

It had looked as though the world was rid of the fear of nuclear war. Instead now, there are signs, in the East and the West, pointing in the opposite direction. The arms race, including atomic, is back. And in the US there are

Does the US reign supreme in nuclear weapons?

STRATEGY 1

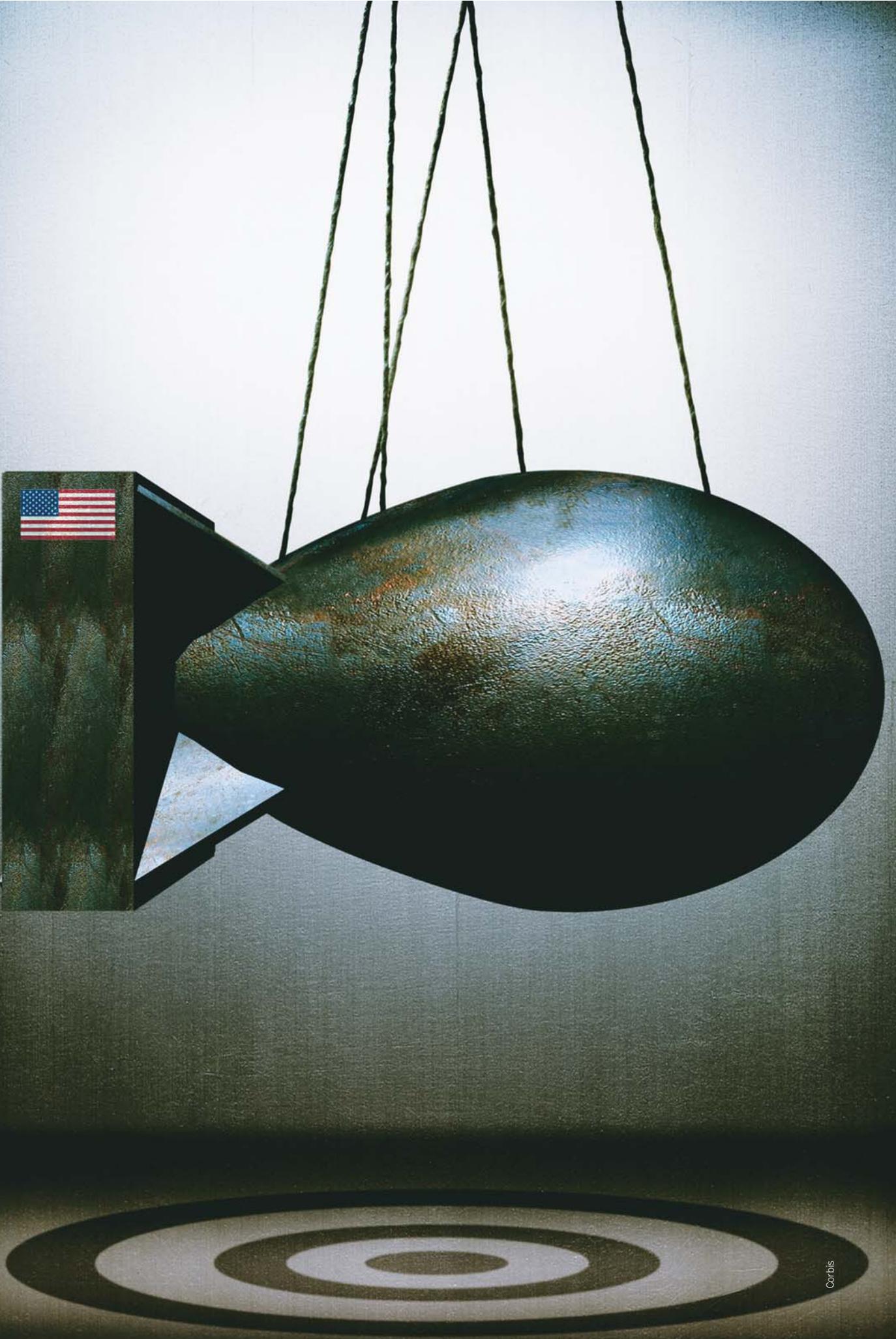
by Giorgio S. Frankel

those who theorise a superiority capable of pre-emptively eliminating Russia's and China's nuclear arsenals. However true this is, it seems clear that the international scenario is getting ready for a new "cold war"

