

Export is the way

Redirection of growth strategy in favour of domestic demand as substitute for exports may be a feasible option for East/South-East Asian countries and India. But Bangladesh has very little option other than to pursue strong export-oriented growth strategy.

MIRZA AZIZUL ISLAM

THE United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) has recently published Economic and Social Survey of Asia and Pacific 2010. The Survey, inter alia, suggests the need for redirection of policies to promote growth based on internal stimulus, rather than external demand. To quote from the Survey: "..... to unwind the global imbalances, many of the developed countries will need to restrain debt-fuelled consumption. The Asia-Pacific Countries, for their part, will, therefore, need to seek new sources of growth -- rebalancing their economies in favour of greater domestic and regional consumption."

The logic behind the suggestion

The rationale behind the suggestion is embedded in the macro-economic identity: $Y = C + I + (X - M)$ where Y stands for gross domestic product (GDP), C for consumption, I for investment, X for exports and M for imports. Growth in GDP, therefore, is equal to the weighted sum of these components. It follows that one way of accelerating growth is to increase the domestic components C and I in substitution of (X-M).

Pitfalls in the logic

The fundamental problem in the logic is that the static accounting identity does not capture the interactions among the components in the growth process. To illustrate, if a country already has a high level of domestic consumption, policies

aimed at increasing it further would cause a reduction in saving. This, in turn, would most likely reduce investment, which is a basic precondition for accelerating economic growth.

It should be noted in this connection that increasing domestic investment through foreign direct investment and remittances is largely dependent on economic conditions abroad.

Secondly, if policies are focused on increasing investment, in countries with little or no capacity to produce capital goods, imports will go up. If the incremental imports cannot be met by export growth net exports -- i.e. (X-M) -- will go down, exerting negative impact on growth.

Thirdly, one of the key justifications for the pursuit of an export-oriented growth strategy is to overcome domestic demand constraint. Substitution of exports by domestic consumption may not be feasible in countries with high levels of consumption and low levels of per capita income.

Bangladesh scenario

The scenario in Bangladesh suggests that any substantial effort to refocus the economy on domestic demand would be confronted with all of the above problems. An examination of the structure of aggregate demand of seven Asian countries with relatively large populations (Bangladesh, China, India, Indonesia, Pakistan, Philippines, Thailand and Vietnam) for the year 2007 (last normal year before the onset of global financial meltdown and recession) shows that Bangladesh had the third highest consumption/GDP ratio (83% -- only

slightly lower than Pakistan and Philippines), third lowest investment/GDP ratio (24% -- marginally higher than Pakistan and Philippines), second lowest export/GDP ratio (20%) and second highest net negative export/GDP ratio (-7%).

In order to achieve the desired economic growth of 8% by 2015, the country will have to raise investment/GDP ratio to approximately 32%. That means (i) consumption/GDP ratio has to go down to generate savings for financing investment; (ii) import/GDP ratio will have to increase in view of the country's virtually total dependence on import of capital goods as well as most of the raw materials and intermediate goods. This, in turn, will require enhanced exports. In addition, given the low level of per capita income and high consumption/GDP ratio, there is very little scope for redirecting exports to domestic market.

Comments on specific suggestions

The above analysis does not necessarily imply that some of the specific policy suggestions offered in the Survey to expand domestic consumption have no relevance. In fact, Bangladesh has been already implementing these policies. The suggestions offered are (i) strengthening social protection; (ii) promoting agriculture and rural development; (iii) supporting new engines of green growth; and (iv) enhancing financial inclusion.

Over 15% of total government expenditure in Bangladesh is devoted to social safety net, while agriculture, local government, rural development and water resources development together account for around 30%.

To enhance financial inclusion, in addition to micro-credit in which Bangladesh is recognised as the world leader, the government and Bangladesh Bank have been emphasising expansion of agricultural credit and loan to small and medium enterprises (SME) sector through formal financial system.



Keeping the engines of the economy running.

The disbursement of agricultural credit grew by 62% in FY 08, 8% in FY 09 and 16% in FY 10 (July-April period). At the end of March 2010, SME loans increased by 17%. The government has been offering fiscal incentives and Bangladesh Bank has introduced a refinancing scheme for investment in green technologies.

Concluding observations

Bangladesh has been already pursuing policy prescriptions contained in the

Survey for internally demand driven strategy. There may be some scope for strengthening these measures in the interest of promoting equity, poverty alleviation and environmental sustenance. But at the current level of high consumption, low exports, low investment and high import dependence, Bangladesh has very little option other than to pursue a strong export-oriented growth strategy.

