-enforced sanctions did not offer any degree of relief to Iran’s frustrating nuclear circumstances (Üstün, 2010:21). Turkey and Brazil volunteered to act as mediating powers between Iran and P5+1 encouraging the Islamic republic to reconsider the incentives of the 2009 fuel swap proposal (Ozkan, 2010:27). In May 2010 Iran signed an agreement with Brazil and Turkey stating it would send its unenriched uranium to Turkey and a smaller than requested amount of LEU, and in return it would adhere to some of the outstanding requests of the IAEA and UNSC (Ozkan, 2010:27). Despite achieving the goals of the P5+1, IAEA and UNSC in establishing some degree of diplomatic compromise with Iran, the deal managed by Turkey and Brazil with Iran was not well received by the West. The US condemned the agreement and campaigned to continue to reinforce Iran’s isolation. In June of 2010 the UNSC passed resolution 1929 enforcing the US’s Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA) (Schott, 2012:191). This

ultimately imposed an arms embargo, flight bans on several notable Iranian political figures, a review of all international Iranian export, import and financial institutions as well as obvious restrictions on ballistic missile-related activity (Ozkan, 2010:27). It further warned foreign Iranian investors to actively divest in the state by intensifying the criminal accountability of those acting in breach of the sanctions (Schott, 2012:192). This undermined the efforts of Turkey and Brazil undermining the renewed fuel swap proposal.

Despite deliberately sabotaging the only positive diplomatic relations between Iran and members of the international community, the P5+1 once again invited Iran to several rounds of diplomatic “dual-track” negotiations between late 2010 and early 2011. As a precondition for any negotiation concerned with the its nuclear programme, Iran insisted on the removal of all enforced economic sanctions on the state outlined in Resolution 1929 (Reardon, 2012:20). These negotiations failed to yield any sort of noteworthy results in establishing the purpose of, or restricting, Iran’s nuclear proliferation. Russia put forward a proposal in which Iran would receive the relevant nuclear support and the phased removal of economic sanctions for a capped enrichment rate of 20%, greater adherence to safeguard protocols and reassurances of the civilian nature of Iran’s nuclear ambitions (Davenport, 2020/NTI, 2020). The proposal was positively received by Iran but heavily criticised by the USA, UK and France (NTI, 2020).

2.4.5.3 2011 – 2013

The final phase of Iran’s diplomatic negotiations with the P5+1 and other major Western powers became notably tense in November 2011 following another safeguard report released by the IAEA. The report outlined a fuller image of Iran’s nuclear programme, casting light on several safeguard protocol infractions and the potential military application of nuclear energy (NTI, 2020). The report sparked greater international concern and subsequently intensified both demands for negotiations as well as the severity of sanctions. The report began by outlining the information that Iran had openly declared to the IAEA over the last decade before citing the discrepancies surfacing from its most recent inspection (Amano, 2011). The report called into question the credibility of Iran’s disclosures, the potential military nature of its programme and the clandestine nature in which nuclear technology was acquired over the last decade (Amano, 2011). Although much of what was published in the report was already well documented, the comprehensive nature of the report in detailing Iran’s nuclear past, present and future in its entirety perpetuated global concern (Reardon, 2012:25). The report failed to inspire UNSC action, but succeeded in intensifying US-imposed sanctions. Between 2011 and

2013, in a collaborative effort between the USA and the EU, significant pressure was put on Iran by way of further intensified sanctions ultimately halving oil exports and further restricting its access to foreign exchange assets (Kenneth, 2020:02).

In December 2011, informed and supported by the IAEA November report, the USA enacted the National Defence Authorisation Act (NDAA). Under the NDAA, the USA announced further specialised economic sanctions to be placed on all non-US foreign investment firms interacting with the Iranian central bank (Schott, 2012:192). This was aimed not only at restricting direct Iranian foreign investment but also to undermine the efforts of states seeking to import Iranian oil (Schott, 2012:192). This further eroded Iran's remaining trade relations with other states (Mousavian & Mousavian, 2018:180). The economic backlash of the USA's specialised gas and oil sector sanctions was aggravated by a decline in oil prices during 2012 (Aljazeera, 2012). Although these sanctions may very well have assured Iran's economic decline, in 2012 the US granted waivers to a handful of Iran's minor and major oil trading partners (Schott, 2012:192). They included China, Turkey, South Korea, Japan, Sri Lanka, South Africa, Taiwan, India and Malaysia (NTI, 2020). In complementing US's policies to isolate Iran, the EU imposed its own sanctions prohibiting all contracts going into 2012 regarding the purchase or transport of Iranian oil (Schott, 2012:192).

As these sanctions came into effect, Iran entered a 15-month long interval between diplomatic negotiations. Communications between Iran and the P5+1 were re-established in April 2012 with negotiations taking place in Istanbul (Kazynski, 2012:02). Talks took place over two days and were described by both sides as "positive" and "constructive" (Crail, 2012). These meetings were followed up with further talks in Baghdad and Moscow (Krazynski, 2012:02). It was at these meetings where the prospect of a phased five-point agreement began to form that ultimately served as the basis for the JCPOA (Borger, 2012). Although this round of negotiations failed to produce a solution to the ongoing nuclear stalemate, the diplomatic efforts of the international community were finally yielding some results.

The rising civil unrest stemming from significant economic loss sustained at the hands of foreign sanctions forced Iran to rethink its foreign policy (Hussein, 2015:34). Iran's 2013 elections mark a considerable change in Iran's diplomatic efforts. Newly elected Iranian president Hassan Rouhani was a known advocate of greater Western engagement and cited his political success as a victory of "wisdom, moderation and maturity ... over extremism" (BBC,

2013). Rouhani's pragmatic nature encouraged a greater degree of "constructive engagement" and diplomatic "flexibility" within Iran's foreign policy (Hussain, 2015:34). This paved the way for Iran's most successful diplomatic efforts and negotiations with the forces trying to restrict it to date.

2.4.6 The JCPOA

President Rouhani and his administration facilitated a greater Iranian diplomatic effort. Rouhani and his administration cited clear goals in wanting to address its failing economy by normalizing its previously established oil and gas trade relations (Mousavian & Mousavian, 2018:180). This meant greater Western engagement in trying to lift sanctions. A fresh wave of negotiations took place over 15-16 October year? and were described as "substantive and forward looking" (Davenport, 2020). Over the next year Geneva hosted several successful rounds of negotiations between Iran and the P5+1, ultimately resulting in the finalisation of the JCPOA on 14 July 2015 (Trope, 2015:01). The agreement was adopted by all relevant participants on 18 October 2015 (Davenport, 2018). At this point the agreement stipulated that the lifting of any imposed sanctions would only commence following Iran's adherence to the JCPOA's prerequisite conditions of implementation (Trope, 2015:02). This included granting IAEA access to Iranian nuclear facilities for closer inspection, restricted enrichments rates and the deactivation of excess enrichment facilities (Neog, 2016:69). On 16 January 2016 an IAEA report was published citing Iran's cooperation and adherence with the outlined preconditions of implementation and put the JCPOA and the waivers of US, EU and UNSC imposed sanctions in effect (Davenport, 2018).

The JCPOA represented rational diplomatic compromises that played in favour of all those involved in the negotiations. The JCPOA recognised and endorsed Iran's inherent right to nuclear enrichment, facilitated the lifting of both unilateral and multilateral sanctions, and reinforced the prospect of peaceful nuclear cooperation in the international community (Mousavian & Mousavian, 2018:181). From the perspective of most P5+1 members, the JCPOA established long-term diplomatic communication and reinforced the credibility and regularity of restrictions and inspections on Iran's nuclear programme (Mousavian & Mousavian, 2018:181). This was to significantly dampen Iran's estimated nuclear breakout (Mousavian & Mousavian, 2018:181).

Apart from requiring basic adherence to additional safeguard protocols, the JCPOA included several key regulations. These regulations for the most part dealt with the number of functioning enrichment facilities and centrifuges Iran has at its disposal, its uranium reserves and the percentage at which it is allowed enrich uranium (Asculai & Landau, 2019:02). As per the agreement, all enrichment activities were to take place at the monitored Natanz facility, uranium stockpiles were capped at 300 kg (as opposed to the initial 12,000 kg) and enrichment levels were not to exceed 3.67% (Mousavian & Mousavian, 2018:181). Despite being positively received and considered a major diplomatic breakthrough in mitigating nuclear tensions surrounding Iran's nuclear progress, the JCPOA had still been cited as having several flaws or loose ends, the most notable of which is that it largely relied on the trust and cooperation of Iran itself. Although Iran's recent change in administration did mark a change in international cooperation, Iran's past clandestine nuclear efforts reinforced global scepticism about its commitment to the JCPOA. Further concerns regarding the stated "termination day" of the deal have also been noted. Over time the restrictions of the agreement would be steadily eased until their total termination in 2025 under UNSC resolution 2231 (Asculai & Landau, 2019:02).

2.5 Contemporary circumstances

After January 2016 Iran continued its cooperation with the IAEA and went on to re-establish trade relations with the rest of the international community. However, another change in the US administration in 2017 marked the beginning of the JCPOA's premature deterioration. The Trump administration had on several occasions stated its dissatisfaction with the JCPOA and its intention of dismantling it in favour of greater restrictions (Begley, 2016) The Trump administration put into motion the Iran Nuclear Agreement Review Act of 2015 (NTI, 2020). The Act states that the Iran's compliance with the JCPOA must be certified by the president every 90 days to secure US participation (Centre for Arms Control and Non-Proliferation, 2015). In October of 2017 the US announced that it would no longer be signing off on Iran's compliance, effectively dismantling the JCPOA and publicly stating that its European allies should consider doing the same (Holland, 2018). In April 2018 Israeli prime minister Benjamin Netanyahu publicly stated that he had documented evidence of Iran's nuclear past and present nuclear ambitions that suggested the construction of "secret" major nuclear warheads since 2003 (Aljazeera, 2018). These allegations failed to be supported by credible evidence and did not call into question the greater benefit of the JCPOA. In May 2018 the USA announced its formal withdrawal from the JCPOA against the advice of the remaining P5+1 (Landler, 2018).

Renewed sanctions by the US pushed Iran to abandon its adherence to the terms of the JCPOA and continue its enrichment (NTI, 2020). Since its withdrawal from the JCPOA, the USA has further buried Iran under several rounds of economic sanctions as well as enforcing a greater degree of military presence within the Middle Eastern region in an attempt to restrict their nuclear progress, among other motives (Landau, 2018:25). Throughout 2019 the USA held Iran responsible for coordinating terrorist attacks on US diplomatic and military sites. The USA holds Iran responsible for arming terrorist groups such as the Houthi rebels that are credited with strikes near the US embassy in Baghdad as well as on critical pipelines in Saudi Arabia (Al Jazeera, 2020), which is the USA's the largest greatest trade partner (Council on Foreign Affairs, 2020). It should also be noted that Iran can be held directly responsible for shooting down a US surveillance drone in June 2019 (Turak, 2020) as well as consistently working towards achieving nuclear capacity in breach of the restrictions placed upon it by the previously agreed upon JCPOA. On 3 January 2020 tensions reached a tipping point following the US-sanctioned assassination of top Iranian general Qasem Soleimani in an airstrike (Al Jazeera, 2020).

2.6 Conclusion

Iran's nuclear history is particularly complicated. In the last 70 years it has faced military coups, Islamic revolutions and isolation from the West. This has created major challenges in documenting and achieving a deeper understanding of Iran's nuclear developments and ambitions, and complicated efforts to restrict them. It is clear that Iran's internal historical discourses have shaped its nuclear development programme and the restrictive response of the international system. With that in mind, to objectively appraise the counter-proliferation efforts taken against Iran, it is necessary to understand the historical narratives that have defined its contemporary nuclear crisis. Several factors within Iran's chaotic and volatile history have contributed to complications in mitigating the growing concern around Iran's nuclear proliferation. These should also be considered when evaluating the efficiency and sustainability of contemporary counter-proliferation efforts. For example, the role of the USA in Iran's 1953 military coup is the root of much of Iran's mistrust of the West, which has put such a strain on state relations and diplomatic efforts. Iran's Islamic revolution also reinforced the perception within the international system that Iran is a radical irrational regime defined by hateful anti-Western rhetoric and a propensity for nuclear self-destruction. Certainly Iran's isolation from and by the West played a significant role in perpetuating the "clandestine" nature of Iran's nuclear programme and its perceived "sinister" nuclear ambitions.

The aim of this chapter was to provide a comprehensive account of Iran's nuclear history and the measures taken to restrict its nuclear development. In doing so, this study aims to appraise contemporary counter-proliferation efforts. There are clear shortcomings within the counter-proliferation regime in trying to form diplomatic relations with Iran, restrict its rate of nuclear development and mitigate the growing tensions around proliferation. While there are several factors within Iran's history that may have complicated diplomatic efforts, they do not fully account for the overall failure of counter-proliferation efforts. A review of restrictions on Iran's nuclear programme by the international system illustrates a clear failure in the contemporary interpretation of nuclear non-proliferation and attempts to advance it.

3 STRUCTURAL REALISM AS A THEORETICAL FRAMEWORK OF ANALYSIS

3.1 Introduction

The previous chapter gave an account of Iran's nuclear progression and the counter-proliferation moves against it. This largely contextualised the historical setting for a critical analysis to address the research questions in Chapters 4 and 5. In further answering and addressing the primary research question and problem, this chapter provides the relevant theoretical backdrop. It does so by outlining and reviewing the theoretical frameworks and narratives that have informed the global perception of nuclear weapons, counter-proliferation and nuclear deterrence. The chapter is aimed at illustrating an alternative interpretation of the theoretical frameworks that suggest there would be greater regional security and stability through greater nuclear distribution in the Middle East.

As mentioned in the previous chapter, the evolution of theories about nuclear proliferation is significant. The dominant theoretical narratives on the growing significance of nuclear weapons heavily informed the moves towards counter-proliferation. Political and IR theories accounting for nuclear proliferation and development became increasingly more relevant from 1950s onwards as counter-proliferation is understood and defined within the boundaries of a mainstream interpretation traditional and structural realism. The study consequently undertakes an analytical review of realism and its contemporary variants as theories of Political Science and IR. This includes differentiating between distinctly different realist schools of thought and contextualising basic models of propositions on security and the balance of power. This section of the chapter therefore outlines the mainstream interpretation of neorealism and how it informed counter-proliferation. The chapter offers a review of both traditional structural realism and its impact on, and role in, defining counter-proliferation.

This chapter will begin by outlining traditional realism and discussing the main contributors, core themes and assumptions that have inspired it. The chapter goes on to explore traditional realism's contemporary variant, neorealism. The chapter also differentiates between the two core schools of thought that have dominated structural realism, namely offensive and defensive realism. This requires a review of the way power and security are understood in structural realism. The relevance of this is illustrated in a review of the security dilemma, the balance of power and the balance of threats. This chapter then goes on to critically analyse counter-

proliferation through the lens of structural realism, which reveals a clear divide in the perceptions of nuclear proliferation that largely aligns with the two schools of neorealist thought. The chapter then offers a review of counter-proliferation through both Mearsheimer's and Waltz's understanding of structural realism to better illustrate the two interpretations of the theoretical framework applied to counter-proliferation. This entails providing an outline of the theoretical understanding basic nuclear deterrence. This will lay the foundation required to answer this study's second secondary research question, namely....

3.2 Traditional realism

Realism is considered by most scholars as the dominant theory of IR (Sterling-Folker, 2013:15). Traditional realism depicts the international system as an ongoing competition for power and security in an ungoverned system, perpetuating the notion of inevitable conflict (Walt, 1998:31). Realism became popular in the 1930s after WWI and cemented its dominance in IR during the 1950s, when it offered a clear theoretical account for Cold War superpower dynamics as well as alliances and the challenges they faced (Walt, 1994:31). There is a great deal of literature on its theoretical foundations, from Morgenthau's (1948) emphasis on the limitations of human nature to Waltz's (1979) focus on how superpowers interact within each other (Jørgensen, 2018:88). Despite major theoretical contributions by Machiavelli, Hobbes, Waltz, Mearsheimer and Carr, Realism still lacks a fully agreed upon definition (Burchill & Linklater *et al*, 2013:32). Buzan (1996) notes that there is no long line of theory that defines traditional realism, but that it is rather a permanently developing discussion about the role, purpose, production and influence of power within a changing international system and environment (Sterling-Folker, 2013:17). This accounts for the growing numbers of contemporary variants of realism such as structural/neo-, offensive and defensive realism, which will be discussed later in this chapter. Instead the theory of realism expresses a "*distinct and recognisable flavour*" found at the intersection of themes such as egoism, power, anarchy and security (Burchill & Linklater *et al*, 2013:32). Like most theories of IR, realism also emphasises state-centrism and rationality. Traditional realism is firmly rooted in the restraints of human nature in politics, global anarchy and the influence of state power on security (Burchill & Linklater *et al*, 2013:32). To better understand and recognise this '*flavour*', it is necessary to understand the origins of, and contributors to, the realist tradition, its core values and its assumptions.

3.2.1 Origins and contributors

The origin of traditional realism lie in the contributions of its “founding fathers”, including Thucydides (c. 460 B.C.– c. 400 B.C.), Machiavelli (1469 – 1527) and Hobbes (1588 – 1979), whose work largely defined the core values of traditional realism. However, classical realism began to take on a more definitive structure after the contributions of Carr (1892 – 1982) and Morgenthau (1904 – 1980).

3.2.1.1 Thucydides and power

Thucydides’ contribution to the realist traditions is best illustrated in his work entitled *The History of the Peloponnesian War*. Although his work is not considered as political philosophy or as a theory of IR, it is acknowledged as a valuable contribution to the realist tradition (Korab-Karpowicz, 2006:232). *The History of the Peloponnesian War* is recognised as the quintessential introduction to the concept of power and its significance in politics (Korab-Karpowicz, 2006:233). The work focuses on the nature of Athenian imperialism; it illustrates how the territorial expansion of Athens was perpetuated by the lack of governance and relevance of morality in state relations (Ahrens Dorf, 1997:236). Thucydides notes that the Athenians were driven by the notion that weaker states (with less power) are to be controlled by stronger states (with more power) (Ahrens Dorf, 1997:236). In many ways, all the core values and principles of traditional realism can be found in the works of Thucydides. Thucydides propounded the notion that power was the major currency and driving force of politics within a traditionally realist perspective.

3.2.1.2 Machiavelli and morality

Machiavelli is often considered one of the earliest political scholars to consider the true nature of the human condition and its impact on politics (Mindle, 1985:212). Machiavelli’s contribution to the realist tradition is best captured in a single chapter of his work *The Prince*. In it Machiavelli illustrates the intrinsically flawed nature of humanity the necessitates the separation of morality or ethics from politics in achieving individual and state prosperity (Korab-Karpowicz, 2018). He notes the dangers of assuming morality in world that does not truly embody any (Mindle, 1985:212). Machiavelli’s assumptions about human nature further support the utility of “sheer force in the conduct of government” and that moral persuasion by itself will never effectively achieve state goals as conventional military force can (Mindle, 1985:212). Ultimately, Machiavelli contends that in politics one must be aware of the limitations of man in achieving any political endeavours and in ridding the world of evil (Mindle, 1985:213). This notion has spawned a radical variant of traditional realism called

Machiavellianism, which actively denies the operation of morality and ethics in politics and justifies any means at all in achieving political ends (Korab-Karpowicz, 2018).

3.2.1.3 Hobbes and anarchy

Hobbes's contribution to the realist tradition is undisputed. His most significant contribution to the origins of traditional realism is his seminal work entitled *Leviathan*. Hobbes is largely credited with refining the notion of anarchy within the political system, initially observed by Thucydides. Thucydides' documentation of anarchy in *History of the Peloponnesian War* was supported by observation throughout his work, but he did not present a structured account of the phenomenon. Hobbes, on the other hand, produces a more structured account of the anarchic state of nature in Chapters 11 and 13 of *Leviathan* (Brown, 1987:34), but it is not clear to what extent Hobbes's account of anarchy is influenced by Thucydides, even though he credited with producing an English translation of *History of the Peloponnesian War* (Bull, 1981:718). Hobbes's illustrates anarchy by noting that individuals would have been born into it, if they were not already "in awe of a common power", namely domestic governance (Bull, 1981:718). Hobbes illustrates that without the imposition of a common power or governing force in the international system, it is in a natural state of anarchy. The goal of Hobbes's writing was to account for the logic of states interacting with one another in the anarchic state of nature (Bull, 1981:720). Hobbes's theory is based on three assumptions of the state of nature: (1) All men are born equal and (2) interact with one another in anarchy; and (3) they are motivated by competition, diffidence and glory (Burchill & Linklater *et al*, 2013:34). Hobbes suggests that all equal men live and interact with each other in a state of anarchy only guided by the interests of man. According to Hobbes, as long as one's security is not endangered, all men should endeavour peace. In anarchy, man must secure himself before endeavouring for peace.

3.2.2 Core values of Realism

3.2.2.1 Human nature

Realism is focused on the inevitability of conflict in the international system. This pessimistic obsession with the notion of conflict is largely driven by an evaluation of human nature in traditional realism. Hobbes (1651) illustrates the foundation of classical realism with three assumptions of the state of nature. Hobbes assumes that all are born equal, that they interact within an ungoverned state of anarchy and that they are motivated by competition, defeat and victory (Burchill & Linklater *et al*, 2013:34). Traditional realism acknowledges the inherent limitations of human nature, which inhibits the development and progression of human rights, economic prosperity, extended cooperation and international stability (Sterlin-Folker,

2013:15). Traditional realism thus suggests that the inevitability of state conflict is deeply rooted within the intrinsically flawed nature of humanity (Burchill & Linklater *et al*, 2013:32). Realism ultimately acknowledges power and self-interest as the only means by which goals are achieved. This largely undermines the prospect of stability and cooperation among states by way of morality without a perfect balance and distribution of power to ensure accountability.

3.2.2.2 Power politics

Traditional realism, sometimes referred to as ‘power politics’ (Burchill & Linklater *et al*, 2013:32), places significant emphasis on the role of power within the international system and as a determinant of international relations. Within the field of IR, power is largely defined by a state’s ability to influence actors or transactions in favour of themselves in relation to other states (Sterling-Folker, 2013:15). This suggests that power within the contemporary world system is largely determined by a state’s military capabilities (Mearsheimer, 2001:03). Realism further asserts that power, and the basic will of the entity that possesses it, dictates the operations of the international system (Sterling-Folker, 2013:15). As result, traditional realism tends to focus on states that possess significant power within their international system and how they go onto dictate and influence it (Sterlin-Folker, 2013:16). This further accounts for the theory’s rise in popularity at the height of Soviet-American tensions. The theory of realism acknowledges power as the major currency of global politics, contending that it is balanced by states that compete to be at the top of the global world order. The significance of power in the international system also aligns itself with the traditional realist assertion that there is no distinguishing between international and domestic power, and that both are driven by the pursuit of self-interest (Dunne, Kurki and Smith, 2016:61).

3.2.2.3 Global anarchy

Anarchy is a key dimension in defining state behaviour and traditional realism. Traditional realist scholars like Jervis have contended that anarchy is a fundamental fact and characteristic of politics (Milner, 1991:68). The international system is perceived by most classical realists as a self-help, free for all, competitive arena in which states actively take advantage of one another in pursuit of their own interests (Dunne, Kurki and Smith, 2016:61). This ultimately means that states interacting within one another do so without any central authority and no level of protection or security against one another (Milner, 1991:68). This assumption about the international system is widely accepted in all most all variants of realism. It acts as the basis of realist models of security in the international system. With no central governance within the international arena, there are no enforced limitations on the pursuit of state interests by

powerful sovereign states, taken from weaker states (Milner, 1991:69). In acknowledging this, realism suggests that states must secure themselves by elevating their capabilities in relation to other states within the international system. This is the theoretical foundation of the security dilemma and will be discussed later in this chapter.

3.3 Classical realism in the 20th century

Some of the most notable contributors to classical realism in the 20th century include Carr (1939) and Morgenthau (1946) (Jørgensen, 2018:88). The initial goal of traditional realism was to account for the real and practical nature of international politics often in play at the expense of morality or ethical concerns. However, this manifested as a major critique of the liberal tradition and its utopian nature. Morgenthau (1984) states that one of his goals in his critique of institutional liberalism was pointing out that it did not fully account for the tragic reality of social and political problems for which no solutions could be provided (Jørgensen, 2018:90). Morgenthau instead offered a structured theorised account for the political system and traditional realism. While Carr's work does not represent a full account of realism as a theory of political science, his critique of "utopian liberalism" highlighted several distinct characteristics of classical realism that discredited other political traditions. This gave greater credibility to classical realism as the dominant narrative of political science and IR in the 20th century.

3.3.1 E. H. Carr's critique of liberalism and liberal utopianism

Carr is considered one of the earliest 20th century contributors to classical realism but also to IR as a field of study in its entirety. Carr is credited with further separating the field of IR from history, politics and law, contending that it qualifies as a field of analysis and study on its own (Lawson, 2013:36). He would make a notable contribution towards the formation of realism as a systemic theory of IR. His contributions are rooted in a critique of what he called the "utopianism of liberal optimists" (Lawson, 2013:36). Carr emphasized the notion of power politics and criticised those who believed that power could be mitigated with acts of political will. Carr states that political will is compromised by the egoistic nature of humans. For Carr, the notion of political will dissuading power within the political arena was an example of utopian and wishful thinking (Lawson, 2013:37). Carr illustrates this by noting that utopians look to the future with creative optimism, while realism looks at the past with an analytical view of causality (Lawson, 2013:38). He characterises utopian liberalism as naïve to realism's objective sterility. Carr cites the failures of liberal utopianism and its theoretical credibility. He notes that liberal institutionalism dictates political theory to which they believe reality must

conform while realism theorises on the basis of reality. Carr also emphasised the binary relationship between power and morality within IR. He questioned the notion of human nature as the bedrock of traditional realism. Instead he contended that humans have always lived in groups that adhere to codes of conduct that dictate politics. He notes that the view that the interests of individual are a driving force is purely theoretical. He does so by illustrating that social morality is a constructed by self-identified dominant groups that identify with a greater community and that international theories morality are constructed by dominant systems (Lawson, 2013:39). Carr ultimately contests that unlike variants of liberalism, realism theorises the reality of international politics and emphasizes the constraints on political action because of egoistic human nature.

3.3.2 Morgenthau's principles of realism

Morgenthau is often credited with documenting and structuring traditional realism into a credible theory of IR. His most notable contributions are presented in *Politics Among Nations: The Struggle for Power and Peace*. He puts forward a structured account and outline of classical realism. Having been inspired by the works of Thucydides, Machiavelli and Hobbes, Morgenthau asserts six key principles of traditional realism with a focus Human nature, power politics and global anarchy. These six principles act as broad guidelines that summarise more detailed ideas (Jørgensen, 2018:97).

First, Morgenthau notes that politics, like society, is governed by objective laws that are rooted in human nature. Second, classical realism suggests that interest is defined by power (Proctor, 2015:01). This would further suggest that power is the central guiding principle of realism in international politics (Jørgensen, 2018:97). Thirdly, he notes that power and interest vary across the political system and time (Dunne, Kurki and Smith, 2016:63). This further suggests that power and interest are determined by the political environment at the time (Proctor, 2015:03). Fourth, universal principles of morality cannot be applied to state actions. This point focuses on the limitations of human nature in achieving goals of economic and social prosperity. Fifth, realism rejects the moral aspirations of individual states in favour of the objective laws rooted in human nature that govern politics (Dunne, Kurki and Smith, 2016:63). Finally, Morgenthau's sixth point notes that, with the abovementioned principles in mind, classical or traditional realism is differentiated from other theories of political science in that it is an account of politics that maintains the autonomy of the political sphere, where other theories do not (Jørgensen, 2018:97). This illustrates the role of realism in accounts for political

activity and not the other way around, in which theory dictates politics. This is in line with Carr's abovementioned critique of liberalism.

Morgenthau's principles of traditional realism focus on themes such as morality, power, interest, human nature and objective lawm largely inspired by the works of Thucydides, Machiavelli and Hobbes (Jørgensen, 2018:97). Morgenthau's theorised account of traditional realism and the international system is built on a combination of explanatory, interpretative and normative theory supported by the above mentioned six principles.

3.3.3 The development and modernization of realism during the Cold War

Classical realism's origin is rooted in the collapse of the international system in the post-WWI period in the 1930s (Wohlforth, 1994/5:91). During that time the theory was further refined by the contributions of Morgenthau and Carr, who expanded on the works of Thucydides, Machiavelli and Hobbes. Its credibility was cemented in the post-WWII era and the collapse of great-power collaboration (Wohlforth, 1994/5:91). The polarity of the international system during the Cold War further illustrated the resilience of the theory of traditional realism. However, the relevance of traditional realism has been questioned since the end of the Cold War in the early 1990s and the introduction of multipolarity within the international system (Dunne, Kurki and Smith, 2016:67). The credibility of classical realism during the Cold War was supported by the Soviet-US realisation that they both needed to coexist in an international system of opposing interests and conflict (Dunne, Kurki and Smith, 2016:67). Neither could ensure their own security, but both could mitigate the likeliness of engagement within a fragile balance of power (Dunne, Kurki and Smith, 2016:67). This was clearly supported by the values and assumptions of classical realism and its pessimistic perception of state behaviour as driven by power and interest within a condition of anarchy.

While some scholars have noted the failure of realism to account for the end of the Cold War and the nature of the post-Soviet era, others have stated that this only represents "a single data point" (Wohlforth, 1994/5:91). However, as the dominant theoretical narrative of global politics and IR, counter-proliferation is deeply rooted in the core principles of traditional realism. However, the classical realist emphasis on human nature as a dominant driving force of conflict discredits it as an effective lens of analysis and understanding when considering the theoretical foundations of counter-proliferation in comparison to realisms contemporary variants. Yet traditional realism does serve as a platform from which to launch a more relevant or appropriate variant of realism when discussing nuclear proliferation, namely neorealism.

3.4 Structural realism/neorealism

The theory of structural realism or neorealism is largely credited to Waltz and his theoretical contribution to traditional realism in his 1979 *Theory of International Politics* (Antunes & Camisão, 2018:02). Neorealism is influenced by Waltz's interests in the philosophy of science and models of microeconomics (Jørgensen, 2018:94). Neorealism is largely being considered as a variant of traditional realism, utilising it as the theoretical base. However, neorealism embodies core differences from traditional realism. For Waltz realism has always been a theory of the international system and not a theory of foreign policy, security or IR (Brown, 2012:859).

