IIM Metallurgy Materials Engineering

NEWSLETTER
THE INDIAN INSTITUTE OF METALS
(DELHI CHAPTER)

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Issue No. 59/2012 **Vol. LIX "Monthly"** **Date: 31.12.2012**

INTRODUCTION

This News Letter contains the write-ups on the following:

Published By

"The Indian Institute of Metals – Delhi Chapter"

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Role of R & D and Scientific Services in Increasing Steel Productivity

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Introduction

Indian Steel Industry presently has a capacity of over 90 Million Tonnes per annum. It is presently the fourth largest steel producer in the world. We have ambitious plans to achieve a capacity of over 200 Million Tonnes per annum by 2015. India would become the second largest producer of steel in the world. This paper discusses the role of R&D and Scientific Services in the growth and development of the Indian Steel Sector.

Huge investments are being made in the steel sector. Similarly large investments are planned in the infrastructure sector which has a strong linkage with the steel sector. We do have a large pool of young R&D talent which can be moulded into very capable researchers and development engineers. There exists a great potential of enhancing Indian steel industry's competitive edge in technology terms. Technology development invariably plays an important role in the enhancing capacity, improving productivity and making the industry more competitive.

The process of efficient translation of investment in the R&D and S&T system invariably pays rich dividend. This however requires greater integration between educational institutions, research, technology suppliers and entrepreneurs. Also we need to strengthen the support system for quicker translation of the latest in research to commercially robust technologies. This would in fact involve a greater effort than we normally recognise. There is a question of nurturing innovations and eco system that can pick-up worthy ideas regardless of their origin and translate such ideas into useful output that makes an impact.

There is today a very favourable climate in terms of support to S&T and R&D sector. In fact government has earmarked huge development funds for R&D activities. It is, therefore, appropriate to examine the parameters that are important in R&D and S&T driven development. We have to look at these factors at the level of individuals, institutions and also at the government level.

Education, Research, Technology Development and Commercial development need to be seen as a domain of a continuous activity. In addition to pursue excellence in each of these individual domains, basic research of high level and frontline research will benefit, the S&T and R&D activity. Similarly research in an environment of technological skills and expertise as well as with close linkages between S&T, R&D, institutions and industry will directly benefit these domains.

Frequently there are issues about dilution of rigour through mixing of cultures and the value system for judging excellence in different domains. This is where enlightened mind-set among individuals and institutions become important.

There must be ways of measuring the impact of work of an individual in the domains of basic research, applied research, technology developments and commercial development with appropriate weightages. Doing this mechanically with rigid norms would prove to be a disaster. This is where enlightened mind-set becomes very important. Managed successfully, institutions with multiple connected domains provide greater flexibility and opportunities to excellence even more than the broader opportunities. Such an ambiance provides encouragement to its members. This is a major challenge which requires a cultural correction. It should be continually stressed in spite of strong resistance it would meet because of the existing mind-set.

There is a need and requirement to co-locate proximately located institutions with complementary capabilities. This arrangement permits borderless interaction among its members and help to create a climate far greater capability multiplication than what would be possible otherwise.

Mobility of individuals working in research bodies and industry is very crucial for translation of R&D activity and scientific research for the growth and development. It is often not recognised that the translations of

a laboratory development to a robust marketable product would require efforts that are far larger than the development in the laboratory. Sustained hand-holding over extended periods is necessary for successful deliverables to the industry. We must also recognize that such mobility should not be a one way traffic. Industry professionals have to interact with technologists not only to bring the necessary exposure to the need of the industry but more importantly contribute to a richer environment.

Research in engineering and technology in the country needs considerable strengthening. Number of PhDs that we produce is not of an order of magnitude compared to USA and China. This is despite our having one of the largest R&D and S&T manpower. For Indian R&D and S&T system to make the required manpower in R&D, in engineering and technology on a commensurate scale it is necessary to strengthen this area. The scale up in engineering and education at undergraduate level has not been extensive. The quality of education and employability of engineering graduates by and large has remained a major issue. Not much scale up has taken place as far as PhD level research is concerned. Our IITs for past couple of years have stressed on engineering and technical research and are currently on a growth path in this respect. They must thus lead national efforts to scale up research and engineering technology. These efforts need substantial support in several different ways.

The following suggestions are worth considering:

- Scale up in the faculty strength progressively to support an order of magnitude large research programmes without diluting quality.
- Enhance support to research and development to accommodate larger number of PhD students.
- Recognise and liberally support groups capable of undertaking research.
- Support multi-disciplinary, multi-centric coordinated research to address challenges before the country.
- Emphasise research on the interface of basic sciences and technology for growth of basic sciences in IITs.
- Establishment of several multi-disciplinary programmes in IITs and R&D Institutions
- Enlarge research infrastructure in IITs and R&D Institutions by way of additional laboratories as also laboratories set up by technology dependent socio-economic programmes.
- Establish research park industry laboratories where both the industry as well as academic domains can work together. In India IIT Madras has recently established country's only research park. In China apparently there are around 300 such research parks. It is understood that a major initiative is on cards to establish such research parks not only in IITs but also in other institutions across the country.
- Engagement with undergraduate programmes in IITs as well as other institutions to attract bright students in adequate numbers commensurate with the intended scale up in research activity.

Conclusion

As we have seen there are several aspects to translate our R&D and S&T efforts for growth and development of the Steel Sector. There is a greater need for mutual engagement between education, basic research, R&D, process engineering and industry. It is in the interest of all these domains in furthering their own respective objectives. This is also the route for greater ability to innovate and translate our R&D activity for growth and development of our industrial sectors.

ZINC & LEAD MARKETS IN INDIA – AN UPDATE

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Introduction

In recent years, globally India has become a very significant player in zinc production and this would be so consumption wise also, if only the long proposed huge investments by the govt as well as PPP mode in key infrastructural areas materialize in the immediate future.

In the case of lead, India has been a significant player in production of recycled lead, purely from the huge domestic generation of used lead acid batteries. The key question of course is how much of this comes through clean, eco-friendly recycling technologies.

Zinc & Lead Consumption – Indicators

Zinc consumption is largely dependent on the intensity of steel usage in any country. During 2011-12, as per the Steel Ministry, Govt. of India, the steel consumption was 71.00 million tonnes. India currently ranks 4th in world steel production, says the World Steel Association (WSA) and in a few years from now, India may become the 2nd largest steel producer.

