The Non-Economic Effects of Economic Policies

Chinese Currency Manipulation and Imbalances in the Globalized Marketplace
Introduction

In 1969, Edward Lorenz coined the term “butterfly effect” to refer to the hypothetical situation in which a hurricane forms as a result of a butterfly flapping its wings at some time in the past. This notion of extreme interconnectedness is integral to the study of economics because, like with the butterfly and the hurricane, actions in the economic sphere have the potential for vastly disproportionate reactions. It is this concept of interconnectedness that leads the economic policies, commonly alleged to constitute currency manipulation, of the People’s Republic of China (hereafter, China) to have ramifications that reach far beyond the marketplace.

That various governments have, at different times and in different regions throughout the world, adopted controversial economic policies specifically designed to further an economic and political agenda is well-documented. China, one of the fastest developing economies in the world and quickly becoming one of the world’s largest economies, both in terms of output and consumption, is not immune from criticism on these grounds. The meteoric rise of China to economic relevance in the global economy has prompted no small amount of attention, from politicians and scholars alike.

Economics is a well-cultivated tract within academia. There is a wealth of work examining international trade and no shortage of scholastic scrutiny of China and the issue of currency manipulation. Likewise, much effort has been put into analyzing social, political, and environmental issues throughout the international community.

However, academic interest in the study of the relationship between primary economic choices and resulting economic, social, and environmental externalities is not as prolific. China’s
economic policies have far-reaching economic effects, but oftentimes what is lost amidst the dollar signs are the many ways in which economic policies have non-economic effects. With this in mind, then, policy planning and cost-benefit analyses that fail to take into account the non-economic effects are not grasping the full picture. Given the social and environmental events that have been drastically altering the global equilibrium, including the Arab Spring, the unprecedented melting of Arctic ice, and the ever-increasing rate of deforestation and environmental damage, especially in developing countries, considering the external ramifications of economic policies is crucial.

Moving forward, it will be undertaken to examine the ways in which Chinese economic policies, hereafter referred to as currency manipulation as will be justified presently, can have results far surpassing the intended direct economic effects. This examination is an inherently interdisciplinary endeavor, and one that will draw from the fields of political science, economics, and environmental science in order to make the case for a fuller accounting of the costs involved when making policy decisions and consumptive choices on a global scale. The criteria of interest in this examination are the social, environmental, and unintended economic effects that can abound when governments engage in manipulative trade practices.

In considering policy options available to states in the globalized international economy, then, a fuller understanding of resulting externalities can contribute to the decision-making of international economic actors. Thus, the economic, social, and environmental externalities that result when nations manipulate their currency in an attempt to increase domestic competitiveness in the international marketplace are often-overlooked. Nevertheless, these externalities are important to a full assessment of the consequences of economic policies and trade objectives.
This practical examination of the theoretical ramifications of international trade seeks to put a finer edge on this often murky subject, bringing into clear focus the importance of understanding the sometimes hidden effects of the trade policies of actors in the international marketplace.

**Concepts and Terms**

In examining currency manipulation, Gagnon (2012) writes, “[c]urrency manipulation occurs when a government buys or sells a foreign currency to push the *exchange rate* of its currency away from its *equilibrium value* or to prevent the *exchange rate* from moving towards its *equilibrium value*” (emphasis added). Changes in a currency’s valuation can have important ramifications with regards to the economic goals of the state. When a currency depreciates, purchasing goods from foreign countries is more expensive than purchasing domestic goods, and when a currency appreciates, the reverse is true—purchasing goods from foreign countries tends to be cheaper than purchasing domestic goods. Likewise, when one country’s currency depreciates, it becomes cheaper for foreign countries to buy that country’s exports, and thus the exports are more competitive. With this in mind, the full force of Gagnon’s definition is clear: governments are at once capable of and motivated to exercise economic power in an attempt to successfully alter the market situation.

The motivation that drives countries to engage in currency manipulation is another crucial piece of the framework through which to examine Chinese economic policies. The point made by Sanford (2011) is well taken, as he points out that the International Monetary Fund’s (IMF) governing documents allow nations free reign in their monetary policies, but that “…they should avoid manipulation of exchange rates or the international monetary system to prevent effective balance of payments adjustment or to gain unfair competitive advantage over other...
members” (emphasis author’s). Where the IMF’s structure does not provide for a method of redress in cases of alleged manipulation, The World Trade Organization (WTO) allows for the formation of a mediative body in response to allegations of manipulation. Failure to comply with the ruling of that body can result in WTO-sanctioned increases in import duties on the offending country’s exports. The potential that this process will yield an economic disincentive such as a countervailing import duty, however, is such that the burden of proof both favors the manipulator and is nigh insurmountable for the injured party.

