DIPLOMACY AND COERCIVE CREDIBILITY: UNITED STATES OF AMERICA'S POLICY INSTRUMENTS TOWARD IRAN'S NUCLEAR PROGRAMME, 2002–2022

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Abstract

Research Problem: *U.S. policy toward Iran's nuclear programme presents a recurring puzzle in coercive diplomacy: Successive administrations pursued the same broad objective of preventing Iran's nuclear weapons capability but adopted different combinations of sanctions, diplomacy and coercive pressure.*
Methods/Theory: *The study applies qualitative process tracing and draws on coercive diplomacy theory, sanctions scholarship and credibility literature to compare U.S. policy instruments under the Bush, Obama, Trump and Biden administrations between 2002 and 2022.*
Results: *The findings show that sanctions produced limited restraint when deployed mainly as open-ended pressure, as seen in President Bush approach. Under President Obama, sanctions gained bargaining value because they were linked to sustained diplomacy and a credible route to sanctions relief, culminating in the Joint Comprehensive Plan of Action. By contrast, President Trump's withdrawal from the agreement weakened U.S. credibility and coincided with renewed Iranian nuclear advancement. President Biden's re-engagement efforts were constrained by this damaged bargaining environment.*
Conclusion: *Sanctions are more likely to influence strategic behaviour when they are connected to credible diplomatic commitments, realistic demands and politically achievable relief.*
Key Contribution to Knowledge: *The article refines sanctions and coercive diplomacy scholarship by showing that sequencing and credibility, rather than economic pressure alone, shape coercive effectiveness.*
Recommendation: *Future non-proliferation policy should combine calibrated pressure with durable diplomatic off-ramps and institutional safeguards against abrupt policy reversal.*

INTRODUCTION

U.S. policy toward Iran's nuclear programme presents a recurring problem in coercive diplomacy. Similar strategic objectives have produced different instruments, different bargaining conditions and different outcomes across successive administrations. Since the 2002 disclosure of undeclared nuclear facilities at Natanz and Arak, the United States has treated Iran's nuclear activities as a major challenge to regional security, nuclear non-proliferation and U.S. strategic interests(International Crisis Group, 2022)Although the objective of preventing Iran from acquiring nuclear weapons capability remained broadly consistent, the instruments used to pursue that objective shifted considerably between 2002 and 2022.

Under President George W. Bush, U.S. policy was shaped by post-9/11 security assumptions, coercive pressure and diplomatic isolation. Iran was framed as part of a wider proliferation and terrorism threat, and the U.S. supported escalating sanctions through unilateral and multilateral channels (Bush, 2002). Under President Barack Obama, the United States retained strong sanctions pressure but placed it within a more sustained diplomatic framework. This approach created a negotiated pathway that eventually produced the Joint Comprehensive Plan of Action (JCPOA), under which Iran accepted limits on enrichment, stockpile size and monitoring arrangements in exchange for phased sanctions relief (Parsi, 2017; IAEA, 2018). President Donald Trump reversed this approach by withdrawing from the JCPOA in 2018 despite repeated verification of Iranian compliance by the International Atomic Energy Agency (IAEA). His administration then reimposed sweeping sanctions under a maximum pressure strategy. President Joe Biden later attempted to restore elements of the agreement, but his administration faced a more difficult bargaining environment shaped by Iranian nuclear advances, domestic political constraints in the United States and reduced Iranian confidence in the durability of U.S. commitments (Vaez&Sadjadpour, 2023; Beasley &Mehvar, 2025)

This variation raises a central analytical puzzle. If the United States pursued the same broad non-proliferation objective across administrations, why did similar coercive instruments produce different outcomes? Sanctions were used under each administration, but their political meaning changed depending on whether they were linked to credible diplomacy, achievable demands and reliable promises of relief(Nephew, 2018; Davenport, 2021). In some periods, sanctions functioned mainly as pressure. In others, they became bargaining leverage because Iran could identify a possible route from compliance to economic and diplomatic benefit(George, 1991; Nephew, 2018)

The existing literature on sanctions and coercive diplomacy offers competing explanations for this problem. Some scholars view economic sanctions as instruments of statecraft that can alter the target state's cost-benefit calculations, especially when sanctions are broad, coordinated and sustained (Hufbauer et al., 2007). Other scholars argue that sanctions rarely compel major concessions where the disputed issue is tied to regime legitimacy, sovereignty or core security interests (Pape, 1997). Coercive diplomacy theory adds a further insight: pressure alone is rarely sufficient. For coercion to produce negotiated restraint, the target must believe that compliance will lead to a better political outcome than continued resistance (Schelling, 1966; George, 1991). This makes credibility, sequencing and diplomatic off-ramps central to the analysis of U.S. policy toward Iran.

