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Taiwan's President Ma Ying-jeou

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## In a Fortnight

By L.C. Russell Hsiao

### HU'S NEW YEAR CHARM OFFENSIVE TOWARD TAIWAN

At a meeting held in Fujian Province in southeastern China on the eve of the Lunar New Year, Chinese Communist Party (CCP) Chief and President Hu Jintao met with businessmen from Taiwan and used the occasion to launch a charm offensive across the Taiwan Strait. At a business park in Zhangpu county in Zhangzhou city, created in 2006 for Taiwanese farmers to solicit investments by Taiwan-funded agricultural firms, President Hu stated:

“At the time when people across the Taiwan Strait are about to celebrate this traditional Chinese lunar new year, I would like to take this opportunity to say hello to all of you ... I've said many times, as long as it is beneficial to our Taiwan compatriots, we will do our best to make it happen. We say it, and we will do it. Right now a treaty of Cross-Strait Economic cooperation [*sic*] Framework is under negotiation. This framework will contribute to the economies of both sides. We will fully take the interests of Taiwan compatriots, especially Taiwan farmers, into consideration when we negotiate. We will achieve it, and everyone will be satisfied with the result” (CCTV, February 14).

Beijing's strategy of reaching out to Taiwanese farmers is not new. President Hu's calibrated pitch to the rural constituency of the opposition Democratic Progressive Party (DPP) in Taiwan was a shot across the bow at the opposition party, which has been slowly climbing back from its defeat in the 2008 presidential election.

According to Zhu Weidong, deputy director of the Taiwan Research Institute at the Chinese Academy of Social Sciences (CASS)—the premier Chinese government

think-tank—the timing, location, and agenda are “without a doubt” clear and strong signals (*China Times*, February 15).

The two opposing political camps in Taiwan were quick to frame the meaning behind Hu’s statements, which underscore the growing divide in Taiwanese society over the island’s policy toward China. According to Zhang Rong-gong, deputy secretary-general of the ruling-Kuomintang (KMT), Hu’s remark was a direct response to President Ma Ying-jeou’s new year’s press conference, in which Ma stressed the importance of signing the Economic Cooperation Framework Agreement (ECFA), and an expression of goodwill toward the Taiwanese society (*United Daily News*, February 15). The opposition-leaning *Liberty Times* published an article criticizing Hu’s performance as a charade and part of China’s incessant unification campaign. DPP Spokesperson Tsai Chi-chang noted, among other things, that previous commitments made by the Chinese government to buy farmers’ produce have fallen short, and warned that the Chinese leader’s words cannot be trusted (*Liberty Times*, February 14).

Against the backdrop of the reeling global economy and mounting concerns in Taiwan over the Ma administration’s handling of various domestic and international debacles (See “Managing the Chiang-Chen Talks in Cross-Strait Relations,” *China Brief*, January 21), the opposition DPP has managed to score several electoral victories in the January legislative by-elections against the ruling-KMT, of which Ma doubles as chairman. The KMT still controls a majority of the seats in Taiwan’s parliament (Legislative Yuan). Yet with another round of by-elections for four seats due at the end of February and the opposition candidate reportedly gaining ground against the KMT in at least one key race (TVBS Poll Center, February 10 – 11), Hu’s appeal may be targeted at countering DPP assertions about the inherent dangers of the ECFA for some of its constituents in Taiwan.

In a recent rally to support KMT candidates, Ma acknowledged the “tremendous pressure” the KMT was under to win. According to one report, “since the KMT came to power, it has encountered numerous challenges and that as success in the by-elections is so vitally important to make up for the party’s setback in Jan. 9 [sic] by-elections, everyone in the party should do their parts to drum up support for the KMT candidates” (Central News Agency [Taiwan], February 3).

As the opposition-DPP gains momentum, the Chinese leadership is also stepping up efforts to establish multiple platforms to further integrate the two sides of the Taiwan Strait. In the final analysis, these efforts, including Hu’s

charm offensive, may to some degree reflect growing Chinese concerns about the Ma administration’s ability to maintain control of the tempo for the ongoing cross-Strait dialogue. At a period in time when the opposition-DPP is gaining ground but still not yet in a position to effectively check the administration’s cross-Strait policies, these moves appear to be based on the growing perception in Beijing that they are also in a bid against time. In light of China’s callous response to the recent announcement of U.S. arms sales to Taiwan, this episode highlights the limits of China’s current carrot-and-stick strategy toward Taiwan and spells more challenges ahead for a cross-Strait détente in the new year.

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## Deepening Chinese Stakes in West Africa: The Case of Ghana

By Wenran Jiang and Jing Jing

In the first nine months of 2009, Chinese companies launched 14 projects in Ghana and topped the list of foreign firms registered in terms of Foreign Direct Investments (FDIs) in the country [1]. This trend follows in line with China’s growing footprint in the rest of Africa. According to the Ministry of Commerce of the People’s Republic of China (PRC), in 2009 Chinese investments in Africa rose 77.5 percent to \$875 million from January to October (Ghanabusinessnews.com, January 6). While Beijing and Accra have enjoyed relatively strong and stable bilateral relations since the 1960s, the backdrop of a recent surge in Chinese activities in Ghana warrants a closer examination of China’s presence in Ghana and its implications for China’s West Africa and pan-African strategy.

On December 30, 2009, “The Agreement on Economic and Technical Cooperation between China and Ghana” was signed at the Ghanaian Ministry of Finance and Economic Planning in Accra. According to this agreement, China will provide two concessional financial facilities including a grant and an interest-free loan to the government of Ghana in 2010 (Gh.china-embassy.org, January 1). At the same time, state-owned China National Offshore Oil Company (CNOOC) made a bid for a share of U.S.-based Kosmos Energy’s assets in Ghana’s Jubilee oil field in October 2009 (Chinadaily.net, October 13, 2009). Ghana is clearly rising in terms of its strategic and economic importance to China, as these recent moves further consolidate Chinese stake in Ghana’s future development. Oil, cocoa, waste copper—

China's shopping list runs the gamut of all the commodities that Ghana and the rest of Africa can supply.

