CHINA'S READJUSTMENT STRATEGY

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FIVE-YEAR PLAN

The Great Recession of 2008, as a consequence of the subprime mortgage and euro zone crisis, adversely impacted the external demand upon which China had long relied. The timing of the economic crisis coincided with the internal drafting of the 12th Five-Year Plan (2010-15) – which by this time had moved up to the National Development Reforms Commission (NDRC) for due consideration. The planners perceived that the crisis brewing up was likely to have long lasting aftershocks in the developed world which, in turn, could also have far-reaching implications for the Chinese economy. Most importantly, many countries adversely affected by recession were major markets for China's exports, accounting for more than 30 percent share of its Gross Domestic Product (GDP).[1] Therefore, under the prevailing circumstances, the leadership of China effectively readjusted policy directives in the 12th Five-Year Plan (FYP) to steer the economy clear of the emerging global crisis.

Development plans are considered key indicators of the direction and changes of a country's development strategy. Therefore, the convergence of policy directives in the 12th Plan was targeted towards correcting the prevailing unsustainable levels of economic growth. China had to rethink

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1. Aileen Wang and Nick Edwards, "China 2012 FDI Inflows Slow, Stay on Track for $100 Billion", November 19, 2012, http://www.reuters.com/article/2012/11/20/us-china-economy-fdi-idUSBRE8AJ06C20121120, accessed on March 5, 2013.

some of its core values by compromising on the external demand and shifting focus towards the internal demand. The National People's Congress (NPC) ratified the 12th Five-Year Plan (2011-15) in the midst of the prevailing global crisis by following due diligence at every stage in the consultative process (Table 1).

Table 1: Guidelines for Drafting Five-Year Plan (FYP)

NATIONAL PEOPLE'S CONGRESS		Ratifies national level FYP
STATE COUNCIL		Provides guidance for key themes within national FYPs
NATIONAL DEVELOPMENT REFORMS COMMISSION (NDRC)		Constructs and oversees national FYPs
MINISTRIES		Constructs industry and issues specific FYPs
LOCAL GOVERNMENT		Constructs local and regional FYPs

Source: China's 12th FYP, APCO Worldwide December10, 2010

GREAT LEAP INTO MODERNISATION

The Chinese economy in the first three decades after the civil war was autarkic, centred on Mao's preposterous belief that any kind of contact with foreigners would not only corrupt the political structure but also pollute its cultural ethos. As a result, during the early years, the government prohibited foreign investment and restricted foreign trade. However, in the post-Mao era, the Chinese government, realising that it was economically lagging behind much of the rest of the world, began to rethink on its future economic posture. In 1978, Deng visited Matsushita's television division in Ibaraki, Osaka prefecture, and told Konosuke Matsushita (founder of Panasonic); "*They say you are the God of management, could you help with China's modernization"?* Subsequently, on May 22, 1987, Matsushita and China signed an agreement to establish a joint venture to set up a TV cathode-ray tube plant at a time when the rest of the world was hesitant to

enter into any type of a contract with China[2].

China's tryst with liberalisation began in 1979 when it enacted the law on joint ventures and in 1980, set up Special Economic Zones (SEZs) in Shenzhen, Zhuhai, Shantou and Xiamen. In 1984, it opened up fourteen cities to trade; in 1986, it passed a law on foreign capital enterprise, ended the preferential tax treatment in 1995 and, consequently, announced tariff reduction on 5,000 items. China was gradually preparing itself to being accepted in the World Trade Organisation (WTO) by amending its legal code to conform with the WTO stipulations on issues ranging from trade to rules governing tariffs and anti-dumping regulations[3]. Hence, the carefully crafted economic policy scripted by Deng followed a step by step process of liberalisation which got China gradual entry into the world of foreign trade and investment by intrinsically becoming an active strand in the global supply chain.

The economic model formulated by Deng was unique because, on the one hand, the economy was being driven by free market principles, and, on the other, one party continued to maintain absolute monopoly and political authority. China was following a model unparalleled in history but based on the principle of regional decentralisation which provided flexibility and space to the regions to experiment upfront with economic reforms. The strategy of empowering regions and prefectures in decision-making could well have been the inflection point in propelling the economic transformation to an unprecedented scale, never before witnessed by the world. The process was engineered with a strong underlying caveat that China was not prepared to tamper with the political process and, therefore, averse to the idea of political liberalisation.[4]

The incentives to invest in China were compelling. The 1980s started to witness swarms of foreign companies waiting to invest in South Asia because of the latent market potential and availability of scarce resources. China

2. http://panasonic.net/history/corporate/chronicle/1987-01.html, accessed on January 29,2013.
3. http://www.ln.edu.hk/mkt/staff/gcui/Lecture7.pdf accessed on January 29,2013
4. Yukong Huang, "In China, Most Politics is Local", *International Herald Tribune*, *The Global Edition of New York Times*, January 30,2013.

The last two Plans were clearly directed at promoting development by increasing allocation on Research and Development (R&D).

was a huge reservoir for the factors of production. With the onset of economic liberalisation in China and the economic slowdown of the 1980s in the West, China, by default, became a preferred destination for businesses which wanted to persist with their only aim being profit maximisation. The investments ranged from manufacturing to export processing and licensed agreements in both the military and civil sectors. By the turn of the decade in this century, direct investments surged and foreign investments consisting of more than 600,000 joint ventures valued in excess of $1 trillion had become the mainstay of China's economic turnaround. China, along with the US, accounted for almost two-third of total global growth. Rapid economic growth further propelled the purchasing power and to put the argument in the correct perspective, the level of development that the West achieved in five decades during the period of industrialisation, China could achieve in less than a decade. In its calibrated development plan, China was continuously building infrastructure by investing trillions of dollars on highways, seaports, airports, dams, power plants, communication networks, high speed railways and infrastructure for achieving its strategic goals as well as developing other industries.[5]