Engaging in currency manipulation can cause a currency to be held at an artificially sub-equilibrium level, increasing the competitive advantage of a country’s domestic firms in the global marketplace, and stimulating demand for that country’s exports. The end result is a trade imbalance which causes a net inflow of foreign wealth. This type of market situation can produce consumptive choices that are often vastly different than if currency manipulation did not occur.

Body

As a rapidly developing economic powerhouse, China is becoming increasingly interconnected with the global economy, especially with the world’s highest-consuming nations, among whom the United States stands prominent. Since any change in China’s economic policy would be carried through to the international market place, China is in a key position to have significant effects on the global economy.

There is, however, mixed opinion as to whether China is engaging in manipulative trade practices and whether or not they are even capable of enacting such policies. Zuyao (2010) posits that China, accounting for around 10 percent of the total international trade and with a GDP that
was a third of the United States’, simply does not have the economic heft on the international scale to manipulate currency in the way alleged by United States policymakers\textsuperscript{iii}. However, World Bank data (2013) indicates that the United States has experienced anemic growth over the past 9 years, going from a 2004 high of 3.48 percent annual growth to two consecutive years of GDP decline in 2008 and 2009, troughing in 2009 with a GDP contraction of 3.53%; in comparison, and while China has undoubtedly been struck with the aftershocks from the global trade crisis of 2008, China’s GDP has grown continuously, and for 6 of the 9 years for which data is available, by greater than 10\%\textsuperscript{iv}. In 2010, as Zuyao approximated, the Chinese economy was slightly more than 40\% the size of the United States economy, but China is quickly closing the gap\textsuperscript{v}. From 2003 to 2011 the Chinese economy grew from just shy of 15 percent of the U.S. economy to almost 50\%\textsuperscript{vi}. It is clear that, even if the Chinese economy were insignificant as Zuyao suggests, it is experiencing growth at rates far greater than the growth rate of the United States, and quickly becoming an economic superpower.

China’s position in the international marketplace further increases their prominence in the global economy. In 2011, WTO data indicates that China was the number one merchandise exporter, and the fifth largest exporter of commercial services\textsuperscript{vii}. China makes up over 10\% of the world’s merchandise export volume, and almost 10\% of the world’s merchandise import volume, while the U.S. share is 8\% and 12\%, respectively\textsuperscript{viii}.

The closely intertwined nature of China’s trade portfolio with the rest of the world’s major economies means that its policies can directly influence its trading partners. The European Union (EU) group of 27 countries constitute 18.8\% of the demand for Chinese merchandise exports, with the United States closely following at 17.1\%\textsuperscript{ix}. Further, China’s large current
account surplus indicates a discrepancy between exports and imports, symptomatic of a large inflow of foreign capital that is not offset by the outflow of domestic wealth\textsuperscript{x}. These empirical observations serve as a lens through which an examination of how the global marketplace is influenced by China’s alleged currency manipulation is brought into striking focus.

China’s exchange rate has historically been a fixed, dual-rate system that was pegged to the dollar until the 1990’s, when China switched to a market-based system of exchange. Between the beginning and end of 1993, Das (2009) indicates, the Yuan fell from 1.58 Yuan to the dollar to 5.80 Yuan to the dollar, a devaluation of 73\%\textsuperscript{xi}. As China implemented the market-based system, the Yuan fell from 5.5 Yuan to the dollar to 8.7 Yuan to the dollar in January of 1994\textsuperscript{xii}. This sudden devaluation of the Yuan contributed to the surge in China’s exports, quickly giving competitive advantage to Chinese manufactures by virtue of their newfound cheapness on the international market.

Between the establishment of the first market based system and its second attempt at exchange rate reform, China’s devalued, stable currency fueled, as Das indicates, “…rapid real GDP growth, rising total factor productivity (TFP), robust export expansion and massive foreign direct investment (FDI) inflows” that nevertheless did not stimulate an appreciation of the Yuan, which remained at approximately 8 Yuan to the dollar\textsuperscript{xiii}.

