

# Who controls nuclear button in India ? Recovery of the American economy and the new tax cut plan



HARUN UR RASHID

PREVENTING nuclear war depends on addressing the issue as to who has the ultimate power to take a decision to use nuclear weapons. In the US the President has been invested with that power and what is why wherever he goes a small brief case with a nuclear trigger button inside goes with him.

In recent days the Indian Cabinet Committee on Security decided that the Prime Minister would have the final power to decide on the use of nuclear weapons. Although little is known about the number of nuclear warheads India and Pakistan possess, *Jane's Strategic Weapons Systems* estimates India has 100 to 150 warheads and Pakistan 25 to 50.

Until now, India's nuclear weapons have been under the control of an informal hierarchy headed by the Prime Minister. Last April it was reported that the Government approved in principle a plan for a command structure placing the nuclear button in the hands of the Prime Minister.

Recent statement reportedly said that nuclear retaliatory attacks could only be authorised by the civilian political leadership through the new Nuclear Command Authority. It also reiterated its "No First Strike" policy but said "nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage". In an extension of its earlier doctrine, the Government added that India would retain the option of retaliating with nuclear arms in the event of a major biological or chemical weapons attack against India or Indian forces.

A formal control chain is considered desirable by weapons experts who say it makes it easier to avert an accident. "Until now India's weapons doctrine was seen as more of a draft. There was an ambivalence and the

announcement removes that. It enhances regional stability and sends a positive signal" said Uday Bhaskar, Deputy Director, India-based Institute of Defence Studies and Analysis.

Defence analysts believe that India's announcement would improve the transparency of the country's nuclear policy and enhance regional stability in South Asia, seen by the outside world as a nuclear flash-point because of bitter tensions between India and Pakistan over disputed Kashmir. Furthermore India and Pakistan are perceived by other nuclear powers as "irresponsible" in use of possible nuclear weapons. This view is

raising the possibility of widespread radiation poisoning.

These concerns appear to be reasons not to launch a war in May last year by India against Islamic militant camps in Pakistan-administered Kashmir (alleged source of cross-border terrorism according to India) when both were militarily poised to strike at each other on Kashmir issue. India amassed 750,000 soldiers while Pakistan 270,000 military personnel on the Line of Control in Kashmir. In 1965 Pakistan's support for rebellion in Indian-held Kashmir provoked India to attack Pakistan's international boundary. New Delhi has so far refrained from such a

to conventional weapons. Later the import of the statement was denied by a Pakistani spokesman.

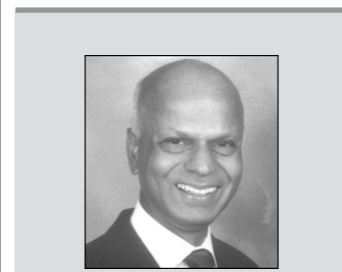
However debate on whether possession of nuclear weapons averts war will continue among pacifists, although the theory of deterrence of war, known as Mutually Assured Destruction (MAD), during the Cold War, brought no conflicts between the two super powers for more than fifty years. One Indian Army General, Sunderji, reportedly told that had Pakistan been in possession of nuclear arsenal, war in 1971 would not have occurred.

It is interesting to note the views of Indian and Pakistani leaders on the use of nuclear weapons. Pakistan President Pervez Musharraf during his interview with CNN in May last year ruled out the possibility of nuclear war saying that "Any sane individual cannot even think of going into this unconventional war." Likewise India's Defence Minister George Fernandes in June last year reportedly said: "If the Western powers and China know how to keep their nuclear capabilities under control, the same holds good for India and Pakistan."

It seems that elimination of nuclear weapons is not now the agenda for global powers. It will not be incorrect to conclude that it is mainly Washington's attitude that ensures the continuing legitimacy of nuclear weapons. Much of the recent thinking about long-term strategic nuclear weapons control emphasises the need to mitigate the possibility of pre-emptive, inadvertent and accidental nuclear war.

Whatever the outcome of the debate on disarmament of nuclear weapons, it appears that the key to future Indo-Pak nuclear weapons control will be the continued power of deterrence. Although New Delhi and Islamabad each had its own particular combination of motivations for going nuclear, both share, along with other nuclear powers, the fundamental belief that nuclear weapons deter aggression. In view of this, the formalisation of India's chain of command to use nuclear weapons establishes transparency and accountability.