Lead consumption is linked to automobile production in any country. India has practically all the global players in passenger cars, two wheelers, coaches, SUVs etc., operating in the country and the production volumes have been increasing steadily. During the quarter April-June 2012, India's automobile production stood at 5,208,148 units, as against 4,837,992 units during the quarter April-June 2011.

Zinc & Lead – Sectoral Uses

Roughly about 77% of zinc consumed goes into the hot dip galvanizing sector, followed by 10% in alloys, 5% in oxides, 3% in drycell batteries, 3% in zinc dust and others 2% (Source: 12th Five Year Plan Draft)

With respect to Lead, 75% of lead consumed finds application in the lead battery sector, 20% in alloys and chemicals and the balance 5% in cables and other areas.

Zinc & Lead – Demand & Production

Zinc demand in India has been growing steadily in the country. During the 12th Five Year Plan the zinc demand projections are as follows:

Year	Demand (tonnes)
2012-13	600000
2013-14	660000
2014-15	730000
2015-16	800000
2016-17	880000

(Source: 12th Five Year Plan)

Lead demand during 2011-12 was 410,000 tonnes as per the Planning Commission, though industry estimates put the figure at much higher levels; this is because of the very large contribution coming from the lead recycling sector, whose number as well as lead imports are not precisely available. The only data that is accurately available pertains to primary lead, produced by Hindustan Zinc Ltd. India's primary lead production during the last few years was as follows:

Year	Production (tonnes)
2008-09	60323
2009-10	64319
2010-11	67294
2011-12	92098

The primary lead production capacity of Hindustan Zinc Ltd is 185,000 tonnes, commissioned recently; primary lead production will continue to grow.

Zinc production during the last few years is indicated below:

Year	Hindustan Zinc	Binani Zinc	Total (tonnes)
2007-08	426,323	31,903	458,226
2008-09	551,724	30,443	582,167
2009-10	578,411	35,352	613,763
2010-11	712,471	32,662	745,133
2011-12	758,717	25,368	784,085

Infrastructural Investments

The 12th Five Year Plan (2012-17) proposes a huge investment of the order of US$ 1000 billion, as against US$ 500 billion during the 11th Five Year Plan, in sectors like power, telecom, roads, ports, aviation etc., Such a massive investment will lead to an increased consumption of steel in the above sectors, which means there is a greater opportunity for a wider usage of hot dip galvanized steel. Galvanized steel gives long, maintenance free service lives in various atmospheric conditions; the amount of zinc coating applied will determine the service life in a particular atmosphere. Galvanized steel gives an additional value – added benefit through sacrificial protection, besides barrier protection.

Sector wise, in the case of power, the generation capacity is to be enhanced by 88000 MW by 2017. The power generated is distributed to the consumers through galvanized transmission line towers. Similarly galvanized telecom towers are very common, for transmitting signals to the mobile phone users. It is interesting to look at the assets of telecom towers owned by various operators:

Indus Towers	109,000
BSNL/MTNL	69,000
Reliance Infratel	50,000
Bharti Infratel	50,000
Viom Networks	42,000
GTL Infrastructure	33,000
American Tower Corpn.	10,000
Others	22,000
(Source: Industry Data, 31.3.2012)	

At present, the teledensity is 70% (ie., no of mobile subscribers per a population of 100), with 8.0 million subscribers, being added every month. The addition takes place largely among the population in smaller cities, rural areas etc.,

In the highways sector, the outlay has been increased by 14% during the last Union Budget presentation this year, with the target addition being 8000 kms, during 2012-13.

As far as lead battery is concerned, according to the industry sources, the battery market size is approximately US$ 3.50 billion, with 60% being automotive batteries and 40% industrial batteries. There are about six large lead battery manufacturers, with a very large number in battery reconditioning in the SME category. The lead battery industry is witnessing double digit growths due to the growths in the auto sector, telecom sector, UPS segment, invertors etc., besides the renewable energy sector and to a small extent, the electric vehicles/scooters. The growth in the automobile sector alone during the periods April-Oct is as follows:

Vehicles	Production (2012-13)	Production (2011-12)
Passenger	1,855,527	1,684,021
Two Wheelers	9,216,696	8,845,685
Three Wheelers	462,991	519,618
Comml. Vehicles	486,309	496,549

Conclusion

A strong revival in the infrastructural sector as well as manufacturing sector will give the much- awaited boost to zinc and lead consumption in the country. Zinc & lead is well prepared to meet the expectations and challenges, in the coming years.

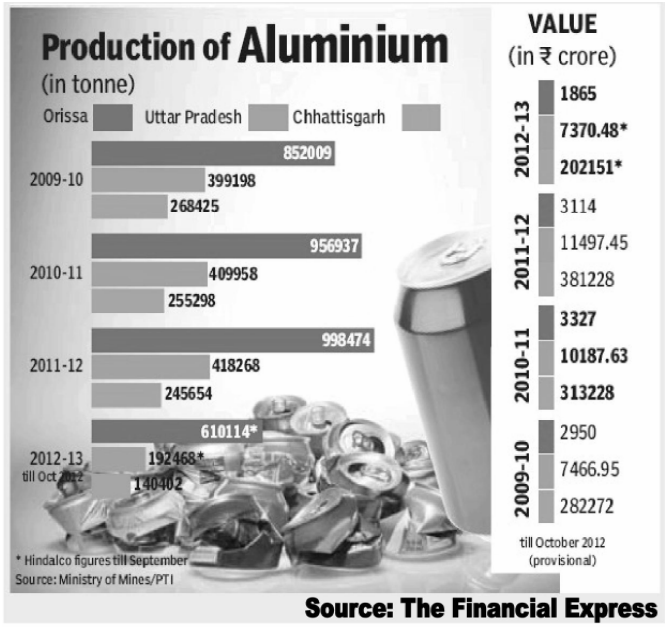
India's aluminium growth story is just getting unfolded

India is home to one of largest reserves of coal and high-grade bauxite in the world. It can certainly be at the bottom of the cost curve of global producers. The country should realize this potential and can become a global hub for aluminium. — Mr S.K. Roongta, Managing Director, Vedanta Aluminium.

A seasoned public-sector strongman, Mr S.K. Roongta, former Chairman, Steel Authority of India Ltd (SAIL), has a new challenge in hand — taking aluminium to new heights for Vedanta Aluminium. As Managing Director of the private-sector metals major, Mr Roongta is upbeat about aluminium prices going up, bringing in better profits. Excerpts:

❖ What made you switch tracks to aluminium?

