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REDEFINING SECURITY

Since the onset of the Cold War in the late 1940s, every administration in the countries has defined national security in excessively narrow and excessively military terms. Politicians have found it easier to focus the attention of an inattentive public on military dangers, real or imagined, than on nonmilitary ones; political leaders have found it easier to build a consensus on military solutions to foreign policy problems than to get agreement on the use (and, therefore, the adequate funding) of the other means of influence that the Nations can bring to bear beyond its frontiers.

Just as politicians have not found it electorally rewarding to put forward conceptions of security that take account of nonmilitary dangers, analysts have not found it intellectually easy. They have found it especially difficult to compare one type of threat with others, and to measure the relative contributions toward national security of the various ways in which governments might use the resources at their disposal.

Security versus What?

One way of moving toward a more comprehensive definition of security may be to ask: **what should we be willing to give up in order to obtain more security?** how do we assess the tradeoffs between security and other values? The question is apposite because, of all the "goods" a state can provide, none is more fundamental than security.

Security, is an absolute value. In exchange for providing it the state can rightfully ask anything from a citizen save that he sacrifice his own life, for preservation of life is the essence of security. In this respect, I am extreme. For most of us, security is not an absolute value. We balance security against other values. Citizens of the many countries and other liberal democratic societies routinely balance security against liberty. Without security, of course, liberty—except for the strongest—is a sham.

The tradeoff between liberty and security is one of the crucial issues of our era. In virtually every society, individuals and groups seek security against the state, just as they ask the state to protect them against harm from other states. Human rights and state security are thus intimately related. State authorities frequently assume—suppression of rivals at home by citing their links to enemies abroad.

Other security choices may seem equally vexing if they are not equally profound. One is the familiar choice between cure and prevention. Should the U.S. spend a (large) sum of money on preparations for military intervention in the Persian Gulf in order to assure the continued flow of oil from fragile states like Saudi Arabia, or should it be spent instead on nonmilitary measures—conservation, alternate energy sources, etc.—that promise substantially (although not rapidly) to reduce American dependence upon Persian Gulf oil? A second choice involves collaboration with regimes whose values are antithetic to democratic liberty states?.

A third choice involves military versus economic assistance to poor countries. Should policy aim at strengthening Third World governments against the military threats and other directions, or helping their citizens develop greater self-reliance so as, perhaps, ultimately to produce more healthful societies with lower rates of birth and thus relieve the rising pressure on global resources? Finally, many choices juxtapose international and domestic priorities.

The tradeoffs implied in these and many other, similar questions are not as profound as that between security and liberty. But they are nevertheless capable of generating conflicts of values—between alternate ways of viewing national security and its relationship to what might be called global security.

A Redefinition of Threats

In addition to examining security tradeoffs, it is necessary to recognize that security may be defined not merely as a goal but as a consequence—this means that we may not realize what it is or how important it is until we are threatened with losing it. In some sense, therefore, security is defined and valorized by the threats which challenge it.

We are, of course, accustomed to thinking of security in terms of military threats arising from beyond the borders of one's own country. But that emphasis is doubly misleading. It draws attention away from the nonmilitary threats that promise to undermine the stability of many nations during the years ahead especially in the globalization time. And it presupposes that threats arising from outside a state are somehow more dangerous to its security than threats that arise within it.

A more useful (although certainly not conventional) definition might be: a threat to security is an action or sequence of events that;

(1) threatens drastically and over a relatively brief span of time to degrade the quality of life for the inhabitants of a state, and losing territory.

(2) threatens significantly to narrow the range of policy choices available to the government of a state or to private, nongovernmental entities (persons, groups, corporations) within the state.

Within the first category might come the spectrum of disturbances and disruptions ranging from external wars to **CATALOG OF CONTEMPORARY THREATS.....** internal rebellions, from blockades and boycotts to raw material shortages and devastating "natural" disasters such as decimating epidemics, catastrophic floods, or massive and pervasive droughts.

For a leader trying to instill the political will necessary for a national society to respond effectively to a threat to its security, a military threat is especially convenient. But political and economic circumstances can create for more dangerous situations.

Our world has become increasingly interconnected, and by extension, increasingly reliant on strong partnerships built on mutual respect, trust and cooperation. Through this

comprehensive approach, we've gained a much greater appreciation for the vital contribution of all our respective allies and partners. And it will take all of us, working together through a unity of effort, to deal with the challenges that we all face together as we look to the future. World has dramatically changed over this past decade of conflict in Iraq, Afghanistan, North Africa as well as far East. Our strategic environment has changed and will continue to change in very unpredictable ways. The proliferation of technology is impacting the flow of goods, people and ideas. News now spreads at the speed of Twitter, Facebook and many others social media. The complex, dynamic and interconnected nature of the global environment calls for us to think and lead in new ways. This includes seeking to understand the impact that new technology and the resulting environment will have on military art.

One of the things we talk about as we look to the future is the importance of the interconnected **global commons**. Every country in the world wants to have access to it. The domains of the high seas, international airspace, outer space and cyber space are interlinked and critical to the prosperity and security of world. Access to these domains is both a military and economic necessity in today's world. The Global Commons comprise four domains: maritime and air, which are the international oceans and skies that do not fall under the jurisdiction of any nation; outer space, beginning at the point above the earth where objects remain in orbit; and cyberspace, the electromagnetic spectrum that enables digital processing and communications. The maritime domain has been used by humans for millennia, air for a century, and space for about six decades. Cyberspace, the newest domain, has only been widely available for some thirty years, yet more than a quarter of the world's population now use it every day, and that number continues to rapidly expand.

For many years, the global commons was defined as air, land, and sea. But over the last several years, and it has expanded dramatically, we have seen dramatic technological advancements that have expanded the global commons to space and cyberspace, and how we manage information in cyberspace.