3.4.1 Main Contributors

3.4.1.1 Waltz and structural realism

While classical realism focuses on anarchy and human nature, its contemporary variants have placed greater emphasis on structural features of the international system (Jørgensen, 2018:95). This is the result of Waltz's contributions to the realist tradition and his theorisation of structural realism. The goal of Waltz in theorising structural realism was to minimise the role of human nature in the analysis of the international system. It aims to marginalise the influence of character of the actors and the nature of their interactions in the international system (Burchill & Linklater *et al*, 2013:37). Waltz attempts to highlight the limitations of structures within the international system. Structures within the international system restrict the actions of states within them. He contends that the limitations of structure within the international systems creates an opportunity to predict state behaviour. In analysing the structure of the political system that dictates state behaviour, Waltz notes that structures are defined by their ordering principles and the differentiation and distribution of capabilities (Burchill & Linklater *et al*, 2013:37). This in turn dictates how states relate to one another, how political functions are assigned and how power is distributed within the international system. In acknowledging this, Waltz's structural realism illustrates how the structure of the international system enables a degree of predictability of state behaviour within the international system.

3.4.2 Principles of structural realism

Neorealism places greater emphasis on the structure of the international system and less emphasis on the intrinsically flawed nature of humanity in understanding the behaviour of states. In short, neorealism posits that the structure of the international system dictates the behaviour of states in a predictable manner (James, 182:1995). Waltz (1979) illustrates this point by using the notion of an oligopoly in an economic system. In order for a firm entering a new market to identify the terms of competition, it shouldn't critically review the internal

decision-making process or strategies of other firms within the market (James, 1995:182). Instead it should consider the structure of the market, identify the dominant powers within it and understand how they dictate the terms of competition within the oligopoly (James, 1982:181). In illustrating this point, Waltz goes on to outline that the only two ordering principles of politics are hierarchy and anarchy (Burchill & Linklater *et al*, 2013:37). While domestic politics is governed and therefore structured by hierarchy, international politics is structured by those states with power in the anarchy of the international system (Brown, 2012:859). To better comprehend the structural nature of neorealism, there are three explanatory assumptions of the international system. Firstly, the international system is in a permanent state of anarchy. Secondly, states serve as units of the system with wide-ranging capabilities, and lastly changes in power capabilities facilitate changes in the polarity of the system and in turn its structure (Sterling-Folker, 2013:22).

In theories of traditional realism, the international system is assumed to be in a permanent state of anarchy without any governing force. This is a core assumption of neorealism and informs its prediction of state behaviour. As previously mentioned, anarchy means that states function within a self-help system and need to secure themselves against other states within the system (Milner, 1991:68). This would suggest that capability is the only determinant of whether or not states would attack one another (Jørgensen, 2018:95). Without any higher power enforcing laws or regulation on state behaviour, nothing other than a state's inability to attack would restrict the likelihood of conflict, while only a state's ability to attack would compel states to take the offensive against other states (Sterling-Folker, 2013:23). By this logic we can assume that states which adhere to the basic realist principles of rationality, state centrality and have the capacity to engage in conflict successfully will engage. In neorealist terms, this places a greater emphasis on the role of states as units of the system/structure and how their capabilities dictate their behaviour. This also reinforces the defining assumption of neorealism that the structure of the international system is the root cause of conflict (Sterling-Folker, 2013:23).

The second and third explanatory factors of neorealism and the deductions they allow us to make regarding state behaviour are best understood in relation to one another. The second explanatory assumption of neorealism refers to the presence of multiple states within the system which act as units. More specifically, there are multiple states within the international system that possess varying degrees of capability, which further determines a structure of the system (Jørgensen, 2018:95). States with the greatest capabilities dominate the system and are

appropriately identified as superpowers or “great powers” (Sterking-Folker, 2013:22). Realist acknowledgement of power as a major currency within the international system would suggest that the most powerful states within it have the greatest level of influence within the system and in turn dictate its actions. This contextualises the final explanatory assumption of neorealism, namely that changes in state capabilities redefine the polarities of the international system (Jørgensen, 2018:95). This means that the structure of the international system is volatile and is always changing in relation to the distribution of power. This supports the neorealist assumption of anarchy as the controlling force of the international system and completes the rationale of structural realism.

The international system is made up of states (units) with varying capabilities. Changes in state capabilities change the structure of the international system. Changes in state capabilities allow conflict and redefine the structure of the system. In turn, state capabilities as the structuring force of the international system perpetuates the likelihood of conflict. In the light of this, structural realism offers some level of prediction of state behaviour. However, these predictions or assumptions of state behaviour are understood in more nuanced ways within the different schools of neorealist thought.

3.5 Schools of neorealist thought

Offensive and defensive realism are neorealist schools of thought that share similar concerns with the balance of power and, above all else, security. However, where they fundamentally differ is each theory's capacity to use power and in turn enforce security. Snyder (2002) illustrates this point by asking offensive realists, such as Mearsheimer, and defensive realists, such as Waltz, the question: “How much power do states want?”. This question ultimately divides neo-realists into two groups, namely those who believe in the prioritization of security by maintaining the status quo and those who believe that security can only be achieved with a clear-cut dominance over rivals and the global system without fear of credible retaliation.

3.5.1 Offensive realism

Offensive realism is a variant of structural realism posited by Mearsheimer that pays close attention to the state's inherent interest and pursuit of power as a direct response to the anarchic nature of the global system and distribution of power within it. Offensive realists further assert that great powers always seek to maximize their relative power in pursuit of security through achieving hegemonic status regionally while striving for hegemonic status globally (Snyder, 2002:150). Power within the context of IR and the global system is largely determined by a

state's militant force (Mearsheimer, 2001:03) and in turn its capacity to credibly threaten neighbouring states (Treviño, 2013:384). Offensive realists acknowledge that the opportunity to gain power through regional expansion, sometimes at the expense of other states, is always incentivized by the world system (Taliaferro, 2000/01:128). The anarchic nature of the world system compels states to maximize power and in turn enter a never-ending battle for hegemony through territorial expansion (Lobell, 2010:10). Offensive realists argue that as hegemon, a state's security would be assured by lack of credible threats within the system. Offensive realist logic would suggest that global hegemony or hegemony within the contemporary global order would serve as the ultimate position of security. Any advantage over potential state rivals must be maintained and strengthened through the acquisition of power. This often leads to the rejection of any form of state-on-state cooperation and an offensive realist belief that cooperation undermines state security and puts state survival at risk (Taliaferro, 2000/01:132). Realists ultimately believe that all states seek to augment their power through territorial expansion proportionate to rival states, because the most powerful have the highest chance of survival within the global system (Taliaferro, 2000/01:128). However, global hegemony within the international system is close to impossible. Global hegemony would require "clear-cut nuclear superiority" further understood as a state's "capability to devastate its rivals without fear of retaliation" (Mearsheimer, 1981:64). Great powers and the potential or regional hegemons never stop trying to maximize their power. Offensive realism as a stance of realism predicts conflict (Snyder, 2002:153). These conflicts often arise from territorial expansion. Expansion, according to Snyder (2002) refers to "increased power through territorial expansion". Territorial expansion is most commonly facilitated through aggressive foreign economic, political and militant policies (Lobell, 2010:04). States taking a stance of offensive realism, great power or regional hegemony status often exhibit signs or patterns of regional expansion and are often characterized by higher levels of open and engaged conflict.

3.5.2 Defensive realism

Defensive realism is another variant of realism also described by Herz (1951) in his book *Political Realism and Political Idealism*. As another variant of realism, it shares many similarities with defensive realism, but there are some core contradictions. Like the majority of mainstream structural realist theories and theorists, it acknowledges power as the currency of the global system and that the global system is not governed by any higher administrative power and is actually in a state of anarchy. However, while offensive realists contend that the anarchic nature of the world system forces states to engage in a never-ending battle for

hegemonic status through territorial expansion, defensive realists argue otherwise. Broadly speaking, defensive realists contend that states seek to maximize security by maintaining their share of global power, and that states are not intrinsic territorial aggressors (Lobell, 2010:10). Although defensive realists do not view the state as a violent aggressor, conflict is sometimes unavoidable, for example, when faced with other aggressing states (Lobell, 2010:10). This means that defensive states still acknowledge power and fight to maintain their portion of it within the global system in case of a security threat. In offensive realism security is understood within the context of maximizing power, while for defensive realists security is understood within the context of maintaining the status quo and shifting power in favour of particular states while lowering the security of other states. Waltz (1979), a notable contributor to the body of defensive realist work, illustrates this by explaining that “the first concern of states is not to maximize power but to maintain their positions in the system”. He further explains that only once security is guaranteed by the maintained balance of power, can states begin to strive for “goals such as tranquillity, profit and greater power” (Waltz, 1979:126). Many of the defining characteristics of defensive realists are largely informed by the dangers of aggressive territorial expansion and conquest. Defensive realism asserts that states pursuing hegemony are in fact undermining their own security by provoking other states to develop counter-measures (Lobell, 2010:10). This can be understood within the context of the security dilemma.

As states pursue power in order to strengthen their own security, other states begin to become uncertain about the said state’s intentions. Uncertainty leads to fear and the implementation of counter-measures, which are then met by further counter-measures being implemented by other states. The cycle will continue to spiral, potentially into open conflict (Tang, 2009:597). With the security dilemma in mind, defensive realists assert that the pursuit of hegemony can undermine state security by encouraging the implementation of counter measures by other states and possibly spark conflict (Lobell, 2010:11). Another danger of conquest or offensive realist expansion is that the benefits do not always outweigh the costs. Territorial expansion can often require aggressive and resource-draining foreign political, economic and military policy that may reduce state security. Snyder (1991) reminds us of the dangers of aggressive expansion by asserting that “the balance of power that arises out of international anarchy punishes aggressors; it does not reward them”.

3.6 Security dilemma

The security dilemma has become a central notion in any realist framework. As a concept, it pays close attention to the relationship of security and the balance of power. It has become an integral notion in understanding how great powers and competing hegemonic powers interact with or in relation to one another. Considering the capacity of nuclear weapons of mass destruction to rearrange the global balance of power and to determine the level of global security, it becomes clear that the security dilemma has heavily informed much of the contemporary nuclear non-proliferation movement. The security dilemma as a theory and concept also forms a key part of the foundation of the structural realist argument for and against Iran's nuclear proliferation. Originally formulated by Herz (1951), the security dilemma is largely accepted and understood in terms of the contributions of three major scholars, namely Butterfield's (1951) *History and human relations*, Herz's (1986) *Political Realism and Political Idealism: A Study in Theories and Realities* and Jervis's (1978) *Cooperation under the Security Dilemma*. This thesis will adopt a contemporary conceptualization of the security dilemma, namely Tang's (2009), which combines the common elements of the above-mentioned works, prioritizes what has since been acknowledged as integral to the understanding of the concept in the contemporary setting, and eliminated inconsistencies.

Tang (2009) illustrates his understanding of the security dilemma with a scenario in which two defensive non-expansive states within an anarchic system have no intention of threatening each other's security. Although neither state has the intention of threatening the other's security, neither state can be assured of the other's future actions. Realist theory dictates (and most states believe) that power is means towards maintaining security and in turn both seek to maximize their power relative to each other. As each state accumulates more power, the more of a threat they appear to be to each other. At this point a cycle of competing power-seeking states begins as states continue taking counter-measures against one another in their pursuit of power. This can often lead to conflict or the threat thereof. It should be noted that the security dilemma is only applicable to defensive states, as offensive states will pursue power in the hopes of becoming great powers or regional hegemonic powers through territorial and militant expansion. Waltz (1959:160) further illustrates the relevance of the security dilemma in a neorealist understanding of the global system saying;

“Because any state may at anytime use force, all states must constantly be ready either to counter force with force or to pay the cost of weakness. The requirements of state action are, in this view, imposed by the circumstance in which all states exist”

The realist perception of the security dilemma as a condition of state existence introduces the structurally realist theory of the balance of power in the global system.

3.7 Balance of power

Both traditional and structural realism highlight and give credibility and relevance to the notion of the balance of power. The notion of balance of power embodies several themes from multiple variants of realism including anarchy, security and self-help (Jørgensen, 2018:99). Notable traditional and structural realists such as Morgenthau (1948) and Waltz (1979) have expressed the relevance of the balance of power within the international system and have both devoted a significant body of work to the theory (Jørgensen, 2018:99). As the name would suggest, the balance of power theory ultimately posits that a greater distributions of power has a greater likelihood of producing harmonious relations than a system in which one state has a power monopoly. Before the introduction of neorealism, the notion of balance of power was more literally rooted in balancing forces in the international system. This would manifest in the form of “bandwagoning” (Burchill & Linklater *et al*, 2013:38). A significant rise in power by a single or allied state would put the process of “bandwagoning” into motion. In response to the rise of a notable power or force within the international system, “bandwagoners” attempt to reduce their risk of loss by entering into alliances with other states (Burchill & Linklater *et al*, 2013:38). This ultimately means facing threats within an alliance and not only to reduce risk. However, in the realist framework acknowledging the anarchy of the international system, “bandwagoning” also perpetuates the prospect of forming an alliance with a state that may turn on you later (Burchill & Linklater *et al*, 2013:38). Neorealism in turn would argue that the internal development of capabilities would be the only means by which states can fully secure themselves against all units within the international system.

3.7.1 Balancing of threat

Some neorealist scholars have produced a different interpretation of the balance of power theory. Walt (1987) put forward a version of the theory contending that states do not balance power but balance threats (Jørgensen, 2013:101). States take notice of other states’ capabilities, but do not directly take measures to secure themselves against them unless they pose some level of tangible threat (Jørgensen, 2013:101). States that pose a direct threat trigger the ‘balancing’ responses of other states. This variant of the balance of power theory serves as a far more applicable and relevant lens of analysis with regards to Iran. This will be further elaborated on later on in this chapter.

3.8 Counter-proliferation through a lens of structural realism

Nuclear proliferation continues to be at the forefront of multiple on-going debates among academics and policy makers alike (Gartzke & Jo, 2007:167). As defined by the NPT, nuclear proliferation refers to the manufacture or acquisition of nuclear weapons by those who do not already possess them (Bajia, 1997:47). Concerns regarding the merits and consequences of nuclear proliferation have remained relevant since 1945 (Joyner, 2005:511). The notion of nuclear proliferation is deeply rooted in contemporary political theory and historical narratives that have dominated and characterised the international system during the mid 1940s. Nuclear proliferation is understood within a traditional and structural realist perception of (or obsession with) power, and in turn informed Cold War power dynamics. Historical narratives that have defined proliferation include the role of nuclear weapons in ending World War II (WWII) (Gartzke & Kroenig 2009:151) and in mitigating Cold War tensions (Joyner, 2000:211). Nuclear proliferation as a field of study is divided.

The first and more widely acknowledged perception of nuclear proliferation is that nuclear weapons encourage the risk of major conflict and incite fear and miscommunication (Gartzke & Jo, 2007:167). This perception of nuclear proliferation dominates the mainstream understanding of nuclear weapons and can be considered the foundation of nuclear non-proliferation movements led by institutions like the NPT, UNSC and IAEA (Gull, 2000:91). Applying the structural lens of realism to the nuclear non-proliferation movement would illustrate global concerns around the destructive capabilities of nuclear weapons and their propensity to restructure the international system. This perception of nuclear proliferation clearly illustrates a structurally offensive realist perception of states developing nuclear programmes that threaten the international status quo. This would suggest that the superpowers of the international system may feel threatened by the capabilities and capacity of nuclear weapons to rearrange the international structure.

The second perception of proliferation pays closer attention to the capacity of nuclear weapons to deter major conflict and enforce stability in the international arena (Gartzke & Jo, 2007:167). This perception of nuclear proliferation is primarily supported by political and international theory and largely relies on the assumed rationality of the proliferating state. This interpretation is seldom utilised in real-world circumstances. Supporters of this perception of nuclear proliferation are clearly in line with the structurally defensive perspective of proliferating

states. This would suggest that supporters of this perception acknowledge the goals of proliferating states reinforcing their own security by maintaining the status quo. In developing their nuclear capacity, states aim to secure themselves against potential aggressors. In theory, a greater level of nuclear distribution would eliminate the prospects of credible threats entirely.

3.8.1 Why do states chose nuclear development?

It is clear that the divide in the perceptions of nuclear development is deeply rooted in the perceived purpose of nuclear weapons by proliferating states. Critically understanding why states chose to develop nuclear weapons offers valuable insight into foreign policy focused on restricting nuclear proliferation (Sagan, 1996/7:54). The global relevance of nuclear weapons within the international community has produced a wealth of data attempting to outline the motives behind a state's pursuit of nuclear weapons (Gartzke & Kroenig 2009:151). Some of the most notable contributors to this debate include Powell (1990), Waltz (1995), Sagan (1996/7) and Singh and Way (2004). However, for the purpose of critically understanding Iran's nuclear history and the nuclear non-proliferation measures taken against it, Sagan (1996/7) offers the most inclusive and compelling argument.

Sagan (1996/7) identifies three major models that account for why states chose to develop nuclear weapons. These models are identified as the security model, the domestic politics model and the norms model. These models each respectively account for some portion of Iran's historical nuclear aspirations. The security model is deeply rooted in the basic assumptions of neorealism, namely that states need to secure themselves against aggressors within the anarchic international system. Sagan's (1996/7) security model posits that states pursue a nuclear capacity to re-balance power in the face of potential aggressors. This model is best illustrated in Iran's nuclear advances during its war with Iraq. It should be noted that the traditional realist perspective that dominated the international system during the period of nuclear proliferation supports "security" as the most rational motive for acquiring a nuclear weapon. The domestic politics model places an emphasis on the impact of influential actors within the state that may dictate its foreign policy. Within the field of nuclear proliferation, the most common actors that perpetuate this model include domestic nuclear institutions, high-ranking military officials and politicians (Sagan, 1996/7:63). These actors may persuade or dissuade the state in its pursuit of a nuclear weapon. This model is best reflected in Iran's nuclear history by its radical changes in administration in 1953 and 1979.

The final model, the norms model, is largely based on the symbolic nature of a national nuclear programme (Sagan, 1996/7:73). This model contends that state behaviour, and in particular the demand for a nuclear programme, is determined by socially established norms and priorities of the international system (Sagan, 1996/7:73). By this logic, the high level of nuclear proliferation in the international system would further prioritise and normalise a state's demand for a nuclear capacity. Iran's initial nuclear initiatives best illustrate this model. Iran's last Shah's demand for a nuclear programme was largely motivated by his desire to recreate Iran as an economic and industrial superpower and an acknowledged member of the international arena (Bahgat, 2006:309). However, as noted by Prof. Onderco (2021), an associate professor of International Relations at Erasmus University in Rotterdam, "Sagan's models are not exclusive in the sense that it is one or the other, rather they complement each other". This suggests that states can adhere to more than once model of nuclear proliferation at a time or shift towards and away from one of Sagan's models.

3.8.2 Why does the international system restrict nuclear development?

Nuclear containment has been a global security agenda since the introduction of nuclear weapons. Concerns regarding states' access to nuclear power began to increase for multiple reasons. The first cause of concern the overwhelming destructive capabilities if nuclear weapons seen at Hiroshima and Nagasaki (Joyner, 2000:511). However, the second cause of concern places greater emphasis on a WMD's capacity to influence the international system. Before the introduction of nuclear weapons, a state's capability to project its power and influence within the international system was defined by its "physical and territorial resources" (Joyner, 2000:511). Nuclear WMDs now potentially grant non-state actors or rogue states the means to redefine power dynamics in the international system (Joyner, 2000:511). This bolstered the global fear of small states without conventional military capabilities gaining access to nuclear weapons as a serious risks to global security. This fear is further rationalised by two popular assumptions about nuclear proliferation that have become evident since 1945. The first assumption is that most states in the contemporary international system with moderate infrastructure, financial means and educated expertise can develop a nuclear programme and even nuclear weapons (Sanders, 1987:46). The second is that nuclear weapons are ineffective in combat and would only invite unacceptable levels of destruction (Sanders, 1987:46). While some have viewed this as the exact premise for the conflict stabilising and deterring capabilities of nuclear weapons, many still believe it is simply too risky. As a result, a major effort to

restrict the global rise of nuclear weapons became predominant. In understanding what inspired the demand for a counter-proliferation regime, its goals become clearer.

3.8.3 Counter-proliferation through Mearsheimer's lens of neorealism

It has been widely accepted that the motivations of the counter-proliferation movement are a global concern about state security and international stability (O'Neill, 2009:49). This illustrates an acknowledgement of neorealist assumptions and an understanding of the international system. Concerns around sovereign states internally developing their capabilities suggest an acceptance of the international system as in a state of permanent anarchy (Jørgensen, 2013:95; Sterling-Folker, 2013:23). It further suggests an offensive realist perspective on nuclear proliferation. Certainly within the context of nuclear proliferation, state security remains the dominant model for the motive nuclear development (Sagan, 1996/7). In securing themselves, states maximise their power and, according to Mearsheimer (2001), power is largely determined by military capabilities. States are thus likely to secure themselves by developing their own capabilities by means of nuclear developments. However, offensive realists would perceive the security enforced by a nuclear weapon as reinforcement of regional hegemonic status and deterrence of credible regional threats (Snyder, 2002:150). But offensive realists assert that security is cemented by achieving regional hegemonic status, which is most often achieved through territorial expansion (Lobell, 2010:10). It can then be assumed that in order to secure themselves within the international system, states would once again pursue security in maximising power and establishing themselves as an international hegemon. This can only be achieved by means of a "clear-cut nuclear superiority" (Mearsheimer, 1981:64). In achieving this goal, states would inevitably enter some degree of international conflict and the prospect of nuclear annihilation.

These rational neorealist concerns about security and an offensive realist perspective on state capability development demand the restriction of nuclear powers. We can assume that the mainstream understanding of counter-proliferation is understood in terms of the assumptions of structurally offensive realism. This perspective on nuclear proliferation and counter-proliferation is briefly expanded upon in Mearsheimer's (2001) *Tragedy of Great power Politics*. Mearsheimer (2001) explicitly considers the possession of nuclear weapons within the assumption of offensive realism. He considers the influence of nuclear ownership against the offensive realist assumptions of military capability as a deterrent of state strength and the expansive action and concludes there is little effect (Krieger & Roth, 2001:378). Mearsheimer

goes on to contend acknowledged destructive capabilities of a nuclear weapon will compel states to think rationally about engagement on a conventional “sub-nuclear” level despite their nuclear capacity (Krieger & Roth, 2001:378). Mearsheimer illustrates this point by noting that during the Cold War, the USA and the Soviet Union continued to develop their conventional military capabilities despite their nuclear capacity (Krieger & Roth, 2001:378). This would suggest that the development or possession of nuclear weapons promotes a greater level of conventional conflict out of fear of MAD. This would, to some degree, be in line with the mainstream understanding of neorealism.

3.8.4 Counter-proliferation through Waltz’s lens of neorealism

Contrary to the offensive realist perception of security as a product of hegemonic status, defensive realism contests that security is not achieved but reinforced and maintained. Defensive realists contend that states maximize their security by maintaining their share of global power, and that states are not intrinsic territorial aggressors (Lobell, 2010:10). This suggests that the development of any military or nuclear capabilities are attempts to reinforce the status quo and not attempts to execute regional or territorial expansion. With this in mind, it can be assumed that states within the international system would at some point want to achieve a nuclear capacity to balance the growing nuclear threat. This would suggest that a defensive neorealist perspective on nuclear weapons and their distribution would offer greater prospects of stability rather than generate conflict. A great supporter of this notion is Waltz.

Waltz contends that the sheer destructive capacity of nuclear weapons reinforces a clear distinction between the conventional world and the nuclear world (Krieger & Roth, 2001:372). Waltz (1990) recognizes both the likelihood of conflict as a result of the anarchic international system. Waltz and other structural realists have noted that war among states has always been a careful calculation of the prospects and consequences (Waltz, 1990:733) and that in a state of anarchy relative gains remain more important than absolute gain (Powell, 1994:1301). He also notes that miscalculations in the conventional world are not uncommon, but do not necessarily represent irrationality (Krieger & Roth, 372). Waltz (1990) intends to emphasise that in a nuclear world “peace and stability” rely on the calculations of what states “can” do to you and not what they “will” do (Waltz, 1990:734). The neorealist assumption of anarchy in the international system suggests that there are no governing forces to persuade a country against using its nuclear capacity. Finally, Waltz notes that there is a small margin for error when calculating the prospects of nuclear conflict (Krieger & Roth, 2001:372). In the neorealist

perception of security within the international system, no state can afford to overlook the possibility of nuclear engagement. Waltz (1990) illustrates this by noting that states with nuclear weapons would only need to lightly threaten other states with a nuclear reaction in order to illustrate their willingness to detonate a nuclear WMD. Waltz's interpretation of defensive realism and perception of counter-proliferation offers an argument in favour of nuclear distribution. In creating a nuclear world in place of a conventional one, state rationality will not support the relative gains of nuclear engagement (Waltz, 1990). This means that no rational state recognises any relative gains in engaging in nuclear warfare. Waltz contends that if greater nuclear distribution does not fully eliminate the prospect of conflict among nuclear states, it at the very least reduces the risk (Krieger & Roth, 2001:372).

3.9 Nuclear deterrence

The structurally defensive realist perception of nuclear proliferation is deeply rooted in the notion of deterrence. Defensive realism posits that states secure themselves against other states and deter the prospect of conflict by developing greater capabilities. The same can be assumed of states perusing a nuclear capacity in an attempt to secure themselves against regional aggressors. Structurally defensive realists have acknowledged that weaker states achieve security from the capabilities granted by developing a small nuclear arsenal to be solely utilised in retaliation (Craig, 2009:34). The prospect of retaliation in many ways drives deterrence. The Cold War is the key example of how nuclear weapons can deter conflict. However, deterrence has been criticised for its over-reliance on perception, a lack of credibility, the destructive consequences of its potentially flawed logic (Waltz, 1990:740) and is further complicated by nuclear asymmetries (Rauchhaus, 2009:269).

Within the world of strategy and security, deterrence is largely understood as the process of dissuading someone from doing something by threatening them with the consequences of their actions (Waltz, 1990:732). In that sense, deterrence in its simplest form is understood within the framework of survival and retaliation. In a more strategic sense, deterrence is understood as the ability to withstand an initial attack and retaliate with enough force to eliminate the relative gains of the an oppositions initial engagement (Waltz, 1990:732). The ultimate goal of deterrence is to eliminate the prospect of conflict. In general, military capabilities have been used to discourage states from altering the status quo of the international system (Gartzke & Jo, 2009:210). Nuclear weapons have introduced a new dynamic to the notion of deterrence. Nuclear weapons "*purify*" the notion of deterrence by eliminating the necessity for a defensive

strategy and military engagement (Waltz, 1990:732). The sheer destructive capabilities of nuclear weapons distinguishes them from conventional military capabilities. Nuclear weapons make conventional weapons entirely obsolete. States are far more likely to survive a conventional military attack and retaliate than survive a nuclear blast and still be able to pose a credible threat afterwards. This further illustrates that the greatest direct impact of nuclear weapons within conflict is the severity of an attack which can be directly linked to the frequency of attacks (Gartzke & Jo, 2009:210). Nuclear war largely threatens the very existence of entire states and as such is more comparable to a natural disaster than an instrument of conflict (Craig, 2009:32). Most realist scholars will acknowledge that any state leader with a level of basic rationality will avoid nuclear conflict at all cost (Craig, 2009:35).

3.9.1 Nuclear symmetry

It is widely believed among structural realist scholars that the likelihood of major conflict between nuclear states is almost non-existent (Waltz, 1990:740). Many traditional and structural realist scholars have acknowledged the legitimacy of the concept of MAD and recognise its role in ensuring the cold nature of the Cold War. However, MAD depended on the credibility of deterrence and the bipolar nature of the international system during the 1950s. The nuclear arms race between the US and the Soviet Union largely sustained a degree of nuclear symmetry in which neither state achieved a “clear-cut” military advantage. While it has been acknowledged that the US-Soviet nuclear symmetry reinforced the notion of MAD, scholars such as Hart (1954) and Waltz (1959) have noted that it didn’t eliminate the prospect of conflict (Rauchhaus, 2009:263). While it is firmly believed that nuclear symmetry reinforces the notion of MAD and reduces the likeliness of major global conflict or a third World War, it has also been noted that it still perpetuates small-scale levels of conflict (Rauchhaus, 2009:263). This once again illustrates the point that nuclear weapons directly contribute to the intensity of conflict and indirectly to the frequency of conflict. This was illustrated by Cold War dynamics in which both the Soviet Union and the USA directly engaged in low-level proxy wars instead of launching large scale attacks on one another.

3.9.2 Nuclear asymmetry

However, as mentioned above, the credibility of nuclear deterrence is further complicated by an unequal or asymmetrical distribution of nuclear weapons. It is widely accepted that nuclear states seldom engage in nuclear conflict. However, in a dyad where one state has a nuclear capacity and the other does not, they are more likely to engage in small-scale conflicts favouring the nuclear state (Bell & Miller, 2015:74). This clearly illustrates a scenario where

states take advantage of their nuclear superiority. It has been noted that, in contrast to deterrence, nuclear states use their superiority to encourage less powerful states to change the status quo of the system in their favour and is referred to as “*compellence*” (Gartzke & Jo, 2009:210). While so many states initially chose to develop a nuclear capacity in order to secure themselves in the anarchy of the international arena, the goals and motives of states tend to evolve in relation to their increasing nuclear capability. While structurally defensive realism contends that states most often seek to maintain their security using their nuclear capacity, other structural realists have noted that states interest develops with its capabilities (Bell & Miller, 2015:74). The notion of nuclear deterrence is thus undermined by the reality of nuclear asymmetry. Asymmetry, however, can be rectified. While it is unlikely that the contemporary international system will happily level the nuclear playing field by distributing nuclear power, it is far less likely that global superpowers will surrender or disarm their own nuclear programmes.