#### CHINA'S HISTORICAL TIES TO GHANA

Shortly after establishing diplomatic relations in 1960, Ghana received the first \$12 million concessional loan from China in 1964. In the decades following, Ghana has continuously received aid from China in various forms such as loans, grants and education funds. Most loans and grants are related to the construction of local infrastructure in Ghana. For instance, the Chinese government assisted Ghanaians in the construction of the National Theater, the Bui Hydro-Electric Power Dam, the Afeji Irrigation Project, the Dangme East District Hospital, the Police and Military Barracks, the Kumasi Youth Centre, the Office Block of Ministry of Defense and three rural schools. Among all of these projects, the construction of Bui Dam, financed by China Export-Import (EXIM) Bank [2]—China's export credit and guarantee agency—is the single largest Chinese financial commitment to Ghana to date and will have a significant impact on the power generation capacity of the country (Mofep.gov.gh, September 25, 2007).

Ghana's economic development is heavily dependent on foreign aid and international loans. China is therefore an important aid partner to Ghana because it provides Ghana with a considerable amount of unconditional aid and low-interest loans. According to Chinese officials, China's approach to aid has always been based on the principles of mutual respect and non-interference regardless of the political significance of the recipient country. As a result of this approach for doling out foreign aid, many Chinese companies were rewarded with huge infrastructure projects. Some experts argue that China is expanding its business interests in Ghana and other African countries by funding these countries' projects and using the distribution of the loans to pay the Chinese companies and imported Chinese laborers for the local construction through secret pacts with African governments [3]. The Bui Dam construction is a typical example. As mentioned above, the whole construction is financed by China EXIM Bank. Moreover, Sino Hydro, a Chinese construction company, was awarded the \$500 million agreement to undertake the construction of the Bui Dam after President Hu Jintao visited Ghana and confirmed China's financial support for the country's energy sector development. In this project, Sino Hydro created about 2,500 local job opportunities and brought around 500 Chinese workers (Ghananewsagency.org, November 6, 2006). Also, considering China's dramatic investments in Ghana in the last 10 years, particularly after the discovery of Ghana's offshore oil fields, China has also been criticized for prioritizing foreign aid to resource-rich African countries. Yet, in the case of Ghana, considering the

country's development model as an aid-dependent country, China is clearly a partner with increasing significance, and ultimately Ghana is benefiting from China's help with interest-free loans and local infrastructure developments, according to GIPC's official reports.

#### GROWING TRADE AND INVESTMENT RELATIONS

Trade and investment flows between Africa and China have increased dramatically in the past decade. Along with its growing manufacturing prowess, Chinese goods have leapt to become Ghana's major source of imports. From 2000 to 2008, China's exports to Ghana increased manifold from \$93 million to \$1,512 million [4]. It now ranks first as an importing country to Ghana with 15.9 percent share (CIA world Fact Book, 2009). Yet, the gap between the imports of Chinese goods and Ghana's exports is widening. By 2000, Ghana's exports to China totaled only \$25 million with imports of \$93 million. Then exports grew to \$32 million in 2003 while imports nearly doubled to \$180 million. In 2006, exports increased to \$39 million as imports surged to \$504 million (Statistics from GIPC). Although the precise up-to-date official data is not available, it can be reasonably assumed that the recent trade flow follows largely along the same trend in spite of more Chinese direct investments in Ghana. Reasons for the trend may vary. Some Ghanaians argue that this is because while China benefits from the free trade market on the African continent, it is increasing tariffs and importing standards for African goods (www. internationalrivers.org, July 29, 2008).

Yet a closer examination of the imbalanced volume in China-Ghana bilateral trade reveals that it is largely because of the uneven position at which the two sides stand on the demand and supply chain. According to the Economic and Commercial Counselor's Office (ECCO) of the PRC embassy in the Republic of Ghana's official report [5], main items that China exports to Ghana are electronics, telecommunication equipments, power supply equipments, textiles and plastic tire products. In addition, the major imports China ships from Ghana are crude oil products, cocoa, cotton, gold, timber, and industrial diamonds. Comparatively, China benefits from manufacturing and processing goods that have high-end value, whereas Ghana continues to trade at low-end value as it concentrates on exporting agricultural products and raw materials. Moreover, in the foreseeable future if this inequality continues, local manufacturing industries in Ghana may suffer because of the continuous inflows of the cheap Chinese goods that could have a dominant influence on the local market.

Another new phenomenon in China-Ghana trade relations



is the rapidly rising FDI level from China. This is in part because of the “go-out” policy of the Chinese government and the favorable domestic environment in Ghana. In 2006, the National Development and Reform Commission (NDRC)—the macroeconomic planning agency under the Chinese State Council—published a report with the heading “Africa is the ideal market for ‘*Zhongguo Zhizao*’ (goods made in China)” [6]. In 2008, the NDRC released the official “Catalogue of Industrial Guidance for Foreign Investment” and “China’s Energy Conditions and Policies” in order to emphasize the significance of the African continent and encourage Chinese enterprises to explore market opportunities on the African continent.

According to the Department of Commerce of PRC (DCPRC), in 2007 China topped Ghana’s FDIs with a total of 316 registered projects (statistics are accumulated). It also ranked fourth with a total value of \$219 million investments. According to GIPC, in the first half of 2009 China remained first in the list of countries with 21 projects registered and ranked second with a total value of \$8.18 million. With the low-interest loans accompanying the Chinese investment aimed at helping the local government with infrastructure construction and expected job creation, the Ghanaian government is in a better position to stabilize its economy.

#### CHINA ENTERING GHANA’S NEWFOUND ENERGY SECTOR

Ghana is rich in gold, industrial diamonds, timber, cocoa and many other natural resources. Yet the recent discovery of Ghana’s offshore oil has brought the country new opportunities to accelerate its economic development. In 2007 oil was found off Ghana’s coast and is expected to earn an average of \$1.2 billion in annual state revenues for almost two decades (*The Economist*, December 31, 2009). And this is also good news for China: China’s consumption of oil has doubled since 1996 and now it is only second to the United States in oil consumption. About one-third of its imported oil comes from Africa.

Since the sub-Saharan Africa region is often considered an under-explored area when it comes to resource extraction, it is an ideal extension of China’s energy supply chain to secure its rapid economic development and surging appetite for natural resource. Therefore, Chinese firms soon organized to bid on a share of Ghana’s oil exploration in competition with oil giant ExxonMobil. Later, it was alleged that the government of Ghana favored the bid by China’s CNOOC which proposed to buy stakes between \$3 and 5 billion in addition to granting the government a concessionary loan of \$2 billion. And China Development Bank has also confirmed the loan to Ghana’s national oil company to pay for infrastructure projects in the Jubilee

field off the West African country (Allafrica.com, October 16, 2009). Actually, prior to this bid, China also helped Ghana in many local road and other infrastructure constructions that will help to develop the oil industry and established sound relations with Ghanaian government and local oil companies.