I spent 38 years of my professional life in steel. Meeting the challenges of SAIL's transformation and putting it on a high-growth path was an experience to cherish. Aluminium is the metal of the present as well as future. I found it challenging to be able to steer Vedanta's 2.5-mtpa fully integrated aluminium facilities along with power generation capacity of 6,000 MW.



❖ Is Vedanta planning new investments in aluminum?

Vedanta's largest Greenfield investment here has been in the aluminium sector. Jharsuguda (Odisha) is being developed as an aluminium and power hub. We are putting up a new smelter of 1.25-mtpa capacity in Jharsuguda and another smelter of 0.325-mtpa at BALCO. Once commissioned, both these smelters will produce around 2.5 mtpa of aluminium.

❖ How do you asses the current policy-making scenario?

There is a general consensus that Indian economy is in need of fresh reforms to sustain the growth momentum. In the metals and power space, and other sectors as well, issues relating to coal availability and regulatory issues pertaining to environment and forest clearances, etc., remain a big challenge. The state of aluminium industry is a case in point. Aluminium production hinges on backward linkages to bauxite and coal. India is home to one of largest reserves of coal and high-grade bauxite in the world. It can certainly be at the bottom of the cost curve of global producers. The country should realize this potential and can become a global hub for aluminium.

❖ Environmental issues have affected some of your projects. Your views?

Economic growth and environment protection must go hand in hand. We accord the highest priority to issues related with environment, social and human rights, and endeavour to adopt the world's best practices. Our Lanjigarh alumina refinery is the first zero-discharge refinery in the country, with lower energy and water use than the world average. Clearly, international benchmarks are the driving force behind all our endeavours.

❖ What is the status of your power projects?

Power plants with combined capacity of 3,615 MW at Jharsuguda are our largest capacity at a single location. At BALCO, we have 810 MW captive power plants that are operational and a further capacity of 1,200 MW is getting ready. The first of 4 x 300 MW power unit would go on stream in Q4 FY 2012 and other units will be commissioned thereafter. At Talwandi, in Punjab, construction is on to set up a super-critical plant of 1,980 MW capacity (660 x 3) which will be fully operational in 2014. This will add a capacity of about 8,000 MW, besides 847 MW in other group companies, including 273 MW of wind energy.

❖ What is your outlook for bauxite, a key resource for the aluminium industry?

India is home to some of the world's best bauxite deposits in Odisha. As a policy, the country should harness this advantage by encouraging value addition in its vicinity, with resultant industrial, economic and all-round development of backward areas. This will also reduce the overload on Indian Railways

and roads, as it will cut down expensive logistics. We are hopeful that Orissa Mining Corporation will adhere to its commitment and provide us with the required mine, as substantial downstream investments have been undertaken.

- What is the scope of growth for aluminium in India?

  India's aluminium growth story is just getting unfolded with per-capita consumption at just 1.3 kg, compared with 14 kg in China. At present, the power sector consumes a major share of aluminium, but as the economy grows, consumption in transportation, construction, consumer durables and packaging segments will grow faster. What is important is that the aluminium Vedanta produces has to be further processed into end products. Thus, there is potential for a few hundred new entrepreneurs to set up downstream industries. Vedanta doesn't intend to enter this segment, but would like to facilitate new entrepreneurs to set up units.

- Is the worldwide decline in metal prices affecting your profit margin?

  Metal prices, including aluminium, were somewhat depressed in the latter half of CY 2011, which did affect profit. There has, however been some recovery in 2012. China remains a major force in the world space and with Chinese economy still growing and demand on the rise in other emerging markets, global demand should grow well.

- What are the prospects for aluminium prices?

  We see better prospects in the coming months. Both China and Europe are bottoming out and are unable to maintain their production levels, given the rising costs and non-availability of raw materials. The demand from the infrastructure segment will also see a rise in Asia. By March 2013, we expect London Metal Exchange prices at $2,300 to $2,400.

Source: Business Line

Avoidable brakes on India's aluminium capacity growth

At over three billion tonnes (bt), India has the world's fifth largest deposits of bauxite, the mineral which on refining becomes alumina for highly energy intensive smelting into aluminium. As it would happen, as much as 55 per cent of this national resource is found in Orissa. What further distinguishes the eastern state is that bauxite found there has high alumina content of 44 per cent and more with low traces of silica. Physical properties of Orissa bauxite allow its digestion in refineries at low temperature and also restricted use of caustic soda for silica removal. This mineral endowment besides, Orissa for other reasons too is seen as the ideal centre to host integrated operations from mining of bauxite to its refining into alumina and finally its smelting into metal.

Smelters are ideally located at centres where energy – it could be either non-coking coal, gas or hydel resources – is plentifully available and at cheap rates. This is because power and fuel with a share of around 40 per cent of aluminium production cost impact smelter operations the most. No wonder then, following the footsteps of National Aluminium Co, the country's other two non-ferrous leaders Vedanta and Hindalco rooted for Orissa to give shape to their big aluminium ambition. Hindalco is building a 1.5 million tonne, (mt) standalone refinery in an act of salvaging a virtually moribund project and also a 359,000-tonne smelter as it expands the capacity of an operating smelter to 213,000 tonnes from 155,000 tonnes. But the group that has caused commotion in the world aluminium community for its audacious alumina refinery and smelter capacity building programme in Orissa is Vedanta. The group is also building with much rapidity coal-fired power capacity of 3,600 Mw, both for captive smelter consumption and also as an independent power producer.

In fact, Vedanta's programme for Orissa by any parameter, including investment, will find a parallel only in the announced 12 mt steel plant that South Korean Posco is struggling to build overcoming bureaucratic hurdles and by now too common protests by locals. But unlike Vedanta, which has put on ground much of its promised investment of over Rs 50,000 crore, Posco's $12 billion project still remains good on paper. A commitment by the state government to make available 150 mt of bauxite deposits, a portion of which is in Niyamgiri hills enthused Vedanta to make Orissa the epicentre of its work. Without going into the reasons that derailed opening of mines at Niyamjgiri, earmarked to feed the refinery at Lanjigarh, the hijacking of Dongria Kondh community welfare issue by foreign NGOs leaves a few questions

unanswered. The two may be totally unconnected, but the fact is if bauxite from Orissa in particular and coal are freely available, then the Indian aluminium industry for its cost efficiency will be the last one standing in a situation of price collapse of the metal.