This article argues that the effectiveness of U.S. policy instruments toward Iran depended less on sanctions intensity alone than on the relationship between pressure and diplomacy. Sanctions were more likely to influence Iranian behaviour when they were connected to credible diplomatic engagement and realistic pathways to sanctions relief (Nephew, 2018; Richards, 2015). Conversely, when sanctions appeared to operate as open-ended punishment or as a substitute for diplomacy, they produced weaker restraint and, in some periods, contributed to escalation. The Iran case therefore shows that economic coercion is not an independent tool whose effects can be measured only by the severity of economic pain imposed. Its effectiveness depends on how the target state interprets the purpose, credibility and reversibility of the pressure(Sinovets&Gergiieva, 2020; Vaez&Sadjadpour, 2023).

This article examines this argument through a qualitative process-tracing analysis of four U.S. administrations: Presidents Bush, Obama, Trump and Biden from (2002-2022). These administrations provide a useful within-case comparison because the strategic object remained broadly consistent while the policy instruments and sequencing strategies varied(George & Bennett, 2005; Yin, 2018). The Bush period (2001-2009) illustrates coercive multilateralism with limited diplomatic reassurance. The Obama period (2009-2017) shows how sanctions could be converted into bargaining leverage when paired with sustained diplomacy and a credible offer of relief. The Trump period (2017-2021) demonstrates how maximum pressure after withdrawal from a negotiated agreement damaged U.S. credibility and weakened the bargaining function of sanctions. The Biden period (2021-2025) shows how credibility losses can persist across administrations and complicate diplomatic restoration(Beasley &Mehvar, 2025).

The article contributes to sanctions theory, coercive diplomacy and foreign policy analysis in three ways. First, it clarifies why sanctions intensity alone cannot explain variation in policy outcomes. In addition, it shows how sequencing shapes the bargaining value of coercive pressure. Lastly, it demonstrates that credibility is not only an immediate diplomatic asset but also an institutional condition that can be damaged by policy reversal. These findings have wider implications for non-proliferation diplomacy, especially where sanctions are used against states that treat contested programmes as matters of sovereignty and national security (Fitzpatrick, 2013; Tannenwald, 2018)

The article proceeds in five main sections. The first presents the statement of the problem and research objectives. The second reviews the literature on sanctions, economic statecraft, coercive diplomacy, credibility and sequencing. In addition, it explains the qualitative process-tracing methodology and the basis for comparing four U.S. administrations. Furthermore, the article discusses the findings across the Bush, Obama, Trump and Biden periods. The final sections draw comparative lessons, present policy recommendations and conclude by reflecting on the implications for future non-proliferation strategy.

STATEMENT OF THE PROBLEM

The central problem addressed in this study is not simply that the United States used sanctions against Iran, but that similar strategic concerns produced different policy instruments and different outcomes across successive administrations. Between 2002 and 2022, the United States consistently treated Iran's nuclear programme as a non-proliferation and security

challenge. Yet the policy response moved from coercive multilateralism under President George W. Bush, to sanctions-linked diplomacy under President Barack Obama, to unilateral maximum pressure under President Donald Trump, and later to constrained diplomatic re-engagement under President Joe Biden.

This variation creates a major analytical problem for the study of sanctions and coercive diplomacy. If sanctions are assumed to work mainly by increasing economic pressure, then stronger sanctions should be expected to produce stronger restraint. The Iran case complicates that assumption. Severe pressure under the Bush and Trump administrations did not produce the same outcome as the Obama administration's approach, even though all three administrations relied on sanctions in different forms. This suggests that the effect of sanctions cannot be explained by intensity alone. Their influence depends on how they are sequenced with diplomacy, how the target state interprets their purpose, and whether compliance is linked to credible political or economic relief.

Existing debates on economic sanctions often focus on whether sanctions work or fail. This binary framing does not fully explain the Iran case. The more important question is under what conditions sanctions become bargaining leverage rather than open-ended punishment. In the Iranian nuclear dispute, sanctions were not applied in a political vacuum. They interacted with questions of national sovereignty, regime legitimacy, nuclear rights, regional security and trust in U.S. commitments. These factors shaped whether Tehran viewed sanctions as negotiable pressure or as evidence of permanent hostility.

The problem is sharpened by the reversal of the Joint Comprehensive Plan of Action. The Obama administration's diplomatic model linked Iranian nuclear restraint to sanctions relief and international monitoring. The Trump administration's withdrawal from the agreement altered the credibility of future U.S. assurances, even after a change in administration. This created a wider bargaining problem: once an agreement is seen as reversible, future promises of relief become less persuasive. Biden's attempt to restore diplomacy therefore occurred under conditions of reduced trust and heightened political constraint.

This study addresses the gap by examining how sanctions, diplomacy, credibility and sequencing interacted across four U.S. administrations. It argues that sanctions are more likely to produce restraint when they are embedded in a credible diplomatic framework with achievable off-ramps. Without such a framework, coercive pressure may impose economic costs without generating durable compliance. The problem therefore requires analysis not only of sanctions as instruments of pressure, but also of the diplomatic conditions that make pressure politically effective.