Having access and the ability to protect ourselves in these domains will influence the nature of conflict in the future. We cannot ignore these new domains. We must incorporate them into our planning, thinking, and how we execute future military & civilian operations. Some argue that cyberspace and information operations might be a new form of maneuver. What we do know is that today and into the foreseeable future, uncertainty will characterize the global environment and defining a new security environment.

The international fiscal crisis persists. The events in the Middle East went in a less straightforward direction. Egypt, Tunisia and Yemen entered an uncertain transition period, Syria and Libya were drawn into a civil conflict, while the wealthy monarchies in the Persian Gulf remained largely unshaken by the events. The use of the term the "Arab Spring" has since been criticized for being inaccurate and simplistic. As we move toward elections -- in places like Egypt, Tunisia, and Libya, and many others -- we are beginning to see the impact of factionalism and the predicted differences associated with nascent democracies. Egypt's elections may polarize rather than unite their people. Syrian unrest threatens to escalate and spill over. And Iran remains a destabilizing factor with their pursuit of nuclear weapons and other attempts to influence the region around them. We saw Iraq now exporting as much oil as Iran does for the first time, and we see Iraq's exports growing.

But last days events shows something dangerous for that fragile region.

Fighters (terrorists) of the Islamic State in Iraq and the Levant (ISIS) captured Rutba, 90 miles (150km) east of Jordan's border ,they earlier seized a border crossing to Syria and two towns in western Iraq as they advance towards Baghdad. Sunni militants have seized towns in Iraq's western Anbar province - the fourth in two days including Mosul oil rich region.

Their intend is to capture the whole of the predominantly Sunni Anbar province Iraq's .

ISIS- ideology of violence and repression is a threat not only to Iraq but to the entire region".

ISIS grew out of an al-Qaeda-linked organization in Iraq ;

- Estimated 10,000 fighters in Iraq and Syria
- Joined in its offensives by other Sunni militant groups, including Saddam-era officers and soldiers, and disaffected Sunni tribal fighters
- Exploits standoff between Iraqi government and the minority Sunni Arab community, which complains that Shia Prime Minister Nouri Maliki is monopolizing power
- **ISIS** is led by Abu Bakr al-Baghdadi, an obscure figure regarded as a battlefield commander and tactician

The capture of the frontier crossing could help **ISIS** transport weapons and other equipment to different battlefields.

What is Baghdad fears ?

There is deep pessimism in Baghdad about the government's war against **ISIS** , which appears better trained, equipped and more experienced than the army,

What economic and fiscal impacts will that have on the rest of the Middle East?

And South Asia remains a complex environment with various extremist groups impacting security.

In the Asia-Pacific, the regional competition for resources, and **North Korea's** lack of transparency, its change in leadership, and continued threats and intimidation of South Korea are all cause for concern. This all in a time of austerity. The range of threats that we face is wide and diverse -- it includes: traditional nation-states, near states, and proxies as well as transnational terror networks, cyber terrorism, proliferation of WMD, mass illegal migration, energy security, failed state criminal organizations, and popular movements.

We must be prepared to deal with multiple actors, asymmetric ,hybrid threat and technology-enabled techniques, chaotic conditions, and the exploitation of information. Weapons of mass destruction, cyber threats, and humanitarian disasters further complicate our environment.

We must understand the continual competition for wealth, resources, political authority, influence, sovereignty, identity, and legitimacy. There will be unexpected opportunists and

suppressed threats that will emerge from this competition. It is difficult to see the current strategic environment inherently trending toward peace unless we - along with others - act to positively influence it. We all together must positively influence it, and must remain engaged.

With this new environment in mind, international community and organizations will be globally engaged and regionally responsive.

In that context I describe the Arms Forces role in our new strategic framework as: **Prevent, Shape, and Win** -- with an increased emphasis on shaping, while maintaining a force that will win decisively if necessary.

We should prevent conflict by maintaining credibility based on its capacity, its readiness and its modernization.

The past decade of conflict informs our thinking as we look forward. Political leadership in the future must be strong and decisive.

2020. Predictability- our Arm Forces must be adaptive and innovative. Leaders adapt their thinking, formations and employment techniques to the specific situation they face on the ground. As the nature of warfare has changed, we must change with it. We must have tactical and operational flexibility and agility to dominate in the future complex environment. Forces must be integrated and synchronized within the larger joint, interagency, intergovernmental, and multinational effort to ensure it produces the appropriate combat power at the decisive time and place.

A new strategic reality in Europe.

Russia's recent actions against Ukraine have been a wake-up call for everyone in the Euro-Atlantic community. They follow a pattern of behaviour that we already observed in Transnistria, South Ossetia and Abkhazia. The pattern is to influence, destabilize and even intervene in countries on Russia's borders, to prolong "frozen" conflicts by supporting corrupt, separatist groups, and to thereby deny sovereign states the ability to choose their own security arrangements and to chart their own political destinies.

President Putin's goal is to create a sphere of influence in Eurasia and to prevent the emergence of stable democracies that could call into question the legitimacy of Russia's authoritarian system. This behaviour is more typical of predatory nation-states from the 19th century – and it is far removed from the cooperative and peace-building behavior we expect to see from modern states today. It rips up the rulebook of inter-state relations that we have painstakingly written since the end of the Second World War, and it violates the many principles that Russia swore to uphold after the end of the Cold War. It recreates new dividing lines in Europe, some 25 years after all of us – including more enlightened leaders in Moscow – erased them and committed ourselves to the values of liberty and democracy.

Now, however, Russia has gone far beyond 'agreeing to disagree.' It is expressing its disagreement through unjustified military deployments, illegal referendums, and crude propaganda reminiscent of Stalin's times, rather than engaging in an honest debate and search for common ground. And Russia's leaders appear to be falling victim to their own

propaganda, seeing a Western anti-Russian conspiracy behind the legitimate strivings of its neighbours for honest government and mutually beneficial cooperation with the European Union and NATO.

A first, crucial lesson from the recent crisis is that we must maintain a strong defence and deterrence in Europe. If there was ever any doubt, the crisis now makes clear why we must invest sufficiently in defence and security, and why we cannot just keep cutting our defence budgets every year while others around the world continue to boost theirs.