As aluminium prices are moving towards $1,800 a tonne, nearly 30 per cent of world capacity stands unviable. No wonder some smelters owned by industry leaders are either shut or working at stepped down capacity. You have smelters abroad where production cost could be as high as $2,700 a tonne. So even with a premium of $220-230 a tonne available in spot deals over LME quotations, whichever smelter is making aluminium at over $2,000 a tonne is consigned to red. The Indian aluminium industry, which finds itself in the lowest cost quartile globally, is finding its margins squeezed in a falling market.

"The ideal combination of high quality bauxite and plentiful availability of coal, the state having a share of 25 per cent of national coal deposits leaves most other aluminium production centres in the world well behind Orissa in terms of production costs. Alcan was here for decades before they sold Indal to Hindalco. Pechiney ahead of its merger with Alcan, which subsequently was taken over by Rio Tinto, was keen to be here. Dubai Aluminium was serious about India, perhaps still is. How sad it is that difficulties in bauxite procurement from local sources are encouraging the world's largest producer of alumina to consider bringing some of its Australian alumina here. I shall want local NGOs to consider if by standing in the way of opening new bauxite mines, are they not to stunt the growth of domestic industry and finally create conditions for imports?," asks a distraught Orissa government official.

The predicament of Vedanta is understandable. Its 1 MT refinery at Lanjigarh and another 5 MT capacity in the pipeline are geared to process Orissa grade bauxite. Denied supplies from Orissa, it is scouring around the country for bauxite. Besides logistical challenges and extra costs involved in the exercise, the Vedanta refinery, custom built to process Orissa grade mineral, is compelled to use a cocktail of bauxite procured from many centres. In any case, such supplies are also drying up. No wonder, Vedanta Aluminium Managing Director Mr. Sushil Roongta, who has to make sense of an investment of Rs 50,000 crore is sporting furrowed brows. Mr. Roongta will not disagree to the proposition that in case responsible mining, including proper rehabilitation of locals, gets repeatedly thwarted then India could face the irony of becoming an aluminium deficit country.

Source: Business Standard

No slowdown in steel sector – Chairman, SAIL

SAIL Chairman Mr C S Verma stated that there is no slowdown in the giant state run steel firm in its expansion program. In an interview, Mr Verma said he has not seen any steel company shelving its capex plans and hectic expansion was on.

Q: Growth has slowed and there is slowdown in construction. How are you seeing steel demand?

A: In India, in the first 10 months of this year, the production is 53.6 million tonnes with a growth of 3.6% and growth in demand is 4.7%. India cannot remain isolated from what is happening elsewhere. We have been impacted but the impact is not so much as the impact in other global economies.

Q: The slowdown had given us an opportunity to build on our infrastructure and drive demand. Have we failed to do that?

A: I will not agree with that. India is not working in isolation. We could have done more. We have to see the demand scenario. We have to see the consumption scenario, we have to see that the inputs are made available, we have to see the spending pattern of the government. In absolute terms, there was much more scope but still we have done far better than the economies in Europe or other parts of the world.

Q: The government is putting pressure on PSUs to invest. How do you see that?

A: Pressure or no pressure, we have our USD 14 billion capex plan. This capex was already approved by the board. But it is not as if we are doing it because the government is putting pressure.

Q: Are clearances affecting your expansion plans?

A: Our land bank is much more than compared to the leading real estate companies in India. In the four plants, we have a land bank of 35,000 acres each. We have no problems on the land acquisition side. We have captive iron ore mines. There are issues regarding environment

approvals. We are complying with the rules but they have not come in the way as hurdles for our expansion.

Q: What about acquisition of coal mines?

A: We are acquiring. We have a separate vehicle for that, ICVL. Through that we are carrying out due diligence of a few assets. It is good that it has not taken off because we could not have done hostile acquisition when coal prices were unrealistic and prevailing at USD 300 to USD 350 per tonne. Coal prices have reached realistic levels now, about USD 100 to USD 130 a tonne. We have already signed a number of non-disclosure agreements. Geographically, the locations where we are doing our due diligence are Australia, Mozambique.

Q: What about the POSCO joint venture?

A: There is no further progress on the Posco joint venture. We are still continuing our discussions. Our effort is continuing. We are still optimistic that something should happen.

Q: What are the stumbling blocks?

A: All the commercial terms by and large have been finalized. There are some shareholding pattern issues and some other minor issues, which I think in due course of time should get resolved. When there are high investments being made, both sides would like to be equally sure about their investments.

Source: Steel Guru

ICC AGENDA FOR COAL SECTOR APPEAL TO THE POLICY MAKERS

ICC has made the following recommendations:

- Government should form a SPV for coal block development. SPV must get all statutory clearances before it is auctioned to private sector through competitive bidding.
- Mines to be put on offer only after they are fully explored and the geological report is obtained.
- Major delay takes place with State Governments. Mandatory and frequent (once every month) review meetings chaired by the Chief Secretary must be ensured for speedy clearances.
- Recent coal block lease cancellations have also badly affected the associate Companies which are not involved in any non-compliance. Especially where the Coal block was allotted to more than one company and the under leader-associate arrangement Company could not develop the coal block with-in stipulated time frame and/or have violated certain norms. In such cases, Coal India should become the lead developer to safeguard the interests of other associate Companies who have completed end use projects.
- Underground Coal Mining Technologies must be incentivised to explore the opening/reopening Coal Mines and unused reserves. Upgradation of general technology should also be incentivised as India is still using old technologies.
- Old coal fields which are not being used should be refilled and brought to level and can be used for the settlement of displayed people due to the new projects and People living around mines are accustomed and may not mind.
- It is also recommended that competition must be brought in the coal sector so that performance of Public sector mining companies can be improved and consumers get better terms for coal procurement.
- Need for on line processing of EC and FC proposals.
- Expedited implementation of critical rail lines in potential coal fields. PMO should review regularly with coal and railway ministry.
- Land acquisition for Pvt Coal Block holder should also be brought under CBA act. This will obviate acquisition of surface rights separately thus facilitating grant of mining lease to the projects proponents. This will also provide level playing field with PSU coal block holders.

