

## Dr Partha Ghosh, global strategist and problem solver on the current global economic crisis

The global economic crisis which started in the US has spread like wildfire across the world. It shows that the US economy, despite being dubbed by US baiters as a declining power, continues to be all pervasive or atleast has the power to take the rest of the world down with it.

Was the US consumption or rather the much criticised over-consumption propping up world economies, supported by the consumption in Europe and Japan? Or is it that the stranglehold of the dollar? Or is it that the global financial institutions and multinational banks are too American controlled with their global networks that led to this domino effect on economies around the world?

Why is India, which, unlike as experts told us and our government kept assuring us, wouldn't be 'that affected', more or less in the same boat with the consequences of the meltdown quite intense?

What impact did the globalised media with its powerful global reach contribute to fan the doomsday sentiment with its multiplier effect?

Or is the crisis really as serious as it is made out to be? And what is its impact on the chemical industry in India?

Who could be better placed to throw light on all these than Boston based Dr Partha S Ghosh, renowned global strategic thinker and innovator on business, economic and technology systems to whom Chemical Industry Digest posed few key questions. His views are presented in the following pages.



Dr Ghosh has a global perspective as a global citizen. As he hails from India, he has very strong views on the directions Indian economy should take and as a chemical engineer, he is well versed with the challenges facing the chemical industry.

Chemical Industry Digest posed a series of questions from the dimensions of this global crisis to the situation in India and what steps the Indian chemical industry should take.

His views are, as always, different, quite out of the box, critical of India's achievements so far, as he feels India's potential is far greater, which however cannot be realized under the current dispensation unless radical changes take place in India's socio-politico-economic edifice.

Read, deliberate and let us know your views on this.

## “Strategic framework integrating issues of equity, ecology, energy, ethics and education needed to invigorate India” – Dr Partha Ghosh

**Chemical Industry Digest (CID):** How serious is the current global melt down and what are its implications to both developed and developing countries? Does this indicate the decline of superpowers like the US and the rise of countries like India & China ?

**Partha S Ghosh (PSG):** I believe the current global economic mess is more serious than the Great Depression of the 1929/30. It is significantly more complex and global. It has happened at a time when basic industrial models on which the modern economic systems are built are becoming increasingly irrelevant. In the absence of fundamentally different thinking, massive injection of capital from socialistic China to the US Government to enable bail outs of old economic models such as GM, Chrysler and Wall Street is like throwing resources into a black hole.

Ironic that socialist China has to come to the rescue of the capitalist West, it shows that we have to understand the limits of human behavior, power of human endeavor with a wide angle lens and the irrelevance of comparing current economic “isms”, when all current economic models have demonstrated significant inadequacies.

So while treatment of 1929 depression was hard, the medicine it required was significantly easier to develop and deliver, than the remedies we need today.

To solve the current crisis, we must first realize that we are in a middle of a “super turbulence” made up of three high speed self perpetuating tornados:

“ While eighty percent of the global economy is in early stages of economic development, our unbridled consumption of resources has led to resource constraint and damage to nature. This only implies that we need a fundamentally new approach of economic development - which is sustainable and equitable. ”

**Tornado 1: Imbalance in 3Es – Energy, Ecology and Equity:** While eighty percent of the global economy is in early stages of economic development, our unbridled consumption of resources has led to resource constraint and damage to nature. This only implies that we need a fundamentally new approach of economic development- which is sustainable and equitable.

**Tornado 2: Over engineering of finance & undermining of ethics:** When greed and lack of scrupulous attachment to ethics drive speculation, various finan-

Partha S. Ghosh, based in Boston, is a renowned strategist and an innovator of business and economic models. He is currently an Advisor to several multinational organizations worldwide. He is the Founder/Managing Director of Strategy/Policy advisory firm Partha S Ghosh & Associates. Earlier, Dr Ghosh was a partner at McKinsey & Company. His clients view him as a “creative problem solver” and a “visionary leader.” Several CEOs who have worked with him view him as a leader who “inspires leaders to build lasting legacies”.

In the last thirty two years as a true global citizen and a professional consultant to leaderships of prestigious organizations, corporates and governments, he has been involved in a broad spectrum of engagements, primarily focusing on strategic and policy issues in technology based industries such as auto & aerospace, biotech & pharma and energy & chemicals.

Dr Ghosh has two advanced degrees from the Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts in (i) Chemical Engineering with emphasis on New Energy Systems & Biotechnologies, and (ii) Business Administration. He obtained his honors, Bachelor of Technology in Chemical Engineering, at the Indian Institute of Technology (IIT) in Kharagpur.