In just the last few weeks, due to Russia's actions, the security environment has changed,... but the Alliance is strong. Moscow recognizes the strength and solidarity of the Transatlantic Bond and our actions support and reinforce the decisions made by the International Community.

Russia's aggression in Ukraine has caused a paradigm shift,... and in response NATO must and will adapt to remain credible and relevant.

A modern NATO has been forced to learn new lessons, forged in the crucible of intervention, global terrorism and numerous Balkan winters. The new, adaptive framework of NATO has allowed members to conserve resources and avoid the associated costs of large standing forces. However, without these large armies the alliance has lost some of its deterrence capability, forcing it to be a relatively slow reactor to world events

If there was any doubt of the relevance of NATO and the strength of the Transatlantic Bond before now, the last few weeks have cleared that up and reinforced the need for our essential core tasks:

- Collective Defence
- Cooperative Security
- Crisis Management

It is time to ask ourselves some hard questions: Are we structured correctly to provide a rapid and credible response? Is the Alliance agile and flexible enough to react appropriately? Do our exercises and readiness measures need to go beyond current CFI initiatives in order to match the capacity of, for example, the Russian Snap Exercises that we have witnessed over the last few weeks? Are our forces positioned correctly to respond?

The fall of the Berlin Wall in 1989 and the subsequent collapse of the Soviet Union in 1991 compelled NATO to re-evaluate its reason for being. The current alliance is a legacy of its Cold War framework, shaped by a changing geopolitical landscape and the search for strategic and economic justification. NATO would argue that it has become a more streamlined organization, increasingly flexible and responsive. When seen purely in terms of combat power, though, modern NATO is a diminished version of its former self.

As a military collective, NATO relies on its ability to react quickly and then bolster forces as required. On call at any given time is the NATO Response Force, or NRF, which is composed of two parts: the Immediate Response Force and the Response Forces Pool. The Immediate Response Force, or IRF, is a brigade-sized force (around 13,000 personnel

overall) with air and sea components and troops trained in chemical, biological, radiological and nuclear operations. Smaller units from various NATO members make up the force, which is under the command of one of the Joint NATO Regional Commands. The contributors to both the IRF and the assigned regional command change every year.

While the IRF can be called upon to deploy in five days or less, the Response Forces Pool provides supplementary manpower from a designated reserve contingent. These troops, committed on a voluntary contribution basis, can effectively double the overall size of the NRF. Non-NATO members, such as Sweden, Finland and Ukraine, also contribute to the NRF, and Georgia has said it will commit forces to the next rotation of the NRF in 2015, though its bill will be paid by the United States.

In addition to its high-readiness formations, NATO -- and in this case, the European Union -- has near-immediate access to Eurocorps, a force of 60,000 personnel from designated units across the alliance. On permanent assignment to Eurocorps is the 6,000-strong Franco-German Brigade, a rapid response contingent that can deploy within five days. Officially, beyond these rapid reaction forces, all the national assets of an alliance member can be seconded into NATO's existing command structure, facilitated by a framework of permanently active divisional headquarters should the need arise. An additional 19 battalion-sized units could be co-opted from non-NATO European Union battle groups in extremis, but this would require direct authority from the European Union.

The consensus view remains that a full-scale deployment of NATO is unlikely in the extreme. Instead, with the spectre of the Soviet threat removed, the alliance has focused on a number of smaller-scale deployments to affirm its continued relevance. It took almost 50 years for NATO to stage its first military action (an intervention in Bosnia) in 1995. NATO missions since then have ranged from operations other than war -- such as air and sea denial, peacekeeping, supporting relief efforts and anti-piracy -- to joint offensive operations.

As well as being heavily involved in Bosnia, Serbia and Kosovo, NATO unified under Article 5 of the North Atlantic Treaty on Sept. 12, 2001. Article 5 is the principal of collective defence under which the alliance was founded, and it has been invoked only once in NATO's 65 years. Following a U.N. Security Council resolution in December 2001, the International Security and Assistance Force was formed. The ISAF mission in Afghanistan remains the largest operation NATO has been involved in.

The Benefits of Collective Defence

The most functional part of the collective defence strategy is military interoperability: standardizing the way NATO members work and operate together. Armed forces are generally self-contained, with unique procedures, weapons, vehicle platforms and equipment. When NATO was created, it was envisaged as a true logistical network, enabling a shared command and control system with common doctrine and tactics, allowing almost any combination of national forces to come together to become a relatively functional fighting force. This collaborative foundation is the true strength of NATO and will be its enduring legacy.

This form of integrated or "smart" defence, as NATO calls it, has led to a coordinated effort to develop and acquire common equipment across the alliance. Although not unanimously

accepted by all members, a shared development and acquisition cycle represents a significant scale of benefits as well as the opportunity for sharing research, development and production costs. Certain militaries have also been encouraged to develop specializations, building upon their inherent strengths in specific environments. In addition to common materiel, NATO's Connected Forces Initiative aims to further solidify the alliance through education, training and joint military exercises.

The Geography of NATO

The geographic expanse of the alliance has created natural partnerships and regional affiliations within NATO itself. Although beneficial in some cases, regionalization can potentially hinder the way NATO operates, creating divisions and warping the perception of threat.

The Baltic states of Estonia, Latvia and Lithuania face the binary dilemma of having the closest proximity to Russia and the weakest militaries. All three countries were keen to join NATO in 2004 and have since become major security consumers, drawing much support from the alliance. However, any sign of a weakening NATO concerns the Baltics, which would give serious consideration to any alternative (or parallel) security apparatus beyond the alliance. One of the ways this has materialized is the membership of all three Baltic states in the EU Nordic Battlegroup, which was formed in 2010. Latvia and Lithuania also contribute 350 personnel to the Polish-led Battlegroup I-2010.

