Strategic Stability – Conundrum, Challenge and Dilemma: The Case of India, China and Pakistan

Balraj Nagal

The strategic environment in South Asia and Northeast Asia has four nuclear weapon states, of which three (China, India and Pakistan) share problems by facts of geography, history, and ideological and power competition. China seeks to determine the contours and shape of future events in the region, with its economic and military power most likely to influence the region. India looks at economic growth based on its core values and security, and a peaceful environment, to assume its rightful place in the comity of nations. Pakistan, a revisionist state, and now a haven and nursery for terrorists, is in competition to emerge as a dominant power in the region and continues to follow policies to destabilise the region, even at the cost of hurting its own long-term national interest. Besides the direct dynamics, external influences impact the states in different ways, and all combined, these determine the strategic stability environment.

Strategic stability, a term coined during the Cold War, has not found universal definition: the adversarial global environment, conceptual thought processes and language interpretation added to the difficulty of arriving at an exact terminology. In spite of disagreeing on the specific

Lieutenant General **Balraj Nagal** (Retd) is Director, Centre for Land Warfare Studies, New Delhi.

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terms and definition, the broad meaning and connotation were generally understood and acknowledged by the erstwhile USSR and US during the Cold War. Russian and Chinese writings provide some insight into their thinking on the subject. The concept has undergone debate post the Cold War for various reasons, the primary one being the expansion of nuclear weapon states. Post-Cold War, the dynamics of strategic stability need to be analysed in a broader context—the components that comprise strategic stability, and applied effects.

Edward Warner, who served as the US Secretary of Defence's representative to the New Strategic Arms Reduction Treaty (New START) talks, has observed that the term "strategic stability" is used in three broad ways: most narrowly, strategic stability describes the absence of incentives to use nuclear weapons first (crisis stability) and the absence of incentives to build up a nuclear force (arms race stability); moreover, in describing absence of armed conflict between nuclear-armed states, most broadly, it portrays a regional or global security environment in which states enjoy peaceful and harmonious relations.[1] Perhaps more than any other issue, the threat of surprise attack was the catalyst to the line of thinking that ultimately led to the concept of strategic stability.[2] Strategic stability refers to the existence of conditions that make war between the major powers unlikely. Mutual trust, shared values, and common objectives can enhance strategic stability, but the most important requisite is mutual conviction that using military force will result in unacceptable retaliatory damage.[3]

The emergence of the strategic stability concept goes back to the first decade of the Cold War, and was interpreted at that time as mutual nuclear

deterrence (or Mutually Assured Destruction – MAD) with the view of avoiding a military conflict between the USSR and the US. Such deterrence was based on the assumption that even during a crisis, a preventive nuclear strike by one side would not give an advantage since the other side would anyway preserve a retaliatory strike capability under any circumstances of the beginning of the war. However, with the end of the Cold War and the advent of radically new geo-political, military and technical conditions, the concept of strategic stability began to expand under the influence of new challenges such as proliferation of missile technology, development of missile defence and conventional global prompt strike systems, and eventual deployment of space weapons. One of the modern and commonly accepted definitions of strategic stability is that strategic stability is a robust strategic nuclear balance that is maintained over a long period of time despite the impact of destabilising factors.[4]

One of the most important elements of ensuring strategic stability is the material basis for nuclear and non-nuclear deterrence.

In thinking about how to ensure strategic stability, we should consider the medium-term and long-term trends and development patterns of various weapon systems, as well as the dynamics of change in the following: international politics (including systemic and structural changes); developments in military theory; developments in military and political environments; the psychology of decision-makers; and a number of other factors. It is extremely important to understand the patterns associated with the technical evolution of military technologies and dual-use technologies. It is also important to identify the developmental cycles associated with different components of the parties' offensive and defensive strategic forces. Overall, strategic stability is a complex multi-political and multi-disciplinary problem that requires the constant attention of political and military leaders, national experts who research

national security issues, and scientists representing different fields.[5] One of the most important elements of ensuring strategic stability is the material basis for nuclear and non-nuclear deterrence. As academician Yuri Trutnev rightfully observes, "A material basis means the weapon system defines the doctrine that exists in reality as opposed to the declared doctrine." One vital condition for conducting an effective national security policy is the absence of a gap between what Trutnev defines as the real doctrine and the declared doctrine.[6]

Contextualising Strategic Stability

Strategic stability is a complex inter-disciplinary subject that has incorporated elements from the natural sciences and technical engineering. As a whole, however, it constitutes a subject of political science and political psychology. Integrated man-machine systems of intelligence, targeting, surveillance, communications, data processing, data analysis, command and control—as well as information-security systems that protect communications systems not only from foes but also from various internal fluctuations—all play increasingly important roles in all of this.[7] The proposition that offence and defence are inextricably connected in the realm of strategic stability was as true in the eyes of Russian policy-makers as the law of gravity, even though many in Washington see the sword the United States has, and the shield it is now building, as belonging to separate realms.[8]