3.10 Conclusion

It is clear that much of the way that nuclear proliferation is perceived by the international system is inspired by the basic traditional realist rationale that became popular during the 1950s. Concerns around nuclear proliferation are deeply rooted in the traditional realist obsession with power and security. It is also clear that contemporary variants of traditional realism offer a more relevant understanding of nuclear proliferation. Concerns around the impact of nuclear weapons on the structure of the international system are related to contemporary neorealism as opposed to traditional realism. However, the separate schools of neorealist thought clearly illustrate a divide in the perception of nuclear proliferation. Structurally offensive realism has acted as the mainstream theoretical framework and understanding for the counter-proliferation moment. However, structurally defensive realism represents an alternative theoretical framework and perception of nuclear proliferation. Structurally defensive realism, as interpreted by Waltz, suggests that nuclear balancing and distribution may offer a greater level of peace and stability within the anarchy and self-help international system. This chapter provided the relevant theoretical context required to critically analyse, answer and address the secondary questions. Chapter 4 views Iran through the various lenses of structural realism and focuses on a review of the current efforts, methods and theoretical understandings utilised by the nuclear non-proliferation movement to stabilise tensions that have risen because of Iran’s nuclear development programme.

4 A REVIEW OF FORCED NUCLEAR RESTRICTION

4.1 Introduction

The previous chapter provided the relevant theoretical framework and context required to address the secondary research questions. Chapter 4 focuses on a review of the current theoretical perspectives on Iran and the attempts and methods adopted by the nuclear non-proliferation movement to stabilise tensions that have arisen because of Iran's nuclear development programme. This is further reviewed against the backdrop of the structural realist framework outlined in Chapter 3. Chapter 4 aims to illustrate the shortcomings of contemporary nuclear non-proliferation efforts in mitigating growing tensions around nuclear proliferating. The chapter attempts to address the first secondary research question: *How efficient and sustainable is enforced nuclear restriction as a method of counter-proliferation and nuclear disarmament in the contemporary international system?*

This chapter begins by outlining the theoretical perspectives on Iran and its nuclear trajectory. This allows the reader to better evaluate the effectiveness of nuclear non-proliferation efforts taken against Iran. Using the theoretical framework outlined in Chapter 3, this chapter views Iran through a lens of basic rationality, defensive realism, offensive realism and how these perceptions of Iran have informed nuclear non-proliferation efforts. The chapter identifies economic sanctions and diplomatic efforts as the main tools to promote nuclear disarmament. The chapter goes on to provide a theoretical understanding of economic sanctions, their function and their goal in the case of Iran. This is followed by a brief recap of Iranian sanctions and their impact on Iran's economy, political well-being and nuclear development. In discussing the impact of Iranian sanctions, this chapter goes on to assess and evaluate the success of sanctions imposed in achieving their goals. Finally, this chapter outlines the diplomatic efforts of nuclear non-proliferation with a review and evaluation of the JCPOA.

4.2 The different theoretical perceptions of Iran

4.2.1 Iran as a rational actor and the sectarian nature of Middle Eastern regional dynamics

Before providing an analysis of Iran's unique nuclear circumstances, several assumptions about Iran's status as an actor in the global system must be made clear. The first is the question of Iran's rationality in acting within the region and world system. Many scholars have agreed that Iran is in fact acting within its own self-interest, or even perceived existential survival, in mind

and as such is a perfectly rational actor. Throughout Iran's history, their leaders have been inclined to employ "inflammatory and hateful rhetoric", but it still act within the boundaries of intrinsically rational behaviour (Waltz, 2012:04). To many of its competitors, Iran is perceived as a cunning and ruthless state that seeks regional hegemony and overthrow competing religious factions of Islam (Treviño, 2013:391). As a regime, Iran shows no inclination towards self-destruction. This would suggest that Iran's pursuit of nuclear weapons of mass destruction is not driven by irrational ideologically motivated impulses, contrary to many Western assumptions (Takeyh, 2003:52).

Although Iran's actions can be viewed through a lens of rationality, the sectarian nature of Middle Eastern geopolitics has played a role in Iran's path of nuclear development. It has helped to shape the Western narrative of irrationality among regional states such as Iran, Saudi Arabia and Iraq. Islam, the dominant religion in the Middle East, is internally divided into two branches, Sunni and Shia Islam. Although the two core branches for the most part agree upon the religious fundamentals and practices of Islam, they are also deeply divided, something that has been acknowledged as one of the key rifts in the Middle East (Al-Qarawee, 2017:13). Both Iran and Iraq represent the greater Shia Islam demographic in the Middle East, while Saudi Arabia, Yemen and Afghanistan represent the greater Sunni demographic in the region. Disputes between Sunni and Shia states and leaders inflame tensions by calling into question the "true devotion" to Islam of each branch (Al-Qarawee, 2017:13). Sectarian diatribes, particularly between Iran and Saudi Arabia, have inflamed Sunni-Shia tensions and perpetuated religious conflict. However, the Sunni-Shia divide distracts from the regional competition of the two greatest representatives of the Islamic branches. While the rivalry between Iran and Saudi Arabia is heavily inflamed and characterised by religious intolerance, both states are in greater competition for regional hegemony, economic superiority and access to the Middle East's lucrative oil reserves via the Strait of Hormuz. Although various conflicts within the Middle East are deeply rooted in the Sunni-Shia divide, the pursuit of regional hegemony or the preservation of security against regional aggressors as a means to achieving an end of religious conflict illustrates a rational pursuit. Certainly the effects of the Sunni-Shia divide can be observed throughout the geopolitical landscape of the Middle East; however, this should not undermine the realist assumption of state rationality.

By acknowledging Iran as a clearly rational actor, working with its own self-interest in mind, the perception of Iran's nuclear status shifts. At this point it must be asked what Iran's nuclear

intentions are. By viewing Iran as a rational actor through a lens of structural realism, two realist perspectives on Iran's actions come to light, namely that of offensive realism and that of defensive realism. This is the division of structural realism into two competing variants based on competing expectations and policy prescriptions (Lobell, 2010:02).

4.2.2 Iran as a defensive realist state

If we view Iran through a lens of structural defensive realism, its relationship with non-state actors and neighbouring regional powers, coupled with its desire to develop nuclear weapons of mass destruction, are all attempts by Iran to maintain the power status quo and in turn ensure their own security. As noted by Prof. Joellen Pretorius (2021), an associate professor of Political Studies at University of the Western Cape, during an interview, "Iran is not in a friendly neighbourhood... and they want assurances against that uncertainty". Iran's actions and relationships viewed through a lens of defensive realism can be perceived as entailing strategic moves used to maintain and support its own security and as being a response to potential regional threats. As the security dilemma would suggest, Iran's non-state and state relations, nuclear proliferation and defensive behaviour are all responses and counter-measures put into place to protect Iran from potential threats. As present, Iran faces no major regional threats endangering its survival. As previously mentioned, neither Saudi Arabia nor Israel pose credible threats against Iran. Iraq, arguably the other great regional power, is currently engaged in friendly and ever-expanding relations with Iran as it continues to be Iraq's largest trade partner (Rubin, 2019), further securing Iran's power status within the Middle East. Although neither Saudi Arabia nor Israel are considered credible survival-threatening security risks to Iran, both have the economic power and regional influence to undermine Iran's nuclear development programme.

For the most part, the rivalry between Iran and Saudi Arabia has been geopolitical in nature but clearly fuelled by a sectarian divide (Ighani, 2016:01). Prior to the late 1970s, Iran and Saudi Arabia acted as the "twin pillars" of the region, both housing strong pro-Western monarchies (Ighani, 2016:02). The radical introduction of Ayatollah Khomeini and Iran's Shiite government by means of an Islamic revolution in many ways signifies a major deterioration of diplomatic relations between the two states. Growing anti-Shiite rhetoric throughout the Middle East following Iran's Islamic revolution further isolated Iran, creating a greater level of rivalry between Iran and other Middle Eastern actors. Over the 1980s and 1990s both Iran and Saudi Arabia took measures to briefly reconnect diplomatic ties before

subsequently severing them again, all the while attempting to destabilize one another through the support of various religious proxy conflicts in Yemen and Syria (Aftandilian, 2018:02). The forced removal of Iraq as a regional competitor following the 2001 US war on terrorism attacks and major disruptions in Egypt and Syria following the Arab Spring intensified the rivalry between the already tense Shiite Iran and Sunni Saudi Arabia (Ighani, 2016:02). Tensions reached a tipping point in 2019 after evidence surfaced confirming Iran's role in the bombing of Saudi Arabian pipelines (Al Jazeera, 2019).

Israel certainly presents as the most immediate and relevant competitor to Iran. Israel's long and complicated relationship with Iran, as well as its regional nuclear domination, has been a contributing factor to Iran's pursuit of nuclear weapons. Israel has been at the forefront of the Iranian Islamic propaganda campaign and anti-Semitic rhetoric ever since 1979. Despite a minor transfer of arms during the 1980s, relations between Israel and Iran have since then been characterized by hostility, animosity and suspicion of one another. By the 1990s Israel had begun to re-examine Iran's status as a security threat and concerns about the development of Iranian nuclear weapons, within striking range of Israel, began to arise (Parsi, 2005:249). Israel has also made itself an enemy of other Islamic Middle Eastern states attempting to develop their nuclear capacities. In an attempt to maintain its nuclear monopoly and domination of the region, Israel entered open conflict with Iraq in 1981 and Syria in 2007 after learning of their nuclear ambitions (Waltz, 2012:03). These open attacks on Middle Eastern states ignited in the region a desire to develop nuclear weapons in order defend themselves from Israeli strikes. This would suggest that Iran's nuclear development programme since the early 1990s and its anti-Israeli rhetoric would make Israel a prime target of Iran.

Iran's attempt to expand and maintain relations with other regional powers, such as Iraq, and non-state actors, such as Hezbollah and Hamas, are all attempts to advance Iranian influence in the Middle East and ultimately secure its position as a hegemon. By creating an elaborate web of relations across the Middle East, Iran has placed itself in a defensive position in which a direct attack on Iran would result in regional disruption and disorder. However, despite not being considered an existential threat (Takeyh, 2004/5:53), Israel's nuclear capacity and arsenal warrants the formation of counter-measures in the form of Iran's own nuclear programme. The security dilemma would suggest that this is a rational response to Israel's nuclear development (Tang, 2009). However, Iran's attempt to secure its own security and maintain its power status, has resulted in the perception of Iran as a major existential threat.

In Iran's view, Israel also is also an illegitimate state and a representative of US imperialism (Takeyh, 2004/5). Israel's close relations with the USA and its influence on US foreign policy establish Israel as a dangerous regional rival. Perhaps Israel is not a direct threat to Iran's overall survival (Takeyh, 2004/5), but it still has the capacity to pose a credible threat against Iran. Here we see how Iran's nuclear developments could be justified as a perfectly rational response to the regional instability of the Middle East.

Iran's distrust of the global West, the international community and notably the USA after lack of the support when facing Iraq and the use chemical weapons during the Iran-Iraq war (Takeyh, 2004/5:54) has largely motivated Iran's defensive stance. Although Iraq may become a long-term problem and threat to Iran, it's most pressing concern is the USA. Notably after the 1979 Iranian revolution, US-Iranian relations have been seriously strained. Relations continued to be tested after the USA provided support for Iraq during the 1980s, while also increasing US military presence in the region (Sunberg, 2013). This illustrates an increase in credible threats to Iran within the region, to which nuclear proliferation and the development of nuclear weapons as well as an increasing regional influence would be a counter-measure. Following the end of the first Gulf War in the early 1990s, Iran was placed in a focus group of US foreign policy which was concerned with "rogue states" which included Iran Iraq, North Korea, Libya and Syria (Sunberg, 2013). The US characterized these as "rogue states" through their involvement in terrorism and their nuclear proliferation and development of weapons of mass destruction (Sunberg, 2013). In the case of Iran, this refers to their nuclear development in Tehran and their ties with non-state actors, Hama and Hezbollah. By becoming a main focus and acknowledged threat to the USA, Iran pursued further countermeasures such as nuclear weapons of mass destruction. Although Iran's relations and nuclear development programme warrant a degree of suspicion, from a structurally defensive realist point of view, Iran looks as if its increasing regional influence through non-actor relations and nuclear developments are all safeguards against the looming and increasingly present US threat and intervention in the Middle East.

4.2.3 Iran as an offensive realist state

If one views Iran through a lens of the theory of structural offensive realism as put forward by Mearsheimer (2001), one must consider its legitimacy as a competing regional hegemonic power. Offensive realism posits that only the single greatest power of the region can compete for regional hegemonic status (Mearsheimer, 2001:77). When considering Iran's regional

rivals, it is clear that they can make no major claims to the status of regional hegemonic power. Neither Saudi Arabia nor Israel can be considered great regional powers because of their inability to pose a credible threat to Iran (Treviño, 2013:384), despite Israel's nuclear arsenal (Norris & Kristensen, 2010:80). Although Israel has been the main target of the Iranian propaganda regime and depicted as a major Iranian security concern, Israel realistically poses no existential threat and is rather targeted by Iranian anti-Israel rhetoric to mobilize regional and domestic forces (Takeyh, 2004/5:53) Turkey is often considered a more likely fit for regional hegemonic power, but it is often considered to have been distracted from national territorial expansion and spread of regional influence to focus on government reform and economic growth (Treviño, 2013:384). With no clear threats, Iran, as an offensive realist state, should pursue some degree of territorial expansion and conquest in an attempt to attain greater power and hegemonic status. Iran's 1979 revolution and the first steps of Khomeini's emancipation and revolution of the Middle East (Kaye, Nader and Roshan, 2012:17) can be considered the early stages of a regional territorial expansion regime. Iran's collaboration and relationship with terrorist groups such as Hezbollah that share its anti-Israeli sentiment also cannot be ignored. Iran's engagement with Hezbollah forces could also be perceived as an Iranian proxy and an attempt to destabilize the regional competition, namely Israel. By securing these non-state relations, Iran may have given itself the capacity to strike and weaken Israel without the need to engage in open conflict. This would facilitate regional conquest while mitigating the costly blowback and consequences of regional aggression.

However, Iran does not act within the boundaries of traditional hegemony-seeking states. Despite relations with neighbouring countries like Iraq and attempts to destabilize regional rivals like Israel, Iran has not yet embarked on any major degree of aggressive regional expansion or conquest. If Iran is planning on entering the race for hegemonic power status, it must increase their regional occupation and pursue higher levels of economic strength, a greater population, and superior geopolitical positioning (Treviño, 2013:384). Some even acknowledge Iran's military as designed for asymmetric warfare than for state-to-state warfare (Treviño, 2013:384). If Iran were to begin any sort of regional expansion or conquest, it would have to achieve some sort of consent or support from major institutions and actors within the international system in case of UNSC or Western retaliation (Sundberg, 2019). Iran would also have to be prepared face formidable US military forces based throughout the region (Sundberg, 2019). As previously mentioned, expansion and conquest at the level required to compete for hegemonic status seldom pay off and tend to become costly (Lobell, 2010:11).

Ultimately, Iran does not fit the conventional or historical characteristics of a hegemony-seeking great regional power. This is because Iran does not display any intention of regional conquest. Without clear regional expansion through conquest, it is difficult to see Iran as a model example of a great hegemony-seeking power. Having notable influence over a region, as Iran does in the Middle East, does not yield the same regional expansive results as exploitable natural and social resources, superior geopolitical positioning and conquered populations.

4.2.4 Iran as a perceived offensive state

If one views the Middle East through a lens of offensive realism, it is clear that other actors pursuing regional hegemony (such as Israel) and global superpowers (such as the USA) would view Iran as a clear threat to the current power status quo. Iran's pursuit of nuclear weapons has been perceived by many of its competitors as the final step Iran will need to take to tip the balance of regional power in its favour. This is the narrative of Iran's surrounding competitors.

Currently Israel holds a nuclear monopoly in the Middle East. Although having never openly disclosed its capacity or even its possession of a nuclear arsenal, it is widely accepted that Israel have nuclear weapons at its disposal. In 2000 it was estimated that Israel had roughly 80 nuclear warheads (Norris & Kristensen, 2010:80). It is further believed by the US Defence Intelligence Agency (DIA) that Israel's arsenal would have increased modestly by 2020 (Norris & Kristensen, 2010:80) Yet Israel still fears nuclear competition by Iran which is largely considered a greater power despite Israel's nuclear advantage. Since the early 1990s Israel has considered Iran's nuclear development as a serious threat to its wellbeing (Parsi, 2005:249). During Iran's pursuit of nuclear weapons, former conservative president Mahmoud Ahmadinejad expressed an aspiration to "wipe Israel off the map" (Fathi, 2019). This illustrates Israel's perception of Iran as an irrational actor and as a fundamentalist, anti-Zionist, ideologically motivated regime (Parsi, 2005:249). Israel further fears Iran's alleged relations and support of terrorist groups such as Hezbollah and Hamas (Treviño, 2013:384). Scholars have suggested that Israel's determination to undermine Iran's nuclear proliferation is a response to Iran's support of these anti-Israeli groups (Parsi, 2005:249). The provision of nuclear grade-weapons from Iran to Hezbollah, Hamas or Islamic jihadists could facilitate Iran's anti-Israel agenda without risk of a direct nuclear response against Iran from Israel.

Saudi Arabia has always contested Iran's production of nuclear weapons. Saudi Arabia has released several statements asserting that if Iran achieves its goal of building and owning nuclear weapons of mass destruction, it will do the same (Johnson, 2019). As noted by Prof. van Wyk (2021) during an interview "one needs to realise, if Iran goes nuclear, Saudi Arabia will follow". Prof van Wyk is a Professor in the Department of Politics and International Relations at the University of Johannesburg specialising in History, International Relations, and global arms control and management. This raises the scary possibility of a nuclear arms race between the competing hegemonic powers of a region categorized by its high levels of instability and notoriously violent state actors (Treviño, 2013:384). This would further impose economic and social difficulties on Saudi Arabia as it would have to divert funds from development policies to the development of a nuclear arsenal, which could take years.

Neither Israel nor Saudi Arabia can be considered a great regional power in the light of their inability to existentially threaten Iran with any degree of credibility. This has largely facilitated the growing relationship between the USA and Israel. Iran's nuclear breakout would make it one of the region's strongest powers and it would have the capacity to undertake regional conquest. This would fundamentally undermine the USA's regional influence. Currently the USA's strongest Middle Eastern relationship is with Israel and this is largely because of Israel's nuclear monopoly over the region. Iran's anti-West and notably anti-US sentiment would suggest that Iran is an unlikely ally of the USA in the foreseeable future. If the USA wishes to maintain its regional presence and influence, it must preserve its relationship with Israel while also discouraging the rise of regional rivals and powers, such as a nuclear-charged Iran. Ultimately, the USA's agenda in the Middle East is threatened by the rise of new and powerful nuclear regional power. A nuclear-charged structurally offensive realist Iran presents as a major threat to the USA and is perceived as such by the Western superpower.

4.3 Sanctions

Within the contemporary nuclear non-proliferation movement sanctions are the number primary tool utilised to enforce global isolation. Certainly before the formation of the JCPOA, sanctions acted as the foundation of enforced nuclear restriction. Having viewed Iran through the relevant theoretical analytical lenses, this paper can begin to assess the effectiveness, severity and sustainability of the efforts and policies applied to restrict Iran's nuclear development. However, in order to do so, it is necessary to fully understand the means utilised to restrict Iran's nuclear development. Iran's growing global isolation since the 1979 Islamic

revolution has for the most part been driven by the implementation of various economic, political, unilateral and multilateral sanctions. Sanctions on Iran have had varying effects on Iran and varying degrees of success in achieving their prescribed goals. However, to fully evaluate the varying outcomes and success of sanctions on Iran, the core functions, goals and conditions of success of sanctions must be further unpacked.

Sanctions have and continue to be a favoured economic weapon in achieving the political goals and objectives of the UN and other major powers of the international system (Pape, 1997:90). Nuclear restrictions and counter-proliferation measures have been on the global security agenda of the UN and global superpowers since the 1950s. Economic sanctions have been utilised as a restrictive and regulatory force of counter-proliferation. Sanctions have played a significant role in the Iranian nuclear crisis. Economic sanctions placed upon Iran have been aimed at constraining Iran's nuclear enrichment, easing the tensions around their nuclear development programme and generally coerce Iran out of nuclear production. They have also been utilised in dealing with other regional issues such as sponsored terrorism and human rights violations throughout the Middle East. However, sanctions have had varied success in achieving these goals. Empirically speaking, sanctions have exhibited low rates of success. The widely accepted and utilised Peterson Institute for International Economics Sanctions database suggests that sanctions fail to achieve their goals in two out of every three cases (Biersteker & van Bergeijk *et al*, 2015:17). While sanctions do exhibit low rates of success, it is not because they are ineffective in principle. The success of sanctions is deeply rooted in the case, circumstance and nature of sanctions imposed (Biersteker & van Bergeijk *et al*, 2015:17). Sanctions are deeply political issues that continue to be heavily debated. In order to fully appraise the effectiveness of counter-proliferation sanctions on Iran, it is necessary to fully understand their theoretical foundations. This requires an understanding of the various functions, goals and conditions of success of economic sanctions.

4.3.1 Function

There are typically two categories of international economic weapons: trade restrictions and financial restrictions (Pape, 1997:93). These restrictions can be enforced with varying degrees of intensity. Trade and financial flows can be partially and entirely blocked in order to achieve the political goals of those enforcing these restrictions (Pape, 1997:93). Different goals call for different levels of restrictive intensity. Economic sanctions represent the least radical, but not necessarily the least detrimental, international economic pressure. Sanctions aim to lower

economic welfare by reducing international trade and promoting isolation of a state in order to coerce it into changing its behaviour (Pape, 1997:93). Sanctions may directly persuade a state by demonstrating the cost of not changing its behaviour, or indirectly by inciting public dissatisfaction that will ultimately displace the government in power (Pape, 1997:93). Sanctions are seldom implemented on their own and are often utilised as part of a greater strategic effort accompanied by negotiations, peace mediation or threats of force (Biersteker & van Bergeijk *et al*, 2015:18), all of which have been utilised in the case of Iran. They can also be utilised as a warning of what is to come should states not be compliant, or as secondary option, should standard international pressures fail to achieve the desired goals and if enforcers are unwilling to use military force. Sanctions act fundamentally as political tools used to compel change in foreign states. Sanctions can take varying forms, with varying degree of intensity, and are able to achieve varying goals. The efficiency of sanctions depends on the case in which they are enforced and the severity if their enforcement

4.3.2 Goals

While the function of economic sanctions can best be summarized as inflicting an economic cost on states in order to change their behaviour, sanctions are best utilised in achieving three specific political objectives. Typically, as mentioned above, sanctions are utilised in order to coerce a change in state behaviour (Biersteker & van Bergeijk *et al*, 2015:18). However, apart from state coercion, sanctions are also utilised in order to constrain state behaviour and to reinforce global norms. Sanctions can be utilised to constrain state behaviour by raising the cost of engagement in specific activities (Biersteker & van Bergeijk *et al*, 2015:19). Sanctions achieve this by raising the cost of procurement of specific resources which in turn entails costly strategic changes. Sanctions imposed on specific states can also be used to reinforce global norms and to send a message to allied or peripheral states to the state being sanctioned. Sanctions enforce costs on both the sanctioned and the sender, which reinforces the sender's conviction in achieving its political goal reinforcing (Biersteker & van Bergeijk *et al*, 2015:19). By happily accepting the consequences of imposed sanctions, the sender reinforces the idea that their demands are global norms that must be adhered to at all costs. Yet sanctions that fail to coerce a state to change its behaviour do not represent a complete failure. Sanctions that fail to coerce a state to change may succeed in constraining or stalling a state's activities in order to establish and engage in diplomatic negotiations, or simply set a global precedent and reinforce norms. Sanctions should be evaluated with reference to the political goals of the enforcer. However, in evaluating the effectiveness of sanctions in achieving these goals, one

must consider 1) whether or not the enforcer achieved their goals, 2) if they were achieved before or after implementing sanctions, and 3) that there are no other explanations for the states adherence to the demands of the enforcer (Pape, 1997:97).

4.3.3 Conditions of success

The varying levels of documented success of sanctions has produced a wealth of data illustrating the conditions under which sanctions have proved most successful. While there are several conditions required to effectively impose economic sanctions, they can be divided into two categories: the nature of the sanctions and the nature of the state. Historically, sanctions have been utilised to punish states engaging in offensive behaviours (Bapat & Kwon, 2015:131). The effectiveness of the punishment depends on the severity of the punishment and the nature of the actor being punished.

The nature of the sanctions being applied play a significant role in determining their success. First and foremost, sanctions must be credible. The threat or implementation of economic sanctions has little weight in persuading or influencing state behaviour if they are not perceived as credible. The credibility of sanctions largely depends on the level and value of pre-sanctions international trade (Biersteker & van Bergeijk *et al*, 2015:19). States with lower levels of international trade are less likely to feel the impact of trade sanctions, while states with higher levels of international trade are more susceptible to them. The credibility of sanctions also contributes to the effectiveness of sanctions as a threat. States that rely on international trade are likely to change their behaviour after being threatened with credible trade retractions. As noted in an interview, Deen (2020) contends that, *“for sanctions to work, there needs to be a credible and legitimate threat”*. However, states that do not perceive the threat or impact of imposed sanctions as credible are unlikely to be concerned about them (Hovi, Huseby & Sprinz, 2005:485). The success of sanctions is also dependent on the actors that enforce them. Typically speaking, multilaterally imposed sanctions have been more effective than unilaterally imposed sanctions (Bapat, 2009:1075). Deen (2020) illustrated this point by noting that *“when we look at the (Iranian) sanctions, they previously worked reasonably well between 2008 and 2011, mostly because the US managed to get other powers to buy into the Iranian threat. In order for sanctions to be truly effective they must be multilateral in form”*. It has been contested by scholars such as Kaempfer and Lowenberg (1999) and Elliot, Hufbauer, Schott and Oegg (2007) that unilateral sanctions are equally effective in persuading states to alter their behaviour as multilateral sanctions. However, it has also been noted that multilateral

sanctions support a greater number of strategic outcomes than unilateral sanctions. Multilateral sanctions imposed by institutions such as the UN are perceived as more credible not only by the states the sanctions are placed upon, but also by other states that may have otherwise continued to trade with the sanctioned state. Multilateral enforced sanction further establishes the global norm status of the political goal trying to be achieved by sanctions (Biersteker & van Bergeijk *et al*, 2015:19). Credible sanctions are also more effective when they are unpredictable and states are unable to take counter-measures. It is clear that sanctions are most effective in their earliest phases of implementation, and even the threat of implementation (Biersteker & van Bergeijk *et al*, 2015:19). Once imposed, the success of sanctions in achieving the political goals of the enforcers depends on the potency or severity of the sanctions (Hovi, Huseby & Sprinz, 2005:485). States experiencing economic sanctions must calculate whether the cost incurred by imposed sanctions outweighs the cost of adhering to the demands of the enforcer (Hovi, Huseby & Sprinz, 2005:485).

The nature, severity and implementation of sanctions all play a critical role in determining their success. However, the social and political nature of the state being sanctioned also impacts on the efficiency of sanctions in achieving the political goals of those enforcing them. State nationalism can often undermine the impact of the sanctions and fail to influence the behaviour of the state. A strong nationalist sentiment can encourage states to endure the economic hardships that stem from sanctions in favour of their own national interests (Pape, 1998:106). In some cases, the adverse effects of sanctions reinforce the legitimacy of a state's national interests and further demonises those enforcing sanctions (Pape, 1998:106). A state's resilience and commitment to its national interest as communicated by its leaders can undermine the effects of sanctions. Sanctions are also believed to be more effective when applied to democratic states than to authoritarian states. States with stronger democracies are more likely to introduce a change of regime that may meet the demands of the sanction enforcers (Biersteker & van Bergeijk, 2015:19). The more authoritarian the state, the weaker the political opposition and consequently the less chance of regime change. The less chance of regime change, the less chance of state persuasion through diplomacy. Sanctions have the capacity to both reinforce and undermine state support. As illustrated above there are several conditions that determine the effectiveness of sanctions in achieving their goals.

4.3.4 Sanctions on Iran

Over the last four decades Iran has faced several rounds of sanctions enforced by various actors hoping to achieve a range of objectives. While these objectives include addressing Iranian terrorist relations and human right violations, the most notable objective of Iran's isolation has been its to counter nuclear proliferation. In fully appraising the role of sanctions in restricting Iran's nuclear programme, it is necessary to map out the various waves of sanctions the country has experienced. Sanctions on Iran have according been split into three phases.

The first phase of sanctions on Iran took place between 1979 and 2006 and can be characterised as unilateral in nature. Prior to the initial implementation of the JCPOA, the USA had maintained unilateral sanctions against Iran for almost 30 years (Eckert, 2009/10:70). Unilateral US-enforced sanctions against Iran began initially as a response to the capture of several US diplomats in the Iranian hostage crisis. Since then, they have been reinforced and expanded in order to better address other Western agendas including countering terrorist activity and promoting non-proliferation. When the hostages were taken in 1979, the US placed a travel ban on all US citizens going to Iran, froze \$12 billion worth of Iranian government assets and banned the exports of US goods to Iran (International Crisis Group, 2013:05). Once the hostages were released the majority of the sanctions were lifted, excluding the asset freeze. Throughout the 1980s during the Iran-Iraq war, the USA passed three rounds of sanctions aimed at barring the trade and flow of arms into Iran. By the start of the 1990s sanctions were expanded to include not only conventional arms but also unconventional arms (International Crisis Group, 2013:05).

In 1996 the USA enacted the Iranian Sanctions Act (ISA) aimed at actively deterring other states from investing in Iran's energy sector. The ISA was dismissed by various European states engaged with Iran at the time on the basis of conflicting principles and in order to maintain various trade operations between them and Iran (International Crisis Group, 2013:07). After Iran's clandestine nuclear development was revealed in 2002, greater multilateral efforts were taken with regard to ensuring Iran's isolation as well as counter-proliferation. Many of the efforts made to isolate Iran between the 1980s and 2002 were driven solely by the USA. They likely represent the least effective wave of sanctions against Iran. Given Iran's Islamic revolution and the collapse of relations with the West as a result, US trade restrictions posed a threat that could be mitigated with third party actors such as the EU and other global superpowers. Prior to the 1996 ISA, it was clear to the USA that attempt to isolate Iran were

being undermined by third-party trade partners. The European dismissal of the ISA trade regulations undermined the credibility of the sanctions and further reinforced the narrative that there were no concerns about trading with Iran. By 2002 and the release of the IAEA report outlining Iran's covert nuclear development, it was clear that almost two decades of US-enforced sanctions and unilateral negotiations between the USA and Iran had failed to restrict or prevent Iran's nuclear progress (Jakobsen & Bowen, 2007:02).