AIM AND OBJECTIVES

The aim of this study is to examine how sanctions, diplomacy, sequencing and credibility shaped the effectiveness of U.S. policy instruments toward Iran's nuclear programme between 2002 and 2022. Specifically, the study analyses the evolution of U.S. policy instruments toward Iran's nuclear programme across the Bush, Obama, Trump and Biden administrations. It examines how sanctions were combined with, separated from, or substituted for diplomatic engagement across the four administrations. It also assesses how diplomatic off-ramps, sanctions relief mechanisms and the credibility of commitments influenced Iranian responses. In addition, the study compares the outcomes of coercive pressure under different sequencing models, including sanctions without

diplomacy, sanctions linked to diplomacy, maximum pressure after diplomatic withdrawal, and constrained diplomatic re-engagement. The broader purpose is to draw implications for sanctions theory, coercive diplomacy and future non-proliferation policy.

LITERATURE REVIEW

Sanctions and Economic Statecraft

Economic sanctions occupy a central place in the study of international relations because they allow states to exert pressure without immediately resorting to military force (Baldwin, 1985; Drezner, 2021).As instruments of economic statecraft, sanctions are designed to alter the behaviour of a target state by restricting access to trade, finance, investment, technology, energy markets or international institutions. In principle, sanctions work by raising the cost of non-compliance and changing the target state's calculation of political risk. In practice, their effectiveness remains one of the most contested questions in foreign policy analysis (Early, 2015; Nephew, 2017).

Early scholarship on economic statecraft treated sanctions as coercive instruments capable of influencing adversarial behaviour when properly designed and sustained. Baldwin (1985) viewed economic statecraft as part of a wider repertoire of political influence, not merely as a substitute for war. Hufbauer, Schott and Elliott (2007) similarly argued that sanctions can contribute to policy change under specific conditions, particularly where objectives are limited, coalitions are broad, and the target state faces meaningful economic vulnerabilities. This perspective does not claim that sanctions always work. Rather, it suggests that sanctions may become effective when they are targeted, coordinated and linked to attainable policy demands.

A more sceptical body of scholarship questions this assumption. Pape (1997) argued that sanctions are often credited with success even where other factors, such as military threats, diplomatic negotiations or domestic political changes, may have been more decisive. From this perspective, sanctions rarely compel major concessions where the issue at stake is tied to sovereignty, regime survival or national security. Drezner (1999) also showed that sanctions can generate resistance when target governments interpret external pressure as hostile, indefinite or politically humiliating. This sceptical view is relevant to the Iranian nuclear case because Iran has repeatedly framed nuclear development as a sovereign right and a symbol of technological independence (Tabatabai, 2020; Vaez&Sadjadpour, 2023).

The debate between sanctions optimism and sanctions scepticism is useful but incomplete. It often treats sanctions as if their effects can be judged mainly by economic severity. The Iran case suggests a more complex relationship. Sanctions imposed during the Bush, Obama and Trump administrations all exerted pressure, but they did not produce the same political outcome(Nephew, 2017; Katzman, 2021; Vaez&Sadjadpour, 2023).This variation indicates that sanctions intensity alone cannot explain policy effectiveness. The more important question is how sanctions are embedded in a wider diplomatic and strategic framework. Sanctions may impose pain, but they become bargaining leverage only when the target state believes that compliance can produce credible relief(George, 1991; Schelling, 1966; Nephew, 2017).

Sanctions, Diplomacy and the Iranian Nuclear Case

Iran provides a useful case for examining the conditions under which sanctions influence state

behaviour. Since the disclosure of undeclared nuclear facilities in 2002, the Iranian nuclear programme has been linked to questions of regional security, non-proliferation, domestic legitimacy and national sovereignty(IAEA, 2003). These conditions make the case analytically important because sanctions were not applied to a routine policy dispute. They were applied to a programme that Iranian leaders presented as central to national dignity, scientific progress and strategic autonomy.

The Bush administration relied heavily on coercive pressure and diplomatic isolation. Its approach helped expand multilateral sanctions, but it offered limited reassurance that Iranian compliance would lead to a durable political settlement(Katzman, 2021; Fitzpatrick, 2013).The Obama administration retained severe sanctions pressure but altered its political function by linking pressure to negotiation. Sanctions became part of a diplomatic bargain in which Iranian nuclear restraint could be exchanged for phased sanctions relief (Parsi, 2017; Samore, 2015).

The Trump administration then withdrew from the Joint Comprehensive Plan of Action and reimposed maximum pressure, thereby changing the meaning of U.S. sanctions from enforcement of a negotiated bargain to pressure after the abandonment of one. The Biden administration inherited this damaged bargaining environment and attempted diplomatic restoration under reduced trust(International Crisis Group, 2022; Vaez&Sadjadpour, 2023).

This sequence shows why the Iran case cannot be explained through sanctions severity alone. The same broad instrument operated differently depending on whether it was linked to diplomacy, whether relief appeared credible, and whether previous commitments were treated as durable. In this sense, Iran is not only a case of sanctions pressure. It is also a case of bargaining credibility(George, 1991; Pillar, 2015).