With a local welcome, China seems to be secured in its share of Ghana’s oil. Yet some charge that CNOOC is not as experienced as other oil companies in the field of deep-sea operation and that Chinese companies have poor records on environment protection and labor rights promotion. Also, as a new player in the West Africa oil fields, China will have to continue to compete with oil giants from India, the United States, European Union, and United Kingdom. For instance, a recent news article in the Chinese media reveals that in an attempt to respond to China’s growing influence in Africa and secure India’s energy supply in the continent, the Indian state-owned Oil and Natural Gas Corp. Ltd (ONGC) and GAIL (India) Ltd are in talks with Ghana National Petroleum Corp. (GNPC) for acquiring stakes in hydrocarbon blocks in the African country (Xinhua News Agency, December 7, 2009). As a latecomer to Africa’s offshore oil exploitation, China may still have a long way to go. Yet, with its strong economic strength and sound relations with African governments, China could still have a share of West Africa’s natural resources.

#### CONCLUSION

China’s emergence as Africa’s largest trading partner has attracted the attention of the world. China’s recent activities in West Africa, especially in Ghana are particularly significant since there are many implications beyond the headlines. Clearly, China benefits from importing natural resources and raw materials and exporting Chinese goods. Yet it is still unclear whether this model will work for all African countries or not. While Chinese investment could deliver a fortune for this country, it could also be a disaster. The key question is, judging by China’s previous engagement in Africa, is China’s investment beneficial to Ghana and will it help the country to develop its own industries and human resources or is it just an extension of China’s global demand and supply chain that may potentially be detrimental to Ghana’s development?

Because of Chinese extraction of Ghana’s natural resources and heavy presence in Ghana’s domestic market, China weighs heavily in Ghana’s future development. Its investment and oil exploitation in Ghana could be an opportunity for the Ghanaian government to accelerate economic growth and develop Ghana’s own industry and human resources. Yet an overflow of Chinese goods and not-so-well-planned natural resources extraction could potentially be disastrous

to the overall development of Ghana. It remains to be seen whether the Ghanaian government is able to translate these investment opportunities into the sustainable development of its own economy.

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## Advances in PLA C4ISR Capabilities

By Carlo Kopp

C4ISR (Command Control Communication Computer and Intelligence Surveillance Reconnaissance) systems are a key measure of military capability, and an area in which the People's Liberation Army (PLA) is steadily advancing. Determining how strong PLA capabilities in this area are presents some analytical challenges, as unlike other areas of PLA military growth, C4ISR has received little public exposure. The Chinese military's ISR systems

are more easily surveyed due to the wealth of published imagery, but technical detail on most is scarce and must often be dissected by engineering analysis of antennas or other visual features.

#### C4 VERSUS ISR – ANALYTICAL CHALLENGES

All modern C4ISR systems can be broadly divided into the “back end” or C4 components, comprising the command and control systems, and the networks and computers supporting them, and “front end” or ISR components, comprising the orbital, airborne, maritime and fixed or mobile ground-based sensor systems, which collect raw data for the “back end” components.

The traditional division of C4ISR systems into strategic, operational and tactical is becoming problematic, as the flexibility of modern digital systems permits many such components to be concurrently employed for all three purposes.

There are good reasons why the PLA has not widely advertised its C4ISR capabilities. The first is that Western, especially U.S. military doctrine, emphasizes early and intensive attacks on an opponent's C4ISR systems to create confusion and paralysis at a tactical, operational and strategic level. As many C4ISR systems are fixed and difficult to harden, wide public disclosure presents opportunities for opposing intelligence analysis and collection against a critical national vulnerability in times of conflict.

Another consideration is that footage or imagery of racked computer and networking equipment has much less public relations appeal, compared to fighter aircraft, ballistic missiles, guided bombs and other more traditional symbols of national military power.

From a technical analysis perspective, study of C4ISR systems also presents challenges due to the pervasive and usually distributed nature of the technologies used to construct them, the complexity of networked systems, and the now global propensity to share transmission channels, such as satellites, optical fibers, copper cables, and microwave links between civilian and military users, making it difficult to determine where the military capability starts and ends. Often high-quality HUMINT (human intelligence) is the only means of determining the ground truth in such systems.

#### AIRBORNE AND LAND BASED ISR

The PLA Air Force (PLAAF) has advanced the furthest in atmospheric ISR capabilities, with the development of the KJ-2000 and KJ-200 Airborne Early Warning and Control

systems, which like their Western counterparts, fully integrate active radar and passive radiofrequency sensors, with a comprehensive digital and voice C4 system. These airborne systems employ phased array radar technology one full generation ahead of the U.S. E-3C AWACS and E-2C Hawkeye. The C4 fit on either system has not been disclosed. At least four KJ-2000 systems are claimed operational [1].

Reconnaissance pods and internally integrated sensor capabilities in PLAAF strike and multi-role aircraft lag strongly at this time against their Western counterparts. Targeting pods with ISR potential are only now appearing in operational units, mostly for targeting smart munitions.

The PLA has advanced considerably in air defense capabilities, and the C4ISR components have been prominent. Wide and diverse ranges of modern radars of Chinese and Russian origin are progressively displacing legacy Chinese designs. Notable examples are the Russian 64N6E Big Bird battle management radar, used recently in S-300PMU2/SA-20B Gargoyle ATBM trials, and the new Chinese developed Type 120, 305A and 305B high-mobility acquisition radars. These are supplemented by mobile ground-based passive emitter locating systems such as the CETC YLC-20 series [2].

PLA ground forces are now introducing tactical UAVs (Unmanned Aerial Vehicles) to support maneuver force elements, with these displayed prominently during the 60th anniversary parade. While the PLA UAV force is immature by Western standards, considerable effort is being invested to develop this sector. For instance, systems in development or early service include the W-50 fixed wing UAV and Z-3 rotary wing UAV, as well as the CH3 modeled on the U.S. Predator. These supplementary conventional battlefield ISR assets are like the new CAIC WZ-10 reconnaissance and attack helicopter, modeled on U.S. and E.U. equivalents (See “New Advances in PLA Battlefield Aerospace and ISR,” *China Brief*, January 22, 2009).

The established trend to emulate the full spectrum of Western ISR systems is not confined to aerial systems, with two UGVs (Unmanned Ground Vehicles) with ISR potential, the ASENDRO and the CHRYSOR in development (See “New Advances in PLA Battlefield Aerospace and ISR,” *China Brief*, January 22, 2009).