“ People who put India and China in the same league, do not seem to understand the dynamics of the economies of the two countries. I do not think India and China are in the same league. China’s water & sanitation, housing, mass transportation, education, healthcare infrastructures are at least 30 to 50 years ahead of India; China’s productivity and international competitiveness in agro and manufacturing sectors (which employ close to eighty percent of the people in both the nations) are significantly higher, making China today enjoy a trade surplus close to \$300 billion, while India’s trade deficit is in excess of \$ 100 billion. Also India’s budget deficit is more than 4.0% of GDP, while in the case of China it is positive. ”

cial products and instruments could become dangerously disruptive and lead to the kind of corporate terrorism we have witnessed since the collapse of Franklin National Bank in New York in the early seventies. Over the past forty years, instead of being able to fix such errors, we have only witnessed bigger failures. Indeed, we often get trapped in linear thinking while what is needed is out of the box thinking and actions.

**Tornado 3: Clashes of perspective:** Policy makers in particular suffer from “quick fix” and “more of the same” mindsets while what is required is nothing short of transformational.

#### China & India next super powers?

People who put India and China in the same league, do not seem to understand the dynamics of the economies of the two countries. I do not think India and China are in the same league. China’s water and sanitation, housing, mass transportation, educa-

tion, healthcare infrastructures are at least 30 to 50 years ahead of India; China’s productivity and international competitiveness in agro and manufacturing sectors (which employ close to eighty percent of the people in both the nations) are significantly higher, making China today enjoy a trade surplus close to \$300 billion, while India’s trade deficit is in excess of \$ 100 billion. Also, India’s budget deficit is more than 4.0% of GDP, while in the case of China it is positive.

Accordingly, for some time we have to erase the term “super power” from India’s vocabulary. India has to be humble, focus on the fundamental structural short comings in the human ware, software and hard ware of the socio-economic architecture of the nation. Furthermore, every decade for a poor country like India to accommodate financial scandals such as the Harshad Mehta to Satyam now, is also draining the social trust on which economic foundations are built. It only implies that before we expand our educational infrastructure we have to re-examine the content of our educational process to understand why despite our lofty much touted ideals, in practice, there is a woeful lack of ethics, civics and genuine patriotism.

In contrast, Chinese leadership and its people are significantly more humble and strategic. I have not yet heard the term “super power” in their policy statements, and/or in the discussions in their media. On the other hand given the trajectory China is on, in terms of its financial might, scientific and technological programs in place, its geo political positioning, one could sense a silent level of confidence and spirit of enquiry at both the leadership and grass root levels. In that spirit China has already earned a super power status, although I am sure, no Chinese leader from government or corporate, will accept my view.

#### Powers to reckon within the next 25 years?

The US over the last 200 years has consistently demonstrated its ability to face difficult issues, to be resilient, to develop out of the box methods, to continually refresh itself. If this spirit of “innovation” and “can do” attitude are sustained, I think given the way Obama administration is getting organized, and the



**“ If we could put together in the major economies like the US, EU and East Asia, innovative programs which are focused on stimulating employment through more energy efficient, eco friendly, hydrocarbon free economic programs, I think in 12 to 18 months we will see the dawn of recovery. ”**

nature of the current debates people and institutions are indulging in, I can sense increased intensity of innovation in the coming years which will reinvent America. So America's status as economic power, I believe, will not be compromised or diminished; in fact it could well enhance.

So in the next 25 years, I believe the five economic powers that will influence geo politics of the world are: the US, China, Russia, European Union and OPEC. However if the range of fundamental issues in the Indian sub continent are addressed with innovative and strategic perspective with a new political and economic paradigm under the umbrella of the Vedic philosophy, the future global dynamics could well draw inspiration from India.

**CID: Will the recession intensify? Is this just the beginning or is it bottoming out? When will we see a recovery?**

**PSG:** As you could sense from my answers to the previous question, the recession is indeed serious. I believe it is just the beginning.

I think until we disassemble the silent conspiracy between over engineered financial products, unethical actions and the organizations who created the products, it will be difficult to come out of the current recession. We have to de-stress and de-strain the current financial institutions; we have to disinfect leadership minds across major banks and FIs to reassemble a system that will work and be able to support "innovation of the real kind" as opposed to speculation of virtual products. Such a change over is urgently required, and the speed at which such a change over could be engineered will determine at what speed the current vicious cycle of contraction could be broken.