This massive and sudden growth led the international community to scrutinize China’s economic policies. Wang, Lin, & Yang (2012) note that, in the face of U.S.-led trade sanctions, in 2005 China switched from an exchange rate specifically pegged to the dollar to one that more closely resembles a market mechanism\textsuperscript{xiv}. Between 2005 and 2009, the Yuan grew 4.4\% more valuable relative to the dollar\textsuperscript{xv}. Though the Yuan has appreciated slightly since China’s shift to a
market-analogue valuation scheme, China continues to run vast trade surpluses\textsuperscript{xvi}. The next important point to consider is how this economic reality is affecting the international community, both in and out of the marketplace.

Wang, Lin, & Yang note that, of China’s 19 largest trading partners, 10 of them run trade deficits with China, including Hong Kong, the United States, and the United Kingdom, and China’s overall balance of trade is a surplus upwards of $245,917,000,000\textsuperscript{xvii}.

As Gagnon’s definition of currency manipulation indicates, a common method of manipulating currency involves the buying and selling of currency in order to influence the global valuation of currencies\textsuperscript{xviii}. In a 2012 policy debate conducted in the World Affairs Journal, Navarro asserts that, as a result of China’s economic policies, the United States has lost more than 50,000 factories and China owns $3 trillion of the U.S.’s public debt\textsuperscript{xix}. Navarro goes on to quote Dan Slane, the head of the US-China Economic and Security Review Commission, as saying, “[China’s] manipulating the currency was a huge help because it kept our prices down. I had no environmental issues, and the most important thing was that I could sell my product at cost and every month, the Chinese government would send me a check for seventeen percent of my exports, and that was my net margin and profit”\textsuperscript{xx}. Navarro’s claims of mercantilism, culminating in allegations of currency manipulation put in stark contrast the types of immediate consequences that Chinese trade policies can have on the international marketplace, and especially on the U.S. economy. It is here that an examination of the social and environmental effects of Chinese economic policies must begin.

It is no secret that China is a developing nation relying on its manufacturing and export industries to fuel its economic growth, and this is supported by the WTO’s database of
Manufacturing, often requiring heavy machinery and resource-intensive production processes, is an energy intensive pursuit. According to the Natural Resource Defense Council’s 2011 guidebook on China’s energy usage, the largest source of energy for China is coal, accounting for 70% of its total energy consumption, and 80% of its fuel for energy generation.

The use of coal, as advanced in a Greenpeace report from 2008, *The True Cost of Coal*, is economically attractive because it is one of the cheapest methods of energy production available. However, the market price of coal fails to take into consideration the externalities in the setting of its price. In every stage of energy production utilizing coal, from the procurement to the combustion, China’s coal usage results in greenhouse gases and other toxic compounds that cause environmental and health damage, not just to its citizens, but to neighboring regions as well. In examining the externalities of this particular economic choice, environmental and public health externalities are lumped together due to their similar end results: the loss or destruction of assets, either in human capital or natural resources. The NRDC guidebook indicates that the market externalities of China’s choice to use coal to meet its energy needs is equivalent to 7.1% of its GDP. Using the WTO figures for China’s GDP in 2011, the health and environmental costs of coal usage on the scale China employs is thus approximately $519,613 million.

According to a 2008 Greenpeace report entitled *The True Cost of Coal*, when used as a source of energy, coal produces “wastewater, airborne pollution and solid residue resulting in damage to water systems as well as respiratory diseases in humans.” Greenhouse gases, including Sulphur Oxides, Nitrous Oxides, Carbon Dioxide, ozone, and other harmful air particulates, including dust and mercury, are prolific byproducts of the combustion of coal, and
they lead to respiratory problems (e.g. bronchitis, pneumonia, pneumoconiosis, pulmonary emphysema, and lung cancer), reduced oxygen in the blood and decreased lung function, asthma in children, ocular degeneration, and a suppressed immune system\textsuperscript{xxvi}. 