However, greater reliance on domestic demand may be more feasible in China,

India, Indonesia, Thailand and Vietnam with comparatively lower levels of consumption and higher levels of investment, exports and per capita income. Philippines is similar to Bangladesh in terms of levels of consumption and investment, but it has much higher levels of per capita income and exports. Pakistan is also similar to Bangladesh excepting in terms of per capita income, which is about 60% higher.

Mirza Azizul Islam, Ph.D. is former Adviser to the Caretaker Government, Ministries of Finance and Planning.

Is the world running out of uranium?



Enough to blow up the world?

Mutually beneficial collaboration between the two parties is prevailing over prejudice, not only in enhancing the world's nuclear fuel reserves but also in coming up with innovative solutions.

A.B.M. NURUL ISLAM

IN the context of Bangladesh possibly becoming an end-user of nuclear energy, some people are worried about the reserves of uranium in the world (Op-Ed, June 12).

What are the facts? Current spot price of uranium is of the order of \$40 per lb Yellow Cake (U3O8) i.e. equivalent to \$104 per kg uranium (kgU). If uranium is extracted costing up to \$130/kgU, then the worldwide known recoverable resources of uranium is of the order of 5.5 million tons. Current yearly need is 65,000 tons, which translates as 85 years life of the currently known reserves.

Worrying? Hardly. Dig a little deeper. In the early 20th century, when oil prices were low and reserves plentiful, nobody would have thought of trying to recover oil from difficult-to-extract reserves. But by early 21st century, as oil prices have soared, squeezing oil out of the tar sands of Alberta, Canada is now economical and is being done.

The lesson is that as demand rises, prices increase, exploration increases, new deposits are discovered and/or costlier deposits become economical.

The same is expected to happen with nuclear fuel.

Besides the 5.5 million tons mentioned above, there is another 22 million tons from non-conventional sources (uranium in rock phosphates). There is even 4 billion tons U dissolved in seawater, but obviously more difficult and costly to retrieve.

Another source that has cropped up is the military weapon material.

Since 1987, the United States and the former USSR (now Russia) have signed a series of disarmament treaties to reduce their nuclear arsenals by about 80%.

Highly-enriched uranium (HEU, over 90% enriched in U-235) in US and Russian weapons and other military stockpiles amounts to about 2,000 tons, equivalent to about twelve times annual world mine production

World stockpiles of weapons-grade (over 93% in Pu-239) plutonium are reported to be some 260 tons, which, if used as mixed oxide (MOX, PuO2-UO2) fuel in conventional reactors, would be equivalent to a little over one year's world uranium production.

Under the "Megatons to Megawatts" program between the US and Russia, surplus Russian military HEU is being blended down to reactor-grade fuel (3-5% enriched in U-235) to

be purchased by the US for its home market. Both parties are also converting surplus military Pu to MOX fuel for use in thermal reactors.

In addition, Russia is also going to use MOX fuel as core fuel for Fast Reactors operating primarily as Pu burners (i.e. not breeding to create more fuel) to use up military Pu as quickly as possible.

Mutually beneficial collaboration between the two parties is prevailing over prejudice, not only in enhancing the world's nuclear fuel reserves but also in coming up with innovative solutions.

Even discounting the uranium dissolved in the seawater, we have a long way to go before the nuclear industry faces fuel shortage.

The more pertinent question to ask is whether the world community is making the best use of the nuclear fuel.

Current nuclear reactors are mostly thermal reactors, i.e. the fast neutrons that are released upon fission are slowed down before making new fission events. This is because the fissile U-235 has substantially higher probability of causing new fission if the neutrons are slow. However the thermal reactors hardly use 2% of the energy stored in the uranium. The so-called "spent" fuel still contains 98% of the energy.

To extract this energy, one needs to chemically separate the uranium, plutonium and the waste products. The separated uranium and plutonium can be recycled into the thermal reactors or fuel the Fast Breeder Reactors (FBRs) that "breed" more fuel than they consume. This way all the energy contained in the nuclear fuel will be utilised and the life of the reserves will be increased 50 times or more.

Chemical separation (i.e. reprocessing) is unfortunately mired in politics. The US in particular was opposed to reprocessing for a long time, as it feared that the availability of separated plutonium on a wide scale would lead to new countries joining the nuclear weapons club. Moreover, at the moment, because of the relatively low price of uranium, it is still cheaper to extract 2% of the energy using thermal reactors rather than to reprocess and recycle.