Towards the end of the long Cold War between East and West, the world hoped for an "aftermath" full of expectation and promise. Among these was the end of "nuclear terror", to be achieved through gradual atomic disarmament, negotiated and verified between the parties. This vision was not so naive, maybe a little (in hindsight definitely), but at the time it was based on proven facts such as the historical agreements which the two super-powers (the United States and the Soviet Union) had already concluded, or were on the table, concerning the limitation and reduction of nuclear arms. The nuclear question was never confined to Chancelleries and High Chiefs. For some decades, the so-called "balance of nuclear terror" had even affected the daily life and culture of most of humanity, not just during the most tense times of the Cold War, but also in times of ease. In the first half of the eighties (during the Cold War's final phase of disintegration), the question of medium range missiles in Europe gave the nuclear contrast between the US and the USSR a last and hard blow, which left many with the hope of saying the last "goodbye" once and for all to the Bomb.

After all, the teaching of decades of nuclear strategy was that the Bomb really was too powerful and destructive a weapon to be useful for anything, that is, for it to be used in conflict. In reality its real military use was minimal, other than as a deterrent: if I have a nuclear weapon, my adversary, even if stronger, will think twice about attacking me with atomic or conventional weapons.

More or less twenty years have passed since the Cold War really ended. And fifteen since the end of the Soviet Union. Today, the atomic bomb is hitting the headlines again, and not to announce its end but to recurrently warn us about its increasing importance. The Iranian atomic bomb comes instantly to mind (still hypothetical) and the possible nuclear arms "race" that it may cause in the Middle East, where, however, a significant, though undeclared, nuclear power already exists: Israel. In reality, the key problem is that the "historical" nuclear powers (US, Russia, UK, France, China) seem intent on keeping and possibly developing and improving, their nuclear arsenals for the foreseeable future – though within set limits, concerning the US and Russia, defined in



previous agreements on nuclear arms. Nevertheless, some elements of the Russian-American structure of nuclear agreements and negotiations are at risk today. Furthermore, among other things, new nuclear warheads of various power are being studied, depending on various needs with nuclear development programmes covering the decades to come.

The UK, for example, has just decided to continue to be a nuclear power and renew its deterrent. "For the foreseeable future", stated British Minister of Defence, Des Browne, "there is no realistic prospect of a world without nuclear weapons". So, four new generation nuclear missile launching submarines will be put into service around 2025 and will be part of Her Majesty's fleet until 2050: which will be just more than a century since the beginning of the atomic age! The total cost is forecast at 30-40 billion pounds. Meanwhile, France is building its fourth new generation Le

Triomphant class nuclear missile-launching submarine, which will also be employed, together with the other three of the same class, for two or three decades. In Moscow, President Vladimir Putin stated (in March 2006) that "an analysis of the international situation forces Russia to view the nuclear deterrent as a fundamental necessity for its safety". Today Russia is committed to a huge military modernisation programme, which also concerns strategic and nuclear forces. Last year, Putin mentioned the development of new strategic missiles with performance never seen before: "Russia has developed missile systems which no-one else in the world owns. These missiles are not an answer to an anti-missile defence system, and it does not matter whether

_Moscow boasts of having developed new intercontinental missiles including the Topol-M (below), while France is building its fourth Le Triomphant category missile-carrying nuclear submarine (right)



these defence systems exist or not. Our missiles are hyper-sonic and able to change trajectory". The US, on its part, is carrying out numerous modernisation programmes and is developing strategic and nuclear systems, including defending itself from intercontinental ballistic missiles. Also on the table is the idea of designing, developing and producing a new standard nuclear warhead (the Reliable Replacement Warhead) to replace those being currently used.

In conclusion, the message the "historical" nuclear powers are sending to the rest of the world (including the aspiring proliferators) is that, when all is said and done, the Bomb is important.