The second phase of sanctions placed on Iran in order to restrict its nuclear development took place between 2006 and 2011. Following the IAEA's report outlining Iran's clandestine nuclear development and the EU-3's diplomatic engagement with Iran at the 2004 Paris Agreement, Iran was referred to the UNSC. Much of the USA's failure to isolate Iran is because of a lack of coordinated action among other global powers against Iran (International Crisis Group, 2013:12). However, since 2006 there had been a greater multilateral effort to isolate Iran. This has included EU and UNSC targeted sanctions on Iran's nuclear, military, financial, oil and global trade sectors (Bazoobandi *et al*, 2015:58). Before Iran's referral to the UNSC, the EU had challenged the US demand for sanctions on Iran. Following the collapse of joint French, British and German diplomatic efforts in 2005, the EU enforced a set of economic sanctions barring the provision of nuclear technology, imposed travel bans, arms embargos and froze the assets of individuals identified as funders of Iran's nuclear programme (International Crisis Group, 2013:12). Similar sanctions were enforced by the UNSC following Iran's referral. Iran's failure to adhere to UNSC resolution 1696 and to restrict its uranium enrichment set in motion Resolution 1737. This Resolution barred the supply of nuclear materials, enforced travel bans, froze assets of identified individuals and included the restriction of fields of study in Iranian university's that might contribute to its nuclear programme (Eckert, 2009/10:71). These sanctions were later expanded under Resolution 1747 (Eckert, 2009/10:71). In 2008 the UNSC enforced Resolution 1929, which reinforced travel bans and the arms embargo enforced in previous sanctions, while also barring Iranian investment in foreign uranium-related industries, authorised the inspection of all Iranian shipping and banning the opening of Iranian bank branches overseas (International Crisis Group, 2013:15). Following Iran's announcement regarding its increased levels of enrichment in 2009 and its refusal of the USA's dual-track diplomatic engagement offer in Brussels, greater multilateral efforts were made to isolate Iran. In 2011 both the UK and Canada severed all ties with the Islamic Republic and its central bank. In 2012 the EU decided to collectively ban the trade of all Iranian oil and petrochemical products, freeze the assets of the Central Bank of Iran (CBI) and block all oil and petrochemical

equipment exports, among other things (International Crisis Group, 2013:13). On-going diplomatic failures between Iran and the P5+1 resulted in greater severity of imposed sanctions. This included the restriction of all activity between European and Iranian banks (excluding transactions pertaining to the provision of food and medical supplies), the imports of Iranian gas and the export of various metals and shipping technology (International Crisis Group, 2013:14). Several other countries including Australia, Japan, South Korea Canada and New Zealand took a similar stance against Iran at the start of the 2010s, which perpetuated the effectiveness of Iran's economic isolation.

Between the 2010 and 2014 Iran felt the greatest impact of the sanctions placed upon it. It could be argued that this final phase of sanctions played a notable role in bringing Iran to the negotiating table. In 2010 the USA doubled down on the ISA by enacting the CISADA, which placed sanctions on all foreign banks and financial institutions that engage with Iran and imposed harsher criminal penalties for being in breach of these sanctions (Schott, 2012:190). It also gave the opportunity for other states to divest from Iran and prohibit Iranian transactions themselves (Schott, 2012:191). By 2011 several states were involved with the economic isolation of Iran. A greater collaborative effort between the USA and the EU strengthened the severity of the sanctions against Iran. Between 2011 and 2013 the joint efforts of the USA and EU effectively halved Iranian oil exports and heavily restricted the foreign exchange of assets (Kenneth, 2020:02). The USA made even greater efforts to cripple Iran by enforcing the NDAA. Under the NDAA, the USA further announced specialised economic sanctions to be placed on all non-US foreign investment firms interacting with the Iranian central bank (Schott, 2012:192). This was aimed not only at restricting direct Iranian foreign investment but also at undermining the efforts of states seeking to import Iranian oil (Schott, 2012:192). The NDAA was complemented with the EU's ban of all petroleum and oil contracts with Iran after 2012. As a result, the Society for Worldwide Interbank Financial Telecommunications (SWIFT) barred all Iranian transactions using their services (Feiler, 2015:01). This made it notably more difficult to make any international money transfers and further restricted bilateral economic flows (Feiler, 2015:04). It is also the first time SWIFT has been used to economically isolate a state (Feiler, 2015:04). This was significant factor in crippling Iran's economy and the last set of sanctions imposed on Iran before the start of early JCPOA negotiations.

4.4 The greater impact of Iranian sanctions

4.4.1 Economic impact

The economic impact of Iran's economic isolation are unquestionable. That being said, it can be very difficult to distinguish between the lasting impacts of domestic mismanagement, the cost and recovery of past conflicts, and enforced sanctions. Iran's economic trajectory has also been influenced by its high government spending, low interest rates and poor planning (International Crisis Group, 2015). It should be noted that Iran's volatile history and domestic mismanagement have made Iran's economy more vulnerable to the effects of sanctions (Bazoobandi *et al*, 2015:58). Almost 30 years of enforced sanctions have played a role in Iran's economic hardships.

The case of Iran meets the conditions for the successful implementation of sanctions. For example, prior to the sanctions placed upon it, Iran had established trade linkages that were heavily affected by trade and financial restrictions, most notably their oil and petroleum sectors (van Bergeijk, 2015:49). This is best illustrated by noting that Iran's pre-sanctions trade linkages with both the USA and the EU made up 18% of its total export earnings (van Bergeijk, 2015:49). Iran also has the fourth largest oil reserves in the world (Feiler, 2015:01). The oil industry and the export of petroleum products and technology were heavily targeted by the earliest sanctions on Iran. Although Iran has been under enforced sanctions for almost 30 years, their greatest impact was felt after 2010. By 2012 oil revenue began to shrink (International Crisis Group, 2015) as sanctions placed on Iran had restricted oil trade to one million barrels per day (Feiler, 2015:01). This represented a 60% decline in Iranian oil export revenue (Rafique & Shah, 2013:20). As Iran's isolation increased since the start of 2010, the price of Iranian oil also dropped to an all-time record low. By 2014 the cost of oil had gone from an all-time high of \$120 to \$50 a barrel (Feiler, 2015:01). This was a direct result of US and EU sanctions and boycott of Iranian oil. The actions and agendas of the USA and EU further deterred states such as Japan and South Korea, among other oil importers, from engaging with Iran (Bazoobandi *et al*, 2015:58). By 2012 a combination of the restrictions placed on Iran's international transactions (via SWIFT blacklisting), the EU oil embargo and trade and banking restrictions limited Iran's ability to make "petrodollars", effectively targeting the country's economic backbone (Bazoobandi *et al*, 2015:58). Between 2010 and 2013 Iran's inflation rate rose from 12.3% to 34.7% (Statista, 2020). In 2010 Iran hit its highest unemployment rate to date at 13.52% (Statista, 2020). In 2012 and 2013 Iran's GDP contracted by 11% (7% in 2012 and 4%

in 2013) (Feiler, 2015:01). Rampant corruption in place prior to Iran's sanctioning also contributed to the severe impact of sanctions and widened the growing gap between the upper and lower class (Bazoobandi *et al*, 2015:62). In order to mitigate these adverse effects of sanctions, Iran was forced to engage in alternative methods of payment and trade, for example, discounted oil rates, non-dollar or oil-for-goods trades and simply clandestine or disguised Iranian crude trades (Bazoobandi *et al*, 2015:62). It is clear that the severe sanctioning of Iran had and continues to have detrimental effect on Iran's economy.

4.4.2 Political impact

The impact of Iran's economic isolation under enforced sanctions has had various effects on Iran's domestic, regional and international politics and relations. In many ways, it is the economic impact of Iran's sanctions that have facilitated these political shifts. It can be argued that these shifts may have played a greater role in achieving the goals of sanctions imposed.

Domestically, the impact of Iran's sanctions have been felt disproportionately. Iranian society is divided into three tiers. These tiers are identified as the wealthy, educated and elite upper middle-class, the well-educated and liberal-minded middle class and the largest tier, the lower class, most of whom are low-income citizens (Bazoobandi *et al*, 2015:58). The well-connected and elite upper-middle class have by virtue of their wealth been able to cushion the economic impact of sanctions on them (Bazoobandi *et al*, 2015:58). But bottom lower class, most of whom are residing in rural or poor suburban areas, have felt the impact of Iran's economic hardships since the Islamic Revolution and experienced an already significantly low standard of living (Bazoobandi *et al*, 2015:58). The working middle class, on the other hand, have felt the greatest impact of Iran's economic isolation. The growing dissatisfaction of what is considered Iran's most educated and liberal-minded social class can be illustrated by the protests and demonstrations that took place throughout 2011 and 2012 (Rafique & Shah, 2012/13). A major drop in the value of the Iranian rial and a rising inflation rate gave impetus to the demonstrations (Erdbrink & Gladstone, 2012/Aljazeera, 2012). These protests heavily influenced and informed the 2013 elections and in many ways led to progress in addressing and alleviating sanctions. Iran's 2013 elections mark a considerable change in Iran's diplomatic efforts. Newly elected Iranian president, Hassan Rouhani, was a known advocate of greater engagement with the West and cited his political success as a victory of "wisdom, moderation and maturity ... over extremism" (BBC, 2013). Rouhani's election to office paved the way for

successful diplomatic efforts between Iran and the international system, and was for the most part supported by the working middle class (Bazoobandi *et al*, 2015:57). It can be argued that sanctions played a unique role in securing Rouhani's 2013 electoral success. Typically, economic stagflation and stunted growth rates have been associated with political turnover (van Bergeijk, 2015:52). Sanctions are believed to facilitate and encourage changes in political administrations, in turn opening up greater avenues of negotiations with political leaders concerned with alleviating the impact of sanctions (van Bergeijk, 2015:52).

The isolation of Iran by means of economic sanctions is perceived through two very different prisms (Fathollah-Nejad, 2014:49). From the point of view of the Western sanctions enforcers, sanctions are understood in terms of a cost-benefit framework in which the growing severity of imposed sanctions will convince Iran to abandon its nuclear programme. However, Iran perceives Western-imposed sanctions as an illegitimate force that must be resisted (Fathollah-Nejad, 2014:49). Iran's economic isolation has consequently hardened its anti-Western stance. For many Iranians, Iran's economic hardships can be attributed to illegitimate Western-enforced sanctions (International Crisis Group, 2015). The Iranian perception of sanctions imposed on it is deeply rooted in Ayatollah Khomeini's anti-Western rhetoric (Fathollah-Nejad, 2014:51). As such, Western-enforced sanctions are viewed as a brutal and immoral way of keeping Iran underdeveloped, dependent and unable to reach any level of hegemonic status (Fathollah-Nejad, 2014:51). Prior to the election of Rouhani, Iran had largely taken it upon itself to resist or defy Western efforts to undermine the Islamic Republic and deny the hardships they have caused (Rafique & Shah, 2012/2013/Bazoobandi *et al*, 2015:62).

4.4.3 Nuclear impact

Despite major economic hardships and political regime change, one of the core objectives of Iran's economic isolation under sanctions is ultimately to restrict nuclear proliferation in the region. While Iranian sanctions have certainly challenged and delayed Iran's nuclear progress, they have failed to deter Iran's nuclear progress entirely. This is to some degree expected. Typically, states abandon their path of nuclear development only once their reasoning for nuclear weapons has been satisfied or addressed, often with the help of major global actors (Jakobsen & Bowen, 2007:01). With that in mind, it should be noted that sanctions on Iran may very well have reinforced Iran's desire to develop nuclear weapons.

There is evidence to suggest that Iran has been steadily developing its nuclear capacity since the mid-1980s (Koch & Wolf, 1998:02). The same can be said about the USA's efforts to halt nuclear proliferation by undermining Iran's nuclear programme (Ahrari, 2001:454). Despite pressure and unilateral sanctions by the USA, Iran continued its nuclear development with a degree of secrecy and approached non-Western states for support and technology. In 2002 the NCRI exposed Iran's clandestine nuclear progress and by 2006 Iran was placed under greater multilateral sanctions enforced by the UNSC, the USA and the EU. By 2011 Iran was under its most severe economic sanctions and experiencing major economic hardships as a result. However, in 2012 Iran announced its first successful ballistic missile launch capable of delivering a nuclear WMD (Aljazeera, 2012). The relationship between the escalation of Iran's sanctions and its nuclear development has been noted. It would suggest that Iran's rate of nuclear development had increased with the intensification of sanctions against it (Fathollah-Nejad, 2014:49). Between 2006 and 2013 the estimated number of nuclear centrifuges had increased 19-fold (Fathollah-Nejad, 2014:49), while at the same time Iran had completed its work on the now fully operational Fordow facility and completed its Bushehr nuclear reactor capable of reaching an enrichment level as high as 20% (International Crisis group, 2015). In 2012 Iran declared that it had loaded its firstly domestically constructed fuel rod into Tehran suggesting it had mastered the fuel cycle and introduced an entirely new and advanced generation of nuclear centrifuges (Rafique & Shah, 2012:20). By 2013, shortly before the initial rounds of negotiations that would eventually become the foundation of the JCPOA, Iran was on the brink of its nuclear breakout. It was estimated that Iran had 20,000 uranium centrifuges in place and was installing them at a rate of 700 additional centrifuges a month (Fitzpatrick, 2019:19). It was further estimated that Iran's LEU stockpile was growing at an average rate of 150 kg each month, the bulk of which was being produced at the underground Fordow enrichment plant.

It is clear that over the last three decades Iran has made notable progress regarding its nuclear programme. It is equally clear that unilateral and later multilateral sanctions placed upon Iran have presented various challenges that Iran has had to overcome. For example, Iran still relies heavily on an external supply of nuclear materials (International Crisis Group, 2015). Sanctions placed on Iran in 2011 and beyond have certainly created the greatest difficulties in securing these materials. For example, enhanced export restriction and SWIFT blacklisting has made it increasingly difficult for Iran to procure the relevant resources for its nuclear programme (International Crisis Group). It was noted that the increased severity of sanctions placed upon

Iran in 2011 would certainly challenge Iran's nuclear progress, but by no means halt it (Rafique & Shah, 2012:20).

4.4.4 The effectiveness of sanctions on Iran

In trying to evaluate the effectiveness of sanctions placed upon Iran over the last 30 years, it is necessary to fully outline what these sanctions are expected to achieve and how they aid the international communities efforts to mitigate the looming nuclear crisis around Iran's nuclear programme. The purpose of sanctions placed upon Iran can be seen as attempts to signal international disapproval of Iran's nuclear development, to delay Iran's nuclear programme by limiting uranium enrichment, to deter other countries from supporting Iran's nuclear programme and finally to stop other states from copying Iran's path of nuclear development (Rafique & Shah, 2013:15). Finally, the devastating effects of sanctions on Iran's economy and the manner in which they have encouraged a change in political regime were intended to bring Iran to the negotiating table in order to reach a diplomatic solution (Rafique & Shah, 2013:15). Having better outlined the desired effects of Iran's economic isolation under sanctions, we can begin to evaluate the effectiveness of sanctions in restricting Iran's nuclear development, in reinforcing and setting global norms, and finally encouraging negotiations and a diplomatic outcome.

States that have committed to a path of nuclear development are usually not easily persuaded to change, and the same can be said for Iran. Most states pursue nuclear capacity for a small handful of reasons, namely safety, a status symbol, or in order to satisfy parochial interests of the public (Jakobsen & Bowen, 2007:01). These are better understood in terms of Sagan's (1996/7) models for nuclear proliferation. Historically states tend to diverge from their nuclear path only once they have addressed the issue that sparked the needs their nuclear programme in the first place (Jackobsen & Bowen, 2007:01). With this in mind, it can already be assumed that Iran's economic isolation may have posed challenges to its nuclear programme, but by no means halted its progress. A brief review of Iran's nuclear development since the mid-1980s will support this. It is clear that despite Iran's long history of economic isolation, it has not abandoned its interest in developing a nuclear capacity. Since the implementation of Iran's most severe sanctions in 2011, Iran has announced increased uranium enrichment as high as 20% and successfully tested ballistic missiles used to deliver nuclear weapons (CNN, 2012; International Crisis group, 2015). This would further support the hypothesis that despite stringent sanctions, Iran has not been and will not be deterred from its nuclear ambitions.

Iran's global isolation is in many ways unprecedented. Several measures never before utilised have been taken to enforce global isolation, for example, Iran's SWIFT blacklisting. It is clear that the earliest phase of Iran's sanctions were the least effective. This is for several reasons, but the first and foremost is the unilateral nature of the US sanctions imposed between the 1980s and 2006. Greater multilateral efforts in isolating Iran after 2006 set a powerful global narrative and precedent. By 2012 a consensus among major global states such as Australia, Japan, South Korea, Canada and New Zealand, as well as the P5+1, has emerged on Iran's nuclear development. While some global actors including Turkey, China and Brazil have contested Iran's isolation, Iran's containment has become a priority of the global agenda. In this sense, Iran's sanctioning has reinforced the narrative against independent nuclear proliferation. When considering other contemporary cases of nuclear proliferation in the global order, other contentious cases such as North Korea become apparent. Both these cases have reinforced a global perspective that has villainised nuclear proliferation within the contemporary international system.

Finally, we must consider the ability of sanctions to assist in reaching a diplomatic solution. While the case of Iran does not offer a wealth of evidence supporting the notion that sanctions can restrain or halt nuclear progress, it does offer some evidence to support diplomatic efforts. Despite a decade of failed negotiations between Iran and the P5+1, among other major global actors, Iran's economic isolation facilitated a level of political change that encouraged a diplomatic solution and the formation of the JCPOA. The major economic hardships perpetuated by the increased severity of sanctions in 2011 largely facilitated a change in Iranian administration in 2013. Major economic hardships felt most severely by the liberal-minded and well-educated Iranian middle class prompted major support for Rouhani, who actively campaigned for greater diplomatic engagement with the international system (Bazoobandi *et al*, 2015:57). The efforts of Rouhani and his newly elected administration played a critical role in forming the JCPOA. The JCPOA represented a dual-track diplomatic compromise on Iran's nuclear circumstances. It allowed Iran to continue its nuclear development and uranium enrichment process under the close regulation and supervision of the IAEA and within agreed upon restrictions (Hoell, 2018:02). For the P5+1, the JCPOA allowed the establishment of stronger diplomatic relations with Iran, curbed their rate of nuclear development and established a greater level of regulation, adding an agreed upon timeframe for Iran's nuclear breakout (Hoell, 2018:02).

It is clear that sanctions have had varying degrees of success in achieving the goals of the global actors that imposed them. Iran's sanctioning has successfully suppressed its nuclear development, but has by no means halted it nor persuaded Iran against developing a nuclear capacity. This represents both a degree of success and failure of sanctions in achieving their goals. Iran's globally supported isolation prior to the JCPOA illustrates a powerful narrative within the contemporary international system that has villainised nuclear proliferation outside the regulated restrictions and monitoring of the IAEA. This would suggest that sanctions have successfully reinforced global norms around nuclear proliferation. Finally, after the most severe phase of Iran's sanctioning in 2012, Iran has seen major changes in its political regime, which has facilitated strong diplomatic and successful negotiations within the international system. This would suggest that sanctions successfully incite political change that facilitates greater opportunity for diplomacy. However, it has been argued that Iran's continued nuclear progress prior to the JCPOA played a more significant role in bringing the USA to the negotiating table than sanctions did to bring Iran to the negotiating table (Mousavian & Mousavian, 2018:177). Yet it can be argued that sanctions have to some degree been successful in achieving the goals they were designed to address. At this point one must consider at what the cost of sanctions was and whether Iran's isolation was an appropriate response to its independent nuclear ambitions.

4.5 Iran's defensively realist response to sanctions

Despite crippling economic sanctions that have had major adverse effects on Iran's economic prosperity and political will, US-led efforts to undermine Iran's nuclear progress have been largely ineffective. Certainly the Iran's global isolation under sanctions have introduced challenges for Iran's nuclear programme, but it has by no means halted it. This is largely due to Iran's defensively realist perception of its nuclear circumstance. Iran's renewed nuclear interest is deeply rooted in the notion of security. Its isolation when facing regional aggressors such as Iraq and regional competitors such as Saudi Arabi and Israel has largely justified its nuclear development. It should also not be forgotten that both Saudi Arabia and Israel are notable US allies that have also challenged Iran's nuclear ambitions. As tensions continue grow around Iran's nuclear development, Iran's demand for a nuclear deterrent becomes more and more apparent. In order for Iran to better secure itself, it must attempt to balance perceived threats to it by the accumulation of military power. This illustrates the cycle of the security dilemma in which states accumulate more power by developing military capability in order to

secure themselves from potential aggressors in the anarchic international system (Tang, 2009:597). At this point a cycle of competing power-seeking states begins as they continue taking counter-measures against one another through the pursuit of superior power (Tang, 2009:597).

The continued concern around an Iranian nuclear breakout sets into motion a structurally realist model, the security dilemma. It is clear that Iran's nuclear interests since the mid-1980s have been rooted within a demand for security against regional aggressors in light of its lack of international support when it had to face Iraq, not to mention Israel's long-term nuclear monopoly over the Middle East. As Iran has become increasingly more aware of its vulnerability to regional threats it has attempted to secure itself with a nuclear deterrent. This is a fundamental structurally realist line of thinking in which Iran has noted the need to secure itself within the intrinsically chaotic international system. A structurally realist account of the international system describes it as being in a permanent state of chaos and anarchy, and hence no state can assume its security against aggressors or rely on any other states to defend or secure it (Burchill & Linklater *et al*, 2013:32). Instead states can only ensure their own security by building up their own military capability in order to mitigate or balance perceived threats to it. By raising Iran's military capability and developing a nuclear deterrent which can deliver a devastating retaliation to any regional aggressors, Iran balances threats against itself.

In response to Iran's isolation in the face of Iraq and other regional aggressors, Iran has chosen to develop a nuclear deterrent in order to secure itself. However, this has alarmed its regional neighbours and perhaps most notably the USA. US-led efforts in the form of sanctions to undermine Iran's nuclear progress have been ineffective. This is because Iran largely gauges its political survival in relation to its nuclear programme as a deterrent. Greater regional and global concern around Iran's nuclear programme and its global isolation as a result has further justified the demand for a deterrent. Historically speaking, states seldom give up their nuclear pursuit until the catalyst of that pursuit has been addressed or settled (Jakobsen & Bowen, 2007:01). As noted by Prof. Pretorius (2021), "if they (states pursuing a nuclear capacity) want it, they will get it (a nuclear weapon), history shows us that". We can therefore assume that Iran is unlikely to abandon its nuclear proliferation until its regional security against aggressors such as Israel, Saudi Arabia and the USA has been assured. This further suggests that tensions around Iran's nuclear programme will only be relieved by granting Iran its nuclear capacity or by reaching a diplomatic agreement among the regional competitors and the USA that ensures

each state's security. Iran's nuclear development has been extremely robust in the face of global isolation because of the progression of the security dilemma. The greater the perceived threat, the greater the demand for security in the form of a nuclear weapon.

4.6 JCPOA

The JCPOA represents a landmark “win-win” deal that supported the demands and interests of the P5+1 and Iran. Iran was experiencing major economic hardships under unilateral and multilateral sanctions that impacted badly on other trade relations. Going into revised diplomatic negotiations after the Rouhani administration came into power, Iran's core domestic goals and interests outside of its nuclear programme included the normalization of its oil and gas trade, economic recovery and the re-establishment of political relations worldwide. At the same time, it was clear that Iran had no intention of abandoning its nuclear programme. As previously mentioned, Iran's nuclear progress was to some degree linked to the increased severity of sanction. Certainly from the point of view of Iran, the only option was a diplomatic solution. The P5+1 also recognised that, historically, few states have been convinced to abandon their nuclear programmes in the past (Jakobsen & Bowen, 2007:01) and moreover acknowledged that a US-led military strike on Iranian nuclear sites was unrealistic and not supported by the UNSC. Then came the agreement of the JCPOA, which ensured Iran's continued nuclear programme under various restrictions, regulations and supervision of the IAEA, further closing all paths leading toward nuclear weaponization. Iran's two major goals going into the JCPOA were sanctions relief and the removal of Iran's security concern status. This meant eliminating the global perception of Iran as a rogue state and threat to global security as well as securing Iran against possible US military strikes. The deal was believed to reduce the threat of war, re-establish Iran as a normal member of the international system and ease's Tehran defence procurement (Divsallar & Otte, 2019:02). However, a major change in US administration ultimately led to the deterioration and collapse of the agreement, further destabilising efforts to mitigate nuclear tensions arising from Iran's development towards nuclear weapons. The collapse of the JCPOA agreement further contradicts the very purpose of the JCPOA by creating greater levels of regional instability and in turn pushing Iran to expand its means of deterrence (Mousavian & Mousavian, 2018:181) The unilateral withdrawal of the USA from the JCPOA represents a major “lose-lose” landmark in the history of Iran's nuclear trajectory. In critically analysing and understanding the significance of the formation and implementation of the JCPOA, and Trump's and withdrawal, it is necessary to

outline its structure. The JCPOA is made up of a series of restrictions, regulations and safeguards set out along a carefully determined timeline.

4.6.1 Regulations and restrictions

Regulations for the most part address the number of functioning enrichment facilities and centrifuges Iran has at its disposal, its level of uranium reserves and the percentage at which it is allowed to enrich uranium (Asculai & Landou, 2019:02). However, the most notable regulations and restrictions can be summarized in eight key aspects. The first is the demand that Iran reduces the number of IR-1s centrifuges at its Natanz facility from 22,000 to 5,060 for a period of 10 years (Mousavian & Mousavian, 181:2018). The second, third and fourth aspects of the deal dictate that all enrichment activity take place at the monitored Natanz facility, that uranium stockpiles are capped at 300 kg (as opposed to the initial 12,000 kg) and that enrichment levels are not to exceed 3.67% (Hoell, 2018:02). The fifth and sixth major aspect of the JCPOA was concerned with other, previously undisclosed, Iranian nuclear facilities. Iran's Fordo facility was converted into a nuclear and physics technology centre for 15 years and would only be permitted to enrich radioisotopes utilised for peaceful medical research and the agriculture sector (Mousavian & Mousavian, 181:2018). Other than this, no nuclear enrichment activity was permitted outside of Natanz. The seventh notable aspect of the agreement demanded that all heavy water reactors active at the Arak enrichment site only be permitted to produce 1 kg of plutonium a year as opposed to 10 kg (Fieveson, 2015). The final and perhaps most notable point of the JCPOA is the increased level of access to Iranian nuclear facilities granted to the IAEA as well as Additional Protocols and Subsidiary Arrangements to ensure compliance with these restrictions and regulations. The JCPOA put into motion the most intrusive and rigorous monitoring regime enforced by the IAEA of all time (Fitzpatrick, 2017:24). This included on-site inspections of uranium mines and milling plants, centrifuge assembly sites and procurement supply chains for up to 25 years. These additional protocols have since become the international norm in 133 states (Fitzpatrick, 2017:24). Once the IAEA had certified Iran's compliance in the reduction of its LEU reserves and the removal of its excess centrifuges, all nuclear-related sanctions imposed on Iran were to be lifted (Fitzpatrick, 2017:25). However, since the implementation of the JCPOA, both the Obama and Trump administrations have maintained a degree of sanctions on the basis of human right violations, missile testing and regional concerns.