Other major environmental effects of the use of coal include acid rain, water and soil pollution and disruption, and ecological degradation. The combustion of coal produces pollutants and gases that, once mixed in the atmosphere and combined with precipitation, result in so-called acid rain that can cause health problems and ecological damage thousands of kilometers from the point at which the chemicals are introduced into the atmosphere\textsuperscript{xxvii}. The effects of coal production on the water supply include water shortages as water is removed from areas around coal mines, and pollution from the washing of coal after mining and before combustion\textsuperscript{xxviii}. The wastewater from the washing of coal can contain heavy metals, salts, and sulfates, and when used in agriculture for irrigation, a common practice in China, can lead to soil pollution and ecological damage\textsuperscript{xxix}. Further, the mining of coal leads to instabilities in the land surrounding the mining site, which can lead to soil erosion and damage to buildings and other infrastructure. It is estimated that mining 10,000 tons of coal leads to 0.2 hectares of subsidence, and 2,000 people must be relocated due to subsidence related to the mining of 10 million tons of coal\textsuperscript{xxx}. 

All things considered, China’s use of coal to fuel its industrial, export-oriented economy is an economically smart move. It is cheap enough to support the high levels of growth China has been enjoying without resulting in higher total cost of goods sold, and it is abundantly available to fuel China’s manufacturing centers. However, as the Greenpeace report argues, the full cost of using coal is not measured at the time of purchase. Taking into consideration the non-economic measures mentioned herein—the cost of lost productivity, environmental damage, health
problems, and so forth, while representing only 7.1% of the Chinese GDP, still translates into almost $600 billion.

There are two potential ramifications of this theoretical reevaluation in input pricing. If China adopted policies designed to take these externalities into consideration as coal was consumed, for example, by offsetting the environmental and health effects by taxing the purchase of coal in order to create funds to subsidize environmental rehabilitation or healthcare for those affected by the pollution, there would be an initial chilling of the Chinese economy. With this type of policy, products utilizing coal would increase in price as a result of higher input prices. Increases in the production cost of Chinese goods to more closely approximate the true cost would alter its competitive position, while at the same time increasing the competitiveness of countries with close costs of productions. While this would, at face value, appear to negatively impact Chinese economic performance, a re-evaluation of the price of coal that takes into consideration environmental and public health externalities, while initially harming competitiveness, would make up for it in long-term productivity gains and better health, both of the environment and the people. Another possible effect of the reevaluation is that it stimulates increased investment in “greener” energy sources. If this were to occur, China would be pursuing cheaper methods of fueling economic growth at the same time it pursued methods of producing energy that were better for the health of the Chinese people and the environment.

After examining the environmental effects of Chinese dependence almost exclusively on cheap, dirty sources of energy on China in its own right, it is imperative to examine how this economic choice affects the global economy and the externalities that can exist in countries not party to Chinese economic decision making. Alluded to previously, the economic gain in
competitiveness against international trading partners by using a cheap form of energy in the production process, when exacerbated by trade supported by a currency that is comparatively undervalued, allows Chinese firms to export goods, ship them to all corners of the globe, and sell them in countries, even those with countervailing duties on imports, for cheaper than domestic firms in those countries can compete with. It is this artifact of the current global market situation which has prompted such outspoken critique of Chinese economic policy.

Since Chinese firms are capable of producing goods for cheaper than firms in other countries, especially more developed countries like the European Union countries and the United States that have more restrictive labor and environmental regulations, a lack of environmental standards further exacerbates this competitive disequilibrium that leads to trade imbalances between China and its major trading partners. Given the current balance of manufacturing in the global marketplace (heavily favoring China), the Chinese emphasis on “dirty” forms of energy as a production input, lax environmental regulations, and China’s status as a developing nation, which necessarily limits its access to the most efficient technology and methods of production, China’s competitive advantage in the global marketplace results in environmental and health damage that would not occur if the trade balance were closer to equilibrium, that is, if demand for Chinese products were less. If these aforementioned externalities were taken into consideration in the pricing of energy inputs for Chinese manufactures, manufacturing that was once undertaken in China would be less competitive with other countries that have higher production costs due to higher environmental or labor costs. Production processes that were once more costly than the current Chinese method would then be more competitive on an international scale if the externalities were incorporated.
The environmental effects of the current international trade balance notwithstanding, there are equally significant social effects, both in China and abroad. Blanchard & Giavazzi (2005) make note of several social problems that have manifested in the wake of China’s current trade situation. In their examination they indicate that uneven growth throughout the different regions of China, across the economy’s many business sectors, and throughout the skill levels of China’s labor force, weakening safety nets, and widening trade imbalances are all matters of import for the global economy in general, and the Chinese economy in particular.\textsuperscript{xxxi}