In the near future, the boundary between nuclear arms and conventional arms (at least in the US) will be more and more blurred if new systems being studied today are created, including mini atomic bombs a little more powerful than large

conventional devices, or intercontinental ballistic missiles with conventional, rather than nuclear warheads, to be intended for special strategic missions, probably covering the "decapitation" of an adversary's leadership.

In addition, according to some articles published in professional journals last year, the United States has acquired "nuclear supremacy" over Russia and China. And if that was not the case, it could actively try to do so, which would put an end to the relative stability ensured by the famous, though hollow, "balance of atomic terror" of the previous decades.

If, on the one side, there are increasingly clearer signs of a possible new "boom" in atomic weapons, on the other there has been more and more frequent talk of a "new cold war" between the US and Russia. At the beginning of 2007, a serious warning that things were beginning to sour was launched by Russian President Putin,



at an international conference on security, in February in Munich. Putin heavily criticised the policies of the United States. Among other things, he said that the implementation of the American antimissile system in Europe, which Russia has always opposed, may start a new arms race. The American Defence Secretary, Robert Gates, immediately answered in a conciliatory manner: "We do not want a new cold war, one was enough". However the climate between Moscow and Washington seems to get less and less friendly.

Serious concerns about the state of Russian-American relations were also displayed in Moscow by Mikhail Gorbachev in a long article published by the "New York Times" and in the Italian "La Stampa": "As a Russian citizen, I am disturbed by the recurrent anti-Russian campaigns, in which the media and politicians join forces to discredit my country and are poisoning the international atmosphere. [...] In recent times Russia and the US have appeared to be on the verge not only of a new cold war but also of a new arms race". In truth, Gorbachev says, that there are no signs of a possible return to a cold war like the one which dominated the world scene between the Fifties and the Eighties. On the other side, he also shows how the problem is not just related to the renewed tension between the US and Russia: the wider context of international relations is also quickly deteriorating.

In the meantime, Russia has threatened to unilaterally withdraw from the INF treaty of 1987 to eliminate Soviet and American ground-based medium and short-range missiles. The treaty (signed by the then President of the United States, Ronald Reagan, and Mikhail Gorbachev, in his office as General Secretary of SUCP - Soviet Union Communist Party) solved the serious problem posed by the Soviet SS-20s arranged in Europe, counterbalanced by the US with a fair number of Pershing and Cruise missiles. Some of these "Euromissiles" were also based in Italy, in Comiso. The Russian threat of withdrawing from the INF treaty comes in response to the American project of installing some elements of its anti-missile shield in Europe, and this includes: a radar base in

the Czech Republic and a base with ten anti-missile missiles in Poland, in addition to a special radar stationing in a Caucasus country, perhaps Georgia or Azerbaijan. Some elements of the American anti-missile system are also based in the UK and Greenland.

Russia has always opposed any American anti-missile defence projects since they destabilise the nuclear balance and decrease the effectiveness and credibility of its missile deterrent. On the other side, as mentioned above, Moscow boasts of having developed new inter-continental ballistic missiles, including the Topol-M, already operational, and maybe others still experimental, able to cross the US anti-missile defence. The threat of leaving the INF treaty is for now a verbal escalation on the difficult issue of the American shield in Europe. It implies the subsequent decision to produce and arrange new medium-range missiles, perhaps an



Grazia Neri/AFP

updated and improved version of the old SS-20, which were withdrawn and disassembled under the INF treaty. The Commander of the Russian Strategic Missile Forces, General Nikolai Solovtsov, stated that future Russian medium-range missiles could have among their objectives the elements of the American anti-missile shield in Poland and the Czech Republic. That implies the risk of serious political tension in Europe and instability in strategic relations. However, whether the Russian defence industry, already committed to a large number of programmes, has enough resources to produce the new missiles remains to be seen.