During the Cold War, in order to handle US-Soviet relations on strategic weapons, security experts established a set of guiding principles that became known as the strategic stability theory or classic arms control theory. A core concept of classic arms control theory is strategic stability, which includes the two elements of crisis stability and arms race stability. The concept was used to investigate the influence of the balance of the strategic forces of both parties on the relationship between the two countries. During the Cold War and in the post-Cold

War era, important US-Soviet (Russian) negotiations, proposals and academic discussions of strategic weapons without exception made strategic stability the core guiding principle. However, the concept of strategic stability in classic arms control theory cannot be applied directly to the framework of China-US relations, the main reason being that the pattern of bipolar parity in the Cold War period has already become the past; at present, the pattern is one with a supremely dominant United States, so it is difficult for a concept built on strategic stability under a pattern of bipolar parity to describe the problem of stability under an asymmetric pattern. In 1998, Charles Glaser and others came out with a general theory of offence and defence that measures the influence of weapons patterns on strategic stability under general conditions. General offence-defence theory and classic arms control theory have the same theoretical basis, with both taking security as the goal (defensive realism) and materialised force structure as the basis for calculation (structural realism): both stipulate that cooperative security is attainable through arms.[9]

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The challenges to strategic stability include the development of ballistic missile defences, incapacitation of early warning or targeting or navigational systems, and breakthroughs in research and development that devalue existing nuclear weaponry systems. Cooperation between two states in a triangle destabilises the equation.[10] India and Pakistan are still researching the concept of strategic stability, however, writers, by and large, use the generic term derived from US think-tank literature.

The important deductions on strategic stability that emerge are: the concept is rooted in political science and political psychology,

developments in military theory, impacted by international politics and external influences. It implies, first, absence of incentive to conduct first strike nuclear attacks; second, assured second strike capability to deter first strikes and adequate retaliatory capability to cause unacceptable damage; third, survivability of the decision-making system; fourth, technical capabilities and technical engineering determine balance of forces; fifth, an arms race is detrimental to the concept; sixth, defensive measures are destabilising; seventh, political systems influence stability and decision-making, and developments in military and political environments influence strategic stability. In the broader context, strategic stability means absence of conflict between nuclear-armed states and at an even higher level, it could bring about peace and tranquillity in regions or in the world. Mutual trust, shared values, and common objectives can enhance strategic stability.

The complex situation in Asia is the result of ideological competition, territorial claims, past enmity, resources competition, conflict of interests, and perceived threats. China, quoting historical reasons or asserting new territorial claims, is now in adversarial relations with India, Japan, South Korea, Vietnam, Philippines and the US, and the dispute between China and Taiwan is a constant source of friction. The US has security cooperation arrangements with Japan, South Korea, Philippines and Taiwan[11] [12] [13], resulting in US presence in these countries besides the Pacific bases. The US' "Pivot to Asia" policy[14] has brought greater focus to the Western Pacific and East Asia. The security situation deteriorated with North Korea withdrawing from the nuclear Non-Proliferation Treaty (NPT) and conducting nuclear weapons and missile tests.[15] China's inability to rein in North Korea compounded the situation. China views all such arrangements and activities in a negative light. As a consequence, the region will witness increased deployment of military forces and political manoeuvring. The dyad between the US and China has repercussions for India. China, that seeks to be strong, will draw a reaction.

When evaluated in line with Chinese writing on strategic stability, it is clear that the Chinese will not consider India on the same plane as themselves. "First, a country in a position of nuclear superiority will convert this into a means for nuclear coercion (coercive privilege), which is approximate to crisis stability in classic arms control theory."[16] What is different is that where classic arms control theory assumes that strategic imbalance increases the danger of nuclear war, this article assumes that strategic imbalance leads to the increased danger of nuclear coercion.

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India-Pakistan-China: The Triangular Strategic Conundrum

India and Pakistan have unstable relations—the situation at times has deteriorated, to allow sceptics to criticise the decision of India and Pakistan to go nuclear and call into question the ability of the political leaders to manage crisis escalation, prevent an arms race, and ensure stability. The possibility of crisis escalation will continue to haunt the world if Pakistan does not stop the proxy war through terror against India. This dyad is also unstable by the fact of civil-military relations in Pakistan, where the military plays an unwelcome role in the affairs of the state. The Pakistan military's control of the nuclear facilities and weapons[17] where the civil government is not in the decision loop, is dangerous and conducive to instability in the region. The dual power centres that have worked at cross-purposes or in isolation, are capable of creating or escalating a crisis. In the near future, this dyad will remain unstable.