ENGINEERING A NEW ECONOMIC REVOLUTION

China was attempting to restructure the economy through its 12th Plan by boosting domestic consumption, developing the service sector, shifting to a higher value added manufacturing and by, finally, setting the tone for carrying out deep-rooted reforms in the country. In its evolutionary industrial strategy, there has been a conscious effort to shift away from imitation to innovation by either embracing technology through fair means or, if required, even through subterfuge. In its stratagem, transfer of technology was not used as a tool to enhance production but to move up in

5. John D. Daniel, Lee H. Radebaugh, Daniel P. Sullivan, Prashant Salwan, *International Business Environment and Operations* (Pearson, 12th edition,2009).

the innovation ladder. Hence, the provisions in the last two Plans were clearly directed at promoting development by increasing allocation on Research and Development (R&D) and ameliorating the quality of manufactured goods which would ultimately enhance their competiveness in the global arena. China has also targeted increased spending on R&D from the current level of 1.75 percent to 2.2 percent of GDP by the end of this Plan and aims to further hike it to 2.5 percent by 2017; comparable with any Organisation for Economic Cooperation and Development (OECD) country[6]. The larger strategy for the first two decades of this century has been to promote scientific and technological development in carefully selected fields which would ultimately enhance their innovation capabilities. The new revolution in the 21st century is expected to flow out from the prescriptions of the 12th FYP and not necessarily from the barrel of the gun – as China continues to embark to the next level, as the world's leading economic and military power.

The previous revolution initiated by Deng spread over three decades, culminating in China moving up from a low income to a middle income economy but at a much faster pace compared to a similar transition by the West and America during the period of the industrial revolution. The transition also witnessed a shift to large scale privatisation in some non-critical sectors. The ongoing revolution, however, is expected to energise the national innovation system by setting goals for development of science and technology which would automatically act as a stimulus for China's development strategy in the coming years. Enhancing R&D intensity, and increasing the number of researchers, publications, patents and R&D laboratories would be the simple methodology followed to achieve the set goals. In the ongoing plan for economic development, while, on the one hand, the earlier manufacturing model which promoted exports was being replaced by the service sector model to enhance domestic consumption, on the other, the government was trying to incentivise and retain the high-tech manufacturing which would help promote Chinese companies to compete globally.

6. Joseph Casey and Katherine Koleski, "U.S. Economic and Security Review Commission, Backgrounder: China's 12th Five Year Plan", June 24, 2011.

While opportunities and challenges in the coming decade are expected to be distinct, the future too will, therefore, demand a development strategy – separate from the past. In a fast growing economy, strategies need to not only be adaptive but also flexible to enable governments to carry out mid-course correction in accordance with the changing dynamics. China was aware that if it did not shift away from policies directed towards unsustainable high growth rate, then it could well be sitting on a potential socio-economic time bomb. Therefore, a shift towards economic rebalancing and moving to a more balanced growth structure was not only inevitable but also the most likely course for China to follow in the coming decade. The likely policy prescriptions include a lower growth rate at 7 percent, minimal government intervention, a larger role for the private sector to set up upgraded and high technology industries and an improvement in the overall indigenous innovation capability by both private enterprises and the state.

China is carrying out calibrated reforms in the 12th Plan by focussing on equitable income distribution, enhancing overall social well-being through better education opportunities and health care so that large numbers of domestic citizens also benefit from the economic growth. It is enhancing domestic consumption by using technology to raise agricultural productivity; amending tax policies that would increase rural purchasing power; building infrastructure, including roads, railway lines, ports and airports; constructing apartments for the weaker section of the society; and targeting to increase the rate of urbanisation beyond 50 percent by revising the *hukou* system (residency permits).

It is also fascinating to see the emergence of groups of people in a typically authoritarian state who are able to freely network through blogs on social networking sites. While micro blogs (Weibo) were becoming a vibrant medium of freedom of expression for a large number of thinkers and activists which is otherwise not available to the citizens in a controlled system, the Renrou search engine has also become a medium for netizens to vent their views. Renrou was emerging as the most fearsome and potent non-state controlled artillery being used not only to gather information but also to expose influential individuals to the glare of public scrutiny.

China, particularly after the 'Jasmine Revolution,' had become extremely wary and cautious of the consequences of social instability which, in its opinion, could adversely impact the Party's control.

In the 12th Plan, China revisited its three-decade-old economic strategy – but this time signalling a shift away from its traditional export-led model.

Therefore, China was left with little choice other than carrying out adequate course corrections in its future development strategy by deliberately adapting to more egalitarian policy measures aimed to arrest social unrest which otherwise had the potential to snowball into a people's revolution – not the best result expected in an authoritarian state where instability was most feared. The policy-makers gradually started abolishing agricultural taxes, subsidised health care, and implemented measures to make basic education more accessible – sending a loud signal of the government's intent to reduce disparity by following a more balanced growth structure where the common man could benefit as much from the country's ongoing economic prosperity. In its policy initiatives, there has been a deliberate shift away from *'growth at any cost'* towards a more balanced and sustainable pattern, controlling inflation and keeping the economy in sync with the reality of the existing global economic environment.

READJUSTMENT STRATEGY

Since the dawn of the new millennium, reforms have been critical for China's success. While the experiments with reforms started in the 1980s, they appear to have taken shape with China's ability to diverge from the laid down path and execute policy readjustments since the 11th Plan. The 12th FYP actually picked up from where the previous plan (11th FYP) left off in terms of broad policy guidelines. The emphasis, however, had now shifted from what used to be 'hard production' to 'quality production' with a greater role envisioned for private sector and foreign investments. Initiatives were also undertaken to reduce bureaucratic regulations and state intervention which largely pointed towards maturing of the state administrative machinery.

In the 12th Plan, China revisited its three-decade-old economic strategy – but this time signalling a shift away from its traditional export-led model (exports in China consist of 30 percent of the GDP) to one that would now be driven by the consumers themselves. The government was forced to infuse a $640 billion stimulus package for development of the domestic market since the Western markets had dried up, resulting in the lay-off of millions of workers in China's manufacturing sector.[7] The 12th Plan largely promoted two key aspects — the government's focus on inclusive and balanced growth and enhancing indigenous innovation capability through large public and private investment in research and development which would enable China to take a great leap forward from "Made in China" to "Created in China" – both expected by the end of this decade.