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writes from Madrid

ALTHOUGH the prospect of a double dip depression has for the time being receded and the deflationary (a general decline in prices) pressures have somewhat eased, no one doubts that new measures are required on an urgent basis to stimulate the American economy. Given the fact that Bush administration's tax-cut policy based on supply-side economics has so far failed to produce the expected results, many had hoped that the president would change his economic policy by dropping the tax cut plan altogether which essentially favours the wealthy. But in a major policy speech at a recent meeting of more than two thousand wealthy businessmen, organised by the prestigious Economic Club of Chicago, President Bush offered more of the same confirming the fear of another round of fierce ideological battles. Needless to say that the Americans are the first ones to be interested in an early economic recovery of their economy, but the rest of the world is also equally interested in the recovery of the American economy because 64% of the world economic growth during the period from 1995 to 2000 was due primarily to the growth of the American economy. Therefore, it is not impertinent for us to ask whether the president's new tax cut plan will serve its purpose or not.

The "stimulus package" includes some help for the unemployed, some income tax savings for the middle-income Americans and some minor help for the small and medium-sized businesses. The president wants restoration of investor confidence, increased consumer spending, economic growth and job creation. And how

does he plan to achieve all this? The administration had already taken other measures before. Over the last two years, the interest rate has been cut twelve times, bringing it down to 1.25 per cent (lowest since 1961). Mr. Bush's tax cut plan, which came into effect almost two years ago has already wiped off the surplus he inherited from President Clinton. Actually, the 2003 budget will have a multi-billion dollar deficit. In order to boost the export market, the mighty dollar has effectively

cent spare capacity) and therefore new jobs will be created.

There is a catch in this tax-cut plan. The plan excludes the middle-income Americans, who save money in tax-deferred individual retirement plans like the 401(k) plan. Although neither the annual savings nor the dividends are initially subject to tax, after retirement, when the savers (they number more than 40 million people) withdraw their money, all of it is taxed as ordinary income. There-

usually hires more workers in December because of Christmas shopping, this Christmas (2002) lost 104,000 jobs. The growing federal budget deficit may easily rival the huge current account deficit in size, if the tax cut proposals are approved by the Congress. American assets worth several trillion dollars are currently being held by foreign investors, allowing the US to run big trade deficits. Foreign investors are very wary of this so-called twin-deficit situation. If they were to lose their confidence in the US dollar as the traditional "safe haven currency", the dollar will come under increasing pressure. Under these circumstances, if anyone thinks that all the current ills of the American economy can be magicked away in the foreseeable future by a stimulus package based primarily on further tax cuts for the wealthy, he is very much mistaken. Mr. Bush is no magician either. Some analysts think that under different circumstances, these measures could produce some positive results in a longer time frame because of their "trickle down effect" on the economy. But in order to be re-elected Mr. Bush needs quick results. Approval rating of his performance in the economic field is already quite low.

In my opinion, there is a fundamental disconnection between the reality of the situation and the current administration's foreign and economic policies. At present, in the United States and elsewhere, there is a climate of insecurity and a pervasive sense of uncertainty, much of which is due to the administration's warmongering. In my opinion, there is a fundamental disconnection between the reality of the situation and the current administration's foreign and economic policies. At present, in the United States and elsewhere, there is a climate of insecurity and a pervasive sense of uncertainty, much of which is due to the administration's warmongering. Oil prices are shooting up, which can send the world economy into a deep recession. The continuous talk of war against Iraq and now against North Korea does not create a propitious environment for new investments nor for new businesses (except perhaps in the armaments industry). It is not propitious to stimulate consumer spending either. Peace and stability are essential to sustainable economic growth. Mr. Bush could start the process by stopping his violent rhetoric and dropping his tax cut plan altogether.

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## BOTTOM LINE

It seems that elimination of nuclear weapons is not now the agenda for global powers. It will not be incorrect to conclude that it is mainly Washington's attitude that ensures the continuing legitimacy of nuclear weapons. Much of the recent thinking about long-term strategic nuclear weapons control emphasises the need to mitigate the possibility of pre-emptive, inadvertent and accidental nuclear war.

totally misplaced and misconceived.

In South Asia several types of nuclear deterrence act as a firebreak between peace and war. Nuclear weapons cast an existential deterrent shadow over Indo-Pakistan relations. Both are dissuaded from fighting by the simple fact that their nuclear capabilities exist and thus that war between them could escalate to a nuclear exchange. Another concern is that either country's nuclear first strike could be counter-productive given the short distances separating India and Pakistan. The vagaries of winds and the consequent chance that radioactive fallout could drift back over the attacker's own territory.