The Visegrad Group of Poland, Hungary, Slovakia and the Czech Republic is less exposed and more militarily powerful than the Baltic states. Their largest threat remains a resurgent Russia. Although more capable in terms of defence, the Visegrad countries are middleweights by NATO standards. While they continue to be enthusiastic members of the alliance, they are concerned about the recent trajectory of NATO. This has made the Visegrad Four increasingly edgy, to the extent that the countries are willing to form their own military battle group. Currently this is envisioned as a European battle group that would be available to NATO while giving the Visegrad Group options outside of the alliance.

The Western European contributors to NATO have virtually formed a bloc of their own. With a comfortable buffer to insulate them from an aggressive Russia, heavyweight countries such as Germany, Great Britain and France have a different perception of the threat from the east. The strategic depth gained by NATO's eastern expansion lowers the need to maintain large standing armies. Territory can be traded for the time it takes to assemble sufficient combat power for a counteroffensive, a strategy that was not viable during the Cold War as Russian forces stationed in East Germany directly threatened Western Europe.

This trade-off inherently creates tension with NATO's more eastern members, whose territory is directly threatened as Russia continues to reassert its military power. Countries like Romania, Poland and the Baltic states want a NATO that prevents potential invasions, not one that promises to be there after the fact. As major security providers with the relative safety of depth, the Western European members are also more inclined to pursue self-serving agendas within the alliance.

As the single largest contributor to NATO, both in finances and potential combat power, the super-heavyweight United States has a significant role to play. Separation from the rest of

Europe and the east by the Atlantic Ocean places the United States in the least physical danger. However, the additional burden of heavily bankrolling two long wars combined with a trend towards fiscal constraint in defence spending have driven the United States to lean heavily on NATO to complement its foreign policy imperatives. The recent events in Ukraine have added an acute sense of risk where Moscow is concerned and ensures Washington's full engagement in the alliance, though not necessarily through the large Cold War structure of costly permanent deployments.

How NATO Works in Practice

The end of the Cold War changed NATO's concept of operations. Instead of serving as a standing deterrent that would roll out as a large collective force in a defensive role, the alliance became the skeletal organizer of Western military muscle. NATO's structure leant itself to seemingly random operations with limited aims and duration, as well as interventions that required a long-game approach with multinational flavour. Small groups or coalitions of NATO members, united by a particular interest in a region, would act as first responders to a developing scenario. Once the initial step is taken, NATO possesses the ability to overlay a command, logistical and operational framework. A series of divisional headquarters give the organization a "plug-and-play" capability, delivering easily deployable command structures once political decision-making and force contributions have occurred. This system has worked relatively well for clear-cut, far-reaching missions that enjoy broad international support, anti-piracy missions and evacuations being prime examples.

Modern NATO's strength -- 28 member states combined into a collective defence agreement -- is also its Achilles' heel. The organization's members invariably have divergent geographic imperatives, differing perceived threats and lack a unifying enemy, for now. Unanimity is critical, not only for decision-making but also to guide the organization. Unfortunately, NATO has trouble agreeing on the most basic measures, which has been a recipe for strategic waffling and stagnation, leaving little opportunity for cohesive military development in an agreed direction. Any potential mission that could have political repercussions against a single member is unlikely to get off the ground. As a result, NATO has struggled to remain relevant in the post-Cold War world. Instead of being a nexus of global power, NATO more often than not has been relegated to being a tool of convenience, used when the political will exists and the timing is appropriate.

Despite everything, NATO is not irrelevant. The full combat potential of the alliance is something that no adversary can ignore. This has not stopped belligerent forces from testing the waters, but giving NATO the political will to act is a dangerous game, considering that the organization possesses some of the most advanced weaponry and best trained forces in the world. Given the alliance's emphasis on interoperability, some of NATO's immediate neighbours (including Russia specifically) are concerned about future threats. The fact that small, militarily weak nations can play host to significantly larger and more powerful NATO members gives the alliance options to amass combat power alarmingly close to Russia's heartland. NATO is a cumbersome beast that is hard to get moving and often indecisive, but if goaded into action, there are enormous consequences for the unwary.

NATO is the strongest alliance of its type, but size and complexity hamper any ability to make fast decisions on a large scale. To align the North Atlantic Council over an issue is no

small task and NATO needs a significant threat in order to unify. A hostile Russia does cause enough concern to harmonize NATO to some degree, but each member of the alliance has its own interests, which may not be in perfect alignment with the organization's worldview and objectives. Moscow is well aware of the problems facing NATO's secretary-general and will seek to exploit the alliance's indecision. The organization responds very well to black and white scenarios, but it flounders over grey.

If, in an extreme example, Russia were to aggressively take back the Baltic states, there is little NATO would be able to do immediately to prevent it. In the short term, NATO would simply lose ground, but the alliance's eventual response could be devastating for the Russians. A NATO victory would be all but assured. A small incursion, however, into eastern Estonia by a Russian "protectorate" force, safeguarding an ostensibly repressed ethnic Russian village or enclave, would be much more problematic, especially if no shots were fired. Such a move opens speculation as to whether a multi-speed NATO would be able to secure a cohesive Article 5 decision or not. As seen earlier in the Ukraine crisis, indecision weakens the organization's position, and strengthens any decisive opponent's.

The Future Balance of Power

Under Vladimir Putin, Russia has revived to a startling degree. It is still, however, one country, with a singular economy. Regardless of the ententes Moscow builds with other nations, and the states it seeks to influence both overtly and covertly, it is limited by the boundaries of its own ideology, structures and institutions. Russian power is not infinite, nor is its bank balance. As much as Putin has rekindled Russian pride and unity, hubris will not beat NATO in a shooting war and the Kremlin is not willing to accept such an escalation.

Even with the support of nearby countries through the medium of the Common Security Treaty Organization, or CSTO, a military bloc that emerged after the collapse of the Soviet Union, the balance of power still favours the West. Although the United States is the major player in NATO, it does not dominate the alliance as thoroughly as Russia dominates the CSTO, which reveals Moscow's true intention for the organization -- as an additional means of dominating its periphery, rather than being a pure opposition to NATO.