In its transition from a simple manufacturing and export driven economy to a nation hoping to rely on the high-end technology manufacturing and service sectors, China was open to adopting measures which would encourage not only the flow of foreign investments but also foreign technology, vital for scientific development. It was ready to make readjustments in policies to attract foreign investments by easing regulations and lowering taxes. The policy formulations initiated in the 12th Plan resulted in China becoming the world's largest recipient of Foreign Direct Investment (FDI), according to the half yearly estimates of the Global Investment Trends Monitor. In the first six months of 2012, China attracted FDI amounting to $59.1billion, while FDI flow into the US amounted to $57.4 billion.[8] The amount by the year end had swelled to over $100 billion despite the slowing down of the economy and many favourable factors of production having become unfavourable.

In the past, large global trade and foreign exchange imbalances have irked many countries. China has been blamed for blatantly manipulating the Renminbi (RMB), thus, leading to tensions between China and its

7. "Reforms Critical to China's Decade of Success", Xinhua, October 30,2012, http://english.peopledaily.com.cn/90785/7995964.html, accessed on October 30, 2012.
8. Tom Gregor, "Commentary: China's Top Spot For Global FDI", *People's Daily*, October 25,2012, http://english.peopledaily.com.cn/90778/7991215.html, accessed on October 31, 2012.

major trading partner – America. The American anxiety of the relative standing of the US and Chinese economies was reflected in the heated rhetoric over China as a currency manipulator in the 2012 US Presidential debate. The anxiety is not limited to China deliberately undervaluing the RMB but extends largely to the dollar losing space to the RMB as a potential reserve currency in the future. While international use of the RMB has not yet expanded to transactions beyond those with China, the country has started allowing companies to settle payments for imports and exports outside Mainland China in RMB since 2009. China has 18 bilateral currency swap agreements with countries, including India, Japan, Russia, Brazil and Chile, which permit the Central Banks of these countries to access the RMB outside China. The Public Bank of China (PBOC) allowed almost 60,000 firms worldwide to transact in RMB and almost 7 percent of merchandise trade in 2011 was settled in RMB, a rise from 2 percent in 2010.[9] The RMB's international use and credibility have grown manifold and since June 2012, all Mainland firms were being permitted to invoice and settle their foreign trade transactions in RMB. FDI transactions by Chinese firms abroad and by foreign firms in China are also increasingly being carried out in RMB and such transactions effectively reduce the need for a currency to hedge against the dollar's volatility –implying broadly that the dollar is losing space in favour of another currency.[10]

Therefore, as China steps up in the international pecking order by the measure of its Comprehensive National Power, it would be natural for China to promote the RMB as a global reserve currency. The RMB moved into the trading band in 2005, enjoying swaps with over a dozen countries. Further internationalisation would mean that the RMB would not only become one of the top global trading currencies but also an investment currency to supplant the US dollar as the dominant currency in the foreign exchange market. China expects to excessively benefit from the RMB's hegemony in

9. Victor Shih and Susan Shirk, "To Renminbi or not to Renminbi? Why China's Currency isn't Taking over the World", *Foreign Policy* October 18,2012, http://www.foreignpolicy.com/articles/2012/10/18/to_renminbi_or_not_to_renminbi, accessed on October 31, 2012.
10. ibid.

By 2015, China is expected to invest 8 percent of the GDP in the development of key Strategic Emerging Industries (SEI) which include sectors like new materials, aerospace, displays, high end software and clean and alternate energy.

the world's financial systems, anticipating that other countries will orbit around it. Correcting the abysmal proportion of consumption to GDP would be one of the many drivers for shifting to a consumption model and hedging to internalise its future development strategy. A shift away from the export model would further reduce China's requirement to carry out excessive currency manipulation against a sharp depreciation of the dollar. It is, therefore, anticipated that China will only gradually strengthen rather than deliberately weaken the RMB –which appreciated by almost 3-5 percent in 2012.[11]

China's fifth generation leadership appears flexible to policy readjustments and consumers could well become protagonists in China's future development strategy. There are also possibilities that circumstances could guide Beijing into accepting the orthodox market-based system, starkly different from the socialist market economic system proposed by Deng. Tax breaks, subsidised electricity and land, financing targeted industries for development of future civil and military technologies, and encouraging investments will eventually become the future drivers for growth and economic development. The central, state and private sectors together are also expected to invest in excess of $2 trillion to achieve the set goals.[12]

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11. David Walker, "Yuan to Appreciate by a Modest 3% in 2012", June 13, 2012, http://www.investmenteurope.net/investment-europe/news/2184014/yuan-appreciate-modest-2012-allianz-gis-lam, accessed on November 6, 2012.
12. APCO Worldwide, "China's 2011 National People's Congress (NPC): Fine-Tuning the Economy With an Eye on Social Stability," March 2011, www.apcoworldwide.com/content/PDFs/**npc**_briefing_**2011**.pdf

Table 2: Strategic Emerging Industries

NEW MATERIALS	High performance composites Advanced structural materials New function materials Generic-based materials
HIGH END EQUIPMENT MANUFACTURING	Aerospace and space industries Rail and transportation Ocean engineering Smart assembly
BIOTECHNOLOGY	Innovative pharmaceuticals
NEXT GENERATION INFORMATION TECHNOLOGY	New displays Integrated circuits High end software and servers Digitisation of creative industries Next-generation core equipment Smart devices Next-generation mobile communication Convergence of telecom/ cable TV/ Internet network
ALTERNATIVE ENERGY	Nuclear power Solar power Wind power Smart power grids Biomass power
GREEN ENERGY VEHICLES	Electric hybrid cars Pure electric cars Fuel cell cars
CLEAN ENERGY TECHNOLOGY	

Source: Backgrounder China's 12th FYP

The 12th Plan highlights a shift in priorities favouring consumption by increasing investments in the service sector and the rate of urbanisation. China has lifted millions of citizens out of poverty and, inclusive growth, along with solving issues of widening income disparity, will continue as focus areas in the 12th Plan. The transition from an economy dependent

on hard manufacturing to consumption and higher quality growth model is expected to be gradual. Enhancing R&D to 2.2 percent as a proportion of the GDP by the end of this Plan will also be another key priority (Table 3).