New Delhi and Islamabad are also dissuaded from aggression by the fear that any outbreak of hostilities might lead the opponent to attack one's own nuclear facilities with advanced conventional weapons (although there exists an agreement between them not to do so from 1 January 2003), thereby

While nuclear weapons have a deterrent impact on decision-making in South Asia, no deterrent balance is impervious to breakdown. Deterrence of war is always a question of probability, not certainty. In this context the formalisation of command chain to nuclear weapons in India is significant news of importance for the region.

It is believed Pakistan has its own Nuclear Command and Control Authority made up of military, political and scientific officials with Pakistan's President Pervez Musharraf having the final say. Pakistan which has fought three wars with India, including two over the Himalayan territory of Kashmir in 1948 and 1965, has not ruled out the "First Use" of nuclear weapons, if its territorial integrity is threatened. In recent days President Musharraf in a speech to Air force officers reportedly told that he had sent a secret message to India's Prime Minister that India's attack on its boundary might not be limited only

# University education in a developing country

DR M ASHRAF ALI

PEOPLE of a poor country like Bangladesh naturally expect that our universities should play a greater and meaningful role in the development of the country. The question of educational efficiency is vitally important here because the universities are financed by public funds which are provided by the people. In recent years there has been criticism that the universities in Bangladesh have failed in their role of producing leaders for the country who are expected to make meaningful contributions in all spheres of development.

It is generally admitted that the Dhaka University which was established in 1921 has changed little in its character of curriculum, teaching and management although the size of the student body has increased by several thousands. Inflexibility and rigidity in terms of curricular changes and educational management hinders the learners from getting an education which is adequately suited to the needs of the 21<sup>st</sup> century.

The universities in our neighbour-

ing countries are playing a greater role in nation-building activities. Some of them have been termed as "people's university" where any interested learner irrespective of age or break of studies take up courses of his choice. It is pity that in our universities even break of study is used against a prospective student. Poverty is a major reason for break of study for many students, but it should not stand in his way of getting higher education if he is otherwise qualified.

Cost effectiveness is a factor which is commonly evaded in our country in terms of all types of investments. But this sort of laissez-faire approach results in colossal wastages which are clearly evident in investments of all types. Education is no exception. In order to gear up higher education and getting optimum return from the investment made in it, the question of efficiency should be taken up seriously. There are two types of efficiencies -- the internal efficiency and the external efficiency. By internal efficiency we mean the suitability of the curricula, the quality of teaching and effectiveness of the educational management, while external efficiency

One thing must be clear to our educational authorities that since we have a large population, student enrolment is going to be naturally larger and larger every year. Some people suggest for selective higher education. To me it is no solution, rather it is a selfish motive to prevent others from enjoying the benefits that is a monopoly of the lucky few. There cannot be any justification for this sort of protectionism. Rather, we must learn how to manage large universities with emphasis on technical and job oriented subjects because our universities are going to be large not by choice but by necessity.

indicates the extent of utilisation and return from the product (graduates) that is turned out by the university. Normally, in order to prepare a need-based curriculum, a survey of the needs of the society and the country is made. But in our case mostly it is copied from the curriculum of the foreign universities which have little relevance to our situation for obvious reasons. This is very true in the case of science curriculum in our universities. As a result, we have not been able to produce scientists capable of making breakthroughs and inventions that could lead to rapid progress both social and economic.

The quality of teaching has been generally poor. Perhaps the teacher is not responsible in all cases, but

lack of physical facilities, such as adequate seating arrangement, sufficient number of classrooms, microphone systems where applicable, visual aids, etc is also responsible. Due to the abnormal rise in the number of university students in recent years there has been increased pressure on whatever meagre facilities are available at the moment.

In terms of external efficiency, our universities have miserably failed. We have been producing graduates by thousands who have no jobs. Unemployment in higher education has become acute in recent years. The lopsided planning in offering courses and admission has produced a serious imbalance which has resulted in shortage of man-

power in one sector and an oversupply of educated manpower in another sector.