Above all else, NATO is an alliance -- an imperfect one, but an alliance nonetheless. It has endured for 65 years, beyond the Cold War and through numerous smaller operations and conflicts of varying intensity. Although affiliates have at times been fickle with their contributions, the organization has only grown in membership size. Armies may be getting smaller, and defence budgets reduced, but the ratios of war prescribe that 10 smaller divisions will invariably beat one large one. It may be slow to move, and slow to agree, but given cause to invoke Article 5, NATO can still potentially muster a force without equal. Ultimately, NATO's long-term survival depends on the reemergence of a unifying threat, tempered by the continuous reforms that attempt to shape the alliance into an organization that can deal with the divergent capabilities and interests of its member nations, through ever evolving security environments.

Russia shift towards more aggressive policy :

There are four reasons for this shift. The growth of Russia's economy due to oil and gas exports, which helps bankroll a more aggressive foreign policy

1. The Kremlin's centralization of power, which neutralizes the challenges posed by political opponents at home
2. The retreat of the West from the world stage after the wars in Iraq and Afghanistan, which creates an opening for Russia
3. The success Russia has had in suppressing its own secessionist movement in Chechnya, which makes it easier for the Kremlin to support secessionist groups abroad

"These have all led to a feeling in Moscow that Russia has the resources and the proper international conditions to reassert its dominance in the former Soviet Union, nearby territory. Stepping up support for the secessionist entities is seen as a way to achieve that." And if Russian leaders believe they can do so, in Crimea and elsewhere, without provoking a major response from the West, they seem willing to assume the risk that comes with it.

For eastern NATO members, the most frightening aspect of the Ukraine crisis has been the lack of a strong Western response. These states require concrete demonstrations that they can count on their allies' protection should they too come under threat. As of yet, neither Putin nor his potential future targets are convinced that this is the case. Thus, Western leaders must take both symbolic and tactical steps to illustrate their commitment and dissuade further Russian aggression.

Europe's use of an appeasement policy has brought only disasters, and in the face of Russian hostility, the transatlantic community remains passive. It is particularly frightening that Europe and the United States have been unable to accurately understand either Russia or Putin and anticipate his moves. The latter is perfectly aware of our weaknesses, not only in terms of our military instruments but also, mainly, in terms of our lack of will to act bravely; had he expected serious consequences, he would never have risked aggression against Ukraine.

Putin's latest actions in eastern Ukraine have only increased the fear among states in Central Europe. Thus, do not be surprised, dear Western Europeans and Americans, if fewer and fewer people in Central Europe believe in your security guarantees or NATO's credibility. At least we Poles, still steeped in the trauma of the Second World War, need solid and credible proof to believe in our allies and their pledges. So far, there has been no such proof, and we thus feel increasingly alone in a struggle against a raging Russian bear.

ECONOMIC ASPECTS

"Putin perceives the European Union as a genuine strategic threat. The threat comes from the EU's potential to reform associated countries in ways that pull them away from Russia. The EU's Association Agreements and DCFTAs are incompatible with Putin's plan to expand Russia's Customs Union with Belarus and Kazakhstan and create a "Eurasian Union." Putin's goal is to secure markets for Russian products and guarantee Russian jobs. He also sees the Eurasian Union as a buffer against alien "civilizational" ideas and values from Europe and the West....

THREATS FROM THE SUPPLY SIDE

Population growth dominates the problem of rising worldwide demand for resources. Moreover, overall demand is rising even more rapidly than population growth figures alone would indicate. Many developing countries contain growing "modern" sectors, enclaves of affluence and higher living standards that enjoy the same wasteful consumption patterns of the industrialized world. That imposes yet additional strains on world resources. By contrast, no single factor dominates the problem of constraints on resource supplies. A crucial distinction is whether the resource in question is renewable, like forests or fish stocks or feedgrains, or nonrenewable, like (preeminently) oil. A second crucial distinction is whether the resource is becoming increasingly scarce through "normal" depletion or through efforts by governments (or, indeed, private persons) artificially to restrict supplies by means of boycotts, embargoes, cartel agreements, recovery limitations, and the like. Supply constraints are most injurious when they are sudden. For virtually every raw material there are substitutes with properties sufficiently similar so that replacement is possible. But whether or not replacement can take place without painful disruption depends upon whether the shortage in supply of the original item was foreseen adequately far in advance to make possible smooth adjustment

The problem is much more serious for Third World states. Many are not able to feed themselves and find it difficult to pay for imported foodstuffs, a difficulty compounded since 1973 by the rising cost of the oil they also must import. Food is indeed a weapon that can be wielded against them— although the industrialized states are most unlikely to employ it. The much more serious danger they face is their acute vulnerability to natural disasters that may cripple their own food production or substantially reduce the supply (and therefore raise the price) of foodstuffs on the world market. As population growth brings more mouths to feed, the situations of many Third World states are likely to grow more and more precarious.

Demand and supply are always related, of course.

SUMMARY.

CHARACTERISTICS OF THE FUTURE

Expert studies & findings suggest that ;

1. **Global power shifts will have significant effects on the political and security landscape.** It is expected that developing nations in the Eastern and Southern hemispheres will wield increasing global influence. The global shift of power will potentially be turbulent although the period following the transition may prove to be more stable. However, persistent regional instability and a democratic deficit along NATO's borders may be contagious and threaten Alliance cohesion. The influence of non-state actors coupled with the growing importance of securing strategic resources in a global market will strain economic and ecological systems. This will test the Alliance and the international community's ability to manage such pressure decisively and peacefully, reconfirming NATO's relevance in an increasingly complex future security environment.