Table 3: Economic Indicators of 11th and 12th FYPs

TARGET	11TH FYP (TARGET)	11th FYP (ACTUAL)	12TH FYP (BY 2015)
Average GDP growth	7.5%	***11.2%***	7%
Service sector as percentage of GDP	43.3%	***43%***	47%
Urbanisation	47%	***47.5%***	51.5%
R&D as percentage of GDP	2%	***1.75%***	2.2%
Strategic industry as percentage of GDP	-	-	8%

Source: Backgrounder, China's 12th FYP.

In the previous three decades, China successfully created an integrated global production system, unprecedented in scale and complexity. However, future directions must not only deal with challenges unfolding in the struggling developed countries but also in China as a result of increasing production and labour cost. The transition from "Made in China" to "Created in China" requires increase in allocation on R&D and the effects are already visible as highlighted by the Chinese Academy of Sciences (CAS) and Chinese Academy of Engineering (CAE) in 2011. The successful rendezvous of the Tiangong-1 and Shenzhou-8; invention of high speed laser equipment; integration of China's breeder reactor with the grid; launching of the first manned deep sea submersible to a depth in excess of 5,000 m; construction of the first deep water drilling platform; increasing yield of China's super rice through advancements in agriculture technology; and developments in missile and aviation technology are examples of only a few advancements made in science and technology in recent years.

DISRUPTIVE MILITARY MODERNISATION

Alongside its economic progress, Beijing is also on the cusp of becoming the world's largest collector of military arsenal. Its order of battle consists of modern jets, frigates, submarines, a range of missile systems, radar network and space-based systems. It also boasts of a robust infrastructure consisting of road and railway networks across the Tibetan plateau, high altitude airfields and over 11 million km of optic fibre cables to strengthen its command and control system. The rapid pace of military modernisation has extensively benefitted from globalisation of the arms industry and China's deliberate strategy of becoming an intrinsic part of the global chain of suppliers and buyers. Beijing is not embarrassed to acquire military hardware surreptitiously if it is not available through legal means. While China enjoys official military ties with more than 150 countries, some of which are vital sources of defence technology, it is also in alliances with other countries, not publicised because of political sensitivities, but wherein are also sources of defence technology.

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One such country with which China continues to maintain a formal cooperative relationship is the state of Israel which has been a vital source of defence technology guiding China's military modernisation. Though China and Israel established official diplomatic relations only in 1992, they have enjoyed a symbiotic relationship rooted in an informal alliance spanning almost four decades. The bilateral trade grew from $54 million in 1992 to an excess of $8 billion by the end of 2011. China is also an Israeli target export country in the field of telecommunications, agro-technology, security, environment and infrastructure and Israel is opening "Einstein Centres" in many Chinese cities to showcase its

companies.[13]

The foundation of the China-Israel nexus has been, therefore, rooted in a win-win business model. While Israel was looking for a potential market to maximise profits for its civil and military industries, China was in search of a partner with expertise in Russian and American advanced weapon systems – in that context, China could not have found a better partner than Israel. China was aware that Israel over the years had not only gathered experience in countering the Soviet weapon systems but had also developed capabilities to integrate these weapons into its own arsenal. It is an open secret that Israel provided China enough technology to drive the latter's military modernisation through the 1990s. Some of these capabilities include those in the fields of communication, radar, electronic warfare systems, optical instruments (night vision instruments), missiles (Patriot anti-missile technology, Gabriel sea skimming anti-ship missiles and Raphael Python-3 Air-to-Air Missiles (AAMs), laser guided armour piercing warheads, anti-tank missiles, fighter aircraft technology (J-10 considered to be a derivative of the Lavi) and Unmanned Aerial Vehicles (UAVs)(Harpy anti-radar drones). It is also believed that Israeli technicians helped the Chinese improve the guidance system of the DF-3A, which were later sold to Saudi Arabia. However, it is speculated that if the aborted Phalcon deal had fructified, it would have signalled a high point in the Sino-Israeli military cooperation. Also, Israel, pledging closure on future weapon sales to China has made the Israel-China nexus less transparent; however, the volumes of Israeli arms sales to China continue to surge, only to be surpassed by, Russia.[14]

Today, a battle zone is not limited to a region but extends across regions and further into space and, therefore, most conventional battlefields are transforming into a seamless global battle zone. The arms industry too is being driven by globalisation where, like all the other industries, defence

13 Alex Pevzner, "TIP Announces Breakthrough China Program" and Cnaan Liphshiz "China Marks 17 Years with Israel,", http://www.theisraelproject.org/site/apps/nlnet/content3.aspx?c=asIOI5NJKeK0F&b=7676985&ct=11138743#.UQoUQB2deBU and http://www.haaretz.com/china-marks-17-years-with-israel-1.7201, accessed on January 31, 2013.