Historically, Chinese domestic policy (labor mobility and domestic price controls, specifically,) have tended to favor China’s urban citizens. The per-capita income of urban Chinese in the 1970’s was 3 times that of their rural compatriots; reforms in the following decade reduced this ratio somewhat, but as recently as 2003, the ratio had risen again to 3.2.\textsuperscript{xxxii} The Chinese analogue of the United States’ pork barrel spending, “…the policy of awarding fiscal privileges to exporters and investors in selected areas has contributed directly to the widening of income differences.”\textsuperscript{xxxiii} Thus, while a steadily increasing GDP results in a corresponding annual increase in GDP per-capita, this averaged figure fails to take into consideration the disparity in incomes between rural and urban provinces, and the continual trade surpluses centered on the export of manufactures further exacerbates the income-disparity that results in relative poverty for rural Chinese. Another important ratio, the ratio of consumption between urban and rural Chinese likewise shows that urban per-capita consumption is increasing relative to rural per-capital consumption, and that the consumption ratio is even greater than the ratio between incomes. Thus, while urban Chinese are earning, on average, 3.2 times their rural counterpart, they are consuming 3.6 times more.\textsuperscript{xxxiv}
Given that the population of China is greater than 1 billion, and the Chinese government closely regulates labor mobility between provinces and rural-urban cross-over, it is unsurprising that there would also exist a wage differential between skilled and unskilled labor. The skilled workers (those with a greater than high school education) earned on average 2.1 times more in 2000 than those without a high school education, up from a 1.3 ratio in 1990xxxv. This wage differential, when coupled with regulations on mobility of labor, can also contribute to domestic poverty and other social problems associated with un- and underemployment, especially in the under-served rural regions of China.

Another mismatch in China’s domestic economy is the distribution of its economy engaged in particular sectors of business in terms of total value added GDP. Between 1990 and 2003, China’s agriculture industry fell from 27 to 14 percent, while its industry (i.e. the industry supporting its manufacture and exports) rose from 42 to 52 percent, and the portion of its economy comprised of services remained relatively unchanged at 33 percent, a 2 percent increase over the intervening periodxxxvi. The industrial percentage was almost double the global average of 28 percent, which is especially telling given, as Navarro asserts, China’s spotty history with domestic labor relations. Quoting a New Jersey Congressman and the President of the AFL-CIO, respectively, Navarro puts forth, “[…in China,] [y]ou go to prison if you try to form a labor union… [further,] [t]hey don’t comply with their own child labor laws, prison labor laws, health and safety laws, [or] minimum wage laws”xxxvii.

Blanchard and Giavazzi further indicate that the high rate of savings witnessed over the intervening period is symptomatic of weakening safety nets, another term for social insurance (welfare, medical assistance, education, etc.) provided by the government. In the face of
weakening social protections, Chinese citizens are increasingly required to “self-insure”, or save a larger portion of their income in order to have greater reserves should the need arise to undertake a costly financial burden (which, given the health and environmental externalities present as a byproduct of the Chinese manufacturing process, is increasingly likely), or risk having no recourse in the event of a catastrophic event.xxxviii. This weakening of social protections for the neediest Chinese citizens, coupled with the growing income gap (when those most in need of social protections are most likely to be from rural regions and be comparatively unskilled) and the increasing pollution in many regions of China, the Chinese worker is facing pressures from numerous sides that make a healthy, productive, and fruitful life increasingly difficult to secure.