2. **Population growth, demographic shifts, inequality, migration and urbanization combine to characterize humanity's future.** Increasing life expectancies and low fertility rates result in NATO nations ageing leading to a declining pool of available military manpower. Conversely, in developing nations, an unemployed and disgruntled youth bulge is

already present. The growth in networks and its associated transparency may provide new challenges and opportunities for NATO as the public gains knowledge and increased influence over national decisions. Changes in the relationship of individuals to the state and a redefinition of identity may also present a challenge to NATO's ideals and values. These trends, coupled with the diffusion of power, will present governance and institutional challenges and create the potential for social and political disruption borne of disillusionment, disenfranchisement leading to possible insurgency.

3. **The future will continue to be shaped by rapid technological development.** It is widely accepted that such innovation, while providing immense global benefits that address health, energy, food and many other challenges, also creates potential for unforeseen consequences. Rogue nations, empowered individuals, non-state actors and terrorists will also have greater access to innovative science and technology and may even seek to procure WMD/E information or material. The Alliance will need to anticipate these developments and strive to gain an early understanding of how to match capability requirements with emerging threats.

4. **Globalization will continue to have a direct influence on the world's society and economy.** Due to the world being increasingly interconnected, global markets, financial institutions and national economies will become even more interdependent exacerbating the risk of a cascading global economic crisis. New processes such as additive manufacturing have the potential to reshape the global economy and reduce the environmental impact of globalization. The discovery or creation of a new strategic commodity, inside or outside traditional Alliance regions, will have global consequences. At a time when the economic environment is characterized by austerity, already causing competing priorities amongst key national requirements such as defense, the Alliance needs to be prepared to respond to any ensuing crisis or potential conflict brought about by depleting global natural resources.

5. **Environmental changes have an impact across many global issues including economics, demographics, technology, resources and international relations.** As long-term atmospheric changes take place, impacts from increasing temperatures will have significant global consequences. While these could be positive for some regions with the increased quantity of arable land for food production, other effects such as extreme weather, melting ice-caps, rising seas, and drought are liable to increase. Additionally, other environmental threats like air and water pollution, deforestation, and the spread of disease may also contribute to insecurity and instability. Unpredictable catastrophic disasters, whether natural or man-made, will also continue to occur with devastating impacts and lead to further mass population movement that require an increase in humanitarian assistance or disaster relief operations.

The future will be characterized by complexity, uncertainty, risk and danger fuelled by the rapid rate of social, scientific and technological changes. The convergence of the present with the future will be like that of two great rivers filled with currents and eddies, tumultuous, confused and unreadable to the unprepared and unskilled. It will be viewed by its many observers and chroniclers as one of great dynamism.

Period of Transition. Humanity is experiencing a period of transition that includes shifts in political power, major demographic changes, environmental and climate concerns,

increasing urbanization, and exponential technological growth. Since the end of the Cold War, historians, political and social scientist have argued that:

the modern world-system is in structural crisis and has entered into a period of chaotic behavior, which will cause a systemic bifurcation and a transition to a new structure whose nature is as yet underdetermined and, in principle, impossible to pre-determine, but one that is open to human intervention and creativity.

Rapid Rate of Change. The current period of transition is an outcome of some of the most rapid changes in human history. Making an assessment of how these changes will impact the future requires an understanding of both what is timeless and what will likely change.

POLITICAL CHANGES

(DETAILS)

1. **In the next two decades, significant geopolitical and economic power shifts, changes in the nature and use of power, increase in globalization and greater roles of institutions are expected to transform the political landscape**
2. **TREND / DRIVER - SHIFT OF GLOBAL POWER**
3. **The global shift of power away from the West will present political and economic challenges to Nations.** International regulatory frameworks continue to grow in number and influence the rules that are still set overwhelmingly by a great power-dominated world. While ageing demographics in Europe, Japan and Russia has generally hindered growth, the rise of Eastern and Southern nations as economic powers will translate into greater political and military influence. This will increase the potential for tension or conflict in new, including the global commons' as well as traditional hotspots that could compromise international relations and security. The Alliance and the international community's ability to accommodate the rising powers and to manage the change peacefully will be decisive for the future.
4. **A shift in the East/West economic power balance.** This may have twofold consequences; a subsequent rebalancing of global military power and North American focus away from NATO. This could further lead to the formation of potential new power "blocs" initiating direct competition to NATO's lead and influence as the foremost military alliance; directly challenging NATO's current strategic advantage. Alternatively, NATO could capitalize on such changes by presenting itself as a model for any new political-military coalition or alliance
5. **The world is becoming increasingly interconnected and polycentric.** Emerging technologies and improved ease of communication create new power

centers which compete with traditional powers. These latest communities of interest form into groups that attempt to shape the outcomes of political, social, economic, and environmental issues. The exponential rise of information technology enables networks of dispersed individuals to act effectively as an organized group, thus empowering such actors as organizations, advocacy groups, security providers, criminal syndicates, extremists, or individuals. The traditional role of Private Military Security Companies (PMSCs) grows across an era featuring very tight-to-declining budgetary defense spending. An increasingly polycentric world could heighten the potential for the revision, or even fragmentation, of existing treaties or alliances, and even challenge existing international laws or charters.

6. **The rising influence of non-state actors.** Non-state organizations or super-empowered individuals may have an increased role not only in the political and economic landscapes but also in the area of security. Independent or private military security companies (PMSCs) might compete with NATO as security providers. As private corporations prefer their own security rather than relying on international or regional organizations as the provider of security, PMSCs challenge NATO's goals for cooperative security as well as provide opportunities to fill gaps in NATO's capabilities in underfunded areas. The PMSC industry standards and regulations will need to be developed.
7. **Five significant changes are expected to affect the human dimension: global population growth; ageing - a significant swing for both the West and developing countries; global inequality; migration; growing urbanization.** The global population is forecast to grow from approximately 6.8 billion today to nearly 10 billion by 2050. Within this figure, demographic changes, including population decline and ageing trends in developed nations, combined with an increasingly younger population (male adolescents especially) in developing countries, are likely to have profound effects on the future global economy. Moreover, immigration and migration patterns may pose assimilation and integration difficulties with the result that citizens' trust of the nation-state as the chief provider of security and identity may be eroded. These issues could be compounded further by any movement away from traditional communities and institutions towards greater individualism
8. **GLOBAL INEQUALITY**
Uneven distribution of income and wealth amongst the global population. Most studies agree that the majority of the world's population will have better living conditions by 2030 and beyond. Some emerging trends or technologies such as additive manufacturing may improve circumstances for the least privileged members of society. However, it has also been proposed that the disparity between the prosperous with sufficient wealth to maintain a comfortable standard of living, and those who cannot, will likely widen. A resulting perception of inequality will be supported and confirmed by a greater access to more readily available information technology. Such awareness fuels dissatisfaction which could lead to the adoption of anti-capitalist ideals backed by religious, zealous or

revolutionary movements. Additionally, population demand for better access to the perceived benefits derived from improved technologies will increase