However, as the spent fuel interim storage ponds become full, the need to develop repositories for final disposal of spent fuel becomes pressing and the cost of uranium rises, it will be obvious that thermal reactors alone cannot provide the long-term solution for the world's energy needs.

For example, according to a MIT study, the US will need 300,000 MWe of nuclear capacity by 2050. To dispose the spent fuel from these reactors (if all are thermal reactors and without recycling), the US will have to bring into operation a new Yucca Mountain type repository every 6-7 years.

It is to be noted that study for the Yucca Mountain Nuclear Waste Repository in Nevada was initiated in 1978, but it is still to see the light of day. Just think of the challenge of bringing in a new Yucca every 6-7 years.

While smaller countries like Sweden and Finland are going to seek construction license for "spent" fuel repositories in 2010 and 2012 respectively, France, that produces nearly 80% of its electricity from nuclear, is opting for reprocessing/recycling and will seek construction license for separated waste repository in 2014.

Like it or not, the world has no option but to go ultimately for reprocessing and Fast Breeder Reactors. The US's long-range program is now aligned with those of France, Russia, China, Japan, Korea, and India. The possibility exists for an effective, international control regime whereby enrichment and reprocessing (two proliferation-prone sensitive technologies) will be carried out in internationally controlled centers for the benefit of the non-nuclear weapon states/developing countries. This will make possible the full use of the energy contained in the nuclear fuel and the lifetime of the uranium reserves will be virtually unlimited.

Additional note: The above analysis does not take into account the effect of enhancing the life of the uranium reserves through employing the uranium-thorium cycle. Natural thorium consists mainly of an isotope, Th-232, that is not fissionable, but is converted into fissionable U-233 when bombarded with neutrons (that uranium can provide). Thorium is estimated to be three to four times more abundant than uranium in the earth's crust.

Looks like mother earth contains enough resources for mankind for a long, long time to come.

Engr. A.B.M. Nurul Islam is a former BAEC and IAEA Official.



Never laugh your head off

WARNING: DO NOT LAUGH at this column. Readers who do so are acting entirely at their own risk and we assume no responsibility for injuries caused by the reading thereof.

An alert reader informs me that contrary to what was stated in yesterday's column, laughter is not necessarily good for your health, but can be lethal. "In 1975, a 50-year-old man called Alex Mitchell laughed himself to death watching a TV comedy called The Goodies," she wrote. "His wife Nessie wrote to the actors thanking them for making her husband's last moments so happy."

I was intrigued. Thinking about this in a taxi on the way to see a comedian friend, I was reminded of The Funniest Joke in the World, a 1969 Monty Python sketch.

This went as follows: During World War 2, a British comedy writer laughed himself to death after composing a joke so funny that anyone who heard it died laughing. So the British army decided to use it against the Nazis. It was so powerful that each word had to be translated by a different translator. (One translator who accidentally glimpsed a second word was hospitalised for weeks.) At the height of fighting in 1944, mono-lingual British soldiers leapt on to the battlefield and read the German translation of the joke, causing their enemies to drop dead on the spot.

I am convinced this was based on fact. Idioms about humour all have violent connotations. "He laughed till his stomach hurt." "She split her sides." And the horrific: "They laughed their heads off."

From the back of the taxi, I phoned a doctor friend in Central. Can a person die laughing?

"Oh yes," she replied. "Laughing raises the heart rate and causes the body to go into a convulsive state which can trigger a heart attack. Ideally, you should pitch your jokes to raise your readers' heart rates to no more than 85% of maximum." "Can a man actually laugh his head off?" I asked. "Not at your column," she said. "Thanks."

I dialed the number of a friendly lawyer. "Laughing humorists take out limited liability coverage in case a reader actually does split his sides?" I could hear him scratching his wallet as he pondered. "It would be cheaper to add a disclaimer to your column," he advised.

I finally reached the Lan Kwai Fong café where I was lunching with the comedian. He told me this was an issue only in the west. "Westerners laugh more easily and take out lawsuits more easily," he said. "Asians, and especially Asian men, don't like to show their feelings."

This solved a mystery that has puzzled me for months. Last year, I did a comic routine in front of an all-male audience of East Asians. They sat in stony silence. No one laughed. But afterwards, they raced up to me, slapped my back, told me they'd never heard anything funnier and made me promise to make a return visit.

They must have been concentrating on keeping their heart rates at 85% of maximum.

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