Keeping all of these social factors in mind, it is clear that China’s domestic situation tends to favor certain subsets of the population more than others. This, when taken alongside the current and accelerating imbalance of trade between China and its major trading partners, means that there is a greater economic support for the current state of domestic affairs than there would be absent the trade imbalance and economic policies supporting global export of domestic manufactures. In the Human Rights Watch 2013 World Report on China it is advanced, “Chinese people had no say in the selection of their new leaders, highlighting that despite the country’s three decades of rapid modernization, the government remains an authoritarian one-party system that places arbitrary curbs on freedom of expression, association, religion, prohibits independent labor unions and human rights organizations, and maintains party control over all judicial institutions. The government also censors the press, internet, and publishing industry”.xxxix.
The 2008 housing crisis that began in the United States and swept through the interconnected financial marketplaces of Europe, and the budget crises in Cyprus among others have provided clear examples: countries with economic problems such that the integrity of the country’s economic stability is at stake tend to face increasing civil unrest and massive political backlash. Even in China’s repressed political system, such effects could not be completely dampened. If the Chinese economic policies were not effective at providing competitive advantage to Chinese domestic firms, and thus large influxes of foreign wealth from the robust and counter-equilibrated export sector, it is not an unreasonable assertion to make that China’s economy could not have maintained its level of growth and continual increase of incomes, essentially its economic and governmental stability, through periods of global economic flux. The Asian financial and currency crisis of 1997-8, as Das indicates, allowed China to become “…the key to intra [Asian High Performing economies] exchange stability”, and as a result of China’s policy responses was a strengthening of the competitiveness of its exports moving forward\textsuperscript{10}. Absent stability and competitive advantage, it is apparent that civil unrest and a greater measure of domestic instability within the Chinese Communist Party. If such an economic situation existed, instead of the continually accelerating economic growth, much as was witnessed with the decline of the Union of Soviet Socialist Republics (USSR), the situation in China may very well have traveled further along the path of liberalization, both in trade and in domestic policy. In short, economic policies designed to give competitive advantage to China’s domestic firms and the export industry in particular provided domestic support and regime legitimacy to a government that had a dubious hold on the human rights of its citizens. The continued success of Chinese exports in the global marketplace can continue to placate citizens, essentially serving as a disincentive to demand rights that would increase long-run happiness and
quality of life, but provide short- to medium-run economic downfalls and civil unrest and uprisings that would undoubtedly affect the Chinese economy.

The conservative Heritage Foundation maintains an annual ranking of the countries of the world and their respective measure of economic freedom based on a 10-variable array. Of particular interest here is China’s ranking. Coming in at the 136th most economically free, China falls into the “Mostly Unfree” category. The Heritage Foundation’s assessment includes such factors as widespread corruption, relatively limited government spending and taxation (earning 83.3 and 70.2 out of 100, respectively), weak property rights, investment and financial freedom, and mediocre to middling business, labor, and monetary freedom.

The relationship between the Chinese government and its population is, as indicated herein, rocky at best. Little to no direct political involvement, coupled with a tenuous grasp on civil rights for the citizenry contribute to making China, as the Heritage Foundation indicates, relatively unfree. The trade surplus China enjoys with many of its major trading partners, and with the world on the whole, lends economic stability to a government that could otherwise have faced significant legitimacy challenges by its oppressed-by-any-other-name population. A downturn in China’s economic standing would likely negatively impact the incomes and quality of life of many Chinese, especially the rural poor and relatively unskilled laborers involved in the manufacturing process in the short run, but if the long run brings significant change in governmental policy with regards to the rights and quality of life of its citizens, it is likely the case that a decrease in China’s economic power in the global marketplace would have a long run increase in the quality of life of China’s 1 billion-plus population. Furthermore, a diversification in global manufactures sourcing (as would necessarily come from a change in China’s standing
in the international marketplace) could likewise result in increasing real-incomes for the working class in developing countries around the world. In this there is a fairly broad consensus: though the exact effects and particular methods by which the change would come vary, it is a fairly noncontroversial assertion, it seems, that a trade situation between China and its major trading partners that more closely resembled the theoretically-held equilibrated trade balance (neither a trade surplus nor a trade deficit) would benefit not only China (in the long-run, if not the short) but its major trading partners (especially the United States) and the working-class around the world that would be affected by a shifting equilibrium in manufacturing jobs.