Coercive Diplomacy and Diplomatic Off-Ramps

Coercive diplomacy provides a useful theoretical lens for understanding why pressure sometimes produces negotiation and sometimes produces resistance. Coercive diplomacy differs from punishment alone because it combines threats with inducements. The target state must understand not only the cost of refusal but also the benefit of compliance. Schelling (1966)Art & Cronin (2003) argued that coercion depends on both pressure and assurance: the adversary must believe that changing behaviour will improve its situation. Nephew (2017) similarly emphasised that coercive diplomacy requires clear demands, credible threats, proportional pressure and a realistic chance of negotiated settlement.

This logic is central to the Iranian nuclear case. Sanctions that impose costs without a credible diplomatic exit may harden resistance because the target state has little reason to believe that compliance will produce meaningful relief. By contrast, sanctions linked to clear, achievable and verifiable demands may become bargaining leverage. The concept of a diplomatic off-ramp is therefore important. In this study, a diplomatic off-ramp refers to a credible pathway through which Iranian compliance could lead to sanctions relief, reduced pressure or negotiated accommodation.

The Obama administration's approach reflected this coercive diplomacy logic more clearly than the Bush or Trump approaches. Sanctions were not abandoned, but they were connected to negotiations and phased relief. This

connection gave Iran a politically recognisable route from nuclear restraint to economic benefit(Parsi, 2017; Samore, 2015). The Trump administration's maximum pressure strategy weakened this logic because sanctions were reimposed after the United States left an agreement that Iran was reported to have observed under international monitoring. The issue was therefore not only economic pressure. It was also whether Iran could trust that restraint would be rewarded(IAEA, 2018; Davenport, 2021).

Credibility, Commitment and Policy Reversal

Credibility is a central condition in international bargaining. States are unlikely to make costly concessions if they doubt that the promised benefits will materialise or endure. In the context of sanctions, credibility refers to the target state's belief that compliance will lead to actual relief and that the sanctioning state will honour its commitments over time. Without such confidence, sanctions may lose their bargaining function and become interpreted as permanent hostility(George, 1991; Pillar, 2015).

The Joint Comprehensive Plan of Action illustrates this problem. The agreement placed limits on Iran's enrichment level, uranium stockpile and centrifuge activity while expanding international monitoring. In return, Iran expected sanctions relief and partial economic reintegration. The agreement therefore depended not only on technical compliance but also on political durability. When the Trump administration withdrew from the JCPOA despite repeated verification of Iranian compliance by the International Atomic Energy Agency, the credibility of U.S. commitments became a central issue for future bargaining(IAEA, 2016; IAEA, 2018).

This credibility problem did not end with the Trump administration. Biden's attempt to revive diplomacy faced a more difficult environment because Iranian negotiators had already seen that a U.S. administration could leave an agreement without a clear Iranian violation. This made future sanctions relief less persuasive unless accompanied by guarantees against another reversal. The problem, therefore, was institutional as well as diplomatic. A state may negotiate with an administration, but it also evaluates whether the wider political system can sustain the agreement(International Crisis Group, 2022; Vaez&Sadjadpour, 2023).

Credibility also shapes the meaning of sanctions sequencing. Sanctions introduced before negotiations may create leverage if the target state sees them as conditional and reversible. Sanctions imposed after withdrawal from an agreement may have the opposite effect, because they suggest that compliance does not protect the target from renewed pressure. This distinction is central to the present study. Sanctions cannot be evaluated only by when they were imposed or how severe they were. They must also be assessed by how they were interpreted within the history of prior commitments.

Sequencing and Policy Outcomes

Sequencing refers to the order in which coercive and diplomatic instruments are introduced, intensified, suspended or reversed. In the Iranian nuclear case, sequencing shaped the political meaning of U.S. policy(George, 1991; Schelling, 1966).The Bush administration increased pressure before establishing a credible diplomatic route. The Obama administration used pressure and diplomacy together, allowing sanctions to become part of a negotiated exchange. The Trump administration withdrew from diplomacy before reimposing severe

sanctions. The Biden administration then attempted re-engagement after trust had already been weakened (Katzman, 2021; International Crisis Group, 2022).

These sequencing patterns created different policy outcomes. Under President Bush, sanctions increased pressure but did not produce major nuclear restraint. Under President Obama, sanctions and diplomacy together produced the JCPOA and verifiable limits on Iran's programme. Under President Trump, maximum pressure did not produce a broader agreement and coincided with renewed Iranian nuclear advances. Under President Biden, diplomatic re-engagement was constrained by disputes over sanctions relief, future guarantees and the political cost of compromise(IAEA, 2021; Vaez&Sadjadpour, 2023)

The implication is that sanctions are not self-executing instruments. Their effects depend on their timing, purpose and relationship to diplomacy. Pressure imposed without a credible exit may communicate hostility. Pressure linked to achievable demands may communicate bargaining seriousness. Pressure applied after abandoning an agreement may communicate unreliability. These distinctions help explain why similar instruments can produce different outcomes across administrations.

METHODOLOGY

This study adopts a qualitative process-tracing design to examine the evolution of U.S. policy instruments toward Iran's nuclear programme between 2002 and 2022. Process tracing is appropriate because the study seeks to identify how sanctions, diplomacy, coercive pressure and credibility interacted over time to produce different policy outcomes (George & Bennett, 2005; Yin, 2018). Rather than treating sanctions as isolated instruments, the method allows the analysis to follow the sequence through which policy choices were introduced, justified, intensified, reversed or linked to diplomatic bargaining.

