# hina-Japan Rivalry in Asia's Integration Process



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The year 2010 was marked by two major events in the relations between Beijing and Tokyo, first the diplomatic storm that erupted in September 2010 after an apparently minor naval incident, at least as seen from Europe, and then the replacement of Japan by China as the world's second-largest economy. The first event, which recalled the anti-Japanese demonstrations in several Chinese cities during spring of 2005, was the repetition of recurring tensions between the two Asian giants, strategic rivals although economic partners by force of circumstance. The naval skirmish was just a symptom of the rivalry between the two dominant powers for supremacy in the regional construction of Asia.

The second event of 2010 is the dethroning of Japan by China as the world's No. 2 economy. In itself, this is not surprising, given a Chinese labor force twelve times bigger than in Japan, but the suddenness of this shift as compared to earlier forecasts reveals the contrast between the tremendous momentum of China's growth and the near-stagnation in Japan. The gap between the two economies will widen tremendously over the next two decades. In the coming years, relations between the two dominant powers in Asia will likely be structured by an unstable mix of structural rivalry and pragmatic cooperation. For the sake of clarity, we will deal successively with economic aspects first and then with strategic ones. However, both are intimately linked as they interact in a dialectical relationship between economics and strategic power.

#### A booming Chinese economy

China, the second industrial power after the US and the world's biggest exporter, has pursued the same three-phase economic strategy as Japan, in spite of a different political system: industry, trade and finally finance. China's stunning GDP growth averaging 10% over the past 30 years is about the same as Japan's during its high-growth period (1955-1973). The difference between the two lies in the driving force behind their industrial competitiveness: in

#### TABLE 1

# GDP & GDP per capita of US, China & Japan in the future

GDP (Bil. \$)	US	China	Japan
2010	14,620	5,878	5,474
2030 (predicted)	22,817	25,610	5,814
2050 (predicted)	38,514	70,710	6,677
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GDP/cap. (\$)	US	China	Japan
GDP/cap. (\$) 2010	US 46,400	China 4,380	Japan 34,000

Source: Goldman Sachs 2007

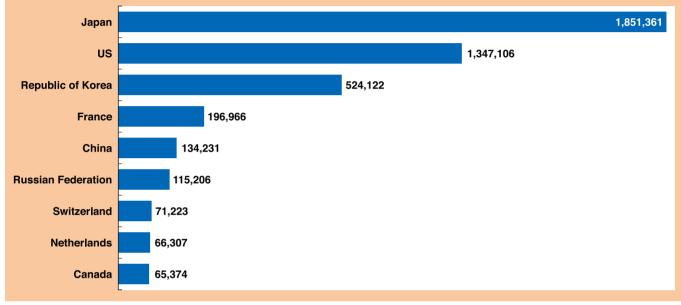
Japan the superiority of its technology, in China the abundance of cheap labour. The view from Europe on the two countries is often distorted: Asia's future is already mapped out, between the irresistible rise of China and the ineluctable decline of Japan *(Table 1)*. This simplistic view fails to take into account the fragility of the Chinese economy and the resilience of Japan, which still holds economic and financial domination in Asia. China's successes should not hide the constraints and dangers which its economy will have to face in the future. First, its economy is highly dependent on abroad in three crucial areas: natural resources, technologies, and export markets, which are too concentrated on Europe and the US, as the crisis has shown. Second, several constraints will weigh on the growth prospects: increasing social inequalities and regional disparities, ecological disasters, future financial burdens, and the decrease of comparative advantages.

#### **A Resilient Japan**

In contrast, Japan's resilience should be stressed in spite of the present weaknesses of its economy. These weaknesses are well known: deflation, demographic challenges, a huge public debt, dependence for natural resources and, most important, the chronic absence of a true political leadership. However, Japan remains Asia's pre-eminent economy in industrial, technological and financial terms. It is at the technological heart of emerging Asia's "integrated circuit" and has been largely responsible for financing its development. It sets an inescapable benchmark for Asian countries, most of which have borrowed its economic model. In any case, the replacement of Japan by China as the second biggest economy in the world is guite natural, taking into account the huge difference between the two countries in terms of active populations. This quantitative aspect should not hide the qualitative gap, since productivity is ten times higher in Japan and translates into a GDP per capita of \$34,000 in Japan against \$4,380 in China. This productivity gap will last for decades, since projections for 2030 show that China's economy will be four times Japan's, but that GDP per capita will still be three times higher in Japan.