Figure 4.1: Key Requirements and Actions Mandated by the JCPOA
Source: Davenport, 2020

Key Requirements and Actions Mandated by the JCPOA	
Enrichment	<ul style="list-style-type: none"> For 10 years operating centrifuges reduced to 5,060 IR-1 machines, total machines is 6,104 IR-1s Excess centrifuges (over 13,000) dismantled and stored under IAEA monitoring For 15 years level of uranium enrichment capped at 3.67 percent uranium-235 For 15 years enrichment only at Natanz For 10 years no production of additional IR-1 centrifuges Between years 11-13 Iran can replace IR-1s with the equivalent capacity of IR-6 and IR-8 machines and limits lasting to years 14-15
Uranium Stockpile	<ul style="list-style-type: none"> For 15 years the stockpile is kept under 300 kilograms of 3.67 percent enriched uranium in total (all forms) Excess enriched uranium sold, shipped abroad for storage, or diluted to natural uranium levels Uranium oxide and scrap material enriched up to 20 percent fabricated into fuel for Tehran Research Reactor, blended down, or shipped out
Fordow	<ul style="list-style-type: none"> Converted to research facility for stable isotope production with Russian cooperation 1,044 IR-1 centrifuges in six cascades will remain here, 328 for production, the remaining 700 are idle For 15 years no introduction of uranium at the facility
Advanced Centrifuge Research and Development	<ul style="list-style-type: none"> For 8.5 years Iran may conduct research with uranium on a single IR-4, IR-5, IR-6 and IR-8 centrifuge at Natanz After 8.5 years test up to 30 IR-6s and 30 IR-8s After 8 years manufacture up to 200 IR-6s and 200 IR-8s centrifuges without rotors For 10 years Joint Commission review and approval of changes to the research and development plan
Arak Reactor	<ul style="list-style-type: none"> Remove and disable the original core of the Arak reactor Replace the core of the Arak reactor to reduce weapons-grade plutonium output, certified by the Joint Commission For 15 years no reprocessing of spent nuclear fuel with an intention to never reprocess Permanent commitment to ship out spent nuclear fuel For 15 years no heavy-water reactors in Iran For 15 years no accumulation of heavy water in Iran Construction of hot cells or shielded glove boxes of certain specifications subject to approval of the Joint Commission
Monitoring and Verification	<ul style="list-style-type: none"> By 15 October 2015 Iran fully implements PMD "roadmap" agreed with IAEA For 10 years approval of the purchase of dual-use materials by the Joint Commission working group For 25 years continuous monitoring of Iran's uranium mines and mills For 20 years continuous monitoring of Iran's centrifuge production facilities For 15 years Joint Commission oversight of IAEA access requests to inspect undeclared sites Permanent prohibition of certain weaponization related activities Implementation and eventual ratification of an additional protocol to Iran's safeguards agreement Permanent implementation of modified Code 3.1 of the Subsidiary Arrangements to its Safeguards Agreement
Joint Commission	<ul style="list-style-type: none"> For 25 years Joint Commission (composed of P5+1, EU and Iran for a total of 8 voting members) will hold quarterly meetings, or by request, to oversee the deal Dispute resolution mechanism within 35 days; 15 day dispute resolution mechanism within the Joint Commission, with optional 15 day ministerial review and/or arbitration opinion from a 3 member panel, followed by 5 day review of the arbitration opinion. If no resolution and complaining party sees action as "significant non-performance," the unresolved issue can be treated as grounds to cease performing commitments in whole or part, complaining party will notify UN Security Council Any party can go to the UN Security Council to put sanctions back in place if there is non-compliance by vetoing a resolution calling for the continuance of sanctions
UN Sanctions	<ul style="list-style-type: none"> UNSC resolution 2231 endorsing JCPOA outlines termination of all previous resolutions targeting Iran's nuclear program—1696 (2006), 1737 (2006), 1747 (2007), 1803 (2008), 1835 (2008), 1929 (2010)—on implementation day. For 10 years sanctions are subject to snapback by veto of a resolution calling for the continuation of suspension After 10 years UN will cease to be seized of Iran's nuclear file For 5 years the heavy arms embargo will remain in place For 8 years the ballistic missile restrictions will remain in place
U.S. Sanctions	<ul style="list-style-type: none"> Cease the application of economic sanctions against Iran's oil and banking sector allowing Iranian banks and companies to reconnect with international systems Will remove designation of certain entities and individuals Allows for licensed non-U.S. entities that are owned or controlled by a U.S. person to engage in activities with Iran permitted under JCPOA Allows for the sale of commercial passenger aircraft to Iran Allows for license for importing Iranian-origin carpets and foodstuffs into United States United States takes appropriate measures to address laws at state or local level preventing full implementation of JCPOA – United States will actively encourage officials to adhere to JCPOA policy For 8 years after Adoption date, or sooner if IAEA concludes that all nuclear activity in Iran remains peaceful, U.S. will seek legislative action to terminate/modify nuclear related sanctions U.S. sanctions on Iran targeting human rights, terrorism and missile activities remain United States can impose additional sanctions for non-nuclear issues (terrorism, human rights, etc.)
EU Sanctions	<ul style="list-style-type: none"> Terminate all provisions of the EU Regulation related to Iran's nuclear program Includes: financial and banking transactions; transactions in Iranian Rial; provision of U.S. banknotes to Iranian government; access to SWIFT; insurance services; efforts to reduce Iran's crude oil and petrochemical product sales; investment; transactions with Iran's energy and shipping sector; trade in gold and other precious metals; trade with Iran's automotive sector Removes individuals and entities designated under sanctions EU refrains from re-introducing sanctions terminated under JCPOA (Iran views any re-introduction as grounds to cease performing its commitments) Refrain from policy intended to adversely affect normalization of economic relations with Iran For 8 years after adoption day or at the finding of the IAEA broader conclusion EU's arms embargo and restrictions on transfer of ballistic missiles remain

4.6.2 Timeline

As illustrated above, the regulations and restrictions that make up the JCPOA are clearly bound to and plotted out on a significant timeline. This in many ways illustrates the level of compromise within the JCPOA, continued regulated nuclear proliferation on a predetermined timeline that can be followed and monitored. It is clear that these regulations strongly impede the rate at which Iran continues its nuclear programme, while still preserving Iran's contested "right to enrichment" under the NPT (Fitzpatrick, 2017:20). It does so by enforcing various restrictions and regulations that, as determined by the agreement, will slowly lapse and fall away. These are referred to as "sunset provisions" or regulatory "expiry dates". This was the main concern of the JCPOA's biggest opponents, including Israeli prime minister Benjamin Netanyahu and US President Donald Trump (Vaez, 2018; Mistry, 2018).

The JCPOA agreement and the restrictions it cites dictate a 26-year-long timeline with various notable dates ranging from implementation days to terminations of restrictions, understood as sunset provisions. The five most notable dates include the Finalization day (14 July 2015), Adoption day (18 October 2015), Implementation day (16 January 2016), Transition day (18 October 2023) and Termination day (18 October 2025) (Kerr & Katzman, 2018:08). Finalization day refers to the day the JCPOA was submitted by Iran and the P5+1 to the UNSC for adoption. Adoption day refers to the day the JCPOA was accepted by the UNSC under resolution 2231. Implementation day was the day the IAEA confirmed Iran's compliance with JCPOA-stipulated safeguards and additional protocols. Transition day was to take place exactly eight years after adoption day and represents a landmark within the JCPOA timeline supporting Iran's compliance and in turn removal from UNSC security scrutiny. Finally, termination day refers to the final prescribed date of the JCPOA in which the UNSC removes itself from any Iranian nuclear matters, rendering the JCPOA null and void. Among these dates were several deadlines pertaining to the above restrictions. For example, in 2031 restrictions on caps on enriched uranium reserves and use of Fordow plant expires. Although the expiry dates or sunset provisions of the JCPOA have been heavily criticised, few states would willingly accept permanent restrictions on internal civilian nuclear development. Although the restrictions are unlikely to deter Iran from achieving its desired nuclear capacity after its prescribed 15 years of restriction, they have ensured 15 years of verified non-nuclear status in order to establish stronger and more durable diplomatic relations. There is also great incentive for Iran to have

adhered to the JCPOA. Compliance with the agreed upon restrictions, regulations and timeline of the JCPOA would alleviate Iran's security risk status within the UNSC and grant them the freedom to unrestricted nuclear expansion experienced by states such Germany and Japan (Fitzpatrick, 2017:34). With that in mind, 15 years of supervision is relatively small price to pay for unrestricted nuclear development at a later stage especially if one considers that nuclear negotiations with Iran at that point had already been ongoing for 15 years.

4.7 The significance of the JCPOA and US withdrawal

In its short time the JCPOA was a success on several fronts and its global significance cannot be overstated. The critical establishment of the Rouhani administration and a dual-track diplomatic approach within the Obama administration led the way to what can be described as one of the most comprehensive and influential arms agreements since the NPT. But equal emphasis must be placed on the significance of the USA's withdrawal. The significance and impact of the JCPOA and the USA's withdrawal are best understood from two perspectives. Firstly, one must take into account the impact of the JCPOA while it was active and how it redefined much of how global nuclear restriction is understood and managed. Secondly, we must take into account the opportunities facilitated by JCPOA that were later relinquished by the USA's withdrawal from the agreement. This demands a deeper review of the Trump administration's rationale for leaving the agreement as well as examining which stakeholders stood to gain from the collapse of the JCPOA.

4.7.1 The global impact of the JCPOA

In the short time prior to the USA's withdrawal, the JCPOA had a significant impact on the global perception and understanding of nuclear restrictions in nuclear proliferation. It did so in several ways. First and foremost, one must compare the structure and nature of the JCPOA to other nuclear arms agreements in the contemporary nuclear non-proliferation movement. The JCPOA can easily be considered the most comprehensive agreement on nuclear restriction of all time, easily comparable to the NPT. The JCPOA established the most intrusive and thorough IAEA monitoring regime ever implemented. This includes unprecedented access to any site believed to be involved in any sort of fissile activity (Fitzpatrick, 2017:24). This includes the same level of access to uranium mines, enrichment sites and all centrifuge construction sites and remains in place for 25 years. These additional Safeguard Protocols cited within the JCPOA are not mandatory under the NPT, but have since become the established norm in over 133 participants of the NPT (Fitzpatrick, 2017:24). It is worth noting that the JCPOA was far

more effective in establishing global norms of nuclear proliferation than the predicted impact of sanctions would be (Biersteker & van Bergeijk *et al*, 2015:19).

Secondly, one should consider the designed effectiveness of the JCPOA in achieving its goals. The regulations, restrictions and timeline of the JCPOA were specifically chosen to address and compromise on the concerns of all members involved. For the P5+1, nuclear containment was key. For Iran, economic recovery from crippling sanctions, removal from the status of a security concern by the UNSC and continued nuclear development were key. The JCPOA was designed to shut down all paths to a weaponized nuclear capacity and block Iran's nuclear breakout time (Hoell, 2018:02). This eased tensions and bought time for greater diplomatic engagement and compromise, further removing Iran from the possibility of any US military action. This also maintained Iran's "right to enrichment" cited in the NPT (Mousavian & Mousavian, 2018:183). This was critical point of the JCPOA in redefining the global narrative of nuclear restriction in favour of diplomacy rather than conflict. It should also be noted that closed paths of weaponized nuclear development offered assurances about Iran's civilian nuclear capacity, in turn easing regional tensions with rivals Saudi Arabia and Israel. Further JCPOA compliance offered opportunities for greater regional cooperation (Mousavian & Mousavian, 2018:184).

4.7.2 US Withdrawal and the collapse of the JCPOA

On several fronts, the JCPOA was notably successful in addressing the growing tension around Iran and its nuclear programme, and it offered further diplomatic opportunities not only in Iran but the greater Middle Eastern region, while also redefining the global norms of nuclear proliferation. This calls into question the rationale of the Trump administration in withdrawing from the agreement.

In May 2018 the Trump withdrew from the JCPOA. It cited its dissatisfaction with the terms of the JCPOA since its implementation in 2017. Trump publicly stated that he considered the JCPOA to be "a horrible one-sided deal that should have never been made" (Landler, 2018). Trump also cited that Iran has not acted within the spirit of the agreement and justified his withdrawal by noting that Iran continuously acted against US efforts in the Middle East by funding terrorism (Aljazeera, 2018). He also noted that the sunset provisions or "end dates" on Iran's enrichment rates and number of active centrifuge restrictions leave the deal ultimately favouring the Islamic Republic against the interests of the USA (Aljazeera, 2018). Yet it should

be noted that the IAEA expressed their satisfaction with Iran's full compliance with the restrictions and regulations of the JCPOA (Mousavian & Mousavian, 2018:185). Furthermore, concerns over Iranian-funded terrorism are misplaced. It has since been established that the most significant source of terrorist funding comes from Saudi Arabia (Wikileaks, 2019), which is a far greater ally of the USA than of Iran.

US withdrawal from the agreement has several adverse effects on Iran's nuclear situation. Internally, Trump's frustration with the effects of the deal further strains perceptions of the USA within Iran. Trump's withdrawal signifies a lack of commitment to the UNSC, which in turn suggests a lack of US credibility within the international arena. The USA's withdrawal from the JCPOA, as well as other global agreements, suggests that the US is an unreliable geopolitical ally. This perpetuates the conservative perceptions of the West which were driven by Ayatollah Khomeini before and during the Iranian revolution. US withdrawal from the JCPOA put greater strain on US-Iranian relations, calls into question the credibility of US diplomatic efforts, and directly resulted in the renewed presence of radicalism over pragmatism within Iran (Mousavian & Mousavian, 2018:185). The USA's lack of commitment to the JCPOA further perpetuates the notion that it is not possible to negotiate with the USA.

By inflaming US-Iranian relations through its withdrawal, the USA has also created greater regional tensions. The USA remains stronger allies with Iran's regional competitors, Israel and Saudi Arabia. The USA stated that dissatisfaction with the JCPOA, Iran's nuclear development and its regional activities justify the regional aggression of both Israel and Saudi Arabia against Iran. Israel has been a notable supporter of restrictions on Iran's nuclear programme. It is likely that the collapse of the JCPOA will push Iran to resume its nuclear efforts to pre-agreement capacity. This would likely result in the renewed global isolation of Iran. In turn, Israel would once again have a regional advantage. Additionally, Iran's nuclear crisis serves as a remarkable distraction for Israel from its other regional activities, most notably the annexation of Palestine (Mousavian & Mousavian, 2018:185). The collapse of the JCPOA also plays into the hands of Saudi Arabia. Sanctions relief for Iran's lucrative oil industry associated with the JCPOA re-established Iran as a major regional oil competitor of Saudi Arabia. Like Israel, Saudi Arabia also stood the chance to gain a distinct regional advantage over Iran following the collapse of the agreement and Iran's re-established isolation.

The US withdrawal from the JCPOA has had several adverse effects not only on Iran but on the stability of the region. The actions of the Trump administration in leaving the multilateral JCPOA in favour of unilateral sanctions and forced restrictions actively undermines attempts to address Iran's nuclear crisis diplomatically. Trump's approach to Iran was focused on maintaining the perennial conflict between the two states, but instead promotes Iran's ambition to achieve nuclear deterrence and intentionally destabilizes the Middle East.

4.8 Contemporary state of affairs

After announcing its withdrawal from the JCPOA, the USA reinstated several rounds of the "highest level" of economic sanctions on Iran without EU support or adherence (Davenport, 2020). Despite the US withdrawal from the JCPOA and unilateral reimposition of economic sanctions at the highest level, Iran went on to maintain diplomatic relations with the remaining members of the nuclear deal. Iran continued to adhere to the restrictions and regulations of the JCPOA until May 2019, when it publicly announced that it would no longer be bound by the limits on enriched uranium stockpile and centrifuges (Davenport, 2020). Throughout 2019 Iran continues its public breaching of the JCPOA, while maintaining open and transparent communication with IAEA and remaining members. In response to Iran's continued nuclear development against the restrictions of the JCPOA, the USA announced that it would impose "maximum pressure on the regime until its leaders alter their course of action" (Davenport, 2020).

4.8.1 Peaking tensions

Since the USA's withdrawal from the JCPOA and reimposition of economic sanctions, US-Iranian relations have reached a tipping point. The USA holds Iran responsible for arming terrorist groups such as the Houthi rebels, who blamed for with strikes near the US embassy in Baghdad as well as on critical Saudi Arabian pipelines (Al Jazeera, 2020), to whom the US is the second greatest beneficiary (Council on Foreign Affairs, 2020). Iran has been held directly responsible for shooting down a US surveillance drone in June 2019 (Turak, 2020) as well as consistently working towards achieving nuclear capacity in breach of the restrictions placed upon them by the JCPOA. On 3 January 2020 tensions reached a tipping point following the US-sanctioned assassination of top Iranian general Qasem Soleimani in an airstrike (Al Jazeera, 2020). Since the inauguration of the Trump administration, it is clear the USA abandoned its dual-track diplomatic approach for a single-track approach characterised by ineffective unilateral sanctions and forced restrictions. The JCPOA represented a diplomatic compromise that maintained Iran's desired nuclear programme at a controlled and agreed upon

rate under the watchful eye of the IAEA and in terms of the JCPOA. As previously mentioned, few states have been convinced to abandon their path of nuclear development without the core concerns driving it being addressed. As nuclear tensions around Iran continue to simmer both regionally and internationally, Iran's demand for a nuclear deterrence has become increasingly more rational. The diplomatic efforts of the JCPOA clearly illustrated a greater level of effectiveness in regulating and restricting Iran's nuclear programme than unilateral, bilateral or multilateral sanctions have been able to do. This is because they directly addressed Iran's security concerns, while allowing the country to maintain a partial degree of nuclear development. Regardless of the severity of the sanctions, Iran maintains its nuclear trajectory. It is clear that greater US commitment to Iran's nuclear development supports Iran's demand for a nuclear deterrence and further encourages its proliferation. It is clear that hard-line nuclear restrictions and the economic isolation of nuclear proliferating states are ineffective and unsustainable. Furthermore, it is clear that the USA's opposition to the diplomatic JCPOA and support for complete nuclear non-proliferation has sparked greater tensions, insecurity and instability regarding Iran in both the Middle Eastern region and more broadly in the international system. The short-lived JCPOA is a perfect example of how a diplomatic solution in favour of regulated and transparent nuclear proliferation offers greater prospects of stability and security within the international system.

4.8.2 The Biden administration

Newly elected US president Joe Biden and his democratic administration offer hopeful prospects for the rolling back of Iranian sanctions and JCPOA reengagement. Before his electoral victory over Trump, Biden had announced a promise to "change course" with the Islamic Republic; however, US intentions with Iran remain unclear (Motamedi, 2020). Throughout his campaign, Biden had noted an intention to revisit the JCPOA "as a starting point for follow-on negotiations" should Iran re-commit to the conditions of the agreement and act within full compliance. Iran has indicated a similar stance with regard to the JCPOA, exclaiming that once the sanctions enforced under the Trump administration's "maximum pressure" approach have been rectified, Iran will happily comply and act within the restrictions of the JCPOA. Iran has further stated that they have no interest in renegotiating the terms of the agreement and that if they had, they would have done so with the Trump administration three years ago according to Iranian Foreign Minister Mohammad Javad Zarif (Motamdi, 2020). Zarif further stated Iran's willingness to fully reengage with the 2015 nuclear deal following Biden's rollback of sanctions, which Zarif believes Biden can do with "three

executive orders (Aljazeera, 2020). Iran ultimately want to reengage with the JCPOA as it was in 2015, but only once Biden has lifted sanctions on Iran that are currently still in place. Although both Iran and the USA's newly elected administration have announced their willingness to re-enter the JCPOA, diplomatic observers and political risk analysts have stated that this is unlikely to happen overnight, because of the demand for additional commitments on both sides by distrustful adversaries (Aljazeera, 2020). It should also be noted that Iranian President Rouhani has publicly announced that the arrival of the Biden administration signals a major shift in US-Iranian relations, but the crimes of the Trump administration must not be absolved (Aljazeera, 2020). This is likely to become a point of leverage in Iranian negotiations regarding the USA's future JCPOA commitments. Rouhani is currently in his second term as Iranian president and is likely to be succeeded by someone else in Iran's 2021 elections scheduled for June. This may once again complicate or present challenges in US-Iranian diplomatic efforts. Reengagement with JCPOA has been strongly supported by France, Germany and the UK. Ministers from the respective European powers have been meeting in preparation for the introduction of the Biden administration in hopes of facilitating an easy transition back to the original terms of the agreement (Wintour, 2020). Fahim Masoud (2020), a Regional Intelligence Manager at the Washington-based risk-management company WorldAware, which assesses and analyses threats across the Middle East and North Africa, noted during an interview that *"unless the deal with Iran is restored under a Biden Administration, Iran will eventually get the bomb and the sanctions will not have too much of an adverse effect on Iran's nuclear activities"*. It is clear that US diplomatic efforts directed at Iran hinge on the Bidens administration's approach to the JCPOA.

4.9 Conclusion

Iran's nuclear programme has been strictly limited and restricted on the basis that the country has unjust or sinister intentions of conquering the Middle East and upsetting the balance of power in the contemporary global order. Many mainstream structural realists will argue that Iran's history would suggest that it is an irrational actor driven by religious ideology and that it is a structurally offensive realist rogue state hell-bent on the pursuit of power. Other structural realist scholars would suggest that, on the contrary, Iran is a perfectly rational actor that is working at ensuring its own security within, arguably, one of the least stable regions in the world. This narrative would suggest that Iran's development of nuclear technology or nuclear weapons is simply the construction of a wall or barrier of deterrence against potentially aggressive threats. This suggests that Iran is a perfectly rational structurally defensive realist

state concerned with maintaining its own portion of the balance of power in the region and world, reinforcing its own security. In that light, a review of the efforts made to restrict or enforce a level of nuclear non-proliferation in Iran has illustrated a clear failure to do so. Economic sanctions over the last forty years have been the weapons of choice in trying to deter Iran from its nuclear trajectory. These sanctions have failed to contain or restrict Iran's nuclear progress and instead further encouraged the rate of development. This further illustrates the unsustainable nature of nuclear containment in the contemporary global order. A review of the JCPOA clearly indicates greater prospects of regulated and transparent nuclear proliferation that offers greater assurances of international and regional security. The following chapter offers a detailed account of how nuclear distribution can create a nuclear balance of power and in doing so reinforce global nuclear security.

5 SO, WHY CAN'T IRAN HAVE THE BOMB?

5.1 Introduction

Chapter 4 reviewed the contemporary measures taken by the nuclear non-proliferation movement to restrict Iran's nuclear development and stabilise tensions in the region. This is reviewed against the backdrop of the structural realist framework through which Iran is analysed in Chapter 3. The aim of chapter 4 was to illustrate the shortcomings and ineffectiveness of contemporary counter-proliferation efforts, namely unilaterally imposed economic sanctions and global isolation. Chapter 5 is largely guided by the final two secondary research questions:

- *Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?*
- *Could the power balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions around Iran and the growing regional tensions?*

In addressing these two questions, Chapter 5 examines Kenneth Waltz outspoken support for greater nuclear distribution. Chapter 5 begins with a brief summary and review of Waltz's infamous 2012 paper, "*Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability*". This chapter identifies and discusses the foundations of Waltz's argument in favour of a nuclear Iran as a stabilizing force in the Middle East. Three specific factors of Waltz's argument ultimately form the rationale of his argument. They are the distinction between nuclear and conventional weapons, rationality and deterrence, and the balance of power (balance of threat) and the security dilemma. After reviewing the theoretical foundations of Waltz's work, this chapter outlines the most common concerns and critiques of a nuclear Iran and of Waltz's 2012 paper. These include prospects of regional nuclear aggression, nuclear extremists, the stability-instability paradox, and a Middle Eastern nuclear arms race. Finally this chapter considers Waltz's argument in relation to the JCPOA and other contemporary attempts made to restrict Iran's nuclear development

5.2 "Why Iran should get the bomb"

In 2012, Waltz published his infamous article entitled "*Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability*". As the title would suggest, Waltz applies his interpretation of structural defensive realism to an interpretation of the Iranian nuclear crisis and determines that wider nuclear distribution would offer greater prospects of regional stability. Waltz (2012) begins by offering several predictions of Iran's future nuclear

circumstances through varying lenses of structural realism. He illustrates the inevitable failures of a structurally offensive realist perspective on Iran and its nuclear developments. He supports his argument with historical narratives of nuclear deterrence and with a basic structural realist rationale. Finally, Waltz (2012) address's some of the mainstream concerns about a nuclear Iran with greater detail.

Waltz (2012) begins his essay by noting that, historically, states pursuing a nuclear capacity in an attempt to secure themselves against regional or international aggressors are unlikely to be persuaded to stop doing so. This is in line with the basic assumptions of structural realism in which security within an anarchic international system is a significant priority (Burchill & Linklater *et al*, 2013:37; Jørgensen, 2013:95; Sterling-Folker, 2013:23). This implies that states which accept and act in line with the structural realist assumptions of the anarchic international system are to some degree predictable (James, 182:1995). A compelling example of this is Sagan's (1996/7) models for nuclear proliferation in which he outlines three models that account for a state's nuclear ambition. Waltz (2012) makes reference to North Korea's resilience in developing nuclear weapons under UNSC pressure to illustrate the prioritisation of ensuring security by nuclear means in the face of global isolations and to highlight the ineffectiveness of economic sanctions. He further notes that greater levels of isolation under continued or renewed sanctions would contribute to Iran's state vulnerability which would in turn encouraging it to secure itself with a nuclear capacity (Waltz, 2012:02). This is particularly significant in the case of Iran, whose renewed interest in its nuclear programme during the 1980s stemmed from its initial isolation during its war with Iraq (Ahrari, 2001:454). This once again illustrates the cyclical nature of the security dilemma in which states continue to secure themselves even more rigorously against perceived threats, in turn encouraging opposing states to respond in the same way (Tang, 2009:597). This cycle in many ways is at the very centre of Iran's nuclear crisis. Waltz (2012) then presents a scenario in which Iran achieves its nuclear goals. He goes onto note that this would cause initial outrage among the major powers within the international system, but that historically newly nuclearized states are eventually welcomed into the "nuclear club". Waltz (2012) promotes the stabilising contributions of a nuclear-charged Iran by outlining the origins of the Middle East's regional tensions and instability that have arisen because of the regions nuclear asymmetry. This further illustrates the rationality of Iran's nuclear programme.

Waltz (2012) emphasizes the destabilising effect of Israel's nuclear monopoly over the last half century. This is also notable when considering that Israel has been actively involved in lobbying against Iran's nuclear proliferation (Mousavian & Mousavian, 2018:183). He supports his point by using core models of security as defined in structural realism, the security dilemma and the balance of power theory. Waltz (2012) begins this section by once again emphasizing that within the assumptions of neorealism states aim to balance regional power and more specifically threats. Waltz (2012) notes his bewilderment at how long it has taken the Middle East to do this. Israel's nuclear monopoly in the Middle East illustrates a major inequality in states' powers in the region and presents a very rational threat. Neorealist assumptions of state behaviour would suggest that other regional states would develop their own nuclear capabilities in order to balance the threat of Israel. This process illustrates both the security dilemma and the balance of power concept in a contemporary setting. Regional states cannot assume Israel will not attack them and so are forced to secure themselves (Tang, 2009:597). Waltz (2012) also notes the significance of Israel's attack on Iraq in 1981. While this reinforced Israel's regional hegemonic status and may have deterred conflict, it also illustrated Iran as a major regional threat that needed to be counter-balanced (Waltz, 2012:02; Jørgensen, 2013:101). Waltz (2012) contends that Middle Eastern tensions have resulted in unbalanced nuclear power relations and that Iran's nuclear programme represents an attempt at rebalancing the scales of power and ensuring peace and stability.

Waltz (2012) concludes his essay by noting that many of the security concerns around Iran's nuclear ambitions are rooted in basic misunderstandings of state behaviour. Iran and its foreign policy have never suggested a lack of rationality. He goes on to note that the use of "inflammatory and hateful rhetoric" by Iranian leaders has been perceived as irrational, but it doesn't suggest any "propensity for self-destruction" (Waltz, 2012:04). Rather Iran exhibits the structurally realist principles of rationality in that it acts with its own self-interest and security in mind (Rasmussen, 2009:02). While many believe that Iranian access to nuclear weapons would result in direct nuclear confrontation with Israel, Waltz (2012) contends that this would not be the case. The prospect of Israel's nuclear retaliation is not overlooked by Iran and likely to deter it from nuclear engagement. Furthermore, the prospect of nuclear war is unlikely to be ignored by the international system and is likely to invite even greater levels of conflict with the major powers in dissuading Iran from further nuclear engagement. Finally, Waltz (2012) acknowledges the value in continued diplomatic efforts in reinforcing

communication, stating that this will put the international system at ease, adding that economic sanctions do not offer any effective means of nuclear restriction or easing of nuclear tensions.

5.3 Foundations of Waltz's work

In just three pages Waltz's infamous 2012 paper covers several arguments that support the notion of wider nuclear distribution as a deterrent of conventional military conflict and as a promoter of regional stability. However, in fully articulating the scope of Waltz's argument in "*Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability*", one must consider the major themes on which it is built. This also demands a more in-depth reading of Waltz's 1990 paper "*Nuclear Myths and Realities*". Much of the rationale put forward in the 2012 conclusion hinges on the observations Waltz documented in 1990. It becomes clear in Waltz's writing how these various themes support one another – they bind together and form the pillars of Waltz's work. The first pillar of Waltz's argument is illustrated by the distinction between conventional military capabilities and nuclear military capabilities. The second pillar can be understood as deterrence and rationality. State rationality has been a critical assumption of Waltz's neorealist perception of Iran's unique nuclear predicament and lies at the centre of the theoretical understanding of deterrence. The final pillar of Waltz's argument is made up of regionally contextual applications of the realist principles, the security dilemma and the balance of power.

5.3.1 Conventional and nuclear military capabilities

Much of Waltz's support for wider nuclear distribution rests on the critical distinction between conventional military force and nuclear military force. The significance of this distinction rests on the fact that nuclear weapons render most conventional military forces almost entirely redundant. In conventional warfare military strategy play a critical role. Strategies refer to the deployment of different military capabilities in different volumes, approaches and times. Military strategy plays a key role in determining the outcome of conflict. Different strategies are implemented in order to achieve or defend different state goals (Waltz, 1990:738). However, nuclear weapons facilitate only a single outcome, mass destruction. Nuclear weapons provide an opportunity to quickly balance the threat of superior conventional military capabilities (Jørgensen, 2018:100). It is clear that nuclear proliferation is largely driven by the threat of superior conventional military capabilities and the nuclear weapons largely render military strategy obsolete (Leah & Lowther, 2017:14; Waltz, 1990:738). This further illustrates the true function of nuclear weapons and how they differ from conventional weapons. The

impact of nuclear weapons is not felt through its use, but in their presence. The next section will focus on nuclear deterrence.

The significance of the distinction between conventional and nuclear warfare is not exclusively understood within the context of deterrence. Nuclear weapons reshape the nature of military engagement entirely. The introduction of nuclear weapons and the consequent redundancy of strategy impacts on the likeliness of engagement by leading antagonists to re-evaluating the cost of deployment. In a total nuclear war the role of conventional military forces is made redundant. The conflict is determined in absolute terms. Waltz (1990) points out that in a nuclear world, conventional military force is far riskier than state reliance on significant deterrence. Waltz (1990) also notes a scenario in which two states are engaged in a conventional military engagement, despite both having access to nuclear arsenals. Although both states can freely engage in the costly conventional conflict, if one state believes itself to be losing it will fire its warhead, rendering all prior conventional engagements pointless. The redundancy of conventional military force would suggest there is no longer a demand for conventional military capacity. With less conventional military force, states are less likely to engage in smaller or less pressing conflicts as well as reduce the likelihood of states engaging in regional expansion through military conquest.

This is not to say that nuclear weapons eliminate the prospects of all lower-level conflicts, but rather that they greatly constrain the prospects of escalation. It has been argued by notable observers, such as former US national security advisor Colin H. Kahl (2012), that historically this is not the case and nuclear weapons in fact promote lower-level engagements. Kahl wrote a lengthy response and critique of Waltz's *Why Iran Should have a Bomb*, in which he notes his concern over Waltz's interpretation of the behaviour of emerging nuclear powers (Kahl, 2012:159). The critiques of Waltz's argument and his response to them will be covered later in this chapter. If we consider a nuclear world free of conventional military force and strategy, warfare become a battle of de-escalation. With less distinction between two nuclear arsenals than there is between two conventional military arms and strategy, no state can play the game of dominance or escalation. In a nuclear world, no state can exhibit any strategic or military dominance. Instead, nuclear military engagement becomes a race to deescalate rather than escalate (Waltz, 1990:740).

A final notable distinction between conventional and nuclear military force lies within the propensity of each to destabilise or unbalance power.

Conventional force and the imbalances it facilitates through strategic or military dominance sets the security dilemma into motion as states attempt to balance the threat of military superiority (Leah & Lowther, 2017:14). Conventional military superiority, most notably the USA's global military dominance, has a great propensity to encourage nuclear proliferation and facilitate geopolitical instability by coming across as a looming threat against which it is necessary to secure the country against. This sets the security dilemma in motion and pushes states towards developing an unconventional nuclear deterrent in order to combat the looming superior conventional military threat (Leah & Lowther, 2017:14). Hence, it can be assumed that the global conventional military imbalance drives nuclear proliferation among weaker states and that conventional military force facilitates power imbalances that demand to be rectified.