14. Dallas Boyd, "Advanced Technology Acquisition Strategies of The People's Republic of China", report by ASCO, September 2010

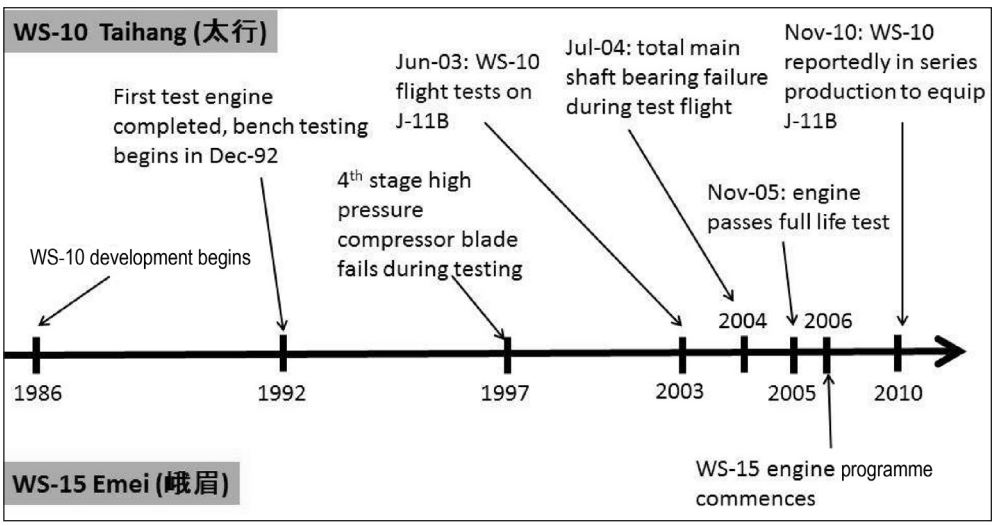
industries are also in search of favourable factors of production for profit maximisation. China, in that context, has evolved as a preferable destination for major primes because of cheap labour, good infrastructure and latent market potential due to the increasing pace of military modernisation. The irresistible market potential is complementing Beijing's drive to achieve rapid industrial development and military modernisation. China is openly embracing Western methodology, blatantly absorbing technology from any country willing to share it and if not, even ready to adopt illicit methods to bring the technology home. China's surreptitious acquisition of technology has been the cornerstone of its development strategy. It has become a collector of export restricted defence systems and sensitive commercial technology used to step-up its capabilities to match the Russian weapon systems and also play catch-up with the American weapon technology. In this effort, China's Military Intelligence Department (MID) under the PLA (People's Liberation Army) has played a pivotal role in assisting Beijing to acquire technology in the denial regime. In the MID, one arm is actively devoted in collection and analysis of data from open sources and the second arm is engaged in carrying out industrial cyber espionage.

As a result, China, over the years, has been able to successfully design nuclear missiles, send taikonauts into space and manufacture aerial platforms; however despite many years of R&D, it is yet to design and develop a low bypass turbo fan jet engine for its home grown fighters. Nevertheless, China's long-term priority continues to be to develop a high performance power plant for the J-10, J-11, J-20 and J-31; and in the interim, the Chinese are also utilising their resources to design engines for the ARJ-21 and C919 single aisle passenger aircraft. The demand for these engines is expected to rise and could be worth $100 billion over the next two decades. In the meantime, Beijing is contemplating increasing investments on research to $50 billion for the underfunded development project for the low bypass turbo fan engine.[15] Eventually, an increase in allocation on R&D to 2.5 percent as a proportion of GDP and flow of

15. Gabe Collins and Andrew Erickson, "Jet Engine Development in China: Indigeneous High Performance Turbofans are a Final Step Toward Fully Independent Fighter Production, *China SignPost*, June 27, 2011.

technology from China's expanding range of commercial aviation joint ventures will boost the development of the aero-engine programme. The development programme for the WS-10 (Taihang) which commenced in 1986 has significantly benefitted from increased investment on R&D, and, when complete, will replace the Russian AL31F. The timeline for China's WS-10 and WS-15 is shown in Fig 1.

Fig 1: Development and Production Timeline of WS-10 & WS-15



Source: Global Times

CHINA IN POST-MAO ERA

China is on the cusp of disruptive transformation in the 21st century, markedly distinct from its earlier *avatar* in the 1990s. China is readjusting its development strategy by reducing state ownership and controlled prices in favour of market forces; realigning infrastructure to emphasise on quality rather than mass production; encouraging foreign private investment by lowering trade barriers; focussing on enhancing domestic consumption instead of exports and, developing the less developed western regions to improve the lives of Chinese citizens across an extended spectrum. A recent survey of Chinese manufacturing activity show signs of economic recovery

as a result of improved global trade and stimulus provided by the government in 2012. The Purchasing Managers' Index (PMI) published by the Hongkong and Shanghai Bank Corporation (HSBC) has recorded the fifth consecutive improvement.[16] The PMI in January rose to 51.9 from 51.5 in December 2012, the highest level in two years, a good start for China in 2013. Qu Hongbin, chief China economist for HSBC, has said that while export growth is likely to remain tepid, infrastructure construction is regaining momentum and companies have started to step up by hiring and manufacturing. The reading underlined a pattern as also envisioned in the 12th Plan that the years of double digit growth are history and the Chinese economy is slowly coming to terms with a modest pace of expansion. The mid-January data in 2013 reveals 7.8 percent growth of the Chinese economy as compared to 9.3 percent in 2011 and 10.4 percent in 2010.[17]

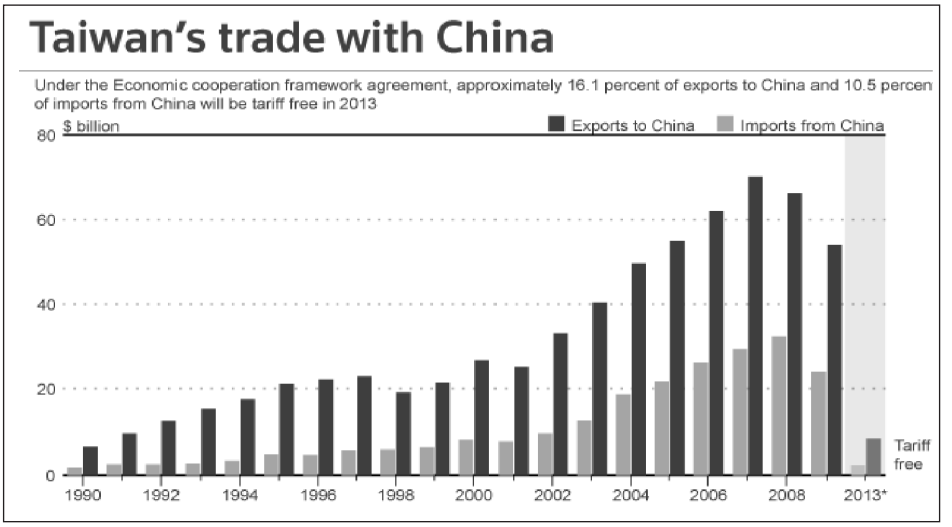
China has become Taiwan's largest trading partner, with bilateral trade worth $110 billion.