#### C4 – THE CONNECTIVITY CHALLENGE

What is less clear is the system-level integration and networking intended for what will become a very modern and diverse fleet of tactical and operational level ISR systems. The latter problem has bedeviled Western military

operators for two decades, and definitive technological solutions remain to be found.

China is deploying an extensive grid of terrestrial fiber optic links to support its civil infrastructure, which as noted by various U.S. government reports, provide for a significant dual use capability to support the Chinese military’s C4ISR needs. Buried fiber optic cables provide high bandwidth and are inherently secure from remote SIGINT (signals intelligence), hardened against electromagnetic and radiofrequency weapons and jamming.

PLA thinking on wide operational level connectivity is evidenced by two new systems displayed at the 60th anniversary parade. These are a family of fully mobile tactical satellite terminals, using characteristic dishes with boom feeds, and tropospheric scatter communications systems, easily distinguished by paired dish antennas.

While the PLA’s SATCOM (satellite communications) terminals reflect global trends, the deployment of troposcatter (or tropospheric scatter) communications equipment is much more interesting. The mature U.S. equivalent AN/TRC-170 system was a mainstay of U.S. operational level connectivity during the Desert Storm and Iraqi Freedom Campaigns, providing advancing land forces with high data rate “backbone” connectivity to rear areas.

Troposcatter systems are unique in that they provide non-line-of-sight over the horizon connectivity without the use of a satellite or airborne relay station, this being achieved by bouncing high-power microwave beams off of refractive gradients in the upper atmosphere. As such, a pair of mobile troposcatter terminals can provide multiple Megabits/second data rates to ranges of 100 - 150 miles. The U.S. Army and Marine Corps have employed troposcatter systems for conventional land force long haul data and voice communications applications [3].

The PLA appears to be using troposcatter terminals to support Russian supplied S-300PMU2 and indigenous HQ-9 mobile air defense missile batteries, this permitting a battery to maintain a high data rate channel to any fixed fiber optic terminal within a 150 mile range [4]. As a result, these mobile missile batteries can continuously redeploy in a “shoot and scoot” manner to evade opposing ISR systems, while maintaining connectivity with the centralized fixed air defense C4 system [5]. The wealth of recent high-quality Chinese scientific research papers on advanced troposcatter techniques suggests this technology will become pivotal in PLA C3 operations [6].

There is no direct evidence to date of the troposcatter

system being deployed to support mobile Second Artillery Corps (SAC) ballistic and cruise missile batteries (SAC is the strategic missile forces of the PLA). But given that the “shoot and scoot” operating doctrine for these assets differs little from that of air defense missile batteries, the future employment of troposcatter terminals to provide C3 support for SAC units should not come as a surprise if it happens.

#### MARITIME C4ISR CHALLENGES

The PLA Navy has historically relied heavily on its fleet of 1,500 nautical miles range H-6D maritime strike aircraft to provide ISR capability for surface fleet elements, emulating Soviet and NATO Cold War doctrine. This is now changing with the doctrinal shift to the “Second Island Chain” strategy, in which the PLA Navy and Air Force assume responsibility for controlling a much larger geographical area, following an arc from the Marianas, through Northern Australia, to the Andaman Islands [7].

The advent of DF-21 derived ASBMs (Anti-Ship Ballistic Missiles), modern coastal battery deployed cruise missiles like the DH/CJ-10 and C-602, and a range of ASCMs (Anti Ship Cruise Missile) carried by PLA Navy strike aircraft such as the Su-30MK2 Flanker, JH-7 Flounder, and the new turboprop powered H-6K Badger, demands accurate and timely C4ISR support to be effective against opposing maritime forces [8].

To date China’s maritime C4ISR model has emulated Soviet Cold War thinking, reflecting the geo-strategic realities of a continental power seeking to control vulnerable maritime sea-lanes. Unlike the Soviets, however, China’s heavy dependency upon energy and raw materials imports by sea presents an additional vulnerability, more akin to that of the Western powers.

The Soviets initially performed maritime ISR using long range surface search radar equipped Tu-16K Badger C/D and Tu-95RTs/142 Bear D/F long range aircraft, which were equipped with data links to relay maritime surface target coordinates to ASCM armed aircraft, surface combatants, and submarines. As the U.S. Navy increased the reach of its carrier battle group missile and fighter defenses, the Soviets deployed the SMKRTs (Sistema Morskoy Kosmicheskoy Razvedki I Tseleukazaniya / Maritime Space Reconnaissance and Targeting System) RORSATs (Radar Ocean Reconnaissance Satellite), which employed a Molniya satellite communications downlink to relay targeting data to maritime strike assets [9].

China is currently deploying a number of coastal OTH-SW (Over The Horizon Surface Wave) and OTH-B (Over The

Horizon Backscatter) radar systems, which provide ISR capabilities against surface shipping systems and aircraft [10]. This technology can provide prodigious detection ranges compared to coastal microwave radars, but is limited by atmospheric conditions, and typically lacks the required accuracy to target a terminally guided weapon, thus providing an effective tripwire ISR capability out to the Second Island Chain, but not the precision targeting capability required to support air and missile strikes.

Implementation of the Second Island Chain strategy will drive the PLA Navy inevitably in the direction of long range UAVs, aircraft and satellites for the provision of targeting ISR, and most likely GeoStationary Earth Orbit (GEO) SATCOM for C3 capability to support aircraft, UAVs and warships performing maritime strike operations.

China’s remote sensing satellite program, characterized by the extant Yaogan-1, -2, -3, -4, and -5, the Haiyang-1B, and the CBERS-2 and -2B satellite systems, have been identified by the Pentagon as dual use capabilities [11]. The planned HJ-1C and HY-3 high resolution radar imaging satellites will have significant potential for RORSAT (Radar Ocean Reconnaissance Satellite) operation, and even if inadequate, will provide the technology base for a future PLA RORSAT constellation [12].

China operates a robust number of foreign built and indigenous GEO satellites for civilian direct broadcast channels, and telecommunications transponder services, including the C-band DFH-3, DFH-4 series. In 2000, the PLA launched the first of the FH-1 series of military SATCOM vehicles, intended as part of the Qu Dian C4ISR system; the latter is described as similar in concept to the NATO/US MIDS/JTIDS/Link-16 and Link-22 systems. In 2008, China launched the Tian Lian-1 data relay satellite, intended to provide expanded communications coverage for orbital assets (Xinhua News Agency, April 25, 2008).