- Discounted Cash flow (DCF) method for valuation of the blocks and fixation of Reserve pricing for bidding. Coal block to be designed and segregated sector-wise and auctioned to those sectors only.
- Government of India should increase production of coking coal and suitably allocate equitably among consumers and to substitute imports of coking coal as much as possible.
- India being closest to Mozambique which has huge coking coal reserves, acquisition of coal blocks with state support in crucial to ensure uninterrupted fuel supply for India.

These key recommendations were made by the Panellists during 4th India Coal Summit held on 28th November, 2012 at New Delhi.

Source: Business Standard

Aluminium: The Versatile Metal

Aluminium is the third most abundant element in the earth's crust and the most abundant metallic element. It never occurs as a free element in nature. Aluminium smelting as an industrial activity is the youngest and largest activity of the non-ferrous metal industry, as it began only about a century ago. Aluminium is a material with a wide range of applications, e.g. Transport vehicles, construction, packaging industry, electronic production, household appliances etc. and consequently the economic activities of these industrial sectors determine the overall demand for aluminium.

No other metal can match aluminium's sustainability advantage or its combination of useful physical properties, which include:

- Strength: Pure aluminium is soft enough to carve but, mixed with small amounts of other elements to alloys, it can provide the strength of steel at only a third to half the weight.
- Durability: Aluminium is tough enough to withstand the rigors of space flight, the high temperatures required of cookware, and challenging climatic conditions such as those found in the Arctic or seaside (salty/damp) environment.
- Flexibility: its physical properties allow aluminium and its alloys to be shaped easily by any of the primary industrial metal-working processes – forging, casting, rolling, or extrusion.
- Impermeable: Aluminium forms a superior barrier for food and beverage packaging by preventing air, water, light, and micro-organisms from reaching the contents inside.
- Light Weight: Aluminium can lower vehicle weight, reducing fuel use and emissions; lighten structures "dead load", and in packaging applications shrink the environmental footprint associated with shipping.
- Corrosion Resistance: The metal's natural aluminium oxide coating provides highly effective protection against degradation from water, salt, air, and temperature variation.
- Recyclability: Once manufactured, aluminium can be recycled repeatedly, using only 5 percent of the energy, and generating only 5 percent of the emissions, associated with primary production.
- Lifecycle Analysis and Energy Saving: Lifecycle Analysis and Energy Saving of Aluminium in various applications indicate that Aluminium saves energy in its life cycle, much more than the energy consumed in the manufacturing of the metal.
- Aluminium can be recycled again and again without loss of its inherent properties.
- Nearly 70% of aluminium ever produced still believed to be in use.
- Recycling requires only 5% of energy and emits only 5% of GHGs compared to primary production.

Source: Aluminium Association of India

12th Plan is An Ambitious Plan

The draft of the 12th Five-Year Plan approved by the National Development Council last week is well written and forward-looking. It is also forthright about failures to implement various aspects of the 11th Plan and openly nuances various claims the government has made recently — for example, about the

likelihood that investment in agricultural cold chains is sufficiently win-win and that it would be a magic bullet for agricultural marketing. The prime minister, in his speech at the NDC, recognised that the "aspirational" Plan target of eight per cent required a steep increase in growth in the last three years of the Plan period. This is asking for a great deal. As the Plan points out, India will have to return to 2007-08's gross fixed capital formation rate of 35 per cent of gross domestic product from the current 32 per cent. This is proposed through a sharp increase in private corporate investment, from 11 per cent at present to nearly 15 per cent in the last year of the Plan, while public investment stays static at 8.2 to 8.4 per cent of GDP. This will require a sharp turnaround in business sentiment.

However, the chapter on industry provides some clues as to how this can be achieved, aside from those already known, such as improving power supply. First, a shift towards an industrial policy that deepens government-business co-ordination is outlined and advised. Second, a reminder is provided of the importance of National Industrial Manufacturing Zones, areas that could serve to incubate competitive industry. Third, it is advised that private sector retrenchment of workers be freer, and that the threshold employment for labour legislation to kick in be made 300 immediately. Fourth, that compliance with labour laws be easier, through online self-certification. And fifth, that contradictory business regulations be harmonised through a Bill; that all regulations be mandatorily reviewed after a specific period; and that all regulatory information be placed online to benefit smaller businesses. If the government succeeds to introduce the last three changes without delay, a turnaround in sentiment is possible.

Much attention has rightly focused on rural performance in the 11th Plan period. Agriculture grew at 3.3 per cent per annum and rural wages increased, helping achieve unprecedented reduction in poverty levels. Less remarked upon but equally important is the sustained decrease in the variability of this growth; agriculture has not shrunk output since 2002-03, and variability is a third of its peak in past decades. The 12th Plan proposes a further increase to four per cent growth. But, as it recognises, this is more difficult to achieve at higher productivity levels without new technology, especially since recent growth has been resource-intensive — intermediate inputs have grown at twice the rate they did in 1981-1997. The Commission admits that public investment in agriculture has missed 11th Plan targets by a mile. Private investment grew faster than the Plan targets — but that may be a sign of distress, too, the document suggests. Thus, there is no replacement for greater public investment — and the money should come from reducing the relative value of subsidies, the Plan says. The latter are now insufficiently inclusive, and over 90 per cent of power and fertiliser are used in areas that are already intensively farmed. The Plan suggests focusing on rain-fed areas — the east, in particular. These major shifts in focus must be carried out immediately.

The Plan document is certainly ambitious. But it is not unbelievable. The only question is whether these changes – incremental and doable – are carried out as soon as they should be by this government.

Source: Business Standard

8% growth Target for 12th Plan difficult: Economists

The Planning Commission has cut the target for annual average growth in gross domestic product in the 12th five-year Plan to eight per cent. However, economists believe the new goal, too, is difficult to achieve, given the uncertain global economic environment and the late start to the reform process, which may fail to gather momentum, as the 2014 general elections draw close. The initial draft of the approach paper to the 12th Plan had set a target of 9-9.5 per cent growth, depending on the global economic scenario. However, this was later cut to 8.2 per cent. At the National Development Council meeting held recently, the target was again lowered to eight per cent. If the economy grows 5.9 per cent (the upper band of projections in the finance ministry's mid-year analysis) in 2012-13 and 6.5 per cent in 2013-14, which most economists estimate, the last three years of the Plan period would have to record average growth of 9.2 per cent. Since the planning process began in 1951, the economy has seen growth of more than nine per cent only in five years. In 1976-77, GDP grew nine per cent; in 1988-89, it grew 10.2 per cent and in 2005-06, 2006-07 and 2007-08, it grew 9.5 per cent, 9.8 per cent and 9.3 per cent, respectively. Most economists say eight per cent growth in the 12th Plan period would be 'extremely difficult', adding the country might manage growth of only 7.1-7.2 per cent in this period. If that is the case, growth in the 12th Plan would be the lowest in three Plan periods.