5.3.2 Deterrence and rationality

Waltz's (1990) paper "*Nuclear Myths and Realities*" focuses on the deterring power of a nuclear bomb and how it is commonly misunderstood that this a root cause of the global uneasiness around nuclear proliferation. The notion of nuclear deterrence is deeply rooted in the nuclear stalemate between the USA and the Soviet Union during the Cold War. As noted by Prof. Onderco (2021) "A lot of what we have of theories of nuclear deterrents is based on work that has been developed during a time of super power contestation". It is largely believed or accepted that the military strategy of nuclear deterrence maintained peace between the two great superpowers during the Cold War (McCWire, 2006:772). The critical misconception that has dominated deterrence is that it is a military strategy of defence. This is not the case. Deterrence, according to Waltz (1990), is a strategy of retaliation that deters conflict. Deterrence and deterrence strategies do not attempt to fend off aggressors, but rather act as an assurance that there will be devastating consequences for those aggressors. Waltz (1990) defines deterrence as "a promise to destroy things the aggressor holds dear". This is an attempt to dissuade states from attacking or threatening other states. Deterrence strategies are powerfully aided by the infamy of nuclear weapons and their destructive capabilities. The destructive nature of nuclear weapons and the ease with which they can be delivered and utilized elevates the effectiveness of deterrent strategies by eliminating the notion of retaliation, defence and open conflict. The deterring power and stabilizing nature of owning a nuclear

weapon has been a historical characteristic of nuclear proliferation in the contemporary international system. As early as the 1950s security within the international system has often been understood in terms of the notion of “*massive retaliation*” and “*mutually assured destruction*” (Waltz, 1990:733). Defensive strategies of deterrence that encompass this understanding of security often tend to apply to states determined to maintain the current power status division and status quo. This may be the case for Iran. However, nuclear deterrence has been faulted and criticised for its reliance on perceptions and lack of credibility (McCgwire, 2006:771) as well as being limited by the range within which states can deliver a nuclear warhead (Waltz, 1990:733).

With all the above being noted, the notion of deterrence rests on the realist assumption of rationality. No state can rest assured that nuclear deterrence will be effective without the realist assumption that its aggressors will exhibit state rationality. Nuclear deterrence in particular is redundant without the assurance that the aggressor shows no propensity for self-destruction. As will be illustrated in the following section, Iran’s pursuit of nuclear weapons is entirely rational. Waltz (2012) also notes that although Iran and its leaders have engaged in “hateful and inflammatory rhetoric”, they show no propensity for self-destruction. In denying the Islamic Republic’s rationality, policy makers and strategists alike have argued or denied the effectiveness of nuclear deterrence in Iran. Greater levels of diplomatic engagement driven by Iran’s pragmatist leader Rouhani elected in 2013 and a willingness to engage in the JCPOA illustrates the greater presence of rationality over radicalism.

5.3.3 The Balance of power (threat) and the security dilemma

The prospect of Middle Eastern nuclear arms race has been a global concern for decades. Many Middle Eastern commentators will contend that Tehran’s pursuit of nuclear power since the late 1950s has been the central driving force of nuclear tensions and regional concerns about an impending nuclear arms race. However, Waltz (2012) discredits this view by noting the regularly overlooked regional circumstances, with a specific focus on Israel. Waltz (2012) praises the resilience of Israel’s almost 40-year covert nuclear monopoly in the Middle East. He also cites it as a driving force of the region’s growing demand for nuclear weapons. Although Israel’s nuclear monopoly in the region has been a major source of grievance of various regional Arab states and Iran, Israel’s nuclear capacity has for the most part gone without comment by the rest of the global order. Although Israel has not openly announced its nuclear capacity, it is widely believed that it is the only state within the region with a nuclear arsenal. It is estimated that Israel houses an estimated 80-90 nuclear warheads with enough

fissile material to produce 200 warheads, according to a report released by the Arms Control Association (2018). Waltz (2012) also notes that this sort of nuclear superiority exists nowhere else in the world and is entirely unprecedented. It should also be noted that Israel, apart from being the only regional state with a nuclear capacity, is the only state in the Middle East that has not acceded to the NPT nor has it signed the Additional Safeguard protocols with the IAEA, which have become the norm since the introduction of the JCPOA (Erästö, 2019:01). Not only that, but Israel has gone to great lengths to secure its nuclear monopoly by actively lobbying against nuclear proliferation in the Middle East, including Iran and the Arab state. Israel, as a major US ally, has been deeply engaged with Washington in leading efforts to undermine the JCPOA in the hope that this will once isolate Iran, stifle its nuclear programme and once again assert its own nuclear monopoly (Mousavian & Mousavian, 2018:183). Israel's nuclear superiority in many ways underlines Iran's demand for a deterrent, and its strong relations with the USA also pose a very credible threat to Iran. The USA's continued presence in the Middle East, most notably following its involvement in Iraq, presents another looming threat to Iran. In a debate between Waltz and Scott Sagan, Waltz makes a point of noting that, while the USA identifies states such as North Korea, Iraq and Iran as an 'axis of evil' and rogue states, the same can be said about the USA (Sagan, Waltz & Betts, 2007:137). Few states can compete with the conventional military force of the USA and that in a global state of permanent anarchy, no states can assume total security from US engagement.

It is clear that the long-term alliance between Israel and the USA has played a role in maintaining Israel's nuclear monopoly in the Middle East. In this way it has secured a major imbalance of power within the region. Neorealism dictates that states seek to balance power in order to secure themselves (Burchill & Linklater *et al*, 2013:37). As noted in the previous section, conventional military capacities are made redundant by the introduction of nuclear weapons. As much of Israel's regional power stems from its nuclear capacity, regional power can only be balanced with the introduction of another nuclear arsenal within the region. This would suggest that Iran's pursuit of nuclear weapons is seemingly an attempt to balance power within the region and balance the threat of Israel. What is even more likely than this is that Iran's nuclear programme is not an attempt to balance power but to balance looming threats. Certainly going into 2020, following Iran's involvement in the sabotaging of Saudi Arabian oil lines, the growing alliance between Israel, Saudi Arabia and the USA against Iran poses a major security risk and threat to Iran's wellbeing as a state. As noted by Waltz (2007) in his debate with Sagan, no state in the world can compete with the conventional military force of the USA,

let alone in cooperation with two of the Middle East's strongest regional powers. However, as noted above, the introduction of nuclear weapons renders conventional military strength redundant. This ultimately levels the playing field by removing the strategic and cumulative edge of military engagement. Iran's pursuit of a nuclear weapon is a move aimed at counterbalancing the looming US, Saudi and Israeli threat. Iran's continued pursuit of a nuclear capacity comes across as an equally serious security concern in the eyes of the USA, Saudi Arabia and Israel. This has driven the US and Israeli efforts made to undermine Iran. For example, the unprecedented efforts of both the USA and Israel in undermining the JCPOA illustrates a clear effort to secure themselves against the prospect of a nuclear Iran. While this does not echo a typical security dilemma, it still represents efforts made by one state to secure itself against another. Both the realist notion of the balance of power and the security dilemma play a critical role in understanding and articulating Waltz's support of wider nuclear distribution.

5.4 The relevance of Waltz

Waltz (1980, 1990, 2012) has played a critical role in addressing the research problem and more specifically in answering the secondary research questions. This is best illustrated by noting the core themes and concepts at play within Iran's unique nuclear circumstances and how they align with the themes of Waltz's academic contributions. This clearly emphasizes Waltz's relevance as an observer and commentator on Iranian nuclear crisis, prior to his passing. Iran's contentious nuclear circumstances are rooted in themes of anarchy, security and power. In the realm of IR, these themes are typically best understood through a lens of contemporary or structural realism, a theory of which Waltz is considered the modern father. Iran's nuclear circumstances rest on several contextual assumptions about the international system, state behaviour, security and power. This first and foremost aligns with the basic assumptions of the dominant theory of IR, namely realism, which places a heavy emphasis on the role of power and security within the international system. Realism further presents as the most relevant lens of theoretical analysis because of its utility in understanding and accounting for the power dynamics of the Cold War, which were complicated by the introduction of nuclear weapons. Finally, when considering the most appropriate theoretical framework of an analysis of Iran's nuclear circumstance, particular attention must be paid to the link between how and why states, in this case Iran, behave the way they do. In turn, one must consider the basic assumptions of structural realism and their relevance to Iran.

Neorealism or structural realism acknowledges that the global system is structurally influenced by the actions of great powers, which in turn force states with lesser capabilities to secure themselves against these actions (Jørgensen, 2018:95). This is particularly relevant in the case of Iran. Iran's demand for nuclear weapons have been driven by imbalances of threat, power and military capabilities from opposition both regional and international. This further illustrates that the only defining difference among states is power and the distribution of capabilities within the global system. Much like Hobbes (1651) and classical realists, Waltz (1980) offers three assumptions or factors that account for state behaviour through a neorealist lens of analysis (Jørgensen, 2018:95). Waltz firstly notes the state of anarchy in the international system in which states must secure themselves (Jørgensen, 2018:95). This assumption suggests that states are vulnerable to attacks at all times and cannot rely on allies or more powerful nations to protect them. For example, Iraq's attack on Iran was by no means sanctioned or supported by any greater institution, alliance or power, nor was it appropriately condemned. Iran also received little support or assistance in the face of Iraq's regional aggression. This perfectly illustrates the demand for states to secure themselves against possible threats. It was shortly after this that Iran revisited its nuclear programme as a deterrent to looming threats in the anarchy of the international system. He secondly notes the differentiation between more and less powerful states in the international system further acknowledging the presence and impact of great powers (Jørgensen, 2018:95). In terms of this assumption, structural realism illustrates how great powers have a greater impact on the hierarchy and events within the international system. For example, the actions and behaviours of superpowers such as the US may impact or encourage the behaviour and actions of lesser or peripheral states such as Iran. The USA's strong support for Iran's regional opponents or competitors presents a greater threat against which Iran must secure itself. In order to balance this threat, Iran feel the need to continue developing a nuclear buffer between it and its foes. This line of thinking is further supported by the final assumption of structural realism. Finally, he notes the impact of the varying distribution of power and capabilities in configuring the polarities of states within the global system which may influence state behaviour (Jørgensen, 2018:95). Ultimately, neorealism pays closer attention to the way other states and their level of perceived power within the anarchy of the international system impacts on them and can account for their behaviour and efforts to secure themselves (Antunes & Camisão, 2018:02).

As a major theorist of structural realism, Waltz's views are very much in line with its basic assumptions and its perception of the international system. Furthermore, Waltz fully

understands the neorealist notion of how the hierarchy or anarchy of the international system shapes and encourages state behaviour. More specifically, Waltz understands how the structure of the international system and the actions of the great powers within it impact on state perceptions of threats and in turn their security. This can be seen in Waltz's earlier writings, before he started paying closer attention to the specific case of Iran. Waltz (1990) has always contended that power imbalances have fuelled basic models of security, such as the security dilemma indirectly encouraging escalating conflict. In turn, he suggests that the power of nuclear weapons to balance power offers an opportunity for states secure themselves and balance threats within the anarchic international system. Waltz's (2012) more contemporary work focusing on Iran is no different and further suggests a historical account of nuclear proliferation and its regionally stabilising effects.

Waltz's support for nuclear distribution and the theoretical and historical reasoning underlying it largely support and to some extent address and answer the secondary research questions and ultimately the research problem. Waltz's support for wider nuclear distribution to some degree rests on the ineffectiveness of sanctions, for which there is a wealth of data (Hovi, Huseby & Sprinz, 2005; Biersteker & van Bergeijk *et al*, 2015; Kaempfer & Lowenberg, 1999; Elliot, Hufbauer, Schott and Oegg, 2007). This would suggest that Waltz calls into question the effectiveness of contemporary nuclear restriction initiatives. This pertains to the first secondary research question: *How efficient and sustainable is enforced nuclear restriction as a method of counter-proliferation and nuclear disarmament in the contemporary international system?* In further shedding light on the varying success rate of enforced nuclear sanctions, Waltz illustrates there is a demand for a reimagined strategy of nuclear containment. This brings us to the next secondary research question; *Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?* Waltz (2012) answers this more directly by noting the mainstream misinterpretation of Iran's structurally realist standing. He highlights the opportunity to reimagine the regional impact of a nuclear Iran through a lens of structural defensive realism as opposed to structural offensive realism. To some degree, Waltz's support for structurally defensive realism represents a reinterpreted theoretical framework of neorealism that offers an account of the regionally stabilising impact of a nuclear Iran. Finally, it should be noted that an amalgamation of Waltz's work from the early 1980s suggests the structural realist notion of power balancing aligns and supports the power-balancing dynamics of MAD, in essence answering the final secondary research question: *Could the power-*

balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions around Iran and growing regional tension? It is clear that Waltz's support of greater nuclear distribution rests on the basic assumptions of structural realism, namely the structural realist demand for balanced levels of power. The notion of MAD rests on the notion of balanced powers and threats.

Waltz's structural realist expertise and enlightened understanding of state behaviour within the anarchic international system with an emphasis on security and power makes his observations and contributions on Iran's nuclear circumstances and nuclear proliferation in general invaluable. In many ways, Waltz's earlier and more contemporary work indirectly began answering the secondary research questions posed by this thesis, in turn shedding light on the overarching research problem, namely "*Why can't Iran have a bomb?*". Waltz's support for greater nuclear distribution and theoretical commitment to the regionally stabilising effect of nuclear weapons, and more specifically a nuclear Iran in the Middle East, ultimately offers a concise and structured rationale for greater nuclear distribution which largely goes against the global consensus or mainstream understanding of nuclear weapons. As such, it is an absolutely critical argument which must be fully considered, explored and critiqued when considering Iran's nuclear circumstances.

5.5 Concerns and critiques

Waltz's (1981/1990/2012) work has actively supported and encouraged the spread of nuclear weapons as a means of facilitating global stability and security. Despite offering several theoretical arguments supporting the stabilising effect of nuclear bombs globally, and more specifically within the Middle East and in the case of Iran, his work has attracted number of critics. Waltz's most recent piece "*Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability*", attracted several responses citing Waltz's flawed interpretation of Iranian nuclear motivations, claiming that he has misread the historical track record of nuclear proliferation (Kahl, 2012:157) and that his assumptions are rooted in significantly different geopolitical contexts to those of the Middle East (Jamal, 2014:04).

The most common and most notable concerns and critiques of Waltz's work can be articulated in four sections. The first and most common concerns the nature and purpose of Iran's nuclear programme. While it is impossible to be certain of Iran's nuclear prospects, a neorealist structural defensive perception of Iran produces a convincing account of Iran's security-driven

nuclear intentions. Secondly, a major concern about a nuclear Iran is the prospect of nuclear extremists. Certainly it can be acknowledged that state-funded terrorism has been a notable factor in Iran's foreign policy, but there are several theoretical assurances to suggest that Iran will not be distributing nuclear weapons to small extremist groups nor in fact require that relationship at all after its nuclear breakthrough. Thirdly, critics express concerns about strategic stability and the stability-instability paradox (Hussain, 2006:153). In 2012, Waltz published a personnel rebuttal to Kahl (2012) in which he notes that the stabilizing force of nuclear weapons should be understood within the context of de-escalation and that conventional military engagement should be valued in comparison to the alternative, which is nuclear engagement. Finally, critics (Rezaei, 2019:48) express concerns over a Middle Eastern nuclear arms race and the propensity for crisis in a multipolar system. This concern is perhaps most warranted, considering the unprecedented nature of regional nuclear multipolarity.

5.5.1 Regional aggression and nuclear engagement

A major critique of Waltz's works and concern about Iran's nuclear proliferation is the prospect of regional aggression and instability that may arise from Iran's nuclear development. Those that cling to an offensive neorealist perspective on Iran believe that Iran is likely to engage with its regional competitors or commit to a path of regional and territorial conquest. Another concern is that Iran's nuclear capacity will lead its next Islamic revolution across the Middle East. However, these concerns are misplaced and are based on the assumption that Iran is a radical religious-driven state with a propensity for self-destruction. This not the case and is based on the rhetoric and historical narrative of Iran's previous leadership. In fact, there are several compelling neorealist assertions supported by Iranian state behaviour that would suggest that its nuclear proliferation is entirely defensive in nature.

Firstly, Iran still presents as a rational actor. Despite leadership previously employing hateful and anti-Semitic rhetoric, Iran has never shown a propensity for self-destruction. Israel has been at the forefront of the Iranian propaganda regime and painted as major Iranian security concern in order to mobilize regional and domestic forces (Takeyh, 2004/5:53) The assumption of Iran's irrationality is a critical mistake that policy makers and scholars make alike. Waltz (2012) notes that commentators have gravely misread how rational actors behave within the international system. In making this mistake anti-Iranian forces have been able to discredit the notion of nuclear deterrence. Certainly Iran is unlikely to instantly unleash its nuclear wrath upon Israel without fearing instant retaliation and annihilation. Furthermore, any regional

aggression, specifically directed at Israel or Saudi Arabia, will likely be met with swift US retaliation and consequently likely Iranian annihilation. As such, Iran's nuclear engagement with any regional competitor will ultimately seal its own fate.

Secondly, it must be noted that Iran's geopolitical circumstances and diplomatic assurances suggest that Iran's nuclear programme is defensive in nature (Nader, 2013:04). If one takes into account Sagan's (1996/7) models of explanation for nuclear proliferation, Iran matches each model at different points of its nuclear history. However, since its isolated engagement with Iraq, Iran's greatest concern has been its own security. Iran is surrounded by both regional and international security threats. Even if one dismisses the major regional rivalry between Iran and Israel with the US, Iran still faces major sectarian conflict. Iran has a majority Shia Islam population in a majority Sunni and Arab region (Nader, 2013:04). For example, Iran's almost decade-long engagement with Iraq and its international isolation in the wake of that war has created a state hellbent on preserving its security (Nader, 2013:04) rather than regional dominance or imposed religious purification.

It should be noted that there are no assurances about what Iran's nuclear prospects are following its nuclear breakout. However, it should also be noted that Iran's pursuit of regional hegemonic status is mostly undermined by its global isolation and regional power imbalance. Certainly Iran occupies enough territory and has enough access to lucrative oil reserves to establish itself as a regional economic power, should it be released from its crippling sanctions. Despite Israel's regional nuclear superiority, Iran still presents as a regional conventional military power. With that in mind it can be assumed that, following its nuclear breakout, Iran will not need to engage in regional aggression and conquest in order to attain or maintain its regional hegemonic status. As stated by Iran's pragmatic leader Rouhani, Iran's number one priority since the establishment of his administration has been the lifting of economic sanctions and removal of UNSC security scrutiny. Its willingness to engage in the long-term JCPOA also illustrates a willingness to compromise on its nuclear breakout, further suggesting a degree of rationality as opposed to a drive for hot-headed regional conquest. As previously mentioned, those who oppose Iran's nuclear development should also be assured by the fact that Iranian rationality will deter it from nuclear regional engagement.

5.5.2 Nuclear extremists

Another major concern that is presented as a response to Waltz's argument is Iran's relations with non-state actors and regional extremist groups. Accusations of Iran's state-sponsored terrorism have been present since its radical revolution in 1979. Among intelligence analysts and academics alike, it has been agreed that Iran has utilised terrorism in aiding its own foreign policy objectives (Fayazi, 2017:01). In 2016 it was believed that Iran was the number one global sponsor of terrorism (Fayazi, 2017:01). It has since been established that the most significant source of terrorist funding comes from Iran's regional rival, Saudi Arabia (Wikileaks, 2019). Iran has sponsored on-going proxy wars in Iraq, Syria and Yemen, and has maintained relations with Lebanon's Hezbollah and Palestine's Hamas over the last two decades (Byman, 2008:174; Treviño, 2013:384; Fayazi, 2017:02). However, it is worth noting the reasoning behind Iran's continued engagement with Sunni extremist groups. As previously mentioned, Iran's engagement with known terrorist outfits has been a critical component of Iran's foreign policy. Iran's state-sponsored terrorism is an attempt to illustrate a willingness to retaliate against aggressors such as the USA, Israel or Saudi Arabia should they attempt to engage with Iran (Kahl, 2012:157).

This once again illustrates the defensive nature of Iran's actions. Iran's relationship with extremists, militants and terrorists is prime example of "bandwagoning". Bandwagoning refers to the formation of alliances in order to maximise survival and minimise loss in the anarchy of the international system (Burchill & Linklater *et al*, 2013:37). If we consider the groups and non-state actors that Iran aligns with, it become clear that they have been uniquely chosen to undermine the efforts of aggressors in undermining Iran. For example, Iran, as a Shia-Islamic state, maintains relations with the Palestinian Sunni-Islamic militant group Hamas (Byman, 2008:174). This is because a direct target and goal of Hamas is Israel and its collapse. While this is not a direct assault by Iran on Israel, Iran's relationship with Hamas helps undermine Israel's anti-Iranian efforts. However, Iran is largely forced to engage in regional bandwagoning with terrorists and militant extremists in order to balance the threat posed by Israel's unconventional nuclear superiority. The introduction of a nuclear Iran would level the military playing field between Israel and Iran and render the purpose of Iran's sponsored terrorism unnecessary. The threat-balancing capacity of a nuclear weapon will likely limit Iranian reliance on bandwagoning and regional alliances with extremist groups such as Hamas. Scholars have contended that Iran will simply be emboldened by its nuclear arsenal and increase extremist interactions (Kahl, 2012: 157/Jamal, 2014:04). Some scholars have

suggested that once Iran is able to, it will simply distribute nuclear weapons among its extremist and militant allies in order to deliver the final nuclear blow to its foes. However, Waltz (2012) aptly notes that this prediction is unlikely to be fulfilled. Waltz (2012) notes that historically states become acutely aware of how a newly achieved nuclear capacity can make them a target and so tend to avoid rash behaviour. The introduction of nuclear weapons to non-state actors in the Middle East following Iran's nuclear breakout will instantly put the international spotlight upon Iran and is unlikely to go unnoticed by major powers such as the USA and institutions such as the UNSC.

5.5.3 The historical track record of the stability-instability paradox

A common critique of Waltz's argument about nuclear distribution is that many of his theoretical assurances that nuclear weapons promote stability are rooted in historical cases accounted for by neorealism. "Policymakers and citizens in the Arab world, Europe, Israel and the US should take comfort in the fact that history shown that where nuclear capabilities emerge, so too does stability" (Waltz, 2012:05). Waltz (2012) suggests that the "vulnerability" that states feel once they have broken through the nuclear threshold dissuades them from engaging in "aggressive action" and that this supported by history. However, scholars have contended that Waltz's observation rests on a poor interpretation of history and that relationships between nuclear powers can and have in fact been characterised by provocative behaviour (Kahl, 2012:159). Kahl (2012) illustrates his point by noting the behaviour of the emerging nuclear powers of the 1950s – the Soviet Union, North Korea, China and, perhaps most relevant of all, the actions and relationship of India and Pakistan. Kahl (2012) further contends that nuclear weapons in fact generate greater levels of low-level conflict by providing a degree of impunity to nuclear states. He describes this as a model of the stability-instability paradox.

The stability-instability paradox was defined in the 1950s following the Soviet Union's acquisition of nuclear weapons (Krepon, 2003:01). The stability-instability paradox states that as much as superior force deters the likeliness of full-scale conflict, it promotes small-scale or local aggression (Krepon, 2003:01). Nuclear weapons in particular have been identified as creating incentives for engaging in conventional low-level aggression as long as it does not cross a nuclear threshold (Kapur, 130:2005). The overwhelming destructive capabilities of nuclear weapons creates the illusion that small-scale military engagement presents as safe or as having fewer consequence. Kahl (2012) explains that the stability-instability paradox is

clearly evident in the case of the Soviet Union's greenlighted North Korean invasion of South Korea in 1950, and China's border engagement with the Soviet Union in 1969 following their newly acquired nuclear capacity in 1964. However, Kahl's most compelling and relevant case for nuclear weapons' incitement of the stability-instability paradox can be viewed in South Asia. Kahl (2012) contests that since India's and Pakistan's nuclear breakout in 1998, their relationship has facilitated greater regional tension and engagement in low-level conflict. This has included the Kargil War of 1999 and greater level of engagement with non-state actors, militant groups and guerrilla outfits. Conflict between India and Pakistan after 1998 are in line with the rationale of the stability-instability paradox (Kapur, 130:2005).

Waltz (2012) offers a response to Kahl and his critique. First and foremost Waltz notes that the actions of the Soviet Union and North Korea as described by Kahl (2012) lack the proper context and does not apply to the stability-instability paradox argument that Kahl offers Waltz. Waltz (2012) goes on to explain that the Soviets greenlighting the North Korean attack against South Korea was a completely rational move motivated by the fact that at the time South Korea was a not security concern of the USA. Secondly, Waltz (2012) acknowledges pattern of engagement following India and Pakistan's nuclear breakouts. Waltz (2012) even goes onto agree that the newly acquired nuclear confidence of Pakistan may have, to some degree, encouraged its participation in the Kargil War. However, Waltz (2012) notes that the Kargil War represents the fourth open conflict between India and Pakistan and adds that it had significantly fewer casualties than prior conflicts. In turn, Waltz (2012) suggests that the Kargil War in fact supports his assumption that nuclear weapons prevent low-level conflict and engagement from escalating into full scale nuclear conflicts. Waltz (2012) goes on to note that the effects of state-sponsored terrorism, which may be encouraged by the acquisition of a nuclear arsenal and deterrent, are tragic but still cannot be compared to the devastating impact of a nuclear impact or regional nuclear war.

5.5.4 Middle Eastern nuclear arms race and multipolarity

A final notable critique of Waltz's writing is his lack of attention to the significance of Middle Eastern geopolitics in comparison to Southern Asia and the nuclear relationship of Cold War. While Waltz pays close attention to the rivalry and nuclear relationship between Iran and Israel, he fails to pay the appropriate attention to Iran's other regional competitors, most notably Saudi Arabia. Saudi Arabia, presents a significant case in the Middle East's nuclear proliferation in

comparison to other regional or international nuclear stalemates that have largely informed Waltz's work.

It is difficult to make assumptions Middle Eastern nuclear proliferation based on the historical track record of South Asia. This is because of one major difference, namely the number of regional actors able to engage in nuclear proliferation. In South Asia only two regional powers possess the economic capacity to develop nuclear weapons, India and Pakistan (Jamal, 2014:04). As the only two regional powers, their rivalry creates a bipolarity. With this bipolarity in place, balancing power and threats is seemingly easier than in a multipolar system. Mearsheimer (1990) notes that bipolarity, a balance of military power and nuclear weapons, is the key factor in his account of the Long Peace. The bipolar nature of the Cold War has largely been credited with keeping the conflict free leading to major engagements for almost 50 years.

The prospects of a Middle Eastern nuclear arms race have been closely connected to Iran's nuclear programme in particular (Russel, 2012:180). In fact, this is most visible along the Persian Gulf. In 2008 both Saudi Arabia and the United Arab Emirates (UAE) began taking an interest in their respective civilian nuclear programmes. However, Saudi Arabia has by no means sworn off the development of nuclear weapons and has publicly stated that should Iran develop a nuclear weapon, Saudi Arabia will do the same (Sabga, 2020). This illustrates another example of the security dilemma, in which Saudi Arabia made an attempt to balance the threat of a nuclear Iran by developing its own nuclear capacity. This is significant because although Israel, Saudi Arabia and the USA share a common enemy in Iran, the Saudi-Iranian Cold War relationship is its own distinct rivalry and conflict (Jamal, 2014:03). The Saudi-Iranian rivalry is driven by their own ideological, sectarian and geopolitical factors (Jamal, 2014:03). This further warrants Saudi Arabia's desire to develop its own nuclear capacity in order to protect itself from the Iranian threat. This is because in an international self-help system characterised by chaos, no state can be assured that it is safe from aggression or that other states will help to secure them against aggression (Milner, 1991:68).

The greatest issue with a nuclear Saudi Arabia is that it then creates a multipolarity within the Middle East. In this light, Waltz's assumptions of nuclear distribution must be reconsidered. As noted in Waltz's work, many of his assumptions are rooted in the historical narrative of nuclear bipolarity, for example, South Asia or most notably the Cold War. The question of nuclear bipolarity and nuclear multipolarity has long been heavily debated. In Mearsheimer's

(1990) *“Why We Will Soon Miss The Cold War”*, he illustrates the distinction between bipolar and multipolar relationships, and how multipolar systems seemingly advance greater levels of conflict, albeit at a less severe level than full-blown bipolar nuclear conflict. He does so by noting that in a bipolar system made up of two powers, each power will create alliances in order to combat the other. This creates a greater bipolar division among states within the international system and facilitates a dyad in which two sides are more likely to engage in conflict (Mearsheimer, 1990:03). However, in a multipolar system there are multiple divisions drawn up and hence multiple dyads between which conflict can break out (Mearsheimer, 1990:03). Within a multipolar system, power and threats are difficult to balance, because power flows more freely between more actors. These power asymmetries created by a multipolar system complicate deterrence by making it harder to deter stronger states or stronger alliances (Mearsheimer, 1990:03). Power asymmetries invite war by facilitating the assumption that stronger states will triumph over weaker states, should they engage.

The concerns that arises from a multipolar system are largely understood within the confines of conventional warfare. Multipolar systems certainly invite conflict by facilitating power imbalances. It becomes difficult to determine who is how much of a threat to whom, ultimately creating uncertainty and increasing the possibility of miscalculation with regard to engagement and deterrence (Jamal, 2014:04). However, nuclear weapons have the effect of balancing power asymmetries with their destructive capabilities. There are fewer imbalances between nuclear arsenals than in conventional arsenals. Weaker states with less conventional capabilities and a nuclear arsenal can still deter or combat states with greater conventional capabilities and a nuclear arsenal. In turn, nuclear weapons largely eliminate the power imbalances that may arise in a multipolar system. As Mearsheimer (1990) states, “Nuclear weapons bolster peace by moving power relations among states toward equality”. With all that being said, it should be noted that there are not many recorded or historical accounts of multipolar nuclear regions such as the one that is slowly developing in the Middle East.