9. **DRIVER - URBANISATION**

Cities will contain 65% of the world's population by 2030, and 95% of population growth will be contained by developing nations' mega-cities. Advantaged individuals empowered with knowledge and information access will tend to migrate to areas offering higher living standards, broader employment and education opportunities that will result in the urbanization of roughly 75 million citizens every year. A global danger posed by rapid urbanization is the loss of arable land, which drives the need to grow cities in a vertically dense fashion. China is experimenting with this approach as it urbanizes roughly a half-billion people within a relatively short period of time. This trend is also being seen in Africa under the influence of Chinese construction firms. Coastal mega-cities already account for half the world's population and approximately 80 per cent of the traffic (money, people, goods, resources, and media) that constitutes globalisation. Urban culture is characterized by distant blood lines, unfamiliar relationships, and competitive behavior. As more people move to cities due to the availability of money and commerce opportunities, per capita GDP has generally grown proportionally with the urban populations increase. However, this global urbanization is accompanied by the growth of slums or shanty towns, which by are expected to contain 1.5 to 2 billion people, or approximately 58% of the total urban population by 2020. It is unclear if a governments' ability to innovate will keep pace with globalisation and the growth of slums, leading to the potential for a repeat of populist uprising. Mega-cities will likely promote many political, ideological and biological changes.

10. **DRIVER – NETWORKS / TRANSPARENCY**

A globally connected and networked world creates a universal availability of information where the actions of leaders are known to the public almost instantly. Vast collective knowledge or intellectual capital is readily available to the average citizen on a scale formerly limited to the leadership of past generations. At the same time, almost every aspect of a citizen's life is known or can be monitored by the government. This surveillance is already exceeded by the data collection conducted for marketing and sales purposes.

Pervasive networks are vulnerable to cyber-attacks as ubiquitous computing is highly interconnected. While some NATO nations also have been subjected to cyber-attacks in recent years, the root source of an attack may remain hard to trace, subsequently making it difficult to decide on any Alliance response.

11. **DRIVER - HEALTH / DISEASE**

Natural population growth, increased ageing, and gender imbalances are bound to have major repercussions on the supply and demand of health care. Health care costs committed to ageing is expected to increase by at least 1% and 3% GDP in developing and developed nations respectively in the next 20

years. Access to healthcare, with its significant progress in diagnostics and therapeutic techniques, is expected to remain very unequal, not only nationally between privileged and under privileged circles, but also on a worldwide level between developed and developing countries.

In the future, non-communicable diseases and certain chronic pathological conditions may overtake infectious diseases such as HIV, malaria etc. Alternatively, climate change could have a particular knock-on effect to the geographical range of certain diseases such as dengue fever, which could appear in regions not previously affected. Mutations or new strains of certain viruses, or the detection of as-yet undiscovered pathogens, could precipitate a global pandemic not seen since the influenza pandemic of 1918-19 which is estimated to have killed between 20 and 40 million people; more than in four years of the Bubonic Plague ('Black Death' 1347-1351).

12. **TECHNOLOGY REALM**

Technology and innovation are functions of demand, necessity and response to current or predicted problems and crises. The increasing rate of technological development has empowered non-state actors and individuals at a level previously held only by nations. The increasing capability of social media has eased the spread of technological advances to the point of governments losing exclusive use or access. Individual needs, faster innovation, increased access to technology and the development of "Maker" communities drive the development of capabilities and products previously restricted to government provided or controlled technologies.

Global technological innovation, production and spread are occurring alongside, and are directly related to, changing world demographics. The science and technology realm is expanding rapidly in association with increasing numbers of engineers and engineering institutions. "The revolution in new information and communication technologies, particularly the Internet, will strengthen the globalization process and constitute a powerful accelerator of social and political transformations." It has been suggested this modern revolution may even set the foundation of a new structure for the world's society. However, global disparities in technology advancement may also result, whether from demographic trends, a rise of middle-class creativity, or regional development based on geographic areas where labour costs are lower.

The potential of a scientific and technological revolution may have major strategic consequences. A greater number of state and non-state actors are liable to obtain, or seek to obtain, easier access to restricted and sensitive information or technology e.g. WMD/E, leading to increased global security issues and instability. WMD/E can be attractive choices for those who desire an increased level of influence on world affairs or specific causes but do not possess the resources or infrastructure to procure an effective conventional capability to achieve their ends. The control or governance of technological innovation is already a challenge for states and institutions. This challenge will likely increase

further as technologically empowered individuals' access and use of new capabilities breeds an ever-increasing demand for further scientific and technological expansion.

13. **TECHNOLOGICAL INNOVATION AS AN ACCELERANT**

Technological innovation remains a nation's critical path to maintaining its credibility and stature in an increasingly interconnected world. Innovation, like adaptation, is a survival mechanism that requires institutions to anticipate trend changes occurring around them and adjust accordingly. It is a key factor in resource exploration and exploitation, creating access to new strategic commodities including rare earths, minerals and fossil fuels. Advances in biotechnology continue to seek ways to extend life, improve health, and cure illnesses and afflictions. Information technology will progressively influence aspects of financial, political and social interactions. For example, social media creates greater political transparency with implications for national and global politics that challenge governments' accountability. Governments play an important role in enhancing civilian technology development and adoption through economic, regulatory, and trade policies, and their support for research and development. However, the increase in use of technology further breeds an increased demand for its expansion. Additionally, within pervasive networks, there may be individuals with the disruptive potential to leverage this interconnected virtual infrastructure.