If the PLA exploits existing and developing satellite technology effectively, it will be capable of fielding an effective orbital C4ISR segment to support the Second Island Chain strategy over this decade, including a credible RORSAT capability. Existing dual use capabilities may be improvised to provide a limited near-term capability.

Contemporary Western ISR doctrine sees the penetration of hostile computers and networks as the cyberspace segment of a nation’s ISR capabilities. China’s well-documented, albeit officially denied, activities in penetrating foreign, especially U.S. government, computer systems and networks indicate a strong appreciation of the value of cyberspace as an ISR environment.



## CONCLUSION

In the final analysis, while much of the PLA's C4ISR capability remains opaque, what is abundantly clear from what is known is that the PLA has an acute understanding of the value of advanced C4ISR in modern conflicts and is investing heavily in this area, emulating specific capabilities and doctrine developed in recent decades in the West and in Russia. Numerous instances demonstrate robust indigenous capability to develop key C4ISR technologies, and apply these technologies in unique and original ways. If the observed trends in PLA C4ISR doctrine and technological capabilities continue unabated, the PLA will have a world-class C4ISR capability in place by the end of the coming decade.

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## China's Arms Sales to Latin America: Another Arrow in the Quiver

By Cynthia A. Watson

Strengthening China's military presence in Latin America is one of the many manifestations of Beijing's increased activity on the international stage. Arms sales is a subset of the Chinese military's growing involvement in Latin America. Yet, Chinese arms sales represent a small portion of its military sales and Latin America's arms purchases from around the globe. In an arms buyer-seller relationship, the benefits of increased sales do not reside exclusively with the seller, which in this case is China. Latin American governments are also seeking to diversify their arms purchases to defend national interests, including achieving measures of autonomy beyond its relations with Washington—the predominant power in the region. While Beijing's presence around the world is increasingly noteworthy, Latin America's goal of establishing itself as a truly sovereign region is an equally important factor.

### HISTORICAL CONTEXT

China began forging diplomatic ties with most Latin American states from the early 1970s, while Taiwan served as the formal "Chinese" interlocutor with the region in the 30 years prior. During that period, Mainland China's arms



production was almost entirely domestic in nature, and with only the most rudimentary of economic connections between Beijing and the region. Latin American states in the 1970s began opening relations with China but in many cases these were highly ideological anti-Communist states [1], which recoiled at the rhetoric of the Great Proletariat Cultural Revolution (1966-1976) and the Gang of Four (1976-1977).

The opening of the Chinese economy and the attendant growth of an export arms industry beginning in the 1980s was not the natural precedent for ties between the region and China. During this period, China's accelerated efforts to develop an arms industry coincided with a period of deep economic turmoil in Latin America. The overwhelming majority of states in the region (Colombia being a notable exception) were facing the 'Debt Crisis' of the 1980s, which dramatically curtailed Latin American arms purchases from all sources (e.g. American, Russian).

Latin America and China opened the door to an arms relationship with the economic 'reforms' of the late 1980s. At that point, China was opening its military's role in arms proliferation around the world in the 1990s [2], but Latin America could not afford to purchase many arms as the political emphasis was on reducing the military's role in the economy and society. Democratically elected governments throughout the region encouraged their respective armed forces to return to the barracks and accept that their traditionally large portion of budgets—including arms purchases—would remain permanently low.

Furthermore, Latin America's military threats were almost invariably domestic in nature rather than strategic. Most Latin American military concerns hinge on the domestic political threats that have plagued the region for years. As a result, this is not a region where major new classes of arms are necessary or financially required because of an existential threat posed by a neighboring state. The conflicts most states have faced over the past fifty years have been challenges to the types of regimes in place, not attempts to eradicate a country. The most prominent of these threats is in Colombia where the *Fuerzas Armadas Revolucionarias Colombianas* (FARC) and the *Ejército de Liberación Nacional* (ELN) have waged an armed insurgency against Bogotá for almost six decades. Yet there is no public source of information indicating that Beijing has any interest in becoming involved in this conflict where Washington has a substantial commitment to keeping the Colombian government in power. While there are fewer states in the region facing insurgencies today, there is less funding available in these states for purchasing arms since other priorities compete for the national budgets. This fact, along with pressure to deter Latin America from becoming

the center of an international arms race, has limited the region's ability to search for arms sales.

#### CHINA AND LATIN AMERICA IN THE NEW MILLENNIUM

China issued a White Paper on Latin America and the Caribbean [3] in November 2008 immediately before President Hu Jintao's visit to the 16<sup>th</sup> Asia Pacific Economic Community (APEC) Leaders meeting in Lima, Peru. That document, the first of its kind for underscoring Beijing's relations with this part of the world, discussed military ties within the broader context of growingly auspicious Chinese ties with Latin America. The White Paper discusses the advantages of military-to-military ties as part of "stronger political mutual trust and closer cooperation in economic, trade, science and technology, culture and education, and mutual support and close cooperation in international affairs" [4]. The White Paper does not include any commentary on arms sales to the region. The evidence confirms that China's involvement has a people-to-people focus, rather than one of arms sales, to this point in the decade through military officers traveling to the region for "professional development and the placement of military attachés" [5].

One reason for the lack of ties is that the militaries of Latin America have limited resources with which to spend on arms procurement. While China is not desperate for arms sales to boost revenue as Russia was in the 1990s amidst an ailing industry, by contrast, the Latin American militaries do not hold the prospect of being outstanding potential markets in the long-term. Latin American armed forces, except for Cuba and Venezuela, prefer U.S. or European arms—even at the risk of being cut off from re-supply options should political problems arise. The region simply does not have a long enough track record with China to know those ties would be continued should an international crisis arise. Yet, Beijing's ability to sell a small number of arms to the region is leading to an enhanced presence there. Similarly, Argentina and Colombia have considered a range of helicopters and armored personnel carriers, respectively [6].

According to a People's Liberation Army (PLA) National Defense University graduate writing in *Military Review*, Bolivia, Peru, and Uruguay are all rumored to have purchased aircraft from China such as the 2007 sale of M60s to La Paz as a result of a \$35 million line of credit from Beijing [7]. Uruguay has also been interested in J7 aircraft, potentially to wipe out Uruguay's debt to China. The author also proposes that arms sales ties between China and Brazil, Peru, and Cuba are important aspects of Beijing's involvement in arming this area of the world.