"I expect the economy to expand at not more than 8-8.2 per cent in the last three years," said Mr. Arun Singh, senior economist, Dun and Bradstreet. He, however, added achieving eight per cent growth during the 12th Plan would be possible only if the government acted immediately to remove structural bottlenecks and develop infrastructure. "Given the 2014 elections, it would be extremely difficult to implement tough reforms," he said. D K Joshi, chief economist, Crisil, termed the eight per cent growth target for the 12th Plan "a stretched target". "Given the adverse global economic environment, India would have to work really hard and clear bottlenecks," he said, adding to stimulate private investment, rules on land acquisition had to be made clear and predictable. Recently the Cabinet had cleared the formation of the Cabinet Committee on Investment to expedite clearances to projects worth more than Rs 1,000 crore (Rs 10 billion). The committee would monitor progress in decision making and implementation of projects. Crisil's Joshi argued CCI would work only if private investment was revived. Mr. Madan Sabnavis chief economist, CARE Ratings, said, "It will take time for CCI to become functional in reviving growth and infra development. "There are bureaucratic clearances and decision-making required for that." He added at best, the economy would grow an average 7.2 per cent in the Plan period. "In the last three years, we will see growth of about seven per cent, 7.5 per cent and eight per cent," he said. Economists said uncertain global economic conditions, particularly in the Euro zone, which has plunged into recession, may also come in the way of boosting India's economic growth. World Bank chief economist Mr. Kaushik Basu had recently stated European banks would start repaying debt of $1.3 trillion to creditors by the end of 2014 or early 2015. The Indian economy grew 5.4 per cent in the first half of this financial year, the first year of the 12th five-year Plan. For 2012-13, the finance ministry's mid-year analysis has pegged GDP growth at 5.7-5.9 per cent, the lowest in ten years. Average economic growth of eight per cent in the 12th Plan is not substantially higher than the growth seen in the previous two Plans. In the 11th Plan, the economy saw average annual growth 7.9 per cent; the 10th Plan saw average annual growth of 7.8 per cent. In the 9th Plan, it stood at 5.5 per cent.

Source: Business Standard

Revival in steel demand in India hinges on monetary and infra measures

Entering in the penultimate year before the general elections in 2014 aspirations are soaring high about an imminent policy push by the government to kindle growth and demand in economy. Even the year is expected to end on a dour note with GDP hovering around 5.5%. However analyst has forecast growth of nearly 6.5% in 2013 backed by rekindled activity in economy. Infrastructure is touted as the ticking keg powders which can single handedly turn the tide of economy. Planned expenditure of USD 1 trillion in 12 FYP has aroused hopes of runaway growth acceleration. Steel being a key component in infrastructure buildup will certainly see revival in demand to the tune of 1.1 time of incremental growth in GDP as thumb rule. One of the major roadblocks on the economic highway is the tight credit policy followed by the RBI to rein in inflation. Of late RBI has been repeatedly disappointing the market with roll over in lending rates even though half measures like open market operations and reduction in Cash Reserve Ratio (CRR) has done little to spruce up the market.

Of late though analysts have been bidding for credit loosening in Q4 and bulk of 2013-14 with inflation tamed in at below 7%. Domestic steel industry in India is saddled with over capacity and stiffening competition from imports under FTA. Remarkably the flat steel market has remained unmoved for the last 2 years with domestic mills swinging to the vagaries of exchange rate and import threat rather than to the core demand ruling the roost in developing economy. Steel consumption growing by a meager 4.2% (April-Nov) over last year and the figure even more abysmal at 3.7% for non-alloy steel panacea was never more desirable. In the eventuality of domestic steel demand not growing as expected in the medium to long term, steel producers would have to focus on exports to maintain their operating rates at profitable levels a challenging proposition given the current slowdown in the developed world. An over-capacity situation in China would certainly dent India's drive to ramp up exports. With drastic cuts in production by European steel makers, the EU region hardly is a destination worth pursuing while other parts of the world are too competitive. In the backdrop emerging global challenges governments' infrastructure push supported by liberal credit policy seems to be the only vent for the domestic mills. Fast tracking of key infrastructure projects and increased efficiency in execution holds the key to a turnaround.

Source: Steel Guru

TATA Steel wins Excellence Award 2012-13

TATA Steel was conferred with the ASSOCHAM CSR Excellence Award 2012-13 by ASSOCHAM at the fifth edition of the ASSOCHAM CSR Summit held in New Delhi. TATA Steel was announced as a winner in the Large Corporates Category and the award is recognition of their distinguished and commendable work done in the field of CSR. The award is a recognition of TATA Steel's CSR models which takes ownership of several aspects like urban services, infrastructure development, healthcare facilities, and creation of sustainable livelihood in rural areas, disaster management and support of other non-profit organizations. With Growing impetus of Corporate Sustainability as a concept among companies worldwide, the ASSOCHAM CSR Summit cum Excellence Awards discussed the holistic perspective of CSR in the region with insights from various stakeholders. The theme of the summit was Empowering Sustainability Promoting Responsibility. Mr Chanakya Chaudhary chief, resident executive, TATA Steel, Delhi and Mr Prabhat Sharma, head, Corporate Affairs, TATA Steel, Jamshedpur received the award on behalf of the company from honorable Chief Guest Dr APJ Abdul Kalam, former President of India.

Source: Steel Guru

TATA Steel MD sees Indian steel demand growing by 7pct in next FY

Business Line reported that Mr HM Nerurkar MD of TATA Steel said that in 2013-14, steel demand in India is expected to be higher at around 7%. He told Business Line "Reforms announced by the Government will provide a fillip to growth in the economy. With the general expectation of modest growth globally and sustained raw material prices, we expect steel prices to firm up and be stable in the year ahead." He said "The formation of the Cabinet Committee on Infrastructure for single window clearance for mega projects will generate activity in the power and road sectors." In addition, Mr Nerurkar said the expected lowering of interest rates by Reserve Bank of India in January will provide impetus to the manufacturing and consumer durables sectors. He also said "The main factors impacting growth in India are the inflationary pressure, the fiscal deficit, lower demand from consuming sectors such as automotive, construction, capital goods and consumer durables, and, the problem of capital inflow. There are delays in obtaining clearances, especially environmental clearances, land acquisition, overdue reforms." In the financial year 2012-13, growth in domestic steel demand is expected be around 5 ½% to be about 75 million tonnes, up from 71 million tonnes in 2011-12.