If we could put together in the major economies like the US, EU and East Asia, innovative programs which are focused on stimulating employment through more energy efficient, eco friendly, hydrocarbon free economic programs, I think in 12 to 18 months we

will see the dawn of recovery.

**CID: India, which until recently thought was relatively insulated with our government in a state of denial till November 2008, is now facing a full blown crisis with demand having just vanished and prices of chemicals crashing. What are your views?**

**PSG:** What has always surprised me about Delhi, is its inability to proactively observe the fundamental trends both within and outside of the nation, analyze the numbers in comparison with other regions of the world, and then draw strategic implications for the nation – both at the macro and micro levels. In a pan IIT conference almost 3 years ago, I alerted India that in absence of a strategic framework which addresses the fundamental issues of equity, ecology, energy, ethics and education, the path ahead in name of liberalization is not only unsustainable and turbulent, but could draw India into a dangerous economic black hole.

Unfortunately, when people are totally absorbed in the explosion of consumption of the top 10% of the population for 3 to 4 years of 7% growth, policy makers get consumed by what they see in a few metros and in turn fail to conduct analyses of the underlying fundamental issues.

**CID: How can countries like India which recently set on the path of globalization insulate itself from such global economic problems created elsewhere and is suffering thru no fault of ours?**

**PSG:** I will not agree with your assertion "no fault of ours". As policy makers, as corporate leaders who travel around the world, make themselves visible at world economic summits like Davos, it is their responsibility to read between the lines to understand how some of the dangerous trends, if imported to India blindly, could dangerously hurt the very fragile economy. Instead, they end up celebrating the "super-

**“ In a pan IIT conference almost 3 years ago, I alerted India that in absence of a strategic framework which addresses the fundamental issues of equity, ecology, energy, ethics and education, the path ahead in name of liberalization is not only unsustainable and turbulent, but could draw India into a dangerous economic black hole. ”**

ficially positive" but simplistic messages of "World is Flat", flattening India's ability to make independent and intelligent judgments on what kind of exposure a fragile and weak economy could accommodate.

In many ways India is more vulnerable than the West; while the gap between rich and poor has widened faster in the last decade making the economy more fragile, the top ten percent is exposed to the same level of turbulence as in the developed world. Without any form of safety net to prevent downside of a free fall, relatively, the economic crisis could be significantly profound.

Furthermore, with the twin deficits at work, loss of trust of common people in corporates and government, coupled with the ethnic tensions and regional differences, in India, the situation could be quite dire and grave. Indian leadership has to first wake up to acknowledge the viciousness of the problem and then address the real issues of the nation with an innovative strategic framework. Such a framework must spell out a phased approach to liberalization and globalization of the economy, as opposed to believing that as long as investments are coming in to boost the stock and real estate markets, that as long as India's malls are flooded with imported brands, Indian economy is doing well.

India needs to urgently focus on balance of payments at macro and micro levels and re-examine how consumption taxes could be structured so that consumption instincts of the top 2 to 5 % of the privileged segment of the economy could fund the infrastructure development of the under privileged, say the bottom third of Indian populace. I call this approach "equitable creation of free market opportunities"

**“ I believe India could develop a vibrant and smart chemical industry which is agro based, as opposed to being hydrocarbon based. India's fundamental strategic advantage is in its bio diversity and intensity of sunlight and rain the nation enjoys. In the spirit of sustainability, India must develop an aggressive agro strategy which should include and go beyond food to bio fuels and starch complexes; fibers (cotton, silk, jute), herbal medicines to flavor and fragrances, bio polymers to bio materials. ”**

lowering of interest rates essentially suggest "more and better of the same". Perhaps it will only help to slow the speed of the vicious cycle, but it will make too much of capital chasing the wrong paradigm.

India must now step back, refocus its attention on the issues of bottom up socio economic development with a fresh mind, with reverence to our heritage and diversity, treat the national issues as holistically as possible. India must place equal attention to all corners of the country as opposed to being consumed by the superficial excitements in a few pockets of westernized consumption patterns such as in Bangalore or Bollywood. Only then India could perhaps come out of the recession faster.

It will need a fundamental shift in the mind set and will require India to reclaim a higher level of idealism (as opposed to be driven by lower level instincts

or "strategic capitalism" as opposed to "speculative capitalism".

**CID:** In what ways can we confront the situation now? Though our government has reduced interest rates significantly, reduced excise rates, and relaxed Reserve Bank lending rates, repo rates etc to ensure adequate credit, the situation is not reversing as yet.