The study uses a within-case comparative approach. Iran is selected as the case because the United States maintained a broadly consistent strategic objective across the period under review: preventing Iran from acquiring nuclear weapons capability. At the same time, successive U.S. administrations adopted different policy instruments and sequencing strategies. This combination of strategic continuity and policy variation makes the case suitable for assessing how coercive and diplomatic instruments operate under changing political conditions(George & Bennett, 2005; Beach & Pedersen, 2019).

The analysis compares four U.S. administrations: George W. Bush, Barack Obama, Donald Trump and Joe Biden. These administrations represent distinct sequencing models. The Bush administration illustrates sanctions and coercive pressure with limited diplomatic reassurance. The Obama administration represents sanctions integrated with structured diplomacy and credible sanctions relief. The Trump administration reflects maximum pressure after withdrawal from a negotiated agreement. The Biden administration represents constrained diplomatic re-engagement under conditions of reduced credibility and increased strategic distrust.

The study relies on publicly available documentary and secondary sources. These include International Atomic Energy Agency verification reports, U.S. presidential statements, national security strategy documents, sanctions legislation, United Nations Security Council resolutions, scholarly literature on sanctions and coercive diplomacy, and economic data on

sanctions impacts where relevant. The use of these sources allows the study to examine both official policy positions and observable policy outcomes. IAEA reports are used to assess compliance-related claims and nuclear monitoring issues. U.S. government documents and presidential statements are used to identify official policy framing. United Nations Security Council resolutions and sanctions legislation are used to trace the development of the sanctions architecture. Scholarly sources are used to interpret the evidence through sanctions theory, coercive diplomacy and credibility literature.

The analytical procedure followed four stages. First, the study identified major policy decisions, sanctions measures, diplomatic initiatives and nuclear-related developments within each administration. In addition, each administration was assessed using common analytical indicators: sanctions intensity, diplomatic engagement, availability of diplomatic off-ramps, credibility of U.S. commitments and observable Iranian policy response. Furthermore, the study compared the four administrations to determine how different combinations of pressure and diplomacy shaped policy outcomes. Lastly, the findings were interpreted against the theoretical expectations of sanctions scholarship, coercive diplomacy theory and credibility literature.

The study does not claim to provide a comprehensive explanation of Iranian domestic decision-making. Domestic political developments in Iran, factional competition, leadership changes and economic pressures influenced Iran's negotiating behaviour, but they are considered only where they directly affect the interpretation of U.S. policy instruments. The primary focus remains on how U.S. sanctions, diplomacy and coercive pressure were sequenced and perceived across administrations.

Theoretical Framework

This study draws on sanctions theory, coercive diplomacy and credibility literature to develop an analytical framework for comparing U.S. policy toward Iran across four administrations. The framework rests on five indicators: sanctions intensity, diplomatic engagement, availability of off-ramps, credibility of commitments and observable Iranian policy response.

Sanctions intensity refers to the scope and severity of economic restrictions imposed on Iran's financial, energy, trade, military or nuclear-related sectors(Baldwin, 1985; Hufbauer et al., 2007; Nephew, 2017). Diplomatic engagement refers to the presence, depth and seriousness of negotiation channels between the United States, Iran and relevant international partners(George, 1991; Keohane, 1984). Diplomatic off-ramps refer to clear and credible routes through which Iranian compliance could produce sanctions relief or political accommodation(George, 1991). Credibility of commitments refers to Iran's likely assessment of whether U.S. promises, agreements and relief mechanisms would endure beyond immediate political circumstances(Fearon, 1997). Observable Iranian policy response refers to changes in enrichment activity, negotiation behaviour, compliance with monitoring arrangements or willingness to accept negotiated limits(George & Bennett, 2005; Yin, 2018; International Atomic Energy Agency, 2016, 2021).

This framework allows the study to move beyond a simple judgement on whether sanctions worked or failed. It examines how sanctions acquired different meanings under different diplomatic conditions. The central proposition is that sanctions are more likely to contribute to restraint when they are integrated

into credible diplomatic bargaining. Where sanctions are detached from diplomacy, or where previous commitments are reversed, coercive pressure may impose costs without producing durable compliance.

The theoretical framework therefore links three strands of scholarship. Sanctions theory explains the role of economic pressure. Coercive diplomacy explains why pressure requires credible inducements. Credibility literature explains why the durability of commitments affects future bargaining. Together, these perspectives provide the basis for analysing U.S. policy toward Iran between 2002 and 2022.

DISCUSSION OF FINDINGS

The findings are organised around four U.S. administrations: George W. Bush, Barack Obama, Donald Trump and Joe Biden. Each administration is examined through the same analytical indicators: sanctions intensity, diplomatic engagement, availability of diplomatic off-ramps, credibility of U.S. commitments and observable Iranian policy response. This structure allows the study to compare not only the sanctions imposed on Iran, but also the diplomatic conditions under which those sanctions were used. The evidence shows that sanctions did not operate as self-contained instruments. Their effect depended on whether Iran interpreted them as reversible bargaining pressure or as indefinite punishment.