Source: Steel Guru

Government update on crude steel capacity addition in India

Indian steel minister Mr Beni Prasad Verma informed Lok Sabha that currently, a number of major steel investment projects are at various stages of progress, both in Greenfield and Brownfield areas. Based on the information available in the ministry, following major steel producers are already in the process of capacity expansion and addition.

Crude Steel capacity

Company	Existing	By 2017-18
SAIL	12.84	21.40
RINL	3.00	7.00
TATA Steel	6.80	9.70
Essar Steel	10.00	10.00
JSW Steel	11.00	12.00
JSW Ispat	3.30	4.50
JSPL	3.50	4.25
Bhushan Steel Limited	3.26	5.20
Monnet Ispat	0.30	1.50
Visa Steel	0.50	2.50
Total	54.50	78.05

In million tonne

Note: Induction Furnace capacity not included.

Source: Steel Guru

Asian Nations continue to drive Global Steel Output Growth

After adjusting for Chinese under-reporting, Asian total output of raw steel in 2011 was in excess of one billion tonnes. This represents almost 65 percent of global production. In comparison, the figure ten years earlier was 42 percent. Chinese steel production continues its inexorable rise in 2012. The outcome is expected to reach 760 million tonnes - 5.5 percent up on the outturn in the previous year. The three main drivers are increases in manufacturing, infrastructure investment and housing. Further, but more modest growth in steel demand is anticipated for the next five years - pushing up production of steel to 895 million tonnes in 2016. The future percentage rate of expansion in steelmaking is forecast to be slower than in the recent past. The rate of growth in steel output in India is starting to slow but will be recorded at a new all-time high in 2012. The, year-on-year, expansion is expected to be just 3 percent, whereas in the past decade the figure has been close to 10 percent. Reasonable demand for housing and infrastructure will remain into the future - leading to solid requirement for steel to 2016. The recovery of the Japanese steel sector from the 2009 global economic crisis was abruptly halted in 2011 by the March earthquake and tsunami. Modest growth in steel production is predicted in 2012 and beyond as reconstruction in the affected region takes place. The economy is slowly improving but exports are proving difficult to obtain. Steel output should continue to expand but in 2016 is likely to be below the boom year of 2007. A new peak steel production level will be achieved in 2012 in South Korea. Domestic demand has not increased significantly but the country's dependence upon imports of semi-finished products has been greatly reduced. Steel output is expected to increase marginally in 2013, and beyond. More new capacity is likely to come on stream next year; lifting domestic supply further. A slowdown in the rate of growth in steelmaking is anticipated in 2014 to 2016.

Source: MEPS News

Mild Recovery in Stainless Steel Prices Forecast for 2013

It's that time of the year when participants in the stainless steel supply chain try to predict how the market will perform in the coming twelve months. Producers and distributors have been hoping, since the global economic crash began in 2008, that an upturn is on the horizon. However, the prevailing consensus, at least in the West, is that 2013 will not be very different from this year. MEPS' most recent forecast for worldwide crude stainless steel production is for a moderate increase in 2013. The most significant growth is expected to take place in the developing markets, such as India and China. Output in the established stainless steelmaking nations of Europe, North America and the Far East is predicted to fall or grow marginally. The Eurozone crisis is far from resolved and will continue to subdue industrial demand in the region in the medium term. In the United States, observers fear that the effect of the impending "fiscal cliff" - the combination of tax increases and spending cuts aimed at reducing the budget deficit - will be to delay any return to substantial economic growth. In China, the government's most recent stimulus measures should help to promote continued expansion in stainless steel production, albeit not at the rate recorded in recent years. Mills in Europe and North America have, in recent weeks, started to announce basis price increases for austenitic flat products. Their intention is to try to introduce an element of profitability, which has been lacking for so long, into their operations. These moves are certainly not supported by an uptick in real demand. However, the indications are that they will succeed in raising basis values in the coming months. MEPS anticipates that the LME nickel cash figure will move in a range between $US17,000 and $US21,000 per tonne during 2013, topping out during the second quarter. Although the maximum value will not be significantly greater than that in 2012, the average value could be around $US2,000 per tonne more than this year. Grade 304 cold rolled coil basis and transaction prices are also predicted to reach their maximum values in the second trimester of next year. These peaks are expected to be marginally higher than the figures recorded in the early part of 2012.

Source: MEPS News

Steel Consumption in the Rural Sector

Mr Beni Prasad Verma Indian minister of Steel said that the present per capita consumption of steel in the country is 59 Kilogram. He said that the rural market has been identified by the government as one of the areas where the potential of steel consumption can be enhanced further and ministry of steel has launched a campaign for popularizing usage of steel in rural areas. He added that the Institute of Steel Development and Growth has been frequently conducting training programmes to create awareness about the use of steel. The main producers have already established a wide network of rural

dealers/distributors so as to make steel available in the remote corners of the country. INSDAG is also working on revised designs of pre-fabricated/semi-fabricated applications as well as increasing aesthetics of steel used in various projects. INSDAG has been asked to publish brochures on the use of steel in the regional languages also in order to popularize its usage. In order to assess the pattern and trends of steel consumption in rural India, an all India survey was commissioned. A report of study on assessment of steel demand in rural India has been received. He said that necessary action has since been initiated to increase and popularize consumption of steel in the country.

Source: Steel Guru

Steel, Ferro Alloys units facing closure

Nearly 200 steel and ferro alloys units in Andhra Pradesh would face closure unless the State government came to their rescue by rolling back the Fuel Surcharge Adjustment (FSA) charges, Devendra Surana, president FAPCCI and Suresh Kumar Singhal, Chairman, All India Induction Furnaces Association, South Central Region said here on Wednesday. Addressing a press conference, Mr. Surana, Mr. Singhal and representatives from ferro alloys industries said the steel units were working at 35 per cent of their total capacity and the ferro alloys at 50 per cent for the past 16 months due to power cuts. They were already on sick list and not in a position to pay the electricity bills of November, 2010 as the FSA component alone ranged from 35 per cent to 50 per cent of the bills. The FSA charges were casting an additional burden of Rs.100 crore a month and as many as 150 units had not paid their electricity bills by the last date (December 10) of 2010-11.