China and Pakistan maintained a close and friendly relationship, initially to China's advantage but later, a greater degree of benefit has been leveraged by Pakistan. The synergy and cooperation between the two provides Pakistan the necessary room to keep the situation in the subcontinent in turmoil and unstable without the consequences of being held accountable by the international community—the terror machine operating from its geographical area being only one example. To quote, Prime Minister Yousuf Raza Gilani had said that Sino-Pak friendship was "taller than mountains, deeper than oceans, stronger than steel and sweeter than honey",[18] and this was reciprocated by China in equal terms. The third arm of the triangle is opposed to India's interests, and the relationship is to India's disadvantage.

The Gulf region and the Indian Ocean are of interest to the US, China, India and Pakistan besides Iran, and the security environment in the region is deteriorating for multiple reasons, the main being Iran's nuclear programme and the rise of the Islamic State in Syria (ISIS). A new dyad may emerge between Israel, on the one hand, and Iran and Pakistan (recent test of a missile with a range of 2,750 km) on the other.[19] Any additional nuclear weapon state in India's neighbourhood is a destabilising factor.

In Asia, two dyads emerge i.e. China-India and India-Pakistan in contrarian mode, and a cooperative China-Pakistan relationship. Kokoshin also warns that acquisition of nuclear weapons by new states will not only sap the existing non-proliferation regimes, but will also dramatically complicate the global system of strategic stability based on traditional nuclear deterrence. Rather than pair up in deterrence "dyads" as the United States and Soviet Union did during the Cold War, each new member of the nuclear club would be trying to deter several countries—presenting an unprecedented challenge of what Kokoshin calls "polygonal" deterrence.[20] India has a difficult task to balance the challenge from China and Pakistan while taking note of future threats.

Eight declared nuclear states, and Israel, a *de facto* one, cannot function in the bipolar or dyadic mode. All arsenals except those of the US and Russia are small; these can be put to risk by the capability of these two states. The dangers of a nuclear exchange between any of the two states in the triangle cannot be lost on the US and UN, and prevention is the only option. Before a crisis reaches a flashpoint of nuclear war, the superpower and/or the leading world power will have to act to prevent the catastrophe. This likely intervention will be peace enforcement and a reassuring factor to avoid escalation to the nuclear threshold, more so with Pakistan, the state with a first use policy. It may also imply coercion to prevent escalation or commencement of conventional war. The current nuclear talks with Iran,[21] and the pressure being mounted by major powers is indicative of the fears that prevail in the international community of a nuclear conflagration between Iran and Israel.

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The external influences on China have been discussed in the background of East Asia and the Taiwan situation. The concept of extended deterrence will continue in the region, driven by an unpredictable North Korea, and China's modernisation and force accretion, thereby threatening the entire periphery. China helped Pakistan develop nuclear weapons, now it supports Pakistan indirectly to obstruct the talks on the Fissile Material Control Treaty (FMCT),[22] thus, enabling it to continue producing fissile material for its large arsenal. The financial aid from supporting states has facilitated Pakistan to pursue the nuclear weapons programme, and the latest firing of the long range missile (Shaheen-3) on March 10, 2015, has brought within range Israel and West Asia—a new equation is in the offing, a new unsettling development to disturb the current uneasy equilibrium.[23] Pakistan fears Israel as a power capable of

attacking its nuclear arsenal and production facilities. The presence of US forces in the Gulf region is interpreted as a threat in being to its nuclear forces by Pakistan. These developments are Pakistan's rationale for an increased arsenal.

China commenced its nuclear programme in 1964, however, the growth of its nuclear forces up to the 1990s was limited and slow—truly there was no threat or challenge as long as it did not assert itself on others interest or lay claim to territories. However, during this period it was arming Pakistan with nuclear technology and delivery systems to destabilise South Asia. The period post its economic growth has witnessed a major boost to its strategic programme, and China now has a modern strategic arsenal with approximately 250 nuclear weapons on land mobile missiles and air delivered gravity nuclear weapons; additional weapons may now be mounted on the nuclear powered ballistic submarine (SSBN) missiles. China has a substantial fissile material stockpile consisting of some 16 metric tonnes of highly enriched uranium and some 1.8 metric tonnes of weapon-grade plutonium, so there are no practical constraints on its ability to produce an arsenal of any size it chooses.[24]

The arms race between China and the US appears to have commenced. The Research and Development (R&D) efforts and transfer of technology, in addition to reverse engineering, by China, have demonstrated its new-found capabilities.[25] China being a nuclear weapon state for the past 51 years, is expected to have in place a robust command and control system. The cyber warfare capabilities of China, though not quantified, are expected to be highly developed to attack opponents. The developments, of course, are attributed to R&D efforts and the US presence in East Asia and the Pacific Ocean, however, they impact India directly.