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In this connection, however, the experience of the United States of America may to some extent be useful. In the USA, there are universities with more than 50,000 students. Those universities are being managed quite smoothly and successfully. For arrangements of curriculum the American system may also be adopted where courses in a department are numbered -- lower numbers for under-graduate courses and higher numbers for the post-graduate course. Credit system is used there by assigning certain credits to each course and a student has to complete a fixed number of credits for his major as well as minor area of study. In the matter of grading system letter grade should be simpler than the

present percentage system. A 4-point scale may be used as in other countries for ease of calculation.

In recent times an alarming trend has emerged in the field of higher education. It is the proliferation of private universities. By now, nearly 40 private universities have been permitted to work in the country. More than 90 per cent of these are based in Dhaka and most of them offer only three subjects, namely, BBA, MBA and Computer Science and they are housed in a hired building without adequate rooms and teaching facilities not to speak of space for games and sports. They do not have full-time faculty but they

hire teachers of public universities on part-time basis. It is obvious that the quality of education offered in these universities is very poor and not worthy to be called higher education. For the interest of the country, the government should stop giving permission to open any more private university and initiate strong monitoring and control system for the existing private universities for ensuring quality higher education.

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# Live and let live: Averting a nuclear winter

BILLY AHMED

IN spite of Non Proliferation Treaty (NPT) the nuclear nations seem busy in upgrading their weapons of mass destruction and stockpiling nuclear warheads and are few countries are yet to sign the NPT. Though these nations are fully aware of the widespread effect of WMD both to human beings and environment.

Nuclear weapons depend on the principles of nuclear fission to produce an awesome explosive force and radioactive fallout. The explosion comprises a blast effect, with winds of several hundred mph, and fire storm, with temperatures rising to 1,000 °C. The longer lasting, more widespread effects come from the scattering of fallout, which causes radiation sickness and long-term diseases. The power of these weapons is calculated in kilotons, equivalent to one thousand tons of TNT; now the power is more often described in megatons (MT), rent warheads are up to 25 MT, but current thinking is to carry a number of smaller warheads on each delivery vehicle, which has a much greater destructive potential. The lethal effects of fallout depends on many factors related to the size and type of the weapon, and whether it explodes in air or ground. Radioactive contamination can be carried by the wind for greater distances: the fallout from the nuclear accident at the Chernobyl power station in the Soviet Union in 1986 spread over

The recent defiance by North Korea and its withdrawing from Non-Proliferation Treaty, has taken the world by surprise causing a great concern and tension. According to foreign media sources, the defiance has stemmed from US 'hostile policy' as claimed by North Korea.

much of Europe. One consequence widely predicted of a nuclear war is 'nuclear winter', in which the debris thrown up by the explosions, and the smoke from the firestorms will keep the light of the sun from reaching the earth.

Nuclear weapon systems are traditionally designed as being strategic or tactical; the 'battlefield nuclear weapon' is a recent development. The distinctions are now becoming blurred. The theory is that strategic weapons are those which can be launched from a nation's own territory against an enemy; by extension it also includes submarine launched ballistic missiles. The categories were created in terms of the confrontation between the U.S. and the Soviet Union. So tactical or theatre nuclear weapons are defined as those mounted on missiles with a range of less than 5,500 km, which means that they cannot be fired from the Continental U.S. against Russia, and vice versa. Generally speaking the (larger) strategic missiles now tend to carry multiple nuclear warheads (Multiple Independently Targeted Re-entry Vehicles - MIRVs). This has given

new life to the older strategic systems. The elaborate system of strategic and tactical nuclear weapons has created its own language and philosophy. All depend on the unique destruction power of nuclear weapons, and the uniform horror with which they are regarded. But there is a new tendency among theorists to 'normalise' nuclear weapons, regarding them as just another war-fighting technique. This has given a great impetus to the scheme for non-nuclear defence.

**Limitation and Control:** To restrict the possession of nuclear weapons to a small group of nations, to reduce nuclear stockpiles, two Strategic Arms Limitation Talks (SALT 1 and 2) produced agreements between 1969-79. SALT 2 were never ratified by U.S. Congress, although its provisions were observed. In 1982, a round of Strategic Arms Reduction Talks (START) was opened. The new designation was political, reflecting U.S. President Reagan's determination to reduce intermediate nuclear forces to reduce overall numbers rather than limit growth in nuclear arsenals. The position was

complicated by the development of intermediate nuclear forces after 1979, providing a fresh area for dispute. The logical termination of START was the zero option, which grew from a determination to reduce the intermediate nuclear forces in Europe to zero on each side, into a plan for the complete elimination of nuclear weapons as a consequence of President Reagan's strategic defence initiative. All the various nuclear weapons control and limitation talks have been bilateral, between the U.S. and the Soviet Union. Other nuclear powers, Britain and France, have not been included; their possession of nuclear weapons bedeviled recent (post-1985) discussions. The Non Proliferation Treaty was designed to stop the spread of nuclear danger; by 1986 more than 100 other countries joined forces against nuclear winter.