Bush Administration: Coercive Multilateralism without Credible Off-Ramps

The Bush administration interpreted Iran's nuclear programme through the wider security assumptions of the post-9/11 period. The 2002 National Security Strategy emphasised pre-emption against emerging threats, while President Bush's "Axis of Evil" speech framed Iran as a hostile regime associated with terrorism and weapons proliferation (The White House, 2002; Bush, 2002). Within this policy environment, sanctions were treated mainly as instruments of pressure and isolation. The administration supported escalating United Nations sanctions, including UNSCR 1737, 1747 and 1803, which targeted Iranian nuclear entities, arms procurement, banking activities and related strategic sectors.

These measures increased international pressure on Iran, but they did not create a clear diplomatic route through which compliance could lead to political accommodation or sanctions relief(United Nations, 2006, 2007, 2008; Katzman, 2021). By 2008, Iran had continued enrichment activity and expanded parts of its nuclear infrastructure. The key problem was not the absence of pressure rather; it was the absence of a credible off-ramp. Iranian leaders had limited reason to believe that concessions would produce a durable settlement, especially when U.S. policy rhetoric suggested a broader concern with regime behaviour and regional influence(Takeyh, 2009; Pillar, 2015).

The Bush period therefore illustrates the limits of coercive pressure when it is not paired with credible diplomatic reassurance. Sanctions raised costs but did not sufficiently alter Iran's strategic calculation. From Iran's perspective, the measures could be interpreted less as conditional bargaining leverage than as open-ended pressure. This interpretation is consistent with the sanction'sscepticism advanced by Pape (1997), who argues that sanctions rarely compel major concessions when the disputed issue is linked to sovereignty or core security interests.

The administration also faced coalition-management constraints. Although the United States secured several United Nations resolutions, international partners did not

necessarily share the same assumptions about the ultimate purpose of pressure. Russia and China supported non-proliferation measures but remained cautious about policies that appeared to move toward regime-change logic. This uneven coalition cohesion limited the political weight of coercive multilateralism. The Bush approach therefore produced pressure without sufficient diplomatic credibility, making major Iranian restraint unlikely (Charap, 2015; Katzman, 2021).

Obama Administration: Sanctions Integrated with Diplomacy

The Obama administration inherited a substantial sanctions architecture but altered its strategic use. Instead of treating sanctions mainly as punishment, the administration linked pressure to negotiation. This shift was important because it changed the political meaning of sanctions. Economic restrictions became part of a bargaining structure in which Iranian nuclear restraint could be connected to phased sanctions relief.

The turning point came through a combination of intensified pressure and diplomatic engagement. Financial sanctions, including restrictions affecting Iran's access to international banking channels, placed serious strain on the Iranian economy(International Monetary Fund, 2020; Katzman, 2021). At the same time, secret discussions facilitated through Oman created a channel for exploring possible compromise before formal multilateral negotiations intensified. This sequencing mattered (Parsi, 2017; Burns, 2019). Sanctions pressure did not stand alone; it was accompanied by signals that relief was achievable through negotiated compliance.

The election of President Hassan Rouhani in 2013 created a more favourable political environment for negotiation, but domestic change in Iran does not fully explain the outcome. Sanctions had existed before President Rouhani without producing comparable concessions. The difference under Obama was that sanctions were linked to a credible diplomatic process. Negotiations produced the Joint Plan of Action in 2013 and later the Joint Comprehensive Plan of Action in 2015(Samore, 2015). Under the JCPOA, Iran accepted restrictions on enrichment level, uranium stockpile, centrifuge activity and international monitoring arrangements (IAEA, 2016).

The Obama case supports the logic of coercive diplomacy. Pressure influenced bargaining incentives, but diplomacy supplied the exit route. Iran could identify a pathway from nuclear restraint to economic relief and partial reintegration into international markets. This did not mean that sanctions alone produced the agreement. Rather, sanctions became effective because they were embedded in a wider diplomatic framework. The administration combined multilateral coordination, realistic negotiating objectives and credible sanctions relief. This made the pressure politically usable(Nephew, 2017; Parsi, 2017).

The Obama period therefore represents the clearest case in which sanctions functioned as bargaining leverage rather than permanent punishment. It also shows why sanctions effectiveness should not be judged by severity alone. The more important issue was whether the target state could see a credible connection between compliance and relief. In this respect, the JCPOA was not simply the product of economic pressure; it was the product of pressure converted into negotiation through credible sequencing.

Trump Administration: Maximum Pressure and Strategic Escalation

The Trump administration reversed the Obama approach by withdrawing from the JCPOA in May 2018 despite repeated IAEA verification of Iranian compliance (IAEA, 2018; Trump, 2018). The administration argued that the agreement did not adequately address ballistic missiles, sunset provisions and Iran's regional activities. Following withdrawal, it reimposed sweeping sanctions under a maximum pressure strategy targeting Iran's banking, energy, shipping and industrial sectors. In 2019, the Islamic Revolutionary Guard Corps was designated a Foreign Terrorist Organization.