Nevertheless, if the US has decided to place the shield in Europe, nobody, certainly not Russia, can stop it, if Poland and the Czech Republic agree. Washington would like to conclude negotiations with Warsaw and Prague within the year. The European segment of the shield will cost around 3 billion dollars and could be fully operational by 2013. The US claims that the shield is in no way directed towards Russia but must protect the US and Europe from possible missile threats from Iran and North Korea. Anyone with a map in front of them would not find this argument very convincing. If the threat is coming from Iran, why put anti-missile missiles in Poland? As far as North Korea is concerned, it is hard to believe that it can launch its missiles all the way to Europe or, worse still, that it would want to launch them towards the US in the wrong direction, the lengthy route across Russia, Europe and the Atlantic.

_Left: Czech demonstrators protest the announcement of an American anti-missile shield to be installed to protect the U.S. and Europe from possible missile threats from Iran and North Korea





Geography suggests that the presence of the American shield in Poland or the Czech Republic may be a great “provocation” for Russia, thus exasperating the overall strategic “encirclement” complex which it has been suffering for some time now, especially with the enlargement of Nato up to its borders and the American strategic penetration in the Caucasus and Central Asia, two ex-Soviet regions which Moscow wants to keep in its sphere of influence and strategic security. The Russian Foreign Minister Sergei Lavrov has accused the US of using “methods from the Cold War” to frighten the Europeans concerning Russia and make them join in the anti-missile shield.

It must be said that the shield does not seem to enjoy great support in Europe and might even lead to disagreements. France, for example, excludes the possibility of participating in the shield and prefers to face future threats with its own deterrents and diplomacy. And President Jacques Chirac, following the EU summit in Brussels, at the beginning of March, said that the shield may cause “new divisions in Europe”. Also the German government fears the shield will split Europe and start a new arms race, and it has proposed that the project be discussed within NATO.

Vadacchino: Atomic Re-Armament Is Now A Reality

We asked Mario Vadacchino, lecturer in Quantum Physics at the Polytechnic of Turin, if American nuclear supremacy is possible.

If by “nuclear supremacy” we mean the ability to destroy the adversary’s nuclear power in one strike, this supremacy is today possible. This means that the United States is very likely to be able to launch an attack capable of “disarming” Russia at a nuclear level right from the first strike. Obviously it is a very risky option, but nevertheless it would seem possible to say that it is technically feasible today. We are obviously speaking about continuously evolving situations. This American supremacy is quite a recent development, due to two main factors: the collapse of the Soviet Union, and the “imperial” strategy of the United States.

What led the US to attempt nuclear supremacy?

Several components need to be considered in this policy. The first thing is that, following the fall of the USSR, the US became the only global super-power, this fact also affecting the issue of nuclear arms. In addition, there is an important “group” of scientists and technicians, partly left out of the disarmament process in its day, which is now pressing for new quantitative and especially qualitative development. Huge financial resources are on the table as well. Naturally, great military and industrial interests are behind this “group”. Just think about the case of the defence system against ballistic missiles: it is an element of nuclear supremacy that, at the same time, strengthens the entire American aerospace industry.

Is there a risk of a new arms race?

It is already underway as we speak. Just look at the statements made by the political leadership in Russia, China and, naturally, the United States. So, the race is in progress and in full swing. It is hard to say which of the three is further “ahead”. The White House has asked Congress for massive increases in the military budget. For Russia and China, a 10 and an 18% increase is being asked for respectively, although this data is relatively obscure: part of these increases is destined for nuclear weapons.

Which leads us to another question: what are the possible technological developments for nuclear arms?

Forbidding nuclear experiments stops or in any case slows down a possible line of development and therefore the increase in the power of the bombs, given the same weight. Nevertheless, there are wide margins for technological development for anything relating to electronic apparatus and precision. The effectiveness of a strategic nuclear weapon depends on its precision as well as its explosive power. The higher the precision, the lower the weapon’s power needs to be.



_Putin (above) has threatened to quit the INF treaty signed by the then U.S. President Ronald Reagan and the secretary of the CPSU Gorbachev in response to the American project to install an anti-missile shield in Europe

Nevertheless, Poland has promptly agreed to the installation of American anti-missile missiles within its borders, by virtue of a bilateral agreement with the US rather than within the framework of a NATO programme.