#### **Mutual Dependence**

The economic relations between Asia's two giants are the key for assessing the future of the region. Their structure is determined by mutual dependence in trade, investment and finance. The growing integration of the two economies and China's parallel rise are the defining features of the last fifteen or so years. China's accession to the WTO in 2001 gave a massive boost to its foreign trade, from which Japan was the main beneficiary, since China has become its main trade partner; on the Chinese side, trade with Japan, its



# CHART 1 Patents in force by source (2008)

Source: WIPO 2011

leading supplier, represents 10% of the total. Their trade integration stems from the process of regional integration, which makes the two economies complementary. Japan exports goods with a high technological content and imports products with less value-added, such as textiles, agricultural products and consumer electronics. This complementarity is due to their comparative advantages in an almost ideal configuration: advanced technology on the one side and low-cost labour on the other. Given the two countries' respective levels of development, however, that interdependence is asymmetrical. At first sight it looks as though Japan is more dependent, since 18% of its exports go to China, whereas Japan absorbs only 8% of Chinese exports. For sure, the Chinese market is essential for Japan's growth, but China is probably more reliant on Japan than vice versa: its industrial and commercial expansion relies to a considerable extent on the technology it imports from Japan in the form of intermediate or capital goods. Competition between Chinese and Japanese exporters, currently weak in developed countries but already keen in emerging countries, will intensify as China catches up with its technology lag. At present, competition is taking place above all in the strategic area of natural resources, as has been seen with Siberian gas and the exploitation of hydrocarbon deposits in the East China Sea. In the future, that competition will play out in the arena of technology: that at least is China's ambition and the greatest threat to Japan's economic supremacy.

## **The Technological Battle**

Indeed the main reason for Japan's leadership lies in its advance in technology, and this will be the main area where China will concentrate its efforts to catch up. Presently, Japan's global domination is outstanding, as can be seen from the amounts devoted to research and development (R&D) and number of patents. Its R&D expenses represent 3.6% of its GDP, compared to 2.3% in the OECD. The result in terms of patents is in proportion to these huge financial efforts. Japan is No. 1 for the number of patents per capita: it obtains each year 29% of the world's total of 'triadic' patents (recorded at the same time in Japan, in the US and in Europe) and 22% of patents granted in the US. These figures refer to annual flows, but Japan's global technological advance is even more striking if one takes the stock of all patents in force expressed in millions for the year 2008: according to WIPO, Japan comes first with 1.85, then the US (1.35), followed by South Korea (0.52), France (0.20), and China (0.13) (Chart 1). Japanese R&D is thus particularly efficient, as confirmed by the ratio of patent applications per \$million of R&D expenditure, for which Japan comes second behind South Korea, well above the US, which occupies only the 15th rank. Japan's technological strengths are concentrated in high-technology sectors, especially electronics, mechanical engineering, fine chemicals, new nanostructured materials, energy, and the environment. It excels also in so-called "fusion" technologies, combining different elements

such as mechatronics or optronics. Japanese firms not only develop new products: they are also expert at optimizing industrial processes through *monozukuri*, a quintessence of science, technology and skill.

As for China, its ambition is to quickly impose itself as a major technological power and to become the world's laboratory and not just its workshop, as envisioned by the 2006-2020 Science and Technology Plan. Beijing intends to develop the capacity for independent innovation in key sectors for the future and ultimately to increase its spending on R&D from 1.4% to 2.5% of its GDP. which would mean a quadrupling in value, taking into account the foreseeable increase in the GDP. Promising progress has already been made in the aviation, railway, information technology, and aerospace industries, but there is a very long way to go yet before China can reduce its still very heavy reliance on foreign, and especially Japanese, technologies. R&D spending has more than tripled in six years, but it still seems paltry in relation to the Japanese figure. The same gulf exists with regard to researchers: although the number in China has doubled since 2000, it is ten times lower than in Japan in relation to the workforce. Chinese researchers already rank third in the world in terms of articles published, almost on a par with Japan, but for nanoscience, China is in second place behind the US. In contrast, though China was in 2010 No. 4 for patent applications (7.6% of the world total) with an increase of 56% over the previous year, the number of patents filed abroad remains very small - 4.4% against 34% for Japan - and it includes foreign companies, which tend to be quite active in patent applications. The rapid results in some sectors and the vast resources to be mobilised are evidence that China has embarked on its quest to catch up. Ultimately, according to specialists, technological progress in Chinese industry remains ambivalent. China is catching up in certain sectors with a high international profile such as car production, space, shipbuilding, and railways. Renewable energy sources comprise another fast-growing sector, while Chinese car-makers aim to quickly catch up with their Japanese rivals in the clean-car segment. Great strides have been made in applied research but basic research remains rather skimpy and fails to produce genuine innovation, even in priority sectors like space and electronics. So China's race to catch up in innovation is going to be a long one. Moreover, the outcome remains uncertain because Japan, the leader of the pack, is stepping up the pace. Yet China is playing for very high stakes: technology is the key to economic supremacy in Asia, which in turn is a precondition for overall leadership in the region. It is an objective that would seem difficult to achieve before 2025-2030.