Therefore, China in the 21st century has turned out to be far less pervasive than what was perceived by Mao. Liberalisation of cross-border trade, development of services and infrastructure supporting international trade, changing international political dynamics, expansion of cross-national cooperation, and increase in, and expansion of, technology have been the prime drivers for globalisation in China. While, at one time, it was incomprehensible for China to even contemplate carrying out any kind of trade with Taiwan, today, trade between the two countries is governed by provisions laid down under the Economic Cooperation Framework Agreement (ECFA) on 273 items. China has become Taiwan's largest trading partner, with bilateral trade worth $110 billion.[18] Trade between China and Taiwan since December 2008, when the two sides opened trade links, has grown to an astounding figure of $554 billion in October 2012.

16. PMI higher than 50 indicates growth and reading below 50 indicates contraction of the economy.
17. Bettina Wassener, "Chinese Economy Shows Signs of Recovery From Slowdown", *International Herald Tribune*, *The Global Edition of the New York Times*, January 25, 2013.
18. "China and Taiwan Sign Key Investment Protection Pact", http://www.bbc.co.uk/news/business-19204608 accesed on January 29, 2013.

Chinese Mainland imports from Taiwan totalled $439 billion and its exports to Taiwan reached $116 billion (Fig 2).[19]

Fig 2



Source: Taiwan Bureau of Foreign Trade (* 2013 forecast figures based on 2009 figures).

Globalisation in the 21st century has also increased at an accelerated pace. Almost a quarter of world production (including military) is sold outside the country as compared to barely 7 percent in 1950. Restrictions on imports are decreasing, foreign ownership of assets as a percentage of world production has been increasing and the world is transforming into a global playground. While the 1960s and 1970s comprised lost decades for China, the 1980s and 1990s were periods of experimentation, consolidation and realignment. China grabbed opportunities, witnessed double digit expansion of its economy, thereby helping Beijing to leverage far greater influence than it ever expected. The first decade of this century, beyond doubt, has been a period of rationalisation, evident from the 11th and 12th Five-Year Plans, and China, as of 2013, has settled

19. "Trade Between China and Taiwan Hits $554.26 Billion", http://www.chinaeconomicreview.com/trade-between-china-taiwan-hits-55426bn, accesed on January 29,2013.

for a more modest and sustainable pace of growth under the prevailing global economic turmoil.

INDIA'S CONSTERNATION

Decoding both India's defence spending and investor sentiments and carrying out ballpark comparison with China since the 1990s reveals that while India has been far too conservative in defence spending, the overall institutional investments into India too have gradually depleted over the years. Surprisingly, the share of India's defence spending in the GDP declined steadily after liberalisation, whilst China has been increasing its allocation on defence by 17 percent every year. The foreign funds too have poured in more generously into emerging markets such as China, South Korea, Brazil and Taiwan when compared with India. There is also a new group of emerging countries like Mexico, Indonesia, Nigeria and Turkey – called the MINT—sucking substantial investments but at the cost of India. In January 2013, China recorded the highest foreign fund inflows of $5.6 billion as compared to the modest $1.3 billion into India in January 2013.[20] Also, India's own aspiration to evolve as an indigenous player in the defence sector appears suspect.

Therefore, if India is aspiring to emerge as one of the regional power centres, then it would certainly have to reverse the extremely skewed Self-Reliance Index (SRI), expand its defence expenditure and immediately address other critical areas that require attention in the defence economy. India's vision to close the gap with its major adversary will have to be backed with credible and perceivable actions. Joseph Nye described power as the ability to obtain the outcomes one wants.[21] Hence, India will have to effectively devise strategies to not only be perceived as a credible adversary but also possess the power to hedge on critical issues related to the economy of, and security in, the region. For India to envision a role for itself as a major player in the region after the US' exit from Afghanistan, it would necessarily have to be supported by substantial and meaningful increases in

20. "Foreign Funds Pour More into China Than India in Jan", *Business Standard*, February 8, 2013.
21. Joseph S. Nye Jr, 'Don't Try to Contain China", *International Herald Tribune*, January 28, 2013.

the defence budget that can enable it to leverage its position in the region – unlike our current strategy (budget 2013-14) founded on a meagre increase of 5.3 percent in the defence outlay against an overall increase of 12 percent in government expenditure.

India has to take meaningful strides, carry out significant amendments in the procurement procedures by effectively reducing the long gestation periods which, in turn, would result in reducing leakages and unnecessary cost overruns – effectively making procurements cheaper. Slippages in timelines due to long gestation periods and complicated procurement processes effectively result in acquisition of relatively old machines instead of modern contemporary platforms. This is because procurements conceptualised in the previous generation actually fructify in a different generation due to slippages in timelines, resulting in procuring of older generation platforms.

Also, India, at this juncture, cannot afford to succumb to financial pressures and surrender large chunks out of the capital expenditure when the armed forces are suffering from critical deficiencies, adversely affecting the military preparedness. India has surrendered Rs 10,000 crore under the capital head from the 2012-13 estimates. Also, in the 2013-14 budget, capital outlay has been pegged at Rs 86,740 crore, but how much of it will actually be spent on defence modernisation is only a matter of speculation. Carefully tracing the pattern of capital expenditure in this decade reveals certain facts and largely points towards the direction of our strategic thought process. The actual expenditure in 2011-12 was Rs 67,900 crore. The Revised Estimates (RE) in 2012-13 came to Rs 69,578 crore against the Budget Estimates (BE) of Rs 79,578 crore – a modest increase of less than Rs 2,000 crore against a planned budgeted increase of Rs 11,678 crore, broadly indicating a slowdown in the defence modernisation plan. In this election year too, it will be worthwhile to look out for major social sops and their impact on the capital expenditure projected at Rs 86,700 crore. While the government, on the one hand, will be eager to maintain a balance by trying to keep the fiscal deficit under 5 percent, the military, on the other hand, will be sweating to modernise its arsenal – and which of the two will prevail would only be known in February 2014.