Maximum pressure imposed substantial economic costs, particularly through restrictions affecting oil exports, financial transactions and wider macroeconomic stability (International Monetary Fund, 2020; Congressional Research Service, 2021). Yet the strategy did not produce a broader agreement on U.S. terms. Instead, Iran gradually moved beyond JCPOA limits, deployed advanced centrifuges and increased enrichment levels. By 2021–2022, Iran's enrichment activity had reached levels far beyond those permitted under the agreement (IAEA, 2021; Arms Control Association, 2022).

The Trump case demonstrates the difference between pressure and leverage. The administration increased sanctions intensity but weakened the diplomatic conditions that made sanctions politically effective (Nephew, 2017; Vaez & Sadjadpour, 2023). Once the United States withdrew from an agreement that Iran was reported to have observed under international monitoring, Iran had less reason to believe that future concessions would be rewarded. The issue was not only that sanctions became more severe. It was that the sanctions followed the abandonment of the bargain that had previously linked restraint to relief.

This sequencing damaged U.S. credibility. If Iran could comply with an agreement and still face renewed pressure after a change in U.S. administration, future assurances became less persuasive(IAEA, 2021; Congressional Research Service, 2024). The maximum pressure campaign therefore operated under a credibility deficit. Iranian leaders could interpret U.S. demands as requiring strategic surrender without reliable guarantees of normalisation. This outcome aligns with coercive diplomacy theory, which holds that pressure must be accompanied by reassurance if it is to produce negotiated restraint (George, 1991; Schelling, 1966).

The Trump administration's approach also illustrates the risk of using sanctions as open-ended punishment. Sanctions can impose economic pain, but pain alone does not necessarily produce policy change when the target state doubts the credibility of relief. In the Iranian case, maximum pressure coincided with nuclear escalation rather than negotiated restraint. This does not mean that sanctions had no effect. It means that their effect was not converted into a durable diplomatic outcome.

Biden Administration: Constrained Re-engagement under Damaged Credibility

The Biden administration entered office with the stated intention of pursuing a diplomatic restoration of the JCPOA framework. Indirect negotiations began in Vienna in 2021, but the bargaining environment had changed substantially. Iran's nuclear programme had advanced beyond the limits established in 2015, and mutual trust had deteriorated after the U.S. withdrawal from the agreement(International Crisis Group, 2022; Vaez&Sadjadpour, 2023).

Domestic political constraints in the United States also made full restoration more difficult.

The main disputes centred on sanctions relief sequencing, guarantees against future U.S. withdrawal and issues surrounding the designation of the Islamic Revolutionary Guard Corps. These disagreements show how credibility problems can persist beyond the administration that created them. President Biden could signal interest in diplomatic restoration, but Iran had reason to question whether any renewed agreement would survive another political change in the United States. The problem was therefore not only technical; it was institutional and political.

The Biden period illustrates the long-term consequences of policy reversal. Once diplomatic commitments appear reversible, bargaining becomes more difficult even when both sides recognise the cost of continued escalation. A restored agreement required not only technical compromise on enrichment, monitoring and sanctions relief, but also reassurance about durability. That reassurance was difficult to provide within a polarised U.S. political system(Congressional Research Service, 2024).

This finding supports the article's wider argument that credibility is not a temporary diplomatic asset. It is a structural condition that shapes future negotiations. The Biden administration inherited sanctions pressure, but it also inherited the credibility damage associated with withdrawal from the JCPOA. As a result, sanctions could not easily regain their earlier bargaining function. Continued pressure existed alongside diplomacy, but the off-ramp was less credible than it had been during the Obama period.

The Biden case therefore completes the comparative pattern. President Bush showed the limits of pressure without credible reassurance. Obama showed how pressure could become leverage when tied to diplomacy. President Trump showed how withdrawal from diplomacy could damage credibility and reduce the bargaining value of sanctions. President Biden showed how that credibility damage could persist and constrain later diplomatic restoration.

Table 1: Comparative Summary of U.S. Policy Instruments toward Iran, 2002–2022

Table 1 summarises the comparative pattern across the four administrations.

Administration	Dominant Policy Instrument	Diplomatic Engagement	Credible Off-Ramp	Credibility Condition	Observable Iranian Response	Policy Outcome
Bush	Escalating sanctions and coercive multilateralism	Limited and cautious	Weak	Limited reassurance that compliance would produce durable relief	Continued enrichment activity and expansion of nuclear infrastructure	Pressure increased, but major restraint was limited
Obama	Severe sanctions linked to	Sustained, multilateral and	Strong	Sanctions relief was presented as	Acceptance of negotiated limits under	Verifiable nuclear restraint

	structured diplomacy	negotiation-oriented		achievable through verified compliance	the JCPOA	through a diplomatic agreement
Trump	Maximum pressure after JCPOA withdrawal	Weak and largely coercive	Very weak	U.S. withdrawal weakened confidence in future commitments	Movement beyond JCPOA limits and increased enrichment activity	Economic pressure intensified, but negotiated restraint weakened
Biden	Continued sanctions with indirect diplomatic re-engagement	Constrained and indirect	Uncertain	Prior U.S. withdrawal created doubts about agreement durability	Limited progress amid disputes over relief sequencing and guarantees	Diplomatic restoration remained difficult and incomplete