#### China's "Peaceful Rise"

For the neorealist John Mearsheimer, China is an example of a nation seeking to establish hegemony in its own region in order to subsequently extend its sphere of domination and ultimately control the entire global system. As an enterprising and "benign" regional player, it has built its policy in Asia around two objectives: to maintain stability in the region, necessary for its own economic

expansion, and to increase its influence by allaying fears of a "Chinese threat." This policy has three main strands: stable borders, regional security, and economic diplomacy. On the first point, China has settled eleven territorial disputes since 1998 and concluded agreements with almost all the countries with which it has borders. Some disagreements over maritime and land frontiers remain, however, in particular with Japan (Senkaku/Diaoyutai islands) and India (Akasi Chin and Arunachal Pradesh). Deeply scarred by past foreign domination. China is extremely prickly on matters of territorial integrity and sovereignty, such as in Tibet and Xingiang, while Taiwan remains the cloud on the horizon. Security in Asia is a prime objective of Chinese diplomacy and that is why China is so active in a sphere which also enables it to consolidate its regional influence. It brings all its weight to bear on the work of the ASEAN Regional Forum (ARF), and tries to exercise a kind of tutelage over the ASEAN countries. However, China's ambitions come up against the US's strategic domination of the region and Beijing feels encircled by a mighty American network of military bases and more or less formal alliances spanning the whole of Asia. Faced with such a powerful array of force, China's diplomatic action focuses on Central Asia and the Korean peninsula, the latter through the Six-Party Talks. The third strand of this regionalism is a very active economic diplomacy through free-trade agreements in Asia, which some commentators have compared to the old tribute system tinged with neo-mercantilism. China's economic diplomacy is even more visible at the multilateral level. Cooperation with ASEAN in the ASEAN+1 framework is more advanced than is the case with Japan or South Korea and has already culminated in a free-trade area that came into effect in 2010. China is also increasingly asserting its influence in monetary and financial cooperation within the ASEAN+3 and at meetings of the Asian Development Bank (ADB).

China is using its influence in Asia as a platform from which to consolidate its international stature and gradually assert itself as a major global power. In doing so, it has two key advantages of which Japan is deprived: permanent membership of the UN Security Council and nuclear weapons. To achieve its ambitions, Beijing is deploying an aggressive diplomacy whose emphasis on the economic element is sometimes inconsistent with its declared multilateralism; at the same time, it is modernizing a "purely defensive" army of over two million whose budget has tripled since the start of the decade. China's greater openness to the rest of the world has a dual dimension: economic, through its accession to the WTO in 2001, and political, through its conversion to multilateralism. Like its regional action in Asia, China's proactive global diplomacy has a twin aim: to promote bilateral trade and to contribute to the stability of the global system on a multipolar basis. On certain issues, bilateral diplomacy does not sit easily with the multilateralist option, but for Beijing the absolute priority given to economic growth involves a measure of pragmatism. Its first aim is to develop bilateral economic partnerships, in particular in Africa and Latin America, so as to secure its supplies of raw materials and diversify its export markets. However, Washington is the primary focus of its bilateral diplomacy as the relationship is indeed vital for both economies: China needs the US market, while the US needs Chinese savings. More broadly, Beijing feels driven to speak for developing countries in a world run by the developed nations. The de facto replacement of G8 with G20 validates its strategy and offers China a new platform that it has already used masterfully. It has the potential to become a great power, but above all, unlike Japan, it has a clear vision of the place it wishes to occupy in tomorrow's world. Yet China's multilateralism is rather ambiguous and its foreign policy is subject to a dialectical tension between the priorities of its economic diplomacy and its ambitions as a responsible great power.