**PSG:** I think we have to think beyond monetary policies. Loosening the credit,

lowering of interest rates essentially suggest "more and better of the same". Perhaps it will only help to slow the speed of the vicious cycle, but it will make too much of capital chasing the wrong paradigm.

We need to position lessons from Vedic philosophy at the center of our economic strategy as we create new opportunities in re-balancing equity, ecology, and energy

We should re-examine our 11<sup>th</sup> year plan with a new perspective, so that India could within the current five year plan reinvent its economic system that the

**“ I think in the next decade, industry in general and, chemical industry in particular, could reinvent itself so that basic economic structure of any nation could shift from "consumption centric" to "conservation centric" model. In order to create this new model we will witness a significant surge in innovation intensity in every industry so that (i) efficiency of energy and material utilization is fundamentally increased, (ii) penetration of renewable materials and energy is significantly deepened, and (iii) recycling of materials is significantly enhanced. Along all the three themes we could well see reinvention of automotive, consumer electronics, home appliances, health care and construction industries by aggressive application of nano, bio, opto and info technologies with chemical industry's new role at the core. ”**

nation requires very dearly. We need smart and intelligent socio-economic infrastructure and we should use the current crisis as a catalytic event to define a more robust economic path of the nation.

**CID:** The Indian Chemical industry, particularly petrochemicals, bulk chemicals and intermediates are facing serious situation due to crashing prices and earlier inventory build up. Do you think that the Indian chemical industry should have been less dependent on 'hydrocarbon' as its source material? Now that the industry is in this crisis situation, what steps would you suggest so that the Indian chemical industry checkmates this situation and props itself up?

**PSG:** As you know, I believe India could develop a vibrant and smart chemical industry which is agro based, as opposed to being hydrocarbon based. India's fundamental strategic advantage is in its bio diversity and intensity of sunlight and rain the nation enjoys. In the spirit of sustainability, India must develop an aggressive agro strategy which should include and go beyond food to bio fuels and starch complexes; fibers (cotton, silk, jute), herbal medicines to flavor and fragrances, bio polymers to bio materials. In addition, such an agro strategic plan must focus on improving India's land utilization and boosting income streams of the farming community on per capita/per unit area basis, while improving the ecological and energy balance of the nation.

In the short term, the Indian chemical industry should organize three tier tactical plans:

- Consolidate capacities through increased cooperation between companies so that operational efficiency levels are increased
- Examine ways to develop a reverse logistics infrastructure so that materials (such as plastic parts, metals, papers/paper board) could be recycled
- Launch simple experiments to utilize bio based raw materials where ever the same plant and equipment architecture could be used, so that as the economics of the industry improves companies could transition towards a more agro based chemical industry.

**CID:** In the past whenever businesses and industries were confronted with such serious recessionary situations (though this crisis is unprecedented in its magnitude) innovation came to its aid - particularly for the chemical industry. Can developments in chemistry & chemical engineering and/or the direc-

tions it ought to take bail out the chemical industry?

**CID:** Although you may think I have projected a rather grim picture of India and the global economy I am actually very optimistic. I think in the next decade, industry in general and, chemical industry in particular, could reinvent itself so that basic economic structure of any nation could shift from "consumption centric" to "conservation centric" model. In order to create this new model we will witness a significant surge in innovation intensity in every industry so that (i) efficiency of energy and material utilization is fundamentally increased, (ii) penetration of renewable materials and energy is significantly deepened, and (iii) recycling of materials is significantly enhanced.

Along all the three themes we could well see reinvention of automotive, consumer electronics, home appliances, health care and construction industries by aggressive application of nano, bio, opto and info technologies with chemical industry's new role at the core.

**CID:** What silver lining(s) do you see to this cloud of global economic melt down?

**PSG:** Indeed there are several silver linings which make me extremely positive about the nature of things to come only if we could adjust our lens to see the opportunities that are beyond normal vision, and connect with those opportunities with courage and commitment as the new economic system gets proven in.

World wide there is a general consensus that (i) capitalism the way it has unfolded itself in the last two decades has to be reconfigured, (ii) most of the industries which are hydrocarbon dependent need to be transformed (iii) fiscal and regulatory disciplines have to become more strategic and rigorous. Now if leaderships of nations and corporates could design and develop initiatives to serve these requirements we will see new industries, new business models emerging which we cannot even imagine what they might be.

We have to design the "economic stimulation" programs with this vision in picture as opposed to getting trapped by the dangers of linear thinking. India's Finance ministry along with Industry, Energy, Commerce ministries with the Planning commission should form a high powered "Economic recovery commission" to enable this process.