India decided to weaponise its nuclear capability in 1998 as a result of geo-strategic considerations, the Chinese developments being one of the factors. The Pakistan nuclear weapons programme was developed with Chinese assistance, and as has been revealed now, was functional in a

rudimentary form by the early 1990s. India is stated to have approximately 100 nuclear weapons. The country is thought to have produced close to 600 kg of weapons-grade plutonium, though it is unclear whether all this material has been machined into warheads.[26]India has to contend with two nuclear-armed neighbours, hence, has to develop delivery systems of diversity of necessity. That it is not in an arms race is demonstrated by India, in the slow growth in the development of its arsenal, and is reflected in its missile development programme.[27] The SSBN programme is proceeding at a slow pace: the INS *Arihant* launched in 2009, is still not commissioned, again indicating slow progression of the capability. India lacks a bomber force for deep penetration requirements against the Chinese heartland, nor is the long range cruise missile past the development phase. India has made some progress in Ballistic Missile Defence (BMD), though many experts have doubts about the time it will take to make it operational. The voids in Anti-Satellite (ASAT) capability, satellites, hyper velocity vehicles, Manoeuvrable Advance Reentry Vehicle (MaRV) and Multiple Independently Targeted Reentry Vehicle (MIRV) are in the open domain, and Indian scientists have not yet made any claims in these fields.

Pakistan commenced its nuclear weapons programme in 1972, but the real progress came after China made available technology, designs, missiles and testing facilities, starting in 1976/1980s.[28] Today, Pakistan has four reactors producing plutonium, two uranium enrichment plants, supporting infrastructure to manufacture nuclear weapons, missile manufacturing plants, and R&D facilities to develop delivery and weapon designs. It is estimated that Pakistan possesses approximately 110 nuclear weapons,[29] with ballistic missiles from the 60 km to 2,750 km range, nuclear weapons capable delivery aircraft and cruise missiles for aircraft and land forces. The naval forces are under development with conventional submarines being modified for nuclear capable cruise missiles. Pakistan, by developing short-range delivery, is now capable of using nuclear weapons in the battlefield.

India's no-first-use doctrine is conducive to crisis stability but its weakness lies in the incentive it provides to a first-strike option to an adversary such as Pakistan.

The Pakistani nuclear doctrine, though not in the open domain, is based on first-use and nuclear war-fighting, linked to conventional escalation. This policy is inherently destabilising and makes the dyad unstable. The nuclear doctrines of India and Pakistan are opposite. The no-first-use doctrine of India is conducive to crisis stability but its weakness lies in the incentive it provides to a first strike option to an adversary such as Pakistan. Pakistan, with a first strike doctrine, will seek to eliminate India's second-strike capability when escalating from conventional to nuclear war for two specific reasons: one, to leave India incapable of retaliation; and two, to dictate war termination terms. The doctrines of China and India theoretically cannot escalate to nuclear war, but nuclear coercion as a possibility remains high. In severe conditions during war, the option of nuclear use may be the only one to seek victory rather than accept defeat, notwithstanding the consequences.

On strategic stability, Thomas Schelling wrote, "In a crisis, the fear of being preempted could itself create pressures to preempt. Specifically, because one side's nuclear weapons could destroy opponents, there might be real advantages to landing the first nuclear blow. In consequence, two states could be pushed over the brink of war because one state decided the risks of striking first outweighed the risks of waiting to be struck." A major dilemma with states that possess arsenals of small size is lack of assured destruction of the adversary's nuclear forces, given intelligence failures, technical failures, interception, guidance failures, and protective means. The vulnerability of retaliation may deter a first strike, but to a tipping point, where the situation may spell defeat or loss of vital interests.

China has 250 nuclear weapons, with the option of manufacturing additional weapons from existing fissile material. Pakistan is assessed to

possess approximately 110 weapons, whereas India has 100 weapons. The ratio remains heavily in favour of China. An examination of the qualitative balance between China and India shows that China is ahead of India. China's missile programme, aircraft delivery and SSBN programme are older and possibly advanced in comparison to India. The ICBM, IRBM, SSBN/SLBM (Intercontinental Ballistic Missile, Intermediate Range Ballistic Missile, Nuclear Powered Ballistic Submarine / Submarine Launched Ballistic Missile) at present are of longer range and greater throwweight, and have undergone greater testing and firing. Data on missile testing shows numerous firings each year, indicating focus on accuracy and production capability.[30] [31] The H-6 bomber, coupled with cruise missiles,[32] provides range and accuracy to the air delivery system. The SSBN (Jin) with greater displacement and the longer range SLBM is qualitatively superior to the Indian SSBN and SLBM.