Therefore, the figures at the end of this financial year will largely indicate the intentions and the strategic thinking of the government of the day at a time when India is poised at a critical juncture in geo-politics and the region is witnessing a gradual shift in the geo-strategic landscape. Unless the government considers it necessary to increase the defence outlay (BE) by 15 percent every year, pegs the defence budget at 2.5 percent of the GDP and targets R&D at the same percentage point, India will continue to lag behind in its modernisation plans and not be able to catch up with the rest of the world. Indian strategists will also need to shift focus from their obsession for acquisition to indigenisation. India will have to realign the Long-Term Integrated Perspective Plan (LTIPP), Services Capital Acquisition Plan (SCAP) and Annual Acquisition Plan (AAP).[22] Proposals for capital assets that flow out from the planning process should be founded on indigenisation instead of acquisition which, in turn, would help reverse the SRI. For India to emerge as a regional power centre, it will have to indigenously develop top performance systems with cutting edge technologies for future battlefields. It would also have to guard against any form of technology entrapment by strategising and cleverly lowering the threshold below the denial list and then crossing the threshold through indigenous R&D. India will have to lay emphasis on reducing life-cycle costs for the systems being indigenously developed by attracting private players who would eventually become key players in its defence modernisation strategy.

The Standing Committee on Defence (2010-11) adversely commented on underutilisation of the R&D budget.

India at this stage cannot afford to be stuck in the mud. The Standing Committee on Defence (2010-11) adversely commented on underutilisation of the R&D budget, resulting in project delays and slowing down of India's defence modernisation plan. Inability to utilise meagre allocations on R&D should be considered acts of indiscretion. Technology in the future would not only act as an elixir in the defence modernisation plans but will also

22. 15 years Long Term Integrated Perspective Plan(LTIPP), 5 years Services Capital Acquisition Plan (SCAP), Annual Acquisition Plan (AAP).

be the key factor affecting India's security dilemma. Therefore, in the changing geo-strategic landscape, with India poised to emerge as a credible regional power, it will have no choice other than to step-up allocation in R&D, develop a network of laboratories and undergo a seamless transition from the present mindset of 'acquisition' as the panacea to India's security challenges to laying greater focus on design, development, manufacturing and integration (including private players) of its defence economy.

An assessment of the ongoing projects undertaken by the Defence Research and Development Organisation (DRDO) and Defence Public Sector Undertakings (DPSUs) shows that they do not reflect the strategic thinking envisioned to guarantee India's security or ensure a smooth transition of the state into a credible regional power. The Tejas project, sanctioned in 1983 at an original cost of Rs 560 crore, is still preparing for the second Initial Operational Clearance (IOC) in 2012, though it should have been ready for operational deployment at least two decades ago. The first phase was completed at a cost of Rs 2,188 crore; the government sanctioned Rs 3,301.87 crore for the second phase and additional Rs 5,302.98 crore for Full Scale Engineering Development (FSED). The Intermediate Jet Trainer (IJT) project, Sitara (HJT 36) being developed by Hindustan Aeronautics Limited (HAL) (DPSU) since 1997, is yet to be put up for the IOC, and the delay is causing impediments to basic training in the Indian Air Force. Time slippages in projects undertaken by the DRDO and DPSUs are becoming a ritual, adversely affecting operational preparedness and the modernisation plans of the armed forces which is a matter of enormous concern.[23]

The Standing Committee on Defence (2010-11) also commented on the adverse impact that slippages in timelines and cost overruns were having on India's defence preparedness. The committee highlighted that the Indian Air Force was plagued with high accident rates and 44.59 percent of all accidents were being ascribed to human failure, largely due to non-availability of a basic trainer aircraft.[24] If this is true, then it is a matter of grave concern and further delays will necessarily have to be attributable

23. Standing Committee on Defence (2010-2011), Fifteenth Lok Sabha, MoD, Ninth Report December 2010.
24. Ibid.

to criminal negligence on the part of the DRDO and DPSUs, that have taken upon themselves the mammoth responsibility of guaranteeing India's security by developing credible weapon systems. The committee recommended that the ministry should focus on development and integration and make efforts to fully utilise allocation on R&D to push for indigenisation of weapon systems and modern platforms for our armed forces. Despite directions, the vision is not backed by credible actions by the government. The share of the defence budget in the GDP had fallen to less than 2 percent and R&D was at an abysmal rate of 6.5 percent of the defence budget which accounts for less than 0.2 percent of the total GDP. The standing committee also noted that the MoD was yet to implement the recommendations of the Rama Rao Committee submitted on March 5, 2008, for restructuring of the DRDO.

While the numbers of Indian researchers in R&D have not increased substantially, the numbers in China have grown in excess of 1,200 researchers per million people.

There is also a missing link in India's development strategy. While infrastructure continues to be a weak area, we also lack quality and trained manpower ready to toil on the shop floor to provide the necessary boost in the manufacturing sector. Disincentives for Foreign Direct Investment (FDI) and a weak framework for absorbing technology are also adversely affecting the flow of global knowledge into India. Inadequate infrastructure, lack of skilled manpower and weak R&D capabilities forced Mahindra and Mahindra to shift its manufacturing base to Australia for developing a 10-seat multi-utility aircraft. According to a World Bank report published in 2005, India is lagging behind its adversary since it is unable to effectively utilise the resources at its disposal (Table 4). In the present context, the performance gap between India and China has only widened. While India's expenditure on R&D has been almost at the same level, China has substantially increased its allocation on R&D to almost 1.8 percent of the GDP. While the numbers of Indian researchers in R&D have not increased substantially, the numbers in China have grown in excess of

1,200 researchers per million people. FDI into China is also increasing at a brisk pace while India still appears to be taking very small strides to attract FDI. Despite weak macro-economic indicators like rising costs from higher wages, dwindling working population and currency appreciation, China was able to attract FDI worth $111.7 billion in 2012.[25]