The comparison qualifies both sanctions optimism and sanctions scepticism. Sanctions did matter, but not simply because they imposed economic pain. They mattered when they altered bargaining incentives and when the target state could identify a credible route from compliance to benefit. At the same time, the Iran case supports sceptical arguments that pressure alone rarely compels major concessions on issues tied to sovereignty, security and regime legitimacy. The decisive issue is not whether sanctions work in general, but whether sanctions are connected to a believable diplomatic bargain.

The findings also refine coercive diplomacy theory. Coercion requires more than threats and costs. It requires reassurance that compliance will produce an improved political outcome. The Obama period illustrates this logic most clearly. The Bush and Trump periods show that pressure without credible reassurance may reinforce resistance. The Biden period shows that once credibility is damaged, later diplomacy must overcome not only technical disagreement but also institutional distrust.

CONCLUSION

This study examined how sanctions, diplomacy, sequencing and credibility shaped U.S. policy outcomes toward Iran's nuclear programme between 2002 and 2022. Although successive U.S. administrations pursued the broad objective of preventing Iran from acquiring nuclear weapons capability, they adopted different combinations of pressure and diplomacy. The comparison shows that sanctions intensity alone does not explain the variation in outcomes. What mattered more was whether sanctions were linked to credible diplomatic engagement, achievable demands and a believable route to relief.

The Bush administration demonstrated the limits of coercive pressure when it is not supported by credible diplomatic reassurance. Sanctions increased pressure on Iran but did not provide a clear pathway through which compliance could produce durable political accommodation. The Obama administration produced a different outcome because sanctions

were embedded in structured diplomacy and connected to phased relief under the Joint Comprehensive Plan of Action. In that context, pressure became bargaining leverage rather than open-ended punishment. The Trump administration reversed this logic by withdrawing from the JCPOA and reimposing maximum pressure. That sequence weakened U.S. credibility and reduced Iran's confidence that restraint would be rewarded. The Biden administration then inherited a more difficult bargaining environment in which diplomatic restoration was constrained by mistrust, Iranian nuclear advancement and domestic political limits in the United States.

The findings support a central conclusion: sanctions are more likely to contribute to strategic restraint when they operate within a credible diplomatic framework. Pressure may alter costs, but it does not automatically change behaviour. For sanctions to influence a target state's calculation, the state must believe that compliance will lead to meaningful, verifiable and durable benefit. Where sanctions appear indefinite or disconnected from a negotiated settlement, they may deepen resistance rather than produce compromise.

The study contributes to sanctions theory and coercive diplomacy scholarship by showing that the effectiveness of coercive instruments depends on sequencing and credibility. Sanctions cannot be assessed only by their severity or economic impact. They must also be assessed by their political function, the credibility of the relief offered, and the institutional durability of the commitments attached to them. The Iran case therefore refines both optimistic and sceptical accounts of sanctions. Sanctions can matter, but their effectiveness depends on whether they are embedded in a wider bargaining architecture.

For future non-proliferation policy, the implication is clear. Coercive pressure should be calibrated to achievable diplomatic objectives and supported by credible off-ramps. Agreements should also include stronger institutional safeguards to reduce the risk of abrupt reversal. Without such safeguards, sanctions may impose significant economic costs while weakening the trust required for negotiated restraint.

RECOMMENDATIONS

i. Future U.S. sanctions policy toward Iran and similar nuclear proliferation cases should be designed as part of an integrated diplomatic strategy rather than as an open-ended instrument of punishment. Sanctions may create pressure, but pressure alone is unlikely to produce durable restraint where the target state views the disputed programme as a matter of sovereignty, regime legitimacy or national security. Sanctions should therefore be linked to clear diplomatic objectives, realistic demands and verifiable conditions for relief.

ii. Sanctions should be calibrated to specific bargaining goals. Policymakers should avoid imposing pressure without clearly defining what behavioural change is required and what benefits will follow compliance. Where demands are too broad or politically unrealistic, sanctions may strengthen resistance rather than encourage negotiation.

iii. Coercive pressure should be accompanied by credible diplomatic off-ramps. A target state must be able to identify a practical route from compliance to relief. In the Iranian case, sanctions were most effective when nuclear restraint was connected to

phased sanctions relief, international monitoring and a negotiated framework. Future non-proliferation strategies should preserve this link between pressure and credible reward.

iv. The United States should strengthen the institutional durability of diplomatic commitments. Abrupt withdrawal from negotiated agreements weakens future bargaining credibility and makes later diplomacy more difficult. Where possible, nuclear agreements should include stronger domestic, legal or multilateral safeguards that reduce the risk of sudden reversal after a change in administration.

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