#### Japan's "Normalisation"

Japan on its part occupies a peculiar position both geographically and strategically. Although part of Asia, it chose the West at the time of the Meiji Restoration for its modernisation. It has also renounced war, an essential attribute of power. These two factors are shaping a foreign policy that is often difficult to interpret as it oscillates between contradictory demands. To cope with them, Tokyo has built its foreign policy on two main foundations: a renewed focus on Asia and an active pacifism that seeks to reconcile the US-Japan military alliance with its commitment to multilateralism within the UN. The strategic return to Asia, which began in the late 1970s with the "Fukuda doctrine," was followed in 1992 by the dispatching of a contingent to Cambodia as part of the UN peacekeeping operations there. This highly symbolic event sent the message that Japan wanted to be a responsible and useful regional power, not only anxious to protect its economic interests but also willing to work for stability and peace. The move also marked a turning-point in Tokyo's defense policy and Japan is more and more involved in regional security issues, as threats are growing in the region, from North Korea, of course, but also potentially from China, whose military expenses have exploded in recent years. Japan wants to be considered a "normal" country, taking diplomatic action and developing a defence capability commensurate with its economic strength. Japan's dilemma is how to reconcile the pacifism imposed by its constitution with the desire to be recognised as a global power in the same way as China, albeit on a different level. It is seeking to overcome this contradiction in a novel way: benefiting from American military protection, Japan wishes to assert itself as a great civilian power, serving the cause of peace and global public goods within the framework of the UN. In other words, it has switched from a passive pacifism to an active one, including by increasing its defensive capacities, even if the US-Japan Security Treaty remains the cornerstone of its defense policy. Japan wishes to turn its constitutionally self-imposed pacifism into the "active" pacifism of a great civilian power. An "active" pacifist, it seeks also to be a "useful" one. Japan believes in international cooperation rather than confrontation, in disarmament rather than deterrence. Without any universalist pretensions, it campaigns for the respect of different cultures. Drawing on its economic power and the moral legitimacy of its pacifism, Japan endeavours to promote global public goods, human security, peace-building, and respect for the

environment, for which it has an unrivalled legitimacy. Japan's economic weight and its dedication to public goods certainly qualify it for the role of permanent member of the UN Security Council.

#### China & Japan in the Shaping of the Future Asia

By 2030 Asia will be home to three of the world's mightiest economies. The idea of an Asian Community is making headway, even if it will take decades to achieve, given the disparities in the region. Presently, neither of the two dominant powers fulfils all the conditions for undisputed heaemony in the region, given the regional configuration characterized by Japan's economic supremacy and China's strategic domination. Japan is undisputedly Asia's leading economy but its pacifist constitution deprives it of certain strategic options available to China. Conversely, China is still an economic power in the making and seeks to close the economic gap with Japan in double-quick time so as to impose itself as the region's only global power. This will take two decades or so, and until then, leadership will likely be shared between the two regional powers. This kind of co-leadership is already beginning to emerge, though not without tension, in regional cooperation bodies, in particular in ASEAN+3. That shared leadership is bound to be antagonistic because mistrust between the co-leaders runs deep and their aims are incompatible, in particular regarding the shape of the regional architecture. By 2030. China's economy will be four times as big as Japan's and Beijing will then be in a position to impose both its economic and its political dominance on the rest of Asia, albeit in the form of a friendly and "benign" partnership. Depending on the progress of a hypothetical Asian Community, two hypotheses can be envisaged for this second sequence from 2030 onwards. If, as Beijing wishes, the Community comprised only ASEAN+3 (China, Japan and South Korea) it would be entirely under the sway of a China able to impose its power on the region in the form of "hegemonic stability." Japan will most certainly refuse to become a sort of satellite in a relationship that would make it a de facto vassal of the Chinese suzerain. It would doubtless find a new position for itself, combining economic power, financial wealth, strong conventional defence, and international influence through the promotion of global public goods. In a nutshell, Japan would become a kind of large Asian Switzerland, prosperous and pacifist. In contrast, if the project resulted in a Community comprising not only the ASEAN+3 but also Australia, India and New Zealand, as in the present East Asian Summit, Japan would doubtless find its place as part of a triumvirate with China and India. The size of India's population and its strategic clout would limit China's influence and the Community would be inspired by the democratic values shared by most of its members in an "arch of democracy." JS

Dr. Claude Meyer teaches international economics at Sciences Po (Paris) and elsewhere. His latest book is "Chine ou Japon: quel leader pour l'Asie?" (Presses de Sciences Po, 2010; Japanese translation published in 2010 by Jiji Press Publications). Some parts of this article are inspired by the above book.