In examining the noneconomic effects of China’s trade policies, often referred to as currency manipulation, or simply unfair trading practices, it is clear that, while the issue of whether China is engaging in currency manipulation is not empirically settled, the current state of China’s trade relationship with the rest of the world has measurable and significant non-market external effects, both domestically and internationally. China’s economic powerhouse status, newly minted and still developing, brings it into close trading relationships with major economies around the globe, and the trade surplus it runs further reinforces the lines of transmission through which economic actions by China have both economic and non-market effects elsewhere in the world, most noticeably in the social and environmental spheres. It is a basic economic proposition that production occurring in one place to satisfy demand is not simultaneously occurring elsewhere to satisfy the same demand. Thus, Chinese manufacturing precludes the notion of manufacturing conducted elsewhere to satisfy the demand already filled by the Chinese production. Changes in China’s competitiveness in the global marketplace can affect where manufacturing is conducted, and that can have secondary effects on the environment. Likewise, income earned or not, that is, whether or not income is flowing into
China from international sources in exchange for manufactures, similarly affects the Chinese government’s stability and ability to keep its populace under the thumb of domestic policies of questionable origin. It is for this reason that an examination of the effects of economic decision-making must go beyond the bottom-line and strictly economic impacts, and takes into consideration the full range of possible outcomes. Just as the price of coal is undervalued if environmental costs are not considered, so too is the effect of Chinese economic policy understated if the noneconomic effects of the policy decision made are not taken into consideration.

**Significance and Topics for Further Research**

The economic nexus between purely economic policies and outcomes and the effects of globally-felt social and environmental externalities of economic policy choices exists, but is a relatively sparse body of work compared to analyses of purely economic or purely noneconomic aspects of this issue. As such, the empirical nexus between the economic policies and the externalities associated thereto could use further testing and examination. In order to provide the best possible information for the policymakers that determine the economic policies of nations, a more thorough examination of the correlation and possible policy solutions to address externalities in government economic policies would be most useful.

Given that the more information available to decision-makers the better, and especially given that a re-evaluation of the price of different economic choices (energy sources, for example,) can serve to better inform economic policymaking, this body of work is especially significant as growing populations and ever-increasing consumptive demands will soon challenge the finite resources available to the point that the supply of natural resources cannot
keep up with the demand for consumption. Economic efficiencies are no longer just good
business, they are quickly becoming imperative to the continued economic health of the world’s
economies.

**Conclusion**

Economic policy, in the era of floating, non-commodity currencies, can have far-reaching
effects for the country setting policy, their trading partners, and the entire market itself.
Manipulating currency can result in artificially disequilibrated values, while differences in
regulations, taxes, subsidies, and fiscal and monetary policy can all affect a country’s domestic
firms’ competitiveness in the international marketplace.

Nowhere is this concept of far-reaching ramifications more prevalent than in the
economic situation of China and its relationship with the global marketplace. China is rapidly
becoming the world’s manufacturer, exporting vast amounts of goods to various countries
around the world, and running large trade surpluses in so doing. The Chinese relationship to
other major economies, including the United States, the United Kingdom, and Japan, is such that
each pairing’s economies are so intertwined that the valuation of China’s Yuan affects their trade
balance. As has been oft-asserted, China has had a long history of closely managing its
currency’s value on the international open marketplace, prompting allegations of outright
currency manipulation.

It is an empirically unsettled issue whether China is engaging in economic policies that
amount to currency manipulation, with passionate and logical arguments on both sides as to why
one viewpoint is correct over the other. However, what is not a matter of much contention is the
fact that, given China’s unprecedented level of GDP growth paired with its massive trade surplus, China’s economic policies, manipulative or not, have far-reaching implications for the economies of the world. What has been a matter of significantly lesser study is the noneconomic aspects of China’s presence in the international marketplace.

China’s environmental issues, and their transmission to the rest of the world, are quickly becoming an issue of great concern, as risk of widespread public health and environmental damage, not just within China’s manufacturing districts, but for thousands of kilometers in any direction, continues to increase with China’s growing use of coal to fuel its manufacturing industry.

The other aspect of major concern is China’s social policies, and how they are influenced by and in turn influence the international community. China’s economic standing as a world-class trading partner serves to shore up a government that has a dubious history with the rights of its people, and prevents the distribution of global demand for manufactured goods among countries that, with the ability to supply goods to meet that demand, could make greater gains in the civil and human rights of its people as well.

In sum, the purely economic analyses of Chinese trade policies is important for policy-making in the international marketplace, but misleading. The purely economic cost understates the true cost of all factors involved. Including the social and environmental consequences of economic policies as they contribute to the total cost of involvement in international trade is the only way to truly understand the effects of economic policies. This enhanced analysis is particularly useful in the case of China and its relationship to its major trading partners, and is especially important to a full understanding of this politically contentious issue.


Ibid.


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