The term 'nuclear winter' was coined to describe the potential climatic effects of nuclear war but it is also a useful metaphor for the acute disruption of global civilization that will result from nuclear war and the cumulative threat to life on earth

that is posed by the existence of nuclear weapons. In the early 1980s, the atmospheric chemist Paul Crutzen and John Birks realised that the smoke and debris thrown up into the atmosphere by nuclear blasts and fires may be sufficient to generate a substantial climatic change. Later work, by the pioneering TTAPS (Turco, Toon, Ackerman, Pollack and Sagan) group and other climate modelers, confirmed the temperatures could fall by tens of degrees of Celsius turning summer into nuclear winter. A major investigation undertaken by scope (the Scientific Committee on Problems of the Environment -- a standing committee of the International Council of Scientific Unions) concluded that the sensitivity of the biosphere is such that even minor environmental stress, coupled with loss of industrial production in the nuclear nations, international trade, aid and other aspects of modern civilization, would result in starvation on global scale. Nuclear winter has highlighted the need to consider the long-term consequences of the use of nuclear weapons and, some have claimed, has added a new

dimension to the nuclear debate. There has been much discussion on the implications of the new findings for disarmament, arms control, weapons development, nuclear strategy and civil defence. The global nature of the threat of nuclear winter has strengthened the involvement of the non-nuclear nations in the arms debate.

**Conclusion:** The recent defiance by North Korea and its withdrawing from Non-Proliferation Treaty, has taken the world by surprise causing a great concern and tension. According to foreign media sources the defiance has stemmed from US 'hostile policy' as claimed by North Korea. It also accuses US seeking to dent its present political system. Washington already burdened with an Iraq issue should understand the gravity of North Korea's defiance and handle it with a more conciliatory manner rather than arm-twisting approach. All major western countries should try to convince North Korea to revert its decision and rejoin IAEA. This is not the end but a beginning of an end to pursue India, Pakistan and Israel to join IAEA, as these trio also pose a high regional risk, their flirting with WMD is reaching its peak. Difficult to say whether with blessing of any of its allies or not -- but they need to be brought under the NPT before a regional nuclear war triggers.

Billy Ahmed is a researcher



All health information to keep you up to date  
Around the world

One of the greatest challenges of bioengineering has been the development of an artificial heart, which could be used when heart surgery or a transplant is inappropriate. Two very different devices currently lead the worldwide technological race, and each is designed to save the lives of heart disease sufferers.

An Australian-designed and developed artificial heart pump called left Ventricular Assist Device (LVAD) or Ventr-Assist, is designed to take up the left side of the heart's pump action in cases of congestive heart failure, which results when the heart has become weak from disease. This condition affects some 800,000 people around the world who may have less than a year to live unless they can have a biological heart transplant, of which there are only 4,000 a year available worldwide.

The artificial heart is based on a rotary pump. It has only one moving part, about the size of a child's fist, made from titanium alloy. The pump is implanted below the diaphragm and connected to circulation with vascular grafts. The patient's own heart is kept in place and the artificial device takes over. This allows the natural heart to rest, creating the potential for recovery.

A battery and controller is worn externally, so the pump can be regulated, depending on the wearer's physiological needs. Tests on animals have proven successful and human placement trials are set to start this year. In the United States, six men have been implanted with what has been hailed as the first self-contained artificial heart, created by US company Abiomed. Of them, one was still alive in early March, 2002. The AbioCor is designed for congestive heart failure patients with a very limited life expectancy and no chance their natural heart will recover. It is made of titanium and plastic and weighs just under 1kg. The device has an internal controller and electronics that regulate the pumping speed, simulating a natural heart. An external battery worn around the waist transmits a charge to the internal battery. The external power-pack can be removed for short periods, for example to go swimming. However, the device is too large to be implanted in women or children.

The first recipient of the AbioCor heart, Robert Tools, lived 151 days after the operation in June, 2001. While the achievement was remarkable, science still has some way to go.

**Did you know?**

From 1900, Heart disease deaths became serious in industrialised nations.

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