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Strategic Force Levels and Modernisation

At present force levels, India and Pakistan do not appear to be in a position to conduct assured first strikes to eliminate a second strike capability, given the inventory of the missiles. However, the imbalance lies in the first strike doctrine of Pakistan and the development of nuclear battlefield weapons, with testing of the short range delivery system. Press releases emphasise ensuring deterrence across the entire spectrum.[33] The probability of a first strike by Pakistan is assured based on its doctrine and continued emphasis on convention-nuclear linkage. China and India both are on course to achieve sea-based second-strike capability, with China having a distinct advantage till India can operationalise SSBNs with SLBMs with ranges of 5,000 km. Both countries have mobile land-based missile systems, These do provide second strike capability, but in this sphere, China has an advantage

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in numbers and range. Although India may close the gap, the cost benefit analysis in dire consequences will favour China. Pakistan too is in the process of modifying conventional submarines into nuclear cruise missile capable strategic submarines besides the land-mobile missiles in operational mode to improve its second strike capability.

The technical capabilities of strategic forces are generally kept secret except for broad parameters as derived by the scientific community. The confidence of each side is determined by the success and failure rate during the development and testing phases, the ability to penetrate and overcome adversary systems, and the robustness of the command and control system. Concealment methods and technical deception are also important aspects to evaluate parameters in this factor. The technical capabilities of China, India and Pakistan are likely to remain a gray area, essentially due to the opacity of technical information in the open domain. There are technical aspects of range and mobility, which are generally known; in these areas, China has an advantage. The 2007 test of the ASAT interceptor[34] [35] proved its ability to destroy space Intelligence, Surveillance, Reconnaissance (ISR), and command and control capability. The sea test of the latest SSBN (Jin class) with the JL-2 SLBMs[36] provides China invulnerable second strike capability to add to its land mobile missiles. Its anti-access strategy has let to the development of the Anti-Ship Ballistic Missile (ASBM)[37][38] based on a group of satellites and Over The Horizon (OTH) radar, a quantum jump in the Chinese capability to deter the US sea power projection ability. The programme to develop anti-missile (BMD) capability is on course, though shrouded in secrecy.[39] Under development are hyper velocity air delivery systems and MIRV

and MaRV missiles and space-based strike systems. The Indian short-range missiles, namely, the Prithvi and Agni-1, do not target any important targets in Tibet or Mainland China, whereas the Chinese DF-11, 15 can hit major value centres/targets in northern India. The other technical parameter relates to manoeuvrability: Chinese advances in MIRV and MaRV missiles will add to better penetrability and negation of BMD. Pakistani missile ranges cover India, whereas the protection and penetration properties of the systems are not in the open domain. True evaluation of the technical parameters balance, therefore, remains indeterminate.

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The greatest uncertain determinable factor in evaluating strategic stability is the continuity of the political decision-makers; this uncertainty, therefore, is one important reason to propagate first strike. Efforts are directed to ensure safety and security of the chain of command. Empirical data of the 1950s and subsequent period shows that China has focussed on underground structures to protect the leadership from all forms of attack. A salient feature of all nuclear weapon states is to create Nuclear, Biological, Chemical (NBC) and Electro-Magnetic Pulse (EMP) proof structures and not to divulge data; hence, any discussion on the subject will remain speculative in the absence of confirmed information.

The concept of strategic stability is disturbed if one side perceives vulnerability by virtue of the other pursuing an arms build-up or new systems capable of overwhelming existing weapons. China's testing of ASAT capabilities is a cause of great concern and alarm for India as it makes space-based Command, Control, Communications, Computers,

Intelligence, Surveillance, Reconnaissance (C4ISR) satellites vulnerable. The second destabilising aspect is the development of the anti-ship ballistic missile as the technology can defeat BMD and target sea assets. Third in the arms race is the mixing of nuclear and conventional missiles in the Second Artillery Corps: it complicates deterrence, is open to erroneous interpretation and may lead to a wrong decision. If the imbalance increases, China's superiority will create a strategic imbalance, and India will be forced to obtain matching or counter capabilities. The balance is not easily restorable unless India boosts the growth of the deterrent. No sooner does India respond to the Chinese challenge, Pakistan justifies a bigger arsenal—a spiral in motion. Pakistan terms India's BMD programme destabilising, notwithstanding its no first use policy—a nation with a no first use policy has of compulsion and necessity to protect the decision-makers and vital centres to ensure deterrence/strategic stability.