14. **WEAPONS OF MASS DESTRUCTION / EFFECT (WMD/E)**

Concerns over terrorism and WMD proliferation remain near-universal. The abundance and proliferation of WMD/E, and potential innovative employment methods, constitute one of the most serious future risks. During the Cold War nuclear deterrence, based upon the principle of mutually assured destruction, provided an effective control of WMD/E. Since then several factors have contributed to an ever-increasing risk: more nations seeking to develop nuclear, biological or chemical weapons; the expansion of non-weapon nuclear energy; the escalation of scientific exploration into WMD/E technology; and the likelihood of WMD/E knowledge or materials falling into the hands of terrorist groups.

15. **RESOURCES / ECONOMICS**

Globalization is an often-discussed but seldom-defined phenomenon. At a broad level, globalization is an increase in the impact of human activities of forces that span national boundaries. "It has been described as "a process where the intensification of economic exchange, flow of information, and marketization may affect the capacity and power of states." Globalization has varied effects on many aspects of society, including but not limited to global politics and national security, social media, culture and religion as well as demographics, public health and the environment. Interaction between two or more of these factors can have neutral, positive or negative effects, and may trigger new security challenges, as they increase or lessen tensions between stakeholders.

Globalization will likely increase electronic transactions, improving the availability of financial services and trade for millions of people. This is expected to increase the global market for goods, capital, services and labour as it brings together geographically detached consumers and suppliers. However, the speed with which an unpredicted loss in some markets can translate into a worldwide economic crisis is evidence of the risks associated with a highly reactive, electronically connected international financial system.

Economic process innovation. Manufacturing processes have started to change significantly and will continue to 2030 and beyond. The democratization of manufacturing will have extensive national and international economic impact. The globalization of information increases the speed of innovative uses for current technologies. Technological advances and efficiencies have lowered the entry-barrier to automated capabilities such as robotics and remotely piloted vehicles, and manufacturing through advances like 3D printers and similar technologies. Consequently, counter-proliferation efforts and policing will shift the emphasis to the control of access to designs and raw materials.

Energy is an essential commodity in all aspects of daily life. By 2030, virtually all Eastern and Southern economies may have seen vastly increased energy use, while the West's demand remains at consistent levels. The globalization of energy demands has already significantly increased along with the expanding global population and interconnected energy markets. Notwithstanding new advances in exploration and exploitation of gas and oil, the depletion of the globe's natural resources is expected to continue at a rate which may pass the ability to meet new demands. This is exacerbated by the expected increase in global population to almost 9 billion by 2030. According to the World Bank, this population growth should result in a 50% increase in global demand for food by 2030, with similar effects occurring on water supply demands. Equally, increasing energy consumption will strain the oil and natural gas supply systems. "The increasing nexus among food, water and energy – in combination with climate change – will have far reaching effects on global development"..."Tackling problems pertaining to one commodity will not be possible without affecting supply and demand for the others."

Energy scarcity will have a large influence on global economy trends. With oil being a "Strategic Commodity", it causes any nation that holds the majority of the world's oil reserves to have an enormous amount of influence on the global economy. The depletion of the current oil reserves in the Middle East has produced record high oil, coal and liquefied natural gas prices internationally. The loss of this influence factor threatens to undermine the legitimacy and autonomy of the current energy elite. Potential conflict, regime changes or a nuclear arms race in this region will have a profound impact on the future global economy.

The financial networks and communication systems that manage the world's critical resources, such as water, energy, and food, are increasingly intertwined. The interconnected world will be increasingly vulnerable to exploitation by non-state actors, ranging from international criminal networks to

cyber warriors and terrorists. Attackers might target banking and financial institutions, voice communication systems, electrical infrastructures, water resources, or energy infrastructures. The growing complexity and interconnectedness of these systems increases the overall risk of cyber-attack.

16. **GLOBALISATION OF FINANCIAL RESOURCES**

The globalization of financial resources is expected to contribute to accelerated global economic growth. Globalization has brought about benefits such as economies of scale and risk reduction through multinational efforts. However, it increases the risk associated with the interdependence of various regional and national economies that are influenced by varying factors in diverse manners and at different rates. As countries are increasingly dependent on each other, any negative economic event in one country can be compounded globally as it spreads quickly to other markets.

17. **ENVIRONMENT**

Environmental/Climate Change. Many international future studies predict that the current warming of the planet will continue at an unprecedented rate. Furthermore, an agreed assertion is that this heating can be directly attributed to human related factors which have significantly increased greenhouse gas emissions, particularly CO₂. However, there remains uncertainty about the rate and magnitude of change over the next century. For example, some effects of global warming, such as melting ice-caps that can accelerate warming as less light is reflected back to space, may have further significant influence on the overall change. Estimates report that by 2030 average temperatures will have risen 2⁰C above pre-industrial levels. Although the exact consequences of this rise are yet unknown, any climate changes are expected to have adverse, unstable and unpredictable effects on land, sea, and to the atmosphere.

18. **DISASTERS (NATURAL / MAN-MADE)**

The number and frequency of devastating natural disasters such as massive earthquakes, tsunamis, volcanic eruptions, solar flares, gamma ray bursts, or large meteor impacts are increasing and their economic impact have multiplied eightfold. Man-made actions have aggravated the consequences of natural disasters. In developing nations' mega-cities, where deforestation, over cultivation and soil erosion, as well as human accidents e.g. major oil spills, or industrial / toxic / nuclear incidents, the need for expensive humanitarian assistance, disaster relief and recovery operations will increase.