A final point should be noted. Nuclear deterrence, even in a multipolar system, is largely based on a state’s capacity to survive an initial blow and retaliate (Waltz, 1990:732). With that in mind, the possibility of nuclear imbalance still stands. States with greater nuclear arsenals are more likely able to deliver a greater initial blow and escape without retaliation. However, the aggressor must then be confident that none of its opponent’s allies will retaliate. This is another

example of how multipolar systems complicate the calculation of engagement, nuclear or otherwise.

Waltz has been an outspoken nuclear optimist since the late 1950s and, as illustrated above, his nuclear support for nuclear distribution has been heavily critiqued, reviewed and debated (Krepon, 2003; Kapur, 2005; Russel, 2012; Kahl, 2012; Jamal, 2014).

The greatest concerns and critiques of Waltz's theoretical support for nuclear power and his infamous statement that "Iran Should get the Bomb" is that it is deeply rooted in theoretical assumptions of neorealism. As stated by Waltz (1979), the purpose of theory is to explain the laws of international politics and recurrent patterns of national behaviour. Neorealism as a theory is designed to explain and account for political behaviour witnessed in the past in order to understand the future. However, this means that while Waltz's argument in favour of nuclear distribution can account for the past nuclear relationships, it may not be able to account for the future.

5.6 Waltz, the JCPOA and Biden

Having critically reviewed Waltz's contentious article "*Why Iran Should get a Bomb: Nuclear Balance would Mean Stability*" as well as critiques of it, we can begin to view nuclear restriction of Iran through Waltz's lens of nuclear optimism. Having reviewed Waltz's argument in favour of nuclear balancing in the Middle Eastern, it is clear that Iran's global isolation in an attempt to restrict its nuclear programme is by no means supported by Waltz's argument. Waltz supports and encourages regional nuclear balancing, but unilateral sanctions and restrictions on Iran preserve the Middle East's nuclear imbalance and sustains Israel's nuclear monopoly. Iran's isolation under economic sanctions has also failed to restrict Iran's nuclear development and instead further intensified its nuclear pursuit by perpetuating its sense of vulnerability to the USA and its regional allies. The JCPOA, on the other hand, represented major diplomatic progress in addressing Iran's intricate nuclear circumstances. It was a landmark "win-win" deal that addressed the concerns and demands of Iran as well as all members of the P5+1. Although the JCPOA is still largely driven by the goal of restricting Iran's nuclear programme, it still offers the opportunity for Iran maintain a level of nuclear enrichment. The JCPOA largely mitigated Iran's need for a nuclear deterrent but still allowed it to maintained a reduced rate of nuclear development. The JCPOA mitigates the immediate demand for a nuclear weapon, while still facilitating regional nuclear balance with the sunset provisions in the deal. In doing so, the JCPOA to some degree supports Waltz's theory of a

nuclear balance. A major shift in the US administration and the victory of democratic candidate Joe Biden may offer a positive future for Iranian-US relations and perhaps the reintroduction of the JCPOA among other diplomatic efforts to address the Iranian nuclear crisis

5.6.1 An assessment of Waltz, sanctions and global isolation

One of the major pillars of Waltz's support for nuclear distribution is that nuclear proliferation is largely inevitable. In the contemporary global order, nuclear proliferation increasingly presents itself as a given development of security (Sokolski, 2016:xiii). This is for a number of reasons, including the technological advancements in nuclear arsenals and the production of fissile material among the P5+1 and the emergence of the "nuclear club" and its diminishing exclusivity (Lyon, 2019:10). The growing global presence of nuclear weapons has further justified the role and purpose of a nuclear arsenal. This is particularly true in the case of Iran and the Middle East. This is best illustrated by Iran's reasoning for its nuclear ambitions.

As mentioned in Chapter 3, Sagan (1996/7) has outlined three major models that account for the demand of nuclear weapons. These models can be identified as the security model, the domestic politics model, and the norms model (Sagan, 1996/7:73). Although Iran's history of nuclear proliferation supports all of Sagan's (1996/7:73) models of nuclear development at some point, the security model presents as the most compelling and contemporary account. The security model is deeply rooted in the basic assumptions of neorealism, namely that states need to secure themselves against aggressors within the anarchic international system. Sagan's (1996/7) security model further posits that states pursue a nuclear capacity to re-balance power in the face of potential aggressors. Before major US-led efforts to isolate Iran, the Islamic state faced major regional threats. First and foremost one must consider the overriding nuclear monopoly of Israel. Iraq's engagement with in 1989 was a stark reminder of Iran's regional vulnerability to sectarian advisories, including Saudi Arabia. Further contributing to Iran's security concerns is the USA, which remains a firm ally of both Saudi Arabia and Israel. In light of this, Sagan's (1996/7) security model remains a notable account of Iran's nuclear ambitions. Iran's nuclear development is likely driven by the need to ensure its security against regional aggressors. As stated in basic the principles of neorealism, Iran operates within a system of absolute chaos and must secure itself against possible security threats, with its well-being largely determined by its nuclear capacity. This would further suggest that Iran is unlikely to abandon its path of nuclear development. Waltz (2012) notes that historically states bent on acquiring a nuclear arsenal can seldom be persuaded to do otherwise, because in the

eyes of the state nuclear weapons secure its wellbeing. Fahim Masoud (2020) further noted that *“Washington’s economic sanctions against Iran with regards to the country’s attempts to build a nuclear bomb have not been very successful. This is largely because Iran sees its political survival in the acquisition of the nuclear weapons.”*

Typically, states abandon their path of nuclear proliferation once their reasoning for proliferation has been satisfied or addressed, often with the help of major global actors (Jakobsen & Bowen, 2007:01). However, efforts to mitigate Iran’s unique nuclear circumstances have been focused on forced restriction and have failed to address Iran’s security concerns and the consequent demand for nuclear weapons. Prior to the introduction of the JCPOA, US-led efforts to restrict Iran’s nuclear programme were led by ineffective economic sanctions. As mentioned in Chapter 3, unilateral sanctions against Iran had detrimental effects on its economy, most notably its lucrative oil sector, but also further strained US-Iranian relations. Greater US-led restrictions confirmed the conservative Islamic narrative of the Ayatollah Khomeini, largely turning the Iranian public against the USA. US sanctions, the USA’s presence in the Middle East and its regional alliances with Israel and Saudi Arabia also perpetuate Iran’s perception of the USA as a major security threat that cannot be deterred with conventional weapons. US efforts to undermine Iran’s nuclear proliferation has seemingly justified the Islamic Republic’s demand for a nuclear deterrent. This further illustrates how the forced restriction of Iran’s nuclear development contradicts Waltz’s support for nuclear distribution. Iran’s nuclear proliferation is driven by the notion of security and threat deterrence. In turn, it is unlikely Iran will waiver from its path of nuclear development. In fact, greater efforts to restrict or contain Iran seemingly justifies the state’s demand for a nuclear barrier. Without addressing the regional security threats of Israel, Iraq, Saudi Arabia and the US to Iran, Iran will not be deterred from pursuing its nuclear programme. Waltz (2012) suggests allowing Iran to balance their regional threats with a nuclear capacity. This is discussed in the following paragraph.

5.6.2 Waltz and the JCPOA

The JCPOA represented notable diplomatic progress in dealing with Iran’s nuclear circumstance. It was built on pragmatism and compromise. Although the JCPOA was largely focused on restricting Iran’s rate of nuclear development and delaying its nuclear breakout time, the way in which the agreement was structure largely supports Waltz’s theorised account for Iran’s nuclear proliferation and the nuclear balancing of the Middle East.

The structure of the JCPOA in its entirety allows for Iran to remain on a restricted and monitored path of nuclear development, as this is rooted in its own perceived survival. Throughout almost two decades of negotiations and unilateral and bilateral sanctions, Iran has always reserved and asserted its right to nuclear enrichment (Fitzpatrick, 2017:20). The JCPOA to some degree preserved that right. Despite major restrictions on the number of centrifuges, uranium stockpiles, enrichment levels and plutonium restrictions, Iran has still been allowed to maintain some level of nuclear development for civilian use (Mousavian & Mousavian, 2018:181/Hoell, 2018:02/Fieveson, 2015). This allows Iran to continue to address its own security concerns, while still acting within the agreed upon confines of the JCPOA under the watchful eye of the IAEA. Another notable characteristics of the JCPOA is the use of sunset provisions. The JCPOA is not focused on stopping Iran's nuclear development entirely, but is instead aimed at slowing down its nuclear breakout and to mitigate regional and global concerns that will arise as a result. The sunset provisions of the JCPOA ultimately provide that the regulations and restrictions of the JCPOA eventually fall away and Iran will be allowed to enrich, stockpile and develop at its own rate. There is a great incentive for Iran to adhere to the JCPOA. Compliance with the agreed upon restrictions, regulations and timeline of the JCPOA would alleviate Iran's security risk status within the UNSC and grant it the freedom to unrestricted nuclear development as experienced by states such Germany and Japan (Fitzpatrick, 2017:34). This is significant because even though the JCPOA restricts Iran's nuclear capacity, it also supports Waltz's argument in favour of nuclear distribution by eventually allowing Iran access to a nuclear weapon ultimately restoring nuclear balance to the Middle East.

5.6.3 Biden and the JCPOA

As mentioned in Chapter 4, President Biden and his newly elected administration have declared an interest in readdressing issues related to Iran's nuclear programme. This largely means revisiting the previously enforced "maximum pressure" approach to Iran's isolation under sanctions. Biden noted in an op-ed written for CNN (2020) that he is willing to "*offer Tehran a credible path back to diplomacy*". However, the Biden administration faces major diplomatic challenges as a result of the lasting impact of Trump decision to withdraw from the JCPOA and continued sanctioning of Iran. It is estimated that since Trump's withdrawal from the JCPOA, Iran's economy has contracted by an average of 6% a year, which deepened even further the mistrust between Tehran and Washington (Turak, 2020). The deepening of Iranian

mistrust of the USA heavily undermined the pragmatic efforts of Iranian President Rouhani, who has been heavily criticised for negotiating with the USA to start with and even more so after Trump's withdrawal from the JCPOA, subsequently causing his ratings to decline even further (Adams, 2020). This has increased the popularity of competing hard-line conservatives in the Iranian administration that could be elected in Iran's June 2021 elections. Despite Biden's public support and interest in reengaging with the terms and restrictions of the JCPOA, Iran has noted that major concessions and compensations for the devastating economic contraction caused by the Trump administration must be made before diplomatic negotiations regarding the JCPOA can start again (Turak, 2020). Iran has stated that before it can reengage diplomatic efforts with the USA, it expects full compliance with the JCPOA as well as some degree of compensation or concession for the economic hardships experienced under the Trump administration. These conditions of engagement pose major challenges to Biden, who would likely face major congressional opposition (Jakes, Verma & Fassihi, 2020). Ultimately, the future of the JCPOA is unclear. Biden is to some degree forced to mitigate the consequences of Trump's "reckless" policy of "maximum pressure", which has facilitated a greater divide between Iran's most pragmatic leader to date from the Islamic Republic and the USA (Jakes, Verma & Fassihi, 2020). Furthermore, Biden faces major congressional opposition towards any sort of Iranian compromise with regard to JCPOA reengagement. Both sides have publicly stated an interest in revisiting diplomatic efforts and readdressing the conditions of Iran's nuclear proliferation and global isolation.

5.7 Conclusion

Kenneth Waltz has been acknowledged as one of "the most important theorist of the past half-century" by notable academics such as Mearsheimer (Bradshaw, 2019:01). The contemporary father of structural realism and neorealism has also been an outspoken nuclear enthusiast since the early 1990s. In his contentious 2012 paper, "*Why Iran should set the Bomb: Nuclear Balancing Would Mean Stability*", Waltz offers an account for the stabilising force of a nuclear-charged Iran in the Middle East using a theoretical framework of structural realism. Ultimately, Waltz contends that Iran's nuclear arsenal will balance Israel's nuclear monopoly over the Middle East and subsequently ensure regional stability. Waltz justifies his theorised account of a nuclear Iran by noting the power-balancing dynamics of nuclear weapons and MAD. This largely addresses the last two secondary questions of this research paper, namely *Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?* and *Could the power-*

balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions surrounding Iran and growing regional tension? There have been an abundance of concerns and critiques of Waltz's theoretical account of a nuclear-charged Iran, which include the prospects of Middle Eastern nuclear arms race and nuclear extremists. Waltz's theoretical framework of a nuclear Iran in the Middle East is for the most part supported by a historical track record of nuclear proliferation and power balancing. However, Waltz acknowledges that nuclear weapons are not tools for maintaining absolute peace, noting that low-level conflict and military conflict will never be fully eradicated by the presence and threat of nuclear arsenals, but rather that nuclear arsenals can ensure the de-escalation of ongoing or festering regional aggressions.

Finally, this chapter considers Waltz's theoretical argument in favour of nuclear distribution of nuclear weapons against a backdrop of contemporary counter-proliferation and containment efforts. When considering the global isolation of Iran through unilateral and bilateral sanctions, it is clear that this method of nuclear restriction is not supported by Waltz's argument or theoretical rationale. It should also be noted that these efforts were particularly unsuccessful in restricting Iran's proliferation and has instead further justified Iran's nuclear demands by illustrating the USA's (and its Middle Eastern regional allies) opposition to what Iran perceives as its self-developed nuclear security. The JCPOA, on the other hand, slowed down Iran's nuclear development and breakout for almost 15 years, while still preserving Iran's right to enrichment and eventual nuclear breakout which, according to Waltz, will enforce regional stability. It is clear that while Waltz's radical support for nuclear distribution does not directly align with the gradual or reduced rate of nuclear proliferation specified by the JCPOA, the two still serve each other. The JCPOA ultimately supports Waltz's theoretical rationale in favour of wider nuclear distribution. With that in mind, one must consider the future of the JCPOA under the newly elected Biden administration. Trump's withdrawal from the JCPOA in early 2018 has been described as "reckless" and has created major challenges in reengaging in any sort of US-Iranian diplomatic efforts by deepening the Islamic Republic's distrust of the USA.

6 CONCLUSION

6.1 Introduction

Taken together, Chapters 4 and 5 were designed to answer this study's secondary research questions, ultimately addressing the overarching research problem. Chapter 4 provided a review of the contemporary measures taken by the nuclear non-proliferation movement to restrict Iran's nuclear development and stabilise tensions that arose to address and contextualise the first secondary research question, while Chapter 5 was further guided by the final two secondary research questions, which will be further elaborated in the following section of this chapter. Chapters 4 and 5 offer a critical analysis of the case of Iran in the light of the research problem and questions. Chapter 6 provides a summary of the key findings of the analysis. This final chapter of this study restates the research problem and research questions before providing a summary of key findings in chapters 4 and 5.

This chapter will begin by briefly contextualising and summarising the study in its entirety before reiterating the research problem, the primary research question, and the secondary research questions. Following this, Chapter 6 goes on to explicitly address the primary research problem by answering the secondary research questions with the studies key findings. Finally, this chapter discusses this study's overall theoretical limitations, and identifies some considerations for future research.

6.2 Study synopsis

This study was divided into 6 chapters. Chapter 1 contextualised the purpose and structure of the study. It does so by illustrating the overarching research problem and stating the primary and secondary research questions that needed to be answered in order to solve the research problem. Chapter 1 then goes on to outline the most relevant theoretical framework of analysis required to answer the primary and secondary research questions. Chapter 1 also discusses the research methodology and pays particular attention to case study research design. Finally, Chapter 1 discusses the ethical considerations of the study before summarizing its structure.

Having chosen Iran as the primary case study of enforced nuclear restriction, Chapter 2 was focused on contextualising the study as a whole. Chapter 2 provided an in-depth review of Iran's path of nuclear development since its start in the mid-1940s up to the contemporary status. Chapter 2 pays close attention to the various historical discourses that have influenced Iran's rate and reason for nuclear development. In contextualising Iran's case of nuclear

development, Chapter 2 allows for a more critical and in-depth theoretical analysis of efforts made to restrict them.

Chapter 3 provides the study's theoretical framework of analysis. It does so by outlining the origins and evolution of traditional realism. This includes a review of greatest contributors, its core values, and its contemporary variants. Chapter 3 identifies structural or neorealism as the most relevant framework of theoretical analysis and considers its two main schools of thought, namely offensive and defensive realism. The chapter discusses both the security dilemma and balance-of-power theory before viewing counter-proliferation and nuclear deterrence through a lens of structural realism.

Chapter 4 acts as a review of efforts made to restrict Iran's nuclear development. It begins by considering the different structurally realist perceptions of Iran in relation to its regional circumstance. Chapter 4 illustrates the structure and functionality of economic sanctions as a political tool of persuasion. The chapter critically reviews the effects of sanctions placed upon Iran. Finally, it discusses the significance of the JCPOA and US President Trump's subsequent withdrawal from it in 2018 before describing the Iranian nuclear crisis' contemporary status.

Having contextualised Iran as the primary case study, established the relevant theoretical framework of analysis, and critically reviewed efforts to restrict Iran's nuclear development, Chapter 5 considers the work and structural realist position of Kenneth Waltz. By reviewing Waltz's "*Why Iran should get the bomb*", Chapter 5 explores a structurally realist argument in favour of nuclear distribution and balancing. The chapter goes discusses some of the most notable concerns and critiques of Waltz's argument before considering it in relation to the inauguration of Joe Biden and a changed status quo.

6.3 Central research problem

Since its inception almost 75 years ago, the possession, distribution and development of WMDs have been a major security concern of the international arena. The UNSC openly acknowledges that the "danger from such weapons arises from their very existence" (United Nations, 2020). Much of what is understood about the development and possession of nuclear WMDs is rooted within the notion of regional security and informed by the power dynamics and dominant theories of International Relations present during the Cold War. The "cold" nature of the Cold

War and robustness of traditional realist world views perpetuated the 1950s prediction that the international arena would be flooded with nuclear weapons in the future (O'Neil, 2009:39). However, this has not materialised. Few states have been allowed to freely develop nuclear weapons while others have been heavily restricted in their nuclear proliferation. Both regional and international security concerns tend to manifest around states that engage with the traditionally realist and rational desire to develop nuclear weapons. In the contemporary international system there are several institutions that have been established to combat nuclear proliferation in the global order since 1945. The most notable, of course, are the NPT and the IAEA. In the last decade alone the acquisition of weaponized nuclear capacity by specific states such as USA, France, England and Russia has facilitated a nuclear asymmetry. This nuclear asymmetry is maintained by dominant, and most often nuclear, states within the international system.

Much of what is understood about nuclear weapons is informed by the early 1950s and the Cold War. However, the Cold War represents the greatest example of how nuclear weapons have the capacity to deescalate conflict. This would encourage wider nuclear distributions as a means of global security stabilization, as noted in the 1950s prediction of greater nuclear distribution in the future. This raises the question: Why do we fear nuclear weapons? Of course the destructive capability of nuclear weapons is unparalleled – as illustrated by the US's offensive employment of nuclear weapons against Japan in August 1945. However, it should be taken into account that it is not the mere existence of nuclear weapons that present as a major security concern and contributor to global and regional tensions, but instead the hoarding of nuclear weapons among a handful states that does so.

As we see tensions continue rise around states such as Iran and its nuclear development, one must consider the fact that these tensions are largely the product of a global nuclear imbalance. This ultimately describes a situation in which only a select few states have a nuclear capacity, while the rest are prevented from adding to nuclear proliferation by nuclear states and restrictive institutions such as the NPT and IAEA. These nuclear imbalances are largely perceived by other states as looming threats to their security. Consequently states take measures to secure themselves against possible nuclear threats (Tang, 2009:590). This represents a nuclear security dilemma in which traditional realist and rational states attempt to develop nuclear weapons to secure themselves against the aggressive use of nuclear weapons against them. This generates and compounds regional and international tensions.

As illustrated above, many of the security concerns and tensions around nuclear proliferation is misplaced and should in fact be directed towards addressing the global nuclear imbalance. By 2019, according to the Arms Control Association, nine states had achieved a weaponized nuclear capacity and have access to nuclear arsenals ranging between 30 to 6,490 nuclear warheads (Arms Control Association, 2019). The Arms Control Association (2019) further states that there is a total estimated 14,000 nuclear warheads globally and that an estimated excess of 90% of them are divided between the USA and Russia. This further emphasizes the global nuclear asymmetry in the contemporary global arena. It should also be noted that most states that have openly acknowledged their nuclear status have in fact gone on to achieve their nuclear goals despite major restrictive and isolationist policies. North Korea has experienced almost 30 years of major isolationist policies including radical economic sanctions and, despite this, still achieved a nuclear capacity with successful test launches (BBC News, 2017/Al Jazeera, 2020). This ultimately helps form the central research problem, which is that enforced nuclear restriction through economic sanctions and global isolation prevents regional nuclear balancing and fails to mitigate nuclear tensions that surround nuclear developing states. The latter begs the question: Why can't Iran have the bomb?

6.4 Research questions

In order to address the research problem which highlights the tensions that arise from nuclear proliferation in an international arena characterised by nuclear asymmetry, this study was aimed to answer one primary research question and three secondary research questions.

The primary research question that guided this research was:

So, why can't Iran have the bomb?

This question acts as an overarching umbrella question to be addressed through the secondary research questions. This research enquiry asks why Iran's nuclear proliferation has been so heavily resisted by the international arena and whether or how it further encouraged greater regional instability.

The secondary research questions read as follows:

1. How efficient and sustainable is enforced nuclear restriction as a method of counter-proliferation and nuclear disarmament in the contemporary international system?
2. Does a reinterpreted theoretical framework of structural/neorealism offer an effective account of the potential stabilising force of a nuclear-charged Iran in the Middle East?
3. Could the power-balancing dynamics of nuclear weapons and the prospect of mutually assured destruction (MAD) ease nuclear tensions around Iran and growing regional tensions?

6.5 Key findings

The key findings of this study are best understood as responses to the secondary research questions. Nuclear WMDs have been on the global security agenda of the international arena since their inception. However, despite the acknowledged devastating destruction impact of nuclear weapons, states continue to pursue them, most often as their own source of security against threats from other states. Over the last 70 years several institutions and treaties have been established in order to curb the rate of global nuclear proliferation. These include the internationally recognised IAEA and the NPT, acknowledged by many as one of the most extensive restrictive arms treaties of all time. Despite these measures to mitigate the spread of nuclear weapons, states such as Iran, North Korea, India, Pakistan, and Israel have all gone on to do so. In response, global superpowers such as the USA take it upon themselves to restrict nuclear proliferation by isolating states through imposing severe economic sanctions. Economic sanctions have long been the favoured political weapon of global powers such as the USA and of institutions such as the UN or the UNSC. Economic sanctions placed upon Iran have been aimed at constraining Iran's nuclear enrichment, easing the tensions around their nuclear development and ultimately to coerce Iran away from its nuclear programme. However, a critical review of sanctions placed upon Iran and their economic, political and nuclear impact on the state largely suggests that they are not an effective nor sustainable method of counter-proliferation.

6.5.1 Secondary research question 1: The sustainability and efficiency of nuclear restriction
Sanctions placed upon Iran have had a major detrimental impact on its economy. Under sanctions, Iran has experience notable rates of inflation and the country has been unable to maximise the profits of its lucrative oil industry. The greatest economic damage caused by sanctions were most evident between 2010 and 2013, before the JCPOA engagement. Despite

the electoral triumph of pragmatic leader Rouhani in 2013, greater Western isolation and the economic devastation have buttressed the agenda of Iran's conservative party, who have heavily criticised any form of Western diplomatic engagement in an attempt to lift sanctions. Finally and perhaps most notably, the impact of sanctions on nuclear development can also be called into question. While it is clear that sanctions have had a major detrimental effect on Iran's economy and political arena, the same cannot be said for their ability to restrict Iran's nuclear development. In fact, for the most part it has had the opposite effect. Continued Western isolation as well as an increased US presence in the Middle East and its growing relations with Israel have largely justified the demand for its own nuclear deterrent in the eyes of Iran. A review of Iranian sanctions would suggest that as sanctions become more severe, Iran's rate of nuclear development increases. Sanctions have failed effectively to contain or restrict Iran's nuclear progress but instead encouraged its rate of development. This further illustrates the unsustainable nature of nuclear containment in the contemporary global order.

6.5.2 Secondary research questions 2 and 3: neorealist accounts of nuclear balancing and mitigating regional nuclear tensions

Much of what is understood about nuclear power dynamics is rooted in poorly interpreted notions of security and rationality, half-heartedly supported by dated interpretations of traditional realism rampant during the 1950s, and the introduction of nuclear weapons. However, the seminal work by the father of structural realism or neorealism, Kenneth Waltz, offers a unique and reinterpreted theoretical framework that largely supports the notion of balancing power and nuclear ambitions, state rationality, and security. In his 2012 paper, "*Why Iran should get the Bomb: Nuclear Balancing Would Mean Stability*", Waltz offers a justification for the stabilising force of a nuclear-charged Iran in the Middle East using the theoretical framework of structural realism. Waltz contends that Iran's nuclear arsenal will balance Israel's nuclear monopoly in the Middle East and subsequently ensure regional stability. Waltz justifies his theorised account of a nuclear Iran by noting the power balancing dynamics of nuclear weapons and MAD during the Cold War. Waltz further contends that this is not at all a reimagined or reinterpreted theoretical framework of structural realism, but that it is in fact one that is supported by the historical track record of nuclear proliferation. This answers the final two secondary research questions. Ultimately, there is a variant of structural realism that supports the stabilising impact of wider nuclear distribution and does in fact support the notion of greater regional stability under the assumption of MAD.

6.6 Further research

After almost 20 years Iran's nuclear crisis shows no sign of being resolved. Years of clandestine nuclear development, failed diplomatic efforts and the US withdrawal from the JCPOA would suggest that Iran's nuclear controversy is unlikely to resolve itself in the foreseeable future. However, greater attention must be given to changes in political administrations in both the USA in 2020 and Iran in 2021 and how each administration chooses to address the current Iranian nuclear crisis. Major changes in political administrations offer the opportunity for a different approach and theoretical understanding of Iran's nuclear crisis. The outcome of Iran's path of nuclear development will represent an important case study in the future research of nuclear proliferation, its restriction and how it is perceived by states and institutions within the international arena. Finally, when considering the final and key findings of this study, one has to consider its theoretical limitations.

6.6.1 Political shifts

The tides of Iran's nuclear crisis have for the most part witnessed major changes with the introduction of different political administrations in the USA and Iran. In 2013 the election of pragmatist Iranian leader Rouhani facilitated major diplomatic breakthroughs with Democratic leader and president at the time, Barack Obama and Joe Biden, who played a critical role in forming the JCPOA. Despite the situation showing signs of resolution during JCPOA negotiations, the Trump administration's withdrawal from the agreement has put major strain on the effectiveness of future negotiations. As mentioned in Chapter 4, continued Iranian isolation under US sanctions has disillusioned the Iranian public about any US engagement. The maximum pressure approach that the US has taken against Iran has perpetuated the agenda of Iran's conservative party shortly before the Islamic Republic's 2021 elections. While President Biden's election offers an opportunity to revisit the JCPOA, the lasting effects of Trump's actions may very well have supported an Iranian political shift that may prove detrimental for future diplomatic efforts. With this in mind, future research should pay closer attention to the lasting impact of the Trump administration's maximum pressure approach to sanctions placed upon Iran in order to restrict its nuclear proliferation and its lack of effectiveness in doing so.

6.6.2 Iran as a case study of nuclear proliferation

Iran's perceived path of nuclear development has made it a critical case study in any review of contemporary nuclear restriction efforts and the theoretical frameworks that support them. Iran's nuclear development and in turn nuclear restriction has been an ongoing series of events

for almost 20 years and has shed light on the major shortcomings of contemporary nuclear restrictions and their weak theoretical foundations. Iran, among other contemporary nuclear proliferating cases such as India, Pakistan and North Korea, will become a critical focus of future research into the political and theoretical understanding of nuclear power dynamics. While it is difficult to speculate what future research will make of the outcome of the current nuclear case of Iran, it can be theorised that – as in the case of Pakistan and India – slow and long-term nuclear proliferation may very well have a de-escalatory effect on regional conflict. Regardless of the outcome of the Iranian-US nuclear relationship, it will be a critical case and point of future research into nuclear power dynamics, counter-proliferation, the regional impact of nuclear weapons, and the understanding of structural realism in the contemporary global order.

6.7 Theoretical limitations

Finally, in concluding this study, attention must be drawn to its theoretical limitations. This study acknowledged the dominant theories of IR as liberalism, Marxism, and classical realism. After considering the relevance of these theories of IR against the backdrop of nuclear proliferation and nuclear power dynamics, it became clear that traditional realism and its contemporary variants serve as the best theoretical frameworks of analysis. This was largely because of the dominance of realism during the Cold War and the introduction of nuclear weapons and consequent nuclear power dynamics. A closer analysis of contemporary nuclear proliferation illustrated structural realism's ability to rationalise nuclear proliferation and its restriction. This was largely rooted in the structural realist perceptions of balancing issues of security and power. The case of Iran was viewed through a theoretical lens of structural realism and its two variants, defensive and offensive structural realism. While it is clear that structurally offensive realism has largely informed the mainstream perception of nuclear proliferation and the importance of restricting it, it was clear that defensive realism offered its own interpretation of structural realism. By employing a lens of structurally defensive realism in the case of Iran, this study was able to identify several of its key findings and further addressed and answered its research problem and questions. A structurally defensive realist theoretical framework illustrates the shortcomings of contemporary counter-proliferation, offers an account for the stabilising force of a nuclear Iran and MAD in the Middle East. However, the speculations and key findings of this paper are deeply rooted in theoretical assumptions of structural realism. As stated by Waltz (1979), the purpose of theory is to explain the laws of international politics and recurrent patterns of national behaviour. Neorealism as a theory is designed to explain and

account for political behaviour witnessed in the past in order to understand the future. However, this means that while Waltz's argument in favour of nuclear distribution can account for past nuclear relationships, it may not be able to predict the future. This study cannot make any definitive predictions on the outcome of the Iranian nuclear crisis. Instead this research offers a theoretical account of the recurrent political patterns and national behaviours of those involved in the Iranian nuclear crisis.