Mutual Assured Destruction (MAD) has formed the main principle for strategic stability, as any effort to eliminate vulnerability will be viewed by the adversary as destabilising and a reason to institute counter measures. BMD is one element seen as disturbing the vulnerability balance: if fielded, it will invite criticism, and methods and means to negate the capability. Pakistan has called India's BMD a cause for destabilising the balance in the dyad. Reports that China is developing an anti-missile system will require India to introduce systems that overcome the Chinese defensive systems and retain penetrability to ensure deterrence. The balance appears close to be moving away from equilibrium.

China was the first country to adopt the nuclear policy of "no first use", but since the 1990s, it has demonstrated consistent assertive behaviour in international affairs wherein coercion has been the central pillar of its muscle flexing to achieve its interests, the latest in the East China Sea (Air Defence Identification Zone—ADIZ),[40] and claims in the South China Sea.[41] In all these actions it has not crossed the threshold where force has manifested in the means to attain objectives. However, the continuity of the policy under

conditions where vital interests are threatened cannot be guaranteed. India has demonstrated restraint and maturity in the face of aggression (Kargil, 1999), terror attacks and proxy war. This, at times, has created the image of a soft state, but prevented escalation. The China-India dyad is imbalanced by virtue of superior Chinese capabilities. In the triangle under consideration, the dangerous link where political systems do not control the nuclear weapons is Pakistan. Instability is a natural consequence, hence, it is expected that strategic stability between India and Pakistan on this score will be weak.

The Kargil conflict of 1999 still generates discussion on Pakistan's preparation of nuclear weapons.

China is competing with the US and its allies in military power. The technological prowess being demonstrated, it seeks to narrow the gap and prevent sea power projection in the regions around it and the coastal seas, and stop assistance during a military conflict or confrontation within the region. China's increase in military capability is most pronounced in the nuclear deterrent, missiles, sea-based deterrent, space and ASAT, C4ISR and cyber warfare. The stealth aircraft (J-31) was demonstrated in 2010, matching the F-35 in some features.[42] The Chinese military is now in the process of transforming into a lighter and mobile force, with emphasis on combat in an informationised environment—large-scale inter-theatre force movement capability. These forces also have the ability to operate against India. India's defence expenditure in the last decade has remained at approximately 1.80 percent of the Gross Domestic Product (GDP). India's defence modernisation has been extremely limited due to a myriad reasons, the primary being the lack of funds and failure of the Defence Research Development Organisation (DRDO) to produce new technologies. The proxy war in Kashmir further diverted resources, to the detriment of new systems acquisitions. The first dyad is imbalanced in the context of military modernisation and military strength.

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Nuclear Adversarial Dyads and Conflicting Peace

The second dyad between India and Pakistan has been in an unstable state right from the beginning, initially by conventional means and now in the nuclear contest. A state nearly one-sixth the size of India maintains military power half the size, a paradox and inconsistency based on invented claims and threats. The continued make-believe and false threat has become the *raison d'être* for the existence of a large military machine in Pakistan. The terror apparatus is the creation of the military, which keeps the region in an unstable environment. The military self-interest, overruling the political leadership, keeps the dyad in a constant state of instability though marginally weighted in India's favour. According to the Prime Minister of Pakistan, 80 percent of the time is spent in fighting terror and power shortage.[43]

Though a full-scale war has not erupted between the two nuclear adversarial dyads, enough tension exists to expand the spectrum if political sagacity is not displayed whilst reacting to minor infringements/ incursions or terror attacks. The Kargil conflict of 1999 still generates discussion on Pakistan's preparations of nuclear weapons[44] or the rhetoric during the 2002 Indo-Pak stand-off post India's mobilisation of forces after the terror attack on the Indian Parliament. The strategic stability condition or idea of peaceful and harmonious relations in the region is not achievable given the discussion with respect to the national ambitions, resource competition, territorial claims, revisionist policies and ideological inclination of China or Pakistan. The three factors of mutual trust, shared values and common objectives, essential for peace and harmonious relations, are conspicuous by their

absence in the two adversarial dyads the principal reasons being territorial disputes resulting in distrust and suspicion of intentions, distinct systems of governance and ideology, and total dissonance on common objectives fundamentally driven by the first two, and pursuit of domination.