## VENEZUELA AND CUBA

The state that has attracted the most international attention (and concern) about arms purchases is Venezuela, under Hugo Chávez Frías, since late 1998 [8]. While military missions and various other high-level governmental visits regularly transpire between Caracas and Beijing, all indications are that the greatest volume of arms sales to the South American republic are Russian, not Chinese. Moscow has proven a willing supplier of arms, including Su30-MK combat aircraft to maintain its significant position in the region [9]. In 2010, China will deliver six of the eighteen K-8 Karakorum trainer or light attack planes that it sold to Venezuela, and is lending Ecuador \$52 million to buy aircraft for its air force. In early 2009, Ecuador signed a contract for \$60 million to buy Chinese air defense radars, its first purchases from China in 15 years (See “China’s Rising Profile in International Arms Sales,” *China Brief*, December 16, 2009)

While Moscow and Beijing may both aim to disrupt the U.S. legacy of predominance in the region, the Chinese leadership has moved more cautiously in providing the volatile Venezuelan leader with fodder for more irritation to Washington. China’s arms sales have all been relatively small in nature and far less likely to appear as a direct threat against U.S. forces, which might be in neighboring Colombia, the strongest U.S. ally in the region and a state recently acknowledged to allow Washington to use its bases for ‘counter-drug’ operations to the national furor of others in the region.

China does promote more regular military-to-military visits with Venezuela than the United States currently does but the arms sales that have attracted the most international attention have been those from Russia. China’s military and senior political leadership have made a number of trips to Caracas over this decade and similar trips from the Venezuelan capital to Beijing have garnered international headlines but the crux of those visits has been Beijing’s virtually insatiable desire for energy arrangements around the world. Venezuela’s military has had the opportunity to learn at the PLA NDU Foreign Officers’ campus since the 1990s but that is a greater basis to the ties between the states than are arms sales [10].

Cuba would appear a logical destination for Chinese arms except that the ideological links between these two states have historically proven exceptionally tense rather than easy. Few areas of Latin America draw such a rapid response from Washington, as does Cuba, illustrated by decades of U.S. suspicion over Soviet activities there. Cuba does not have much money to buy arms and Beijing appears reluctant to offer anything to upset Washington

with whom China has much more important relations than any that would come from selling arms to Cuba.

## BRAZIL

The major area where anyone would see strategic importance of Chinese arms sales to the region would be in Brazil. This vast state with a substantial and relatively improving economy, and a country with almost two hundred million people seeking to attain international status as a great power offers a logic for improving ties with a China seeking to prove that Washington is not the sole superpower around the world. More importantly, Brazil has become an important source of many things that China seeks in the world: food, deep sea drilling technology, satellite technology, and improving status around the world as a ‘non-aligned state’. Brazil and China have signed a number of agreements, through the increasing number of exchange visits between militaries and politicians of the nations, which include sharing development activities in a number of technologies that can include missile technology and nuclear activities. Both of these states harbor national aspirations that raise the incentives to cooperate in ways that no other states do for China.

Yet, these developments still do not mean that China is selling substantial arms packages to the Brazilians. While each state aspires to improve its position in the international community, the very conditions that allow it to do so necessitate that the state has a greater investment in international regimes that may seek to limit the attitudes which promote arms sales and arms production cooperation.

## CONCLUSION

Beijing’s military-to-military ties are growing with the states of South America across the board: military missions, educational exchanges and arms sales. This activity is part of Beijing’s overall advancement of a foreign policy agenda aimed at raising China’s role as a great power; one that is both respected and reckoned with around the world. Latin America is clearly not China’s top priority and perhaps never will be—this means that Beijing will not have to challenge the United States in a direct way in that hemisphere yet it can use as many opportunities to improve its relationship with this broad region of hundreds of millions of potential partners at the expense of Washington and Taiwan. This overall increase in ties satisfies the national objectives of China and of the Latin American states as each seeks to diversify its relationships and move the hemisphere beyond a U.S.-centric orientation. Beijing welcomes the opportunity to sell arms to the region because of both the profit and prestige that these arms sales represent. Yet,

these sales have not presented a serious challenge to U.S. dominance in the region.

The future will likely see China retain a role in arms sales to the region but the relative importance of that role will depend on the region's interests in military modernization as well as the importance that Washington puts on its military ties with Latin America. Both of those remain open-ended questions at present. It would appear, however, that Washington will remain less interested in sales to this region than in the past, because of its concerns about developments in Southwest Asia and the Asia-Pacific region, ironically opening the door to possible Russian and Chinese arms deals in Latin America.

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*[These views are personal and should not be in any way construed as representing those of the National War College, National Defense University, or Department of Defense, or any agency of the U.S. Government.]*

#### NOTES

1. Argentina, Brazil, Chile and Uruguay, for example, were violently opposed to leftists in their societies, taking steps to liquidate communists over several years. Other countries, such as those in the Andean region or Central America, were not as organized in their activities against communism but were not open to economic ties with Beijing's still state-driven economy.
2. An accessible piece on the development of China's arms sales abroad is Evan Medeiros and Bates Gill, *Chinese Arms Exports: Policy, Players, and Process* (Carlisle Barracks, PA: Strategic Studies Institute, 2000).
3. "China's Policy Paper on Latin America and the Caribbean", accessed at [http://www.gov.cn/english/official/2008-11/05/content\\_1140347.htm](http://www.gov.cn/english/official/2008-11/05/content_1140347.htm) on 28 January 2010
4. "China's Policy Paper on Latin America and the Caribbean", p. 1, accessed at [http://www.gov.cn/english/official/2008-11/05/content\\_1140347.htm](http://www.gov.cn/english/official/2008-11/05/content_1140347.htm)
5. Daniel Erickson, "The New Challenge: China and the Western Hemisphere", testimony before House Committee on Foreign Affairs Subcommittee on Western Hemisphere, 11 June 2008.
6. Loro Horta, "In Uncle Sam's Backyard: China's Military Influence in Latin America", *Military Review*, September-October 2008: 47-55 (52).
7. Loro Horta, "In Uncle Sam's Backyard: China's Military

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8. This South American state's rank from the 55<sup>th</sup> highest purchaser of conventional arms between 1999 and 2003 to 18 in the following four year period. SIPRI Arms Transfers Data, 2008, p. 6, accessed at [www.sipri.org/](http://www.sipri.org/) on 28 January 2010.