6.8 Concluding remarks

The Islamic Republic of Iran's path of nuclear proliferation has been closely scrutinised and restricted on the basis of its purported detrimental regional impact. Over the last two decades Iran has experienced unprecedented levels of economic isolation under major unilateral US-enforced sanctions in an attempt to restrict its nuclear programme. However, it is clear that contemporary efforts to inhibit nuclear proliferation have proven to be ineffective and unsustainable in the case of Iran, among others. There is an interpretation of structural realism that largely supports Iran's nuclear proliferation and its impact on regional stability. Indeed, it can be stated with confidence that there is a theoretical framework and understanding of Iran's nuclear circumstance that encourages wider nuclear distribution within the Middle East precisely on the basis of MAD and the de-escalatory effect of mutual nuclear arsenals.

7 Bibliography

- Adams, P. 2020. *After Trump, What Will Biden Do About Iran?*. [online] BBC News. Available at: <https://www.bbc.com/news/world-middle-east-54958361> [Accessed 8 December 2020].
- Aftandilian, G. 2020. *Manoeuvring the Saudi-Iranian rivalry in the Middle East: How the United States can preserve and protect its long-term interests in the region*. Pennsylvania: Strategic Studies Institute, US Army War College.
- Ahrari, M. 2001. Iran, China, and Russia: The Emerging Anti-US Nexus?. *Security Dialogue*, 32(4): 453-466.
- Ahrensdoerf, P. J. 1997. Thucydides' Realistic Critique of Realism. *Polity*, 30(2): 231-265
- Alger, J. 2009. From Nuclear Energy to the Bomb:: The Proliferation Potential of New Nuclear Energy Programs. *C. Hurst & Company*, 1-19.
- Aljazeera.com. 2012. *Iran Test Fires Short-Range Missile*. [online] Available: <https://www.aljazeera.com/news/middleeast/2012/08/2012841055642103.html> [21 August 2020].
- Aljazeera.com. 2012. *Police In Iran Clash With Currency Protesters*. [online] Available: <https://www.aljazeera.com/news/middleeast/2012/10/2012103113527747494.html> [20 August 2020].
- Aljazeera.com. 2012. *US Oil Prices Drop Despite Iran Sanctions*. [online] Available: <https://www.aljazeera.com/blogs/americas/2012/06/18071.html> [5 July 2020].
- Aljazeera.com. 2018. *Israel's Netanyahu: Iran Pursued 'Secret Nuclear Programme'*. [online] Available: <https://www.aljazeera.com/news/2018/04/netanyahu-accuses-iran-secretly-pursuing-nuclear-programme-180430173237447.html> [8 July 2020].
- Aljazeera.com. 2018. *Understanding The Iran Deal: What, Why And The Next Steps*. [online] Available: <https://www.aljazeera.com/news/2018/05/understanding-iran-deal-coming-180509072633096.html> [7 September 2020].
- Aljazeera.com. 2019. *Oil Attacks 'Unquestionably Sponsored By Iran': Saudi Arabia*. [online] Available: <https://www.aljazeera.com/news/2019/09/19/oil-attacks-unquestionably-sponsored-by-iran-saudi-arabia/> [6 October 2020].
- Aljazeera.com. 2020. *Iran Urges US'S Biden To Lift Sanctions, Rejoin Nuclear Deal*. [online] Available: <https://www.aljazeera.com/news/2020/11/18/iran-urges-joe-biden-to-lift-sanctions-rejoin-nuclear-deal> [28 November 2020].

- Aljazeera.com. 2020. *N Korea Confirms 'Successful' Missile Tests; Fourth In A Month*. [online] Available: <https://www.aljazeera.com/news/2020/03/korea-confirms-successful-missile-tests-fourth-month-200330022833135.html> [2 June 2020].
- Aljazeera.com. 2020. *US-Iran Tensions: Timeline Of Events Leading To Soleimani Killing*. [online] Available: <https://www.aljazeera.com/news/2020/01/iran-tensions-timeline-events-leading-soleimani-killing-200103152234464.html> [16 March 2020].
- Ansari, A. 2001. The Myth of the White Revolution: Mohammad Reza Shah, 'Modernization' and the Consolidation of Power. *Middle Eastern Studies*, 37(3): 1-24.
- Antunes, S. & Camis o, I. 2018. *Introducing Realism In International Relations Theory*. [online] E-International Relations. Available: <https://www.e-ir.info/2018/02/27/introducing-realism-in-international-relations-theory/> [3 June 2020].
- Armscontrol.org. 2019. *Arms Control And Proliferation Profile: Israel | Arms Control Association*. [online] Available: <https://www.armscontrol.org/factsheets/israelprofile> [21 October 2020].
- Asculai, E. & Landau, E. B. 2019. The JCPOA, Three Years On. *Institute of National Security Studies*, 1128: 1-3.
- Bahgat, G. 2006. Nuclear Proliferation: The Islamic Republic of Iran. *International Studies Perspectives*, 7(2): 124-136.
- Bajia, D. S. 1997. The Concept of Nuclear Proliferation Need for Reconsideration. *Indian Journal of Asian Affairs*, 10(1): 47-50.
- B li, A. U. 2014. Negotiating non-proliferation: International law and delegation in the Iranian nuclear crisis. *UCLA Law Review*, 61(2): 232-324.
- Bapat, N. A. & Kwon, B. R. 2015. When are Sanctions Effective? A Bargaining and Enforcement Framework. *International Organization*, 69(1): 131-162.
- Barakso, M. Sabet, D. & Schaffner, B. 2014. *Understanding Political Science Research Methods: The Challenge of Interference*. 1st ed. New York: Routledge.
- Bazoobandi, S., Biersteker, T., Connolly, R., Giumelli, F. Portela, C. Secrieru, S. Seeberg, P. and van Bergeijk, P.A.G. 2015. *Sanctions against Iran: Winners and Losers. On Target?: EU sanctions as security policy tools*. European Union Institute for Security Studies (EUISS).
- BBC News. 2020. *Hassan Rouhani Wins Iran Presidency*. [online] Available: <https://www.bbc.com/news/world-middle-east-22916174> [4 July 2020].
- Begley, S. 2016. *Read Donald Trump's Speech To AIPAC*. [online] Time. Available: <https://time.com/4267058/donald-trump-aipac-speech-transcript/> [8 July 2020].

- Bell, M. S. & Miller, N. L. 2015. Questioning the effect of nuclear weapons on Conflict. *The Journal of Conflict Resolution*, 59(1): 74-92.
- Benjamin, M. 2018. *Inside Iran: The Real History and Politics of the Islamic Republic of Iran*. New York: OR Books.
- Biden, J. 2020. *Opinion: Joe Biden: There's A Smarter Way To Be Tough On Iran*. [online] CNN. Available: <https://edition.cnn.com/2020/09/13/opinions/smarter-way-to-be-tough-on-iran-joe-biden/index.html> [8 December 2020].
- Borger, J. 2012. *Iran Nuclear Talks: Settling For Confusion In Baghdad, Hoping For Clarity In Moscow*. [online] the Guardian. Available: <https://www.theguardian.com/world/julian-borger-global-security-blog/2012/may/29/iran-nuclear-talks-baghdad-moscow> [4 July 2020].
- Bowley, G. 2008. *Despite Calls To Halt, Iran Says It Will Continue Its Nuclear Program*. [online] Available: <https://www.nytimes.com/2008/07/31/world/middleeast/31iran.html> [2 July 2020].
- Broad, W. 2007. *The Thin Line Between Civilian And Military Nuclear Programs*. [online] Nytimes.com. Available: <https://www.nytimes.com/2007/12/05/world/middleeast/05weapons.html> [5 July 2020].
- Brown, C. 2012. Realism: Rationale or reasonable? *International Affairs*, 88(4): 857-866.
- Brown, C. W. 1987. Thucydides, Hobbes and the Derivation of Anarchy. *History of Political Thought*, 8(1): 33-62.
- Bull, H. 1981. Hobbes and International Anarchy. *Social Research*, 48(4): 717-738.
- Burchill, S. Linklater, A., Devetak, R., Donnelly, J., Nardin, T., Paterson, M., Reus-Smit, C. & True, J., 2013. *Theories Of International Relations*. 5th ed. Basingstoke: Palgrave Macmillan.
- Bush, G.W. 2002. USA State of the Union Address. [online] Available: <https://www.c-span.org/video/?168446-1/president-bush-state-union-address> [8 July 2020].
- Byman, D. 2008. Iran, Terrorism & Weapons of Mass Destruction. *Studies in Conflict & Terrorism*, 31: 169-181.
- Centre for Arms Control and Non-Proliferation. 2015. *Executive Summary: The Iran Nuclear Agreement Review Act Of 2015 - Center For Arms Control And Non-Proliferation*. [online] Available: <https://armscontrolcenter.org/executive-summary-the-iran-nuclear-agreement-review-act-of-2015/> [8 July 2020].

- CNBC. 2019. *Israel's Netanyahu Calls Iran Enrichment Move A 'Very, Very Dangerous Step'*. [online] Available: <https://www.cnbc.com/2019/07/07/israels-netanyahu-calls-iran-enrichment-move-a-dangerous-step.html> [31 May 2020].
- CNN. 2012. *Report: Iran 'Successfully' Fires Missile Capable Of Hitting Targets 185 Miles Away - CNN*. [online] Available: <https://edition.cnn.com/2012/08/04/world/meast/iran-missile-test/index.html> [21 August 2020].
- Council on Foreign Relations. 2020. *US-Saudi Arabia Relations*. [online] Available: <https://www.cfr.org/backgrounders/us-saudi-arabia-relations> [16 March 2020].
- Craig, C. 2009. Nuclear Power Preponderance and the Nuclear Revolution. *Review of International studies*, 35(1): 27-44.
- Crail, P. 2012. *P5+1 And Iran Hold 'Positive' Talks*. [online] Armscontrol.org. Available: https://www.armscontrol.org/act/2012_05/P5_plus_one_and_Iran_Hold_Positive_Talks [4 July 2020].
- Davenport, K. 2020. *Timeline Of Nuclear Diplomacy With Iran*. [online] Available at: <https://www.armscontrol.org/factsheets/Timeline-of-Nuclear-Diplomacy-With-Iran> [Accessed 2 July 2020].
- Donnelly, J. 2000. *Realism and international relations*. Cambridge England: Cambridge University Press.
- Dunne, T., Kurki, M. & Smith, S. 2016. *International Relations Theories*. 3rd ed. Oxford: Oxford University Press.
- Eckert, S. E. 2009/10. United Nations non-proliferation sanctions. *International Journal*, 65(1): 69-83.
- Emadi, H. 1995. Exporting Iran's revolution: the radicalization of the Shiite movement in Afghanistan. *Middle Eastern Studies*, 31(1): 1-12.
- Erästö, T. 2019. *A Lack Of Disarmament In The Middle East: A Thorn In The Side Of The NPT*. [Stockholm]: Stockholm International Peace Research Institute.
- Erdbrink, T. and Gladstone, R. 2020. *Violence And Protest In Iran As Currency Drops In Value*. [online] [Nytimes.com](https://www.nytimes.com). Available: <https://www.nytimes.com/2012/10/04/world/middleeast/clashes-reported-in-tehran-as-riot-police-target-money-changers.html> [20 August 2020].
- Fathi, N. 2019. Wipe Israel 'off the map' Iranian says. [online] [Nytimes.com](https://www.nytimes.com). Available: <https://www.nytimes.com/2005/10/27/world/africa/wipe-israel-off-the-map-iranian-says.html> [30 Aug. 2019].

- Feiveson, H., 2020. *The Iran Deal Explained* | *Dissent Magazine*. [online] *Dissent Magazine*. Available: https://www.dissentmagazine.org/online_articles/iran-nuclear-deal-explained [5 July 2020].
- Fitzpatrick, M. 2017. Assessing the JCPOA. *Adelphi Series*, 57(466/7): 19-60.
- Freedman, R., 2006. Putin, Iran, and the Nuclear Weapons Issue. *Problems of Post-Communism*, 53(2): 39-48.
- Gartzke, E. & Jo, D. J. 2009. Bargaining, Nuclear Proliferation and Interstate Disputes. *The Journal of Conflict Resolution*, 53(2): 209 – 233.
- Gartzke, E. & Kroenig, M. 2009. Approach to Nuclear Proliferation. *The Journal of Conflict Resolution*, 53(2): 151-160.
- Gasiorowski, M. Keddie, N. 1990. *Neither East Nor West*. New Haven: Yale University Press.
- Gavin, F. J. 2009/10. Same as It Ever Was: Nuclear Alarmism, Proliferation and the Cold War. *International Security*, 34(3): 7-37.
- Glaser, C. 1997. The Security Dilemma Revisited. *World Politics*, 50(1): 171-201.
- Glaser, C. L. 2003. Realism in a More Complex World. *Review of International Studies*, 29(3): 403-414.
- Grant, C. & Osanloo, A. 2014. Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for your “house”. *Administrative Issues Journal Education Practice and Research*, 4(2): 12-27 .
- Gull, I. 2000. History of Nuclear non-proliferation. *Pakistan Horizon*. 53(2/3): 89-96.
- Guzansky, Y. & Dekel, U. 2015. Recognizing Iran as a Nuclear Threshold State: Implications for Israel and the Middle East. *Institute for Regional Studies*, 676: 1-4.
- Herz, J. 1964. *Political Realism and Political Idealism, a Study in Theories and Realities*. Chicago: University of Chicago Press.
- Hoell, M. 2018. If the JCPOA Collapses: Implications for Nuclear Non-Proliferation and International Security. *European Leadership Network*, 1-20.
- Holland, S. 2018. *Trump Issues Ultimatum To 'Fix' Iran Nuclear Deal*. [online] *Reuters.com*. Available: <https://www.reuters.com/article/us-iran-nuclear-decision/trump-issues-ultimatum-to-fix-iran-nuclear-deal-idUSKBN1F108F> [8 July 2020].
- Hovi, J. Huseby, R. & Sprinz, D. F. 2005. When do (Imposed) Sanctions Work? *World Politics*. 57(4): 479-499.
- Hurst, S. 2016. The Iranian Nuclear Negotiations as a Two-Level Game: The Importance of Domestic Politics. *Diplomacy & Statecraft*, 27(3): 545-567.

- Hussain, S. R. 2006. Analysing Strategic Stability in South Asia with pathways and prescriptions for avoiding nuclear war. *Contemporary South Asia*, 14(2): 141-153.
- Iaea.org. 2020. *IAEA Safeguards Overview*. [online] Available: <https://www.iaea.org/publications/factsheets/iaea-safeguards-overview> [3 July 2020].
- Ighani, H. 2016. Managing the Saudi-Iranian Rivalry. *Council of Foreign Relations*. [online] Available: <https://www.cfr.org/report/managing-saudi-iran-rivalry> [6 July 2020].
- International Crisis Group, 2020. *Spider Web: The Making And Unmaking Of Iran Sanctions*. Middle East Report N°138. [Brussels/Washington] International Crisis Group, 5 - 62.
- J. Cirincione. 2006. Controlling Iran's Nuclear. *Issues in Science and Technology*, 22(3): 75-82.
- Jakes, L., Verma, P. & Fassihi, F. 2020. *Biden Wants To Re-join Iran Nuclear Deal, But It Won't Be Easy*. [online] Nytimes.com. Available: <https://www.nytimes.com/2020/11/17/world/middleeast/iran-biden-trump-nuclear-sanctions.html> [8 December 2020].
- Jakobsen, M. F. & Bowen, N. 2007. Resolving the Iranian Nuclear Crisis A Review of Policies and Proposals 2006. *Danish Institute for International Studies*, 1-7.
- Jamal, U. 2014. *The Iranian Nuclear Programme: Impact On Regional Stability And Security*. [online] E-International Relations. Available: <https://www.e-ir.info/2014/09/04/the-iranian-nuclear-programme-impact-on-regional-stability-and-security/> [20 October 2020].
- James, P. 1995. Structural Realism and the Causes of War. *Mershon International Studies Review*, 39(2): 181.
- Jervis, R. 1978. Cooperation under the Security Dilemma. *World Politics*, 30(2): 167- 214.
- Jo, D. and Gartzke, E., 2007. Determinants of Nuclear Weapons Proliferation. *Journal of Conflict Resolution*, 51(1): 167-194.
- Johnson, K. 2019. *Who's Afraid of Saudi Nukes?* [online] *Foreign Policy*. Available: <https://foreignpolicy.com/2019/02/22/whos-afraid-of-saudi-nukes-123-kashoggi-mbs-russia-china/> [29 Aug. 2019].
- Jørgensen, K. 2018. *International Relations Theory*. 2nd ed. United Kingdom: Palgrave.
- Joyner, D. H. 2005. The proliferation security initiative: Non-proliferation. *Yale Journal of International Law*, 30(2): 507-548.
- Kahl, C. H. & Waltz, K. 2012. Iran and the Bomb: Would a Nuclear Iran Make the Middle East More Secure? *Foreign Affairs*, 91(5): 157-162.

- Kapur, S., 2005. India and Pakistan's Unstable Peace: Why Nuclear South Asia Is Not Like Cold War Europe. *International Security*, 30(2): 127-152.
- Karacasulu, Z. N. & Karakir I. A. 2008. Attitudes of the International Community toward Iran's Nuclear Puzzle. *Journal of International and Area Studies*. 15(2): 1-19.
- Kaye, D., Nader, A. & Roshan, P. 2011. *Israel and Iran: A Dangerous Rivalry*. Santa Monica: RAND National Defence Research Institute.
- Kaysen, C., McNamara, R. S., & Rathjens, G. W. 1991. Nuclear weapons after the cold war. *Foreign Affairs*. 70(4): 95-110.
- Keltsch, K. 1987. Nuclear non-proliferation issues: IAEA'S Safeguards System. *Strategic Studies*, 10(4): 110-114.
- Kerr, P. and Katzman, K. 2018. *Iran Nuclear Agreement And US Exit*. Washington, D.C.: Congressional Research Service.
- Koch, A & Wolf, J. 1998. Iran's Nuclear Facilities: A Profile. *Centre for Non-proliferation Studies*.
- Korab-Karpowicz, J. 2018. *Political Realism In International Relations (Stanford Encyclopedia Of Philosophy)*. [online] Plato.stanford.edu. Available: <https://plato.stanford.edu/entries/realism-intl-relations/> [2 August 2020].
- Korab-Karpowicz, J. W. 2006. How International Relations Theorists Can Benefit by Reading Thucydides. *The Monist*. 89(2): 232–244.
- Krepon, Michael. 2003. *The Stability-Instability Paradox, Misperception, and Escalation Control in South Asia*. Washington, D.C.: The Henry L. Stimson Centre.
- Krieger, Z. & Roth, A. I. 2007. Nuclear Weapons in Neo-Realist Theory. *International Studies Review*, 9(3): 369-384.
- Landau, E. B. 2018. In the Aftermath of the JCPOA: Restoring Balance in the US-Iran Deterrent Relationship. *Institute of National Security Studies*, 173: 23-32
- Landler, M. 2018. *Trump Abandons Iran Nuclear Deal He Long Scorned*. [online] Nytimes.com Available: <https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html> [7 September 2020].
- Leah, C. & Lowther, A. B. 2017. Conventional Arms & Nuclear Peace. *Strategic Studies Quarterly*, 11(1): 14-24.
- Lebow, R. N. & Mueller, J. & Wohlforth, W. C. 1995. Realism and the End of the Cold War. *International Security*, 20(2): 185-187.

- Lobell, S. 2019. Structural Realism/Offensive and Defensive Realism. *Oxford Research Encyclopaedia of International Studies* [online] Available: <https://oxfordre.com/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-304>
- MccGwire, M. 2006. Nuclear Deterrence. *The Royale Institute of International Affairs*, 82(4) 771-784.
- Mearsheimer, J. 2001. *The tragedy of great power politics*. Mearsheimer, 1st edition. Chicago: W.W. Norton & Company.
- Mearsheimer, J. J. 1981. *The Theory And Practice Of Conventional Deterrence*. Published Doctoral dissertation. Ithaca: Cornell University Press.
- Mearsheimer, J. J. 1990. Why Will Soon Miss The Cold War. *The Atlantic Monthly*, 266(2): 35-50.
- Mearsheimer, J. J. 2001. *The tragedy of great power politics*. Mearsheimer, 1st edition. Chicago: W.W. Norton & Company.
- Milner, H. 1991. The assumption of anarchy in international relations theory: a critique. *Review of International Studies*. 17(1): 67-85.
- Mindle, G. B. 1985. Machiavelli's Realism. *The Review of Politics*, 47(2): 212-230.
- Motamedi, M. 2020. *What Will A Biden Presidency Mean For Iran?*. [online] Aljazeera.com. Available: <https://www.aljazeera.com/news/2020/11/8/what-will-a-biden-presidency-mean-for-iran> [28 November 2020].
- Mousavian, S. and Mousavian, M. 2018. Building on the Iran Nuclear Deal for International Peace and Security. *Journal for Peace and Nuclear Disarmament*, 1(1):169-192.
- Nader, A. 2013. *Iran After The Bomb How Would A Nuclear-Armed Tehran Behave?*. Santa Monica: Rand Corporation.
- NCRI. 2020. *National Council Of Resistance Of Iran – The Viable Democratic Alternative - NCRI*. [online] Available: <https://www.ncr-iran.org/en/about-ncri/alternative/> [2 July 2020].
- Norris, R. and Kristensen, H. 2010. Global nuclear weapons inventories, 1945–2010. *Bulletin of the Atomic Scientists*, 66(4): 77-83.
- Nti.org. 2020. *Iran's Nuclear Program Timeline And History | NTI*. [online] Available: <https://www.nti.org/learn/countries/iran/nuclear/> [2 July 2020].
- O'Neil, A. 2009. Nuclear Weapons and Non-proliferation: Is Restraint Sustainable. *Security Challenges*, 5(4): 39-57.

- Orlov, V. and Vinnikov, A., 2005. The great guessing game: Russia and the Iranian nuclear issue. *The Washington Quarterly*, 28(2): 49-66.
- Ozkan, M. 2010. Turkey–Brazil Involvement in Iranian Nuclear Issue: What Is the Big Deal?. *Strategic Analysis*, 35(1): 26-30.
- Pape, R. A. 1997. Why Economic Do Not Work. *International Security*, 22(2): 90-136.
- Pape, R. A. 1998. Why Economic Sanctions Still Do Not Work. *International Security*, 23(1): 66-77.
- Parsi, T. 2005. Israel-Iranian relations assessed: Strategic competition from the power cycle perspective. *Iranian Studies*, 38(2): 247-269.
- Pillar, P., Reardon, R., Sebenius, J. and Singh, M. 2020. Nuclear Negotiations with Iran. *International Security*, 38(1): 174-192.
- Powell, R. 1991. Absolute and Relative gains in the International Relations Theory. *The American Political Science Review*. 85(4): 1303-1320.
- Proctor, K. 2015. *Carr Vs Morgenthau On Political Realism*. [online] E-International Relations. Available: <https://www.e-ir.info/2015/01/06/carr-vs-morgenthau-on-political-realism/> [2 August 2020].
- Rasmussen, K. B. 2009. The Foreign Policy of Iran: Ideology and pragmatism in the Islamic Republic. *Danish Institute for International Studies*, 1-6.
- Rauchhaus, R. 2009. Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach. *The Journal of Conflict Resolution*. 53(2): 258 – 277
- Reardon, R. 2012. *Containing Iran: Strategies For Addressing The Iranian Nuclear Challenge*. Santa Monica: Rand Corporation.
- Regencia, T. 2019. *Iran: Supreme Leader's Legacy Debated 30 Years After His Death*. [online] Aljazeera.com. Available: <https://www.aljazeera.com/indepth/features/iran-supreme-leader-legacy-debated-30-years-death-190603114341431.html> [5 July 2020].
- Rogers, P. 2000. *Losing Control: Global Security*. 2nd ed. London: Pluto Press.
- Rubin, A. 2019. Iran Tries to Expand Business in Iraq to Blunt US Sanctions. [online] *Nytimes.com*. Available: <https://www.nytimes.com/2019/03/11/world/middleeast/iran-iraq-rouhani.html> [19 Aug. 2019].
- Sabga, P. 2020. *Nuclear Gulf: Is Saudi Arabia Pushing Itself Into A Nuclear Trap?*[online] Aljazeera.com. Available: <https://www.aljazeera.com/economy/2020/7/21/nuclear-gulf-is-saudi-arabia-pushing-itself-into-a-nuclear-trap> [20 October 2020].
- Sagan, S. 1994. The Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons. *International Security*, 18(4): 66.

- Sagan, S. 1996/7. Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb. *International Security*. 21(3): 54.
- Sagan, S., Waltz, K. & K. Betts. 2007. A Nuclear Iran: Stability or Courting Disaster? *Journal of International Affairs*. 60(2): 135-150.
- Sanders, B. 1987. Nuclear non-proliferation issues: The International Context. *Strategic Studies*, 10(4): 46-49.
- Santini, R. H. 2010. European Union discourses and practices on the Iranian nuclear programme. *European Security*, 19(3): 467-489.
- Sick, G. 1989. Trial by Error: Reflections on the Iran-Iraq War. *The Middle East Journal*, 43(2): 230-245.
- Snyder, G. 2002. Mearsheimer's World—Offensive Realism and the Struggle for Security: A Review Essay. *International Security*, 27(1):149-173.
- Snyder, J. 1991. *Myths of Empire: Domestic Politics and International Ambition*. Ithaca: Cornell University Press.
- Sokolski, H. D. 2016. Should we let the Bomb Spread? *Strategic Studies Institute*, xiii-xx.
- Statista. 2020. Iran - Unemployment Rate 1999 To 2019 | Statista. [online] Available: <https://www.statista.com/statistics/294305/iran-unemployment-rate/> [19 August 2020].
- Statista. 2020. Iran: Inflation Rate 1984-2018 | Statista. [online] Available: <https://www.statista.com/statistics/294320/iran-inflation-rate/> [19 August 2020].
- Stern, M. 1984. The Iran-Iraq War. *Foreign Affairs*, 63(1): 128-143.
- Summit, J. R. 2004. For a White Revolution: John F. Kennedy and the Shah of Iran. *Middle East Journal*, 58(4): 560-575.
- Sun.ac.za. 2020. *DESC Process*. [online] Available: <http://www.sun.ac.za/english/research-innovation/Research-Development/desc-process> [2 June 2020].
- Sundberg, C. 2019. The Defensive Iran: Rethinking Realism in the Case of Iran's Nuclear Programme. [online] *E-International Relations*. Available: <https://www.e-ir.info/2013/08/10/the-defensive-iran-rethinking-realism-in-the-case-of-irans-nuclear-programme/> [19 Aug 2019].
- Takeyh, R. 2003. Iran's Nuclear Calculations. *World Policy Journal*. 20(2): 21-28.
- Takeyh, R. 2004/5. Iran builds the bomb. *Survival*. 46(4): 51-63.
- Takeyh, R. 2010. The Iran-Iraq War: A Reassessment. *The Middle East Journal*, 64(3): 365-38.
- Taliaferro, J. 2000/2001. Security Seeking under Anarchy: Defensive Realism Revisited. *International Security*, 25(3): 128-161.

- Tang, S. 2009. The Security Dilemma: A Conceptual Analysis. *Security Studies*, 18(3): 587-623.
- Treviño, R. 2013. Is Iran an Offensives Realist or a Defensive Realist? A Theoretical Reflection on Iranian Motives for Creating Instability. *Journal of Strategic Security*, 382-392.
- Turak, N. 2019. Iran Shoots Down American Drone In International Airspace In 'Unprovoked Attack,' US Says. [online] CNBC. Available: <https://www.cnbc.com/2019/06/20/us-drone-shot-down-by-iranian-missile-in-international-airspace.html> [16 March 2020].
- Turak, N. 2020. *A Biden Administration Wants The Iran Nuclear Deal Back. That Could Be Much Harder And Riskier Now.* [online] CNBC. Available: <https://www.cnbc.com/2020/11/25/biden-may-want-irans-nuclear-deal-back-thats-harder-and-riskier-now.html> [8 December 2020].
- Un.org. *Nuclear Weapons – UNODA.* [online] Available: <https://www.un.org/disarmament/wmd/nuclear/> [2 June 2020].
- Un.org. *Treaty On The Non-Proliferation Of Nuclear Weapons (NPT) – UNODA.* [online] Available: <https://www.un.org/disarmament/wmd/nuclear/npt/> [6 July 2020].
- van Bergeijk, P. 2015. Sanctions Against Iran – A Preliminary Economic Assessment. On Target?: EU Sanctions as security policy tools. *European Union Institute for Security Studies (EUISS)*, 49 - 56.
- Walker, T. C. & Jeffery, M. S. 2005. Re-Assessing the "Power of Power Politics" Thesis: Is Realism Still Dominant? *International Studies Review*, 7(2): 341-356.
- Wallander, C. A. 2013. Mutually Assured Stability: Establishing US-Russia Security Relations for a New Century. *Atlantic Council*, 1-8.
- Walt, S. 1998. International Relations: One World, Many Theories. *Foreign Policy*, (110): 29.
- Waltz, K. 1979. *Theory of international politics.* Long Grove [Illinois, Estados Unidos]: Waveland Press.
- Waltz, K. 1990. Nuclear Myths and Political Realities. *The American Political Science Review*, 84(3): 731-745.
- Waltz, K. 2012. Why Iran should get the Bomb: Nuclear Balancing Would Mean Stability. *Foreign Affairs*, 91(4): 2-5.
- Wintour, P., 2020. *UK, France And Germany Discuss Working With Joe Biden On Iran Nuclear Deal.* [online] the Guardian. Available: <https://www.theguardian.com/world/2020/nov/23/uk-france-and-germany-discuss-working-with-joe-biden-on-iran-nuclear-deal> [28 November 2020].

Wohlforth, W. 1994. Realism and the End of the Cold War. *International Security*, 19(3): 91.

World-nuclear.org. 2020. *Nuclear Fuel Cycle Overview - World Nuclear Association*. [online]

Available: <https://www.world-nuclear.org/information-library/nuclear-fuel-cycle/introduction/nuclear-fuel-cycle-overview.aspx> [5 July 2020].

Yin, R. 1993. *Case Study Research: Design And Methods*. 2nd ed. London: Sage Publication.

Interviews

Masoud, Fahim. Interview conducted on 10 October 2020.

Deen, Ebrahim. Interview conducted on 6 November 2020.

Onderco, Michal. Interview conducted on 18 February 2021.

Pretorius, Joelien. Interview conducted on 19 February 2021.

van Wyk, Ann-Mart. Interview conducted on 23 February 2021.