The second method of investigating strategic stability is to examine the probability of armed conflict between the two nuclear weapon states. On this plane, the probability of failure is higher due to imbalanced military power and strategic forces, arms race, technological imbalance, military modernisation, adversarial positions on territorial claims and ideological differences. The first dyad between China and India is less unstable compared to the dyad between India and Pakistan, which is highly unstable, and could lead to an armed conflict and escalating to a nuclear catastrophe. The obstacles to strategic stability in the two dyads are China's superior nuclear forces and military modernisation, territorial claims and support to Pakistan. The second aspect is non-acceptance of India as an equal in the strategic domain, therefore, friction resides in the relationship, preventing confidence-building measures. The growth of Pakistan's nuclear programme and conduct of proxy war through terrorism are driving instability in the India-Pakistan dyad, and this revisionist agenda on Kashmir will continue to fuel the problem. China supports Pakistan with assistance in nuclear weapons, missiles, nuclear reactors and fissile material, indirectly destabilising the India-Pakistan dyad. The three factors of mutual trust, shared values and common objectives also negatively affect the relationship when assessed under conventional conflict absence between nuclear states.

The Cold War mode of strategic stability based on ability to deter a nuclear preemptive first strike, when examined in the regional context, brings forth important differences. The first strike option is still Pakistan's doctrine, hence, if a conventional war were to occur and escalate to the nuclear plane, India should be prepared to develop capability to overcome the disadvantage of absorbing the first strike. The continued arms race

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will see sustained competition resulting in instability in the two adversarial dyads. Lack of confidence-building measures adds to the probability of brittle relations breaking down under even little stress. India will not be able to deter China from a first strike. The balance of forces can be an incentive with China to a conduct first strike notwithstanding the declared no first use policy, however, given the force level, it may not be feasible to destroy India's second strike capability, but degradation is possible. The arsenal sizes of China, India, or Pakistan, ideally, do not provide them with a capability to conduct disarming or decapitating strikes. China and India possess second-strike capability, which may convince the adversary to desist from a first strike. The political systems of China and India are well developed to prevent strategic instability; however, the military's control over nuclear weapons and the security apparatus in Pakistan and the exclusion of the civil government is the basic cause of the instability in the India-Pakistan dyad. The international institutions' intervention cannot be ruled out in any conflict between nuclear weapon states—non-intervention will be catastrophic for the world. The obstacles and challenges will remain due to the arms race in the region based on internal and external policies and influences. The challenge will be to devise institutions or mechanisms to check escalation of conventional wars to nuclear devastation.

Notes

1. James M Acton, "Strategic Stability: Contending Interpretations," in Elbridge A. Colby and Michael S. Gerson, eds., *Strategic Stability: Contending Interpretations* (Carlisle, PA: Strategic Studies Institute and US Army War College Press, February 05, 2013).
2. Michael S Gerson, "The Origins of Strategic Stability: The United States and the Threat of Surprise Attack," in Colby and Gerson, Ibid.
3. Thomas Fingar and Fan Jishe, "Ties that Bind: Strategic Stability in the US-China Relationship," *The Washington Quarterly*, Vol. 36, No. 4, Fall 2013, pp. 125-138.

4. Vladimir Dvorkin, "Deterrence and Strategic Stability", in Alexei Arbatov and Vladimir Dvorkin, eds., *Nuclear Reset: Arms Reduction and Nonproliferation* (Carnegie Moscow Center, 2012).
5. Andrei A Kokoshin, "Ensuring Strategic Stability in the Past and Present: Theoretical and Applied Questions," Paper for the Belfer Centre for Science and International Affairs, Harvard Kennedy School, June 2011, p. 4.
6. Ibid., p. 5.
7. Ibid., p. 6.
8. Graham Allison, Foreword in Kokoshin, Ibid., pp. 1-2.
9. Li Bin and Nie Hongyi, "An Investigation of China–US Strategic Stability," *World Economics & Politics*, No. 2, 2008, translated by Gregory Kulacki, pp.13-19.
10. Allison, n. 8.
11. Julio S Amador III, "The Philippines' Security Cooperation With the United States and Japan," *Asia Pacific Bulletin*, No. 227 (Washington, D.C: East-West Centre, August 8, 2013), available athttp://www.eastwestcenter.org/publications/the-philippines%E2%80%99-security-cooperation-the-united-states-and-japan
12. *Treaty of Mutual Cooperation and Security Between Japan and the United States of America* signed, January 19, 1960, available at http://www.mofa.go.jp/region/n-america/us/q&a/ref/1.html#
13. See "US Relations with South Korea", *Fact Sheet* from Bureau of East Asian and Pacific Affairs, available at http://www.state.gov/r/pa/ei/bgn/2800.htm February 05 , 2015.
14. From video titled "The Obama Administration's Pivot to Asia" by *Foreign Policy Initiative,* available at http://www.foreignpolicyi.org/content/obama-administrations-pivot-asia
15. Paul Kerr,"North Korea Quits NPT, Says It Will Restart Nuclear Facilities," *Arms Control Association* January 01, 2003.
16. Bin and Hongyi, n. 9.
17. Condoleeza Rice quoted in the article titled "Pak Military in Control of Nuclear Weapons: Rice," *The Nation*, November 10, 2011, available at http://nation.com.pk/Politics/10-Nov-2011/Pak-military-in-control-of-nuclear-weapons-Rice
18. Cited in a report titled, "Fight Against Terror: Don't Doubt Pakistan, Wen tells the West," *The Express Tribune*, December 20, 2010.
19. Tim Craig, "Pakistan Tests Missile that Could Carry Nuclear Warhead to Every Part of India", *The Washington Post*, March 09, 2015.
20. Allison, n. 8.
21. Carol Morello, "Iran Nuclear Talks Inch Along Slowly, with Ongoing Debate Over Key Issues", *The Washington Post*, March 09, 2015.
22. Samir Saran, et al., "Knowing India's Nuclear Credentials," *The Hindu*, July 24, 2014.
23. Tarek Fatah, "Why Pakistan is a Bigger Threat to Israel than Iran," *The Toronto Sun,* June 28, 2013.
24. Ashley Tellis, *China, India and Pakistan – Growing Nuclear Capabilities with no End in Sight,*Carnegie, Congressional Testimony 2015, pp. 1-2.
25. Jesus Diaz, "Is China Stealing America's Top Stealth Fighter Jet Secrets?" *Gizmo*, March 06,