In one instance, the FSA amount was half of the total electricity bill of Rs.70 lakhs. In another instance, the bill was Rs. 4 crore, while the FSA component was Rs.1.41 lakh. They said the FSA charges at Rs.1.32 per unit were irrational and the actual rate as per the increase in fuel cost would not be more than 30 paise per unit. Pointing out that steel and ferro alloys units were power intensive, they said “if the government did not come to our rescue, the industries will be closed and lakhs of people will be rendered jobless”. Even as the production in steel units declined, they were facing severe competition from neighbouring States which were exporting to Andhra Pradesh. They said that the total investment in the steel industry in the State was to the tune of Rs.10,000 crore and it provided direct employment to 1 lakh people. It was paying electricity charges of Rs.1,000 crore per annum, besides Rs.1500 crore towards excise duty and Rs.500 crore for VAT. The industry was supporting downstream industries whose investments would be around Rs. 1,00,000 crore. P.S.R. Raju of Deccan Ferro Alloys Private Limited said power was the main raw material for ferro alloys units and the FSA charges comprised 35 per cent of the total electricity tariff. He urged the government to bear 50 per cent of the FSA charges.

Source: The Hindu

Cyrus Mistry becomes Chairman of TATA Group

TATA Steel Limited has informed the stock exchange that the board of directors on December 14th 2012 announced the appointment of Mr Cyrus P Mistry as the chairman of the board with effect from December 28th 2012 on retirement of Mr RN Tata on that date. The board conferred on Mr Tata the honorary title of Chairman Emeritus. Mr Ratan Tata has had a five decade long tenure with the group and took over as chairman in 1991. Mr Mistry will be the sixth chairman of the Tata group and the second non Tata family member after Sir Nowroji Saklatvala. Mr Mistry joined the board of Shapoorji Pallonji and Co as a director in 1991 and is currently the managing director of the Shapoorji Pallonji Group since 1994. He is the youngest son of Indian born Irish construction magnate Pallonji Mistry, who incidentally is the largest shareholder of TATA Sons.

Source: Steel Guru

Indian iron ore production to dip by 40pct YoY

Business Standard reported that Indian iron ore production is expected to fall by 40% to 100 million tonnes in 2012-13 as compared with 167 million tonnes 2011-12, which had also seen sharp decline from 208 million tonnes produced in 2010-11. Mr RK Goyal MD of Kalyani Steels Limited said that “According to the Indian Bureau of Mines statistics, iron ore production during April to September 2011 was to the tune of 72 million tonnes. According to the Federation of Indian Mineral Industries, the production will not cross 100 million tonnes.” He added that iron ore export had come down to 57 million tonne last year from 102 million tonne the previous year and could further decline to 30 million tonne to 35 million tonne this year.

According to representatives of the mining and steel industries, the clampdown on iron ore mining in Karnataka and Goa and the difficulty in developing new mining assets in the country have led the steel industry and the economy into a disadvantageous position.

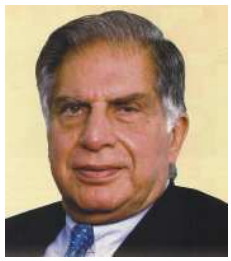
Non availability of iron ore to hit steel output in India

Business Line reported that delay in allotment of coal and iron ore mines, increasing imports of iron ore by India and the failure of domestic steel makers to reach production targets so far this year. Several global companies are re thinking their Indian strategies. According to the Federation of Indian Mineral Industries, with regard to iron ore, India, which had been exporting this raw material, had to import 9 million tonnes so far this fiscal and could bring in 15 million tonnes for the full year. Against this background, industry leaders were unanimous that exploratory operations should be stepped up taking into account India's steel demands by 2020. Mr N K Nanda Director of National Mineral Development Corporation said that India had 25 billion tonnes of iron ore reserves, but most of it was still untapped. Mr Nanda said that the company was willing to undertake exploratory works in different States free of cost, but most of the State Governments were yet to respond to the call and allot blocks. Only Jharkhand has given us some blocks for exploration. None of the other States have come forward. Mr R K Goyal MD of Kalyani Steels said that the government develops a model for allocation of resources and minerals for steel production, with priority to existing plants that do not have captive mines. Mr Goyal said that "Iron ore for steel production is not adequately available and whatever is there is sold at speculative prices due to the current issue of illegal mining."

Source: Steel Guru

BATON PASSES TO CYRUS MISTRY

RATAN TATA – A PROFILE



Ratan N Tata (1991-2012) has been the Chairman of Tata Sons, the promoter holding company of the Tata Group, since 1991. He is also the Chairman of the major Tata companies. During his tenure, the group's revenues have grown manifold, totalling over $83 billion in 2010-11. Tata also serves on the Board of Directors of Fiat SpA and Alcoa. He is also on the International Advisory Boards of Mitsubishi Corporation, the American International Group, JP Morgan Chase, Rolls Royce, Temasek Holdings and the Monetary Authority of Singapore.

Ratan Tata, the person:

- 1937 Born in Mumbai on December 28
- 1962 Completes BSc in architecture from Cornell University
- 1962 Joins Tata Group
- 1971 Appointed Director of The National Radio & Electronics (Nelco)
- 1974 Becomes a Director in Tata Sons
- 1975 Complete management programme from Harvard Business School
- 1977 Given charge of Empress Mills
- 1981 Named Chairman of Tata Industries
- 1991 Takes over as Group Chairman from JRD Tata

Mr. Tata is also associated with various organizations in India and overseas. He is the Chairman of two of the largest private-sector-promoted philanthropic trusts in India. He is a member of the Indian Prime Minister's Council on Trade and Industry He is the President of the Court of the Indian Institute of Science and Chairman of the Council of Management of the Tata Institute of Fundamental Research. He also serves on the board of trustees of Cornell University and the University of Southern California.

Mr. Tata also serves on the Board of Directors of Alcoa. He is also on the International Advisory Boards of Mitsubishi Corporation, the American International Group, JP Morgan Chase, Rolls Royce, Temasek Holdings and the Monetary Authority of Singapore.