Table 4

Comparative Innovation Performance: India and China, Selected Variables, Most Recent Perioc

Variable	India	China
Gross Foreign Direct Investment as % of GDP (average 1993–2002)	0.60	5.40
Royalty and license fees payments/mil. pop. (2002)	0.33	2.43
Royalty and license fees receipts/mil. pop. (2002)	0.01	0.10
Science & engineering enrollment ratio (% of tertiary level students) (2002)	25.00	43.00
Researchers in R&D/million (1997)	98.85	583.88
Total expenditures for R&D as % of GDP (2001)	0.78	1.09
Private sector spending on R&D (2003)	3.50	3.80
Manufactured trade as % of GDP (2002)	13.02	41.84
High-tech exports as % of manuf. exports (2002)	5.00	23.00
Scientific and technical journal articles/mil. pop. (1999)	9.23	9.31
Availability of venture capital, scale of 1 to 7 (2003)	3.80	3.00
Patent applications granted by the USPTO/mil. pop. (2003)	0.33	0.33
University–company research collaboration, scale of 1 to 7 (2003)	3.20	4.20
State of cluster development, scale of 1 to 7 (2003)	4.10	3.70

Source: World Bank Knowledge Assessment Methodology

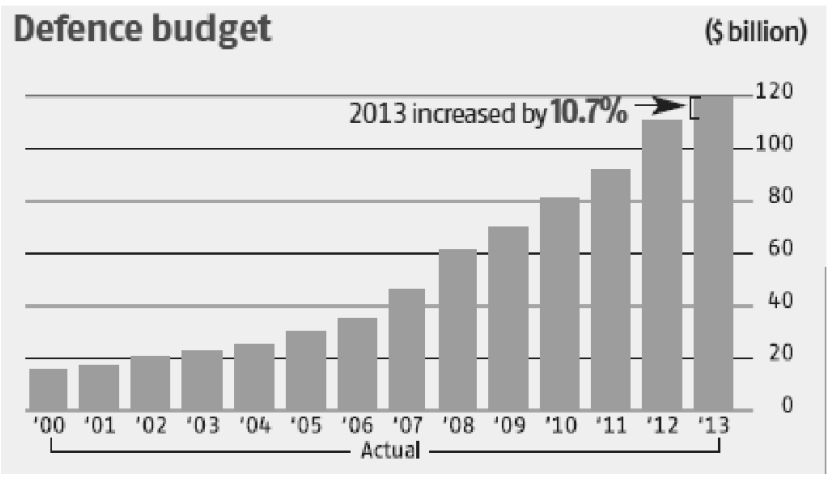
Therefore, disjointed structures, excessive reliance on imports and the DPSUs', lack of adequate impetus to indigenisation and a fuzzy aerospace strategy are the few impediments slowing down the development of India's defence economy. Long gestation periods and frequent changes in the procurement processes are inherent barriers for the entry of private players who, as it is, appear laggard and averse to making a foray into this untested area for carrying out business. While the private players are wary of participating in the Indian defence economy, lack of a definite vision from the government is further detracting them from actively participating in the defence economy. Minimal interaction and collaboration between DPSUs and the industry, coupled with lack of synergy among the DRDO, DPSUs and the end users are factors

25. Jamil Anderlini, "Foreign Direct Investments in China Fall", *Financial Times*, January 16, 2013, accessed from http://www.ft.com/cms/s/0/5537736c-5fc8-11e2-8d8d-00144feab49a.html#axzz2Me6JGeZ4 on March 5, 2013.

responsible for plaguing the development of a robust defence economy in India – essential to guaranteeing India's security and ensuring its elevation as a credible regional power.

China, on the other hand, is aggressively increasing spending on its defence. Once again, this year (2013), the official defence expenditure has increased substantially to $119 billion, amounting to almost a quarter of US defence allocation (Fig 3). However, if the unofficial estimated figure is aggregated along with spending on internal security (which is more than China's defence expenditure), then China's defence allocation would amount very close to US defence spending! China is doing things which to the world may appear 'politically incorrect' but conform to its strategic vision and goals to elevate its status as an emerging power.

Fig 3: China's Defence Expenditure in the 21st Century



Source: Business Standard March 6, 2013

China has substantially reversed its dependence on imports. It was a top importer of arms in the first half of the previous decade of this century but successfully reversed its dependence as it considered technology and indigenisation as the guarantor for national security. In the ranking of countries importing arms, China slipped to the fourth position. India, on the other hand, has been consistent in maintaining a stable SRI at 70 percent since the last decade of the previous century. As a rarity, India

has successfully dethroned China to occupy the pivotal position as the largest importer of arms accounting for 10 percent of the total global arms import.

China is also not shy from declaring its long-term military aspirations which it considers as legitimate for an emerging power – rarely does a top power cede its position to the number two power peacefully.[26] But whether China is aspiring to dethrone the US as the number one power or is just happy to be slotted as the number one regional power is a matter of a larger debate. However, China spending billions of dollars on its military should hardly be perceived as a conspiracy but as a justifiable act of any sovereign nation with legitimate aspirations to guarantee national security to its citizens.

Therefore, China's readjustment strategy is structured on many verticals. While one vertical is looking to internalise its future development strategy, focus on controlling spiralling inflation and ease out the prevailing unsustainable rates of economic growth, the other vertical is dedicated to address people-centric policies aimed at arresting the increasing social unrest, also reiterated by the country's largest think-tank (CAS). As has been mentioned above, the government has abolished agricultural taxes, subsidised health care and education, provided an impetus to boost the internal demand and check the rising rates of unemployment, since the Party is extremely wary of any kind of potential fallout resulting from mass protests and anti-establishment sentiments spreading through the electronic medium. However, China's focus on building a robust military as part of its larger strategic vision and as an ultimate guarantor of national security will continue to be its final vertical.

26. Kishore Mahbubani, "While America Slept", *Foreign Policy*, February 27, 2013.