2012, available at http://gizmodo.com/5915248/clear-proof-of-china-military-spionage
26. Ibid., p. 2.
27. Report by Priya Ranjan Sahu, *The Hindustan Times,*February 01, 2015.
28. Antara Desai, "The China-Pakistan Nuclear Nexus," November 06, 2013, available at http://www.governancenow.com/news/blogs/china-pakistan-nuclear-nexus#sthash.JCNFRXkS.dpuf.The China-Pakistan nuclear nexus -Governance Now
29. Tellis, n. 24, p. 3.
30. "Guided Firing Success Paves Way for Meteor Missile Production,"*Defence Talk*, March 17, 2008, available at: https://www.defencetalk.com/guided-firing-success-paves-way-for-meteor-missile-production-14709/
31. Minnie Chan, "China's Nuclear Missile Drill Seen as Warning to US not to Meddle in Region", *South China Morning Post,* January 23, 2014, available at,http://www.scmp.com/news/china/article/1411310/chinas-nuclear-missile-drill-seen-warning-us-not-meddle-region
32. Jane's Information Group,*China Upgrades H-6 Bombers to Carry Intermediate-Range Cruise Missiles,Missile Threat*, 2006, available at http://missilethreat.com/china-upgrades-h-6-bombers-to-carry-intermediate-range-cruise-missiles/
33. Inter-Service Public Relations, Press Release, No. PR133/2013https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=2361
34. Shirley Kan, "China's Anti-Satellite Weapon Test,"*CRS Report for Congress*, April 23, 2007.
35. Geoffrey Forden, "After China's Test: Time For a Limited Ban on Anti-Satellite Weapons," April 02, 2007.
36. Christian Conroy, "China's Ballistic-Missile Submarines: How Dangerous?" *The National Interest*, November 18, 2013, available at,http://nationalinterest.org/commentary/chinas-ballistic-missile-submarines-how-dangerous-9414
37. Mark Stokes, "China's Evolving Conventional Strategic Strike Capability", *Project 2049 Institute*, September 14, 2009.
38. Richard Sisk, "DARPA Works on New Anti-Ship Missile," *Defence Tech,* November 14, 2013.
39. Richard Weitz, "China Advances on Missile Defense, With Eye on Dissuading Rivals," *World Politics Review*, July 29, 2014.
40. Jaemin Lee, "China's Declaration of an Air Defense Identification Zone in the East China Sea: Implications for Public International Law,"*American Society of International Law*, Vol 8, No. 17, August 19, 2014, available at,http://www.asil.org/insights/volume/18/issue/17/china%E2%80%99s-declaration-air-defense-identification-zone-east-china-sea
41. PTI release, "China Defends South China Sea Projects as Lawful'', *The Hindu*, March 08, 2015.
42. Zachary Keck, "Chinese Official: J-31 Stealth Fighter Could 'Definitely Take Down' F-35," *The National Interest*, December 09, 2014.
43. As per a *Press Trust of India* release, March 22, 2015.
44. MV Ramana and Zia Mian, "The Nuclear Confrontation in South Asia," in *Armaments, Disarmament and International Security*, *SIPRI Yearbook* 2003, p. 197.