This long digression on a subject rarely dealt with by the media would suggest, on the contrary, that numerous potentially disruptive problems of primary importance are interlaced with this apparently secondary and technical issue of the American shield in Europe.

Another very important aspect of the current nuclear era in need of consideration is the slow lowering of the so-called “nuclear threshold”, that is, the event which could cause a country to use its atomic force. In the past, the dominant philosophy was “no first use”, with each power stating it would not use the bomb first but only in response to an attack. However, last year, Jacques Chirac, while visiting a base of nuclear missile launching submarines in Brittany, said that France could respond

with nuclear arms to a terrorist attack conducted by another State. Also British Prime Minister Tony Blair said something similar. And in the United States, the new strategic doctrine includes the possibility of preventive or preliminary use of atomic weapons even against non-nuclear countries, for example to eliminate a potential terrorist threat. The White House has not excluded using these weapons to destroy Iranian nuclear plants.

This apparent lowering of the “nuclear threshold” should perhaps not be dramatised more than necessary. Among the many paradoxes of nuclear strategy there is the one in which, if on the one hand nuclear weapons are “unusable”, on the other a nuclear power must in any case maintain the “credibility” of its deterrent. This means that other countries must always be doubtful of the power finally using its arms. These days it seems that the line between nuclear and non-nuclear, strategic and non-strategic, which has never been really clear-cut anyway (in the time of the Cold War, the *trait d’union* on the military plan was provided by the so-called “tactical nuclear arms”), is more blurred than ever before.

Another key factor, maybe connected, is

that, according to some American academics, the long period of “balance of atomic terror”, which has prevented a nuclear war between the US and the USSR for decades, has come to an end, while the era of America’s “nuclear supremacy” over Russia and China is now upon us, with huge almost unthinkable implications for global politics. The thesis of the emerging American “nuclear supremacy” was asserted last year by Keir A. Lieber, of the University of Notre Dame, in Indiana, and Daryl G. Press, of the University of Pennsylvania, in an article the two authors published in “Foreign Affairs”, and in another longer article by them appearing in “International Security”, two austere and prestigious periodicals known throughout the world. In Russia, the considerations expressed by Lieber and Press have aroused criticisms that have been met with some apprehension. The same in the United States, where criticism has been quite harsh. While Russian critics are worried with the conclusions of the study (i.e. America’s ability to eliminate the Russian nuclear power), the American critics were especially concerned with the premises and method. Nevertheless, it seems that some of Lieber and Press’ discussion is shared by a study of Rand Corp., the famous “think tank” which for years has contributed, among other things, to the drawing up of American nuclear strategy. The Lieber and Press study was also discussed in a seminar organised by the Centro di Ricerca e Documentazione Luigi Einaudi, in Turin, where the political scientist Luigi Bonante, author of numerous works on nuclear weapons and warfare, and the physicist Mario Vadamchino took part. “In the last fifty years”, said Vadamchino, who teaches Quantum Physics at the Polytechnic of Turin and is part of the Centro Interateneo di Studi per la Pace, “the fundamental factor of the nuclear relations between the two superpowers has been the impossibility of a first strike: the directions of the two blocks have never estimated the complete disarmament of the other with a sudden attack, thereby avoiding any retaliation”. The impossibility of a first strike was due to both objective technical limits and political choices. As Vadamchino underlined, the main political choice that

Bonante: It takes two to have a war

We also asked Luigi Bonante, who teaches International Relations at the University of Turin, whether American nuclear supremacy was possible.

Yes, it is possible. It is not just possible, it already exists. And it has probably always been like that. Also in the past the US nuclear arsenal was decidedly superior to the USSR’s. Even more so today. This supremacy is obviously also global. The American military potential – nuclear and conventional – is incomparably superior to the rest of the world. It begs the question why the US continues to develop its military might.

Is there a risk of a new “cold war” between the US and Russia?