9. SIPRI Arms Transfers Data, 2008, p. 6 accessed at [www.sipri.org/](http://www.sipri.org/) on 28 January 2010.

10. The author lectured to the Foreign Officers' course in December 1998 when Venezuelan officers were members of the course. Dan Erickson's testimony also addresses this point.

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## New Strains in the U.S.-China-Taiwan Strategic Triangle

By Terry Cooke

The triangular security relationship between the United States, China and Taiwan is under strain again. The January 29 announcement of the \$6.4 billion U.S. arms sales package to Taiwan marks a low point, but no major change in direction, for a U.S.-China relationship that began a downward spiral months ago. While not likely to cause bilateral relations to nosedive, the arms package does add another dip to a recently bumpy ride attributable to a host of issues ranging from Copenhagen 2009, the Iranian nuclear impasse to the Google debacle. What the analytical tendency toward political factors tends to overlook, however, is the tectonics of the economic reshaping of the U.S.-China-Taiwan strategic triangle over recent years, trends accelerated sharply by the conditions of the global recession throughout 2009. Nothing makes the salience of these economic factors clearer than the elements of carefully calibrated outrage, which Beijing has voiced over Obama's arms package to Taiwan. An overview of the economic underpinnings of each leg of the U.S.-China-Taiwan relationship reveals the recession-accentuated sources of strain in this strategic triangle.

### U.S.-CHINA: DEAD-END FOR THE COOPERATIVE ROADMAP?

Echoing the general theme of the 'extended hand' in his inaugural address, U.S. President Barack Obama struck a tone of cooperative engagement in his initial approach to China, inviting Beijing to join Washington in global co-leadership. Prepped by China policy experts during the presidential primary campaign, both leading Democratic candidates had come early on to see a particular opportunity for refashioning the U.S.-China relationship through co-leadership with China in the field of climate change and

environmental sustainability.

Early efforts at outreach to China coalesced around a program of clean energy cooperation between the United States and China—dubbed the U.S.-China Climate Change Roadmap—that came to underpin this strategic effort. According to this ‘new leaf’ approach, the single track of Treasury-led negotiations with China was not productive. Given Treasury’s mandate, the bureaucratic politics of the Bush administration SED process tended to shunt issues in the U.S.-China bilateral dialogue onto a single track—one based on the politics of yuan/dollar exchange rates. Despite a commendably patient and strategic approach, this ‘single-track,’ Treasury-led process yielded only limited results on currency issues [1] and produced in the public mind a perception of zero-sum negotiations leading to a cycle of blame between Chinese structural export dependence and consumer “oversaving, on the one hand, and U.S. structural deficits and over-consumption, on the other. According to the new Administration’s line of thought, a new parallel track of positive engagement with China was needed.

As a result, Obama substantially restructured, and minimally renamed the interagency process with China to put it on two parallel tracks of engagement. The name of the Strategic Economic Dialogue was tweaked to become the Strategic and Economic Dialogue. More consequentially, the Dialogue was re-organized on a new co-chairman basis with Treasury Secretary Timothy Geithner chairing the traditional currency and exchange rate component of these talks and Secretary of State Hillary Clinton chairing the new strategic track, which included a focus on the cooperative potential of (environmental) sustainability partnerships with China.

Whatever merits this strategic re-design of the bilateral relationship may have once had, it has been massively undercut by the brute fact of global economic recession. As the nation’s—and administration’s—focus has switched increasingly to U.S. jobs, there has been a series of U.S. actions against imports of Chinese oil well drill pipes, steel and automotive tires (*Asian Wall Street Journal*, December 31, 2009). Adding tinder to this mix, China has recently sent signals that its government procurement will favor indigenously developed intellectual property (IP) against internationally recognized intellectual property, lending some credence to cynical interpretations of China’s motives in refusing to accept WTO disciplines for government procurement at the time of its WTO accession in 2001 [2]. This shift in mood was summed up by various reports from the just-concluded annual meeting in Davos (*TIMES*, January 28). In short, the politics of global recession have now trumped the politics of bilateral global co-leadership in the case of U.S-China relations.

CHINA AND TAIWAN: THE ECFA DANCE PICKS UP PACE

A general feature of the global recession has shown developed economies as slow to bounce back while large, developing markets have emerged from the recession more quickly and robustly. The northern hemisphere breakdown of this has been dubbed the “LUV phenomenon”—Europe remains stagnant in an “L-shaped” post-recession pattern, North America is experiencing a slow “U-shaped” recovery, and Asia is enjoying a brisk “V-shaped” growth pattern.

Within Asia, these same global tectonics have been reshaping relations between Taiwan and China across the Taiwan Strait. While China’s emerging economy has roared back with an 11 percent projected GDP growth rate for 2010, Taiwan’s advanced economy—highly dependent and tightly integrated into the global IT supply chain of the advanced economies—is expected to achieve only relatively weak growth of 3.5 percent in 2010 (*The Taiwan Economic News*, December 24, 2009). These conditions have created an opportunity for Beijing to extend its policy of aggressive regional economic engagement to Taiwan and to court the business sector with commercial blandishments. It is estimated that, in 2009, procurement missions from China have purchased in Taiwan close to \$10 billion in consumer electronics, processed foods and other goods (*China News Agency (CNA)*, August 19, 2009).

In essence, the ECFA amounts to a bilateral preferential or “free” trade agreement between Taiwan and China, adjusted technically to account for sovereignty concerns on both sides. The four preceding high-level rounds of meetings between Taiwan and China, mediated by the Straits Exchange Foundation (SEF) in Taiwan and the Association for Relations Across the Taiwan Straits (ARATS) in Beijing, have already produced a series of significant economic gains for Taiwan: a doubling of direct flights between China and Taiwan to the level of 270 per week; a further boosting of mainland tourism to Taiwan beyond the recently achieved level of 3,000 visitors per day; a Financial Framework Agreement to create a supervisory mechanism for financial service companies operating in both markets; a partial opening of Taiwan’s economy to direct investment in select industries by mainland firms; and regulatory agreements governing food safety inspections and cross-strait anti-fraud cooperation.