It takes two to make a war. Even a “cold” one. And today there is no power able to rival the Americans, even in a “cold war”. Nobody can really stand up to the US. Concerning the current relations between the US and Russia, they are normal relations which can be good or not so good, depending on the moment and circumstances. Russia’s problem is that it was a superpower, under the Soviets, and now with its oil, gas and the rest it deludes itself into thinking that it can restore the power it had. But the Russia of today cannot be compared with the USSR.

What is the future of nuclear weapons?

Proliferation is the nuclear problem today. Just think of the cases of North Korea and Iran. Nevertheless, proliferation has no strategic potential. That is, nobody can really compete, in terms of power, with the United States, not even the new “proliferators”. In reality the proliferators are moved by symbolic more than military reasons, so to speak, which concern politics and international relations. After all, nuclear weapons do not have a military meaning. They are for politics. After Hiroshima and Nagasaki, from 1945 to date, the atomic bomb has only had a symbolic function.

Why, despite their incommensurable supremacy, does the US continue to arm itself?

This is the most delicate problem of today. It is difficult to understand and interpret American policy. Being the richest and most powerful country in the world no longer makes the United States a recognised leader in the world, or part of it. The Americans no longer have the status of “protectors” of the Western world and of democracy, and have developed a new arrogance instead. The most worrying thing in the US is that they do not seem to have a clear vision of what they want for the future of the world. Once, instead, this vision for the future existed, and was accepted by the West.

contributed to making a first strike impossible was stipulated in the ABM treaty, which forbade the US and the USSR to build defence systems against ballistic missiles. By virtue of the ABM treaty neither of the two countries could attack the other since its cities would be exposed to retaliation by the attacked country. In this situation, a first strike meant suicide. (The US withdrew from the ABM treaty in 2001, to go ahead with the creation of an anti-missile defence system.)

According to Lieber and Press, this model no longer applies. What happened after the end of the Cold War was that the US continued updating and improving its nuclear arsenal, while the Russian nuclear forces were abandoned for many years. Even if today Russia started large restoration and modernisation programmes, it would take many years to erect the Russian deterrent from its current state of degradation. Furthermore, according to Lieber and Press, the Russian radar system created to promptly warn of American missile attacks features large gaps through which American missiles could pass without setting off any alarm at the Russian Command, which would become aware of the attack only when it would be too late. The key point is that the US could destroy the entire Russian arsenal in one hit, thus eliminating any possibility of retaliation.

If this approach is correct, things could worsen for Russia in the near future, for two main reasons: the first is the expected decrease in its ballistic missiles; the second, the American anti-missile shield. This means that there are fewer targets to destroy with the first hit, and the surviving missiles remaining in Russia would be easily intercepted by the shield. This applies to Russia and even more so to China, whose strategic nuclear forces have been reduced to a few out of date intercontinental missiles.

Much of the criticism arising in the US about the Lieber and Press study states that the authors overestimate the American nuclear arsenal, including the shield, and underestimate the ability of the Russians. Some also contest the idea that the US has in some way actively tried to acquire "nuclear supremacy". Nevertheless, a Rand

study would confirm this suspicion: the technological developments of the American nuclear power cannot be justified, according to Rand, by the requirements of traditional deterrence, but rather by the aim of acquiring a capacity for pre-emptive attack.

According to Bonante, who teaches International Relations at the University of Turin, Lieber and Press have not really discovered anything new. The US, he says, has always enjoyed an effective nuclear superiority over Russia, or the ex USSR. The balance of atomic terror, as many have so far imagined it, has never existed, because the USSR has never acquired nuclear strategic parity with the US. The debate is large and complex. The fact, which remains to be seen, that the US could destroy in one go the Russian nuclear deterrent, together with the Chinese one, does not mean an attack or nuclear war is inevitable, or that the lack of this attack denies that there is superiority. As a matter of fact, if this superiority does exist, the US does not need to show it with missile strikes because it will translate into a new international situation. Although Lieber and Press' articles have been harshly criticised, they have been published in two very prestigious magazines. This does not necessarily mean that their assessments are valid. In any case the fact that they were published must have a meaning and a reasoning behind it, which might concern the difficult and dangerous international context, more and more like a "new cold war".