Taiwan and China initiated ECFA negotiations on December 21, 2009 and the avowed goal is to sign a formal agreement with China in the first half of 2010. Pressure is on in Taiwan to adhere to this timeline, even as its politically polarized public struggles to absorb its implications [3]. That China’s FTA with ASEAN took effect on January 1, 2010 and is the main impetus for the



Ma administration to get its public to rally around the ECFA quickly. In addition to giving Taiwan exporters a more level playing field in China and Southeast Asia, there is also the hope that Singapore might follow the precedent of a Taiwan-China ECFA with a Taiwan-Singapore FTA. Currently, the Taiwanese Ministry of Economic Affairs is leading the administration's efforts in this regard, identifying "early harvest lists" of sectors which stand to benefit directly from the ECFA [4] and initially excluding from the agreement a number of product categories where direct competition with mainland firms is more politically problematic [5].

In broad view, the key dynamic in all of these developments is their lesser impact for the globally integrated and globally mainstream sectors of Taiwan's economy (i.e. IT/electronics) and their relatively greater impact for more parochial sectors of Taiwan's traditional economy. By normalizing cross-Strait commercial relations in these 'stodgier' sectors, the ECFA makes possible an overdue structural adjustment. Along with greater competition, the agreement promises new markets in the mainland and a new level of economic integration, via the China market springboard, regionally and globally.

Perhaps the shock of an economic downturn was required to position Taiwan and China for this next level of mutual engagement and economic integration. While joint entry into the WTO was immeasurably important to both parties as a confidence-building measure, Geneva has not served as an arena for directly advancing bilateral rapprochement.

#### TAIWAN AND THE UNITED STATES: ALL ROADS LEAD TO CAPITOL HILL

For Taiwan, the focus of the economic relations with the United States has in recent years been firmly fixed on hopes for the initiation of talks for a U.S.-Taiwan Free Trade Agreement (FTA). While there are strong economic and security arguments to be made in support of a U.S.-Taiwan FTA, Taiwan's push in this direction largely stalled due to steady deterioration in the standing of former President Chen's relationship with Washington, the expiration of U.S. executive branch trade authorities during the Bush/Obama transition, new difficulties in both the existing framework of U.S.-Taiwan trade talks and in the overall political climate for free trade deals and, finally, persistent concerns over Beijing's possible reaction to U.S. entry into FTA trade talks with Taiwan

While prospects have brightened recently in some areas, the horizon for such a trade deal remains heavily clouded in Washington. The political relationship between Taipei

and Washington has improved markedly under President Ma but there has been little direction shown by the Obama Administration regarding its game plan for post-recession re-engagement with Asia, now on a growth arc. Bureaucratically, the existing machinery for bilateral trade negotiations between Taipei and Washington, the Trade and Investment Framework Agreement (TIFA) has blown a gasket recently due to a legislative change limiting U.S. beef imports into the country. Resolution of this issue and resumption of a robustly functioning TIFA process are both prerequisites before consideration for a fundamental strengthening of U.S.-Taiwan economic ties can be possible.

More generally, President Barack Obama has so far chosen not to expend political capital to push for fast-track trade negotiating authority from Congress. Economically, the tail end of the Global Recession has prompted closer scrutiny by Congress of all such trade deals [6] and has forced the Administration to scramble to reformulate executive branch policy around a jobs focus. In essence, U.S. economic engagement with Taiwan is currently held hostage, not only by the arcane and relatively unimportant beef issue but also by an uncertain edifice of trade policy in the region. This reflects both ambivalence toward free trade among the Democratic base and indecision about how to proceed politically in the face of growing recognition of the need to undo the 'knot' which ties together financial imbalance and a structural jobs deficit in the U.S. with the export-led, yuan rate-boosted growth model. First, to emerge from the global recession, China's growth model is now in overdrive. Essentially, the global recession has laid bare structural tensions which have been embedded in the global system for decades and which are now being amplified by the unprecedented scale of China's recent development and the rate of its growth. Until the mid-term Congressional elections provide some resolution, the current logjam between the Obama Administration and Capitol Hill suggests scant hope for any strengthening of the U.S.-Taiwan leg of this triangular relationship.

#### CONCLUSION

Political tensions, such as the recent sale of the Taiwan arms package and the anticipated meeting between President Obama and the Dalai Lama, will likely continue to characterize U.S.-China relations throughout the year. These, however, should not detract policy-makers' attention from the more deeply embedded structural forces at work. When all three economic legs of the U.S.-China-Taiwan triangle are stable and strong, the security equation across the Taiwan Strait tends towards better balance. When, as now, there is strengthening of one leg (China-Taiwan) accompanied by relative weakness (U.S.-China)

and a stasis (U.S.-Taiwan) in the other two, the security balance is eroded. Since all three legs of the triangular security relationship depend upon growth, it would be wrong-headed for policy-makers in Washington to try to put any brake on the cross-strait normalization-taking place between Taiwan and Beijing. Equally, it would be shortsighted to allow that normalization proceed apace without paired attention to the two legs of the triangle, which connect directly to the United States. In the year ahead, the United States needs to find ways to address the structural defects in its economic relationship with China without becoming overly distracted by the fallout of political tremors on the surface of that relationship. Similarly, the Obama Administration is under pressure to align its party base and lead Capitol Hill to an international trade policy that effectively reengages with its key regional trade partners in the Asia-Pacific and promotes U.S. jobs more effectively through pro-growth engagement with that dynamic region.

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#### NOTES

1. This process contributed to a 21.5 percent increase in the yuan's value against the dollar from mid-2005 to mid-2008, but this movement then stalled with the onset of the global financial crisis in September 2008, effectively "re-pegging" the yuan's value to the dollar throughout 2009.
2. "In November (2009), China instituted a catalog of products that receive significant preferences for procurement by Chinese government agencies. For inclusion in the catalog, products must contain intellectual property developed, owned and registered in China.) as reported in eWeek.com <http://www.eweek.com/c/a/Government-IT/Tech-Groups-Object-to-Chinas-Indigenous-Innovation-Policies-665333/>
3. An October 2009 report by Taiwan's Council of Labor Affairs showed a positive impact of 0.75 percent GDP growth and a net gain of 125,000 jobs under a favorable ECFA scenario and a dip of almost 0.2 percent in GDP, accompanied by a net loss of 47,000 jobs, in the event of the ECFA not being concluded.
4. Petrochemicals, auto parts and machinery, constituting 23.4% of Taiwan's cross-strait trade with China, stand to benefit (source: Taiwan Economic Cultural Office (TECO), New York).
5. Many agricultural products and certain industrial products such as steel, footwear, and white goods.

6. Tellingly, the fate of the Korea-U.S. FTA, which has been fully negotiated and signed but not ratified, still hangs in the balance as the new administration considers renegotiating past trade agreements, particularly for their labor and environmental safeguards.

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