

ECONOMIC STRUCTURE, COST OUTSOURCING AND GLOBAL IMBALANCES

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The past few decades have witnessed remarkable rates of technological progress and output growth in many countries affected by economic globalization. However, the recent spectacular expansion of trade has been accompanied by financial crises that have occurred in both developing and developed countries since the 1980s. The most recent crisis exposed the severities and consequences of accumulated global imbalances (Leblang and Pandya 2007; Nesvetailova and Palan 2010; Vermeiren 2013). The world economy has experienced not only actual imbalances in savings/investment and current-account positions—as reflected in net capital flows—but also financial imbalances, large asset bubbles, and rampant speculative activities across borders, occurring without regard for economic fundamentals (Gu and Sheng 2010).

The present crisis in the developed world may presage a new era that will be less hospitable to growth in developing countries for two reasons: First, global macro-stability will be impeded unless current-account surpluses or deficits are prevented from expanding further. Second, the high rates of growth in developing countries resulting from the expansion of manufacturing exports may no longer be driven by a willingness among key developed countries to run large trade deficits.

This article focuses on the U.S. and China as two of the main sources of global imbalances. They are the world's largest developed and developing economies, respectively, and the most representative cases of deficit and surplus countries, respectively. Because of their large sizes and worldwide influence, a comparison of the two economies epitomizes international economic issues. The salient economic feature of China and the U.S. is that both countries have had growing income inequality, but these trends in the two countries have different links with their respective

savings rates. Those different links have generated differing economic outcomes, the U.S. experiencing large current account deficits and macroeconomic volatility, while China has maintained current account surpluses with no sizeable financial fragility, although its workers suffer from much lower real wages than their U.S. counterparts in spite of their rapidly rising productivity.

Unfortunately, most debates regarding the US-China relationship have focused on currency issues (Sheng 2012a). Political economic analysis needs to shift the focus to how global imbalances are engendered by differing structures of production that, in turn, have a certain relationship to different patterns of growth across countries. China and other surplus countries cannot indefinitely rely on foreign overconsumption to maintain the expansion of their exports—and output growth—and the deficit countries are also experiencing problems because their trade and current account deficits are attributed to an over-reliance on foreign borrowing to sustain consumption and growth. The implications of the unbalanced production structures between services and manufacturing in these deficit countries with respect to global trade imbalances have received insufficient attention in recent debates.

Particular attention is paid in this analysis to two political economic aspects. One is *industry structure*. Consumption-driven growth in already developed economies is closely related to the expansion of their service sectors, whereas trade-led growth in developing economies largely depends on the overexpansion of their manufacturing sectors.

The other focal point is *offshore outsourcing*. Outsourcing is a practice used by companies to reduce costs by transferring portions of work to outside suppliers. Cost outsourcing is an effective cost-saving strategy because it is sometimes more affordable to purchase a good or service, according to comparative advantages, than it is to produce it internally. Offshore outsourcing—which prevails in the informational technology sector—can be contrasted with offshoring in which the functions are performed in a foreign country by a foreign subsidiary (Sheng 2013). Offshoring to lower-cost countries is motivated by a desire for higher profits, but this practice has adverse effects on domestic employment and income equality. Hosting cost outsourcing may also entail certain costs while providing some benefits for growth. The increasing trade and currency conflicts between surplus and deficit countries and the social unrest prompted by the crises currently afflicting advanced countries

mirror the serious global imbalances resulting from globalization. In this study, we are interested in whether different state policies with respect to offshoring have any implications for global imbalances when this activity affects growth performance among participating countries.

This article discusses the nature of current international imbalance. It also develops a new theoretical framework that shows the connections between economic structures and growth patterns and the type of imbalances that prevail in a particular economy. This theoretical framework is based on the aggregate analysis of an extended post-Keynesian model. Our extension of the analysis emphasizes the sharp differences in the effects of inequality on savings between surplus and deficit countries in relation to their economic structures and growth patterns. The rest of the article is structured as follows: the next section discusses the connection between economic structures and growth patterns in the light of a possible link between inequality and saving; the following section studies the implications of the market versus control mechanisms for offshore outsourcing; and the concluding section indicates the implications for economic policy.

Economic Structure and Growth Patterns

We first provide a brief survey of the links between savings and inequality regarding trade imbalances, current account imbalances, soft budget constraints, and asset bubbles. Based on these links, we then focus on the evolution of connections between economic structures and growth patterns. Studies on these topics are largely developed independently and separately, but we try to organize them in the following logical order in the context of the ongoing global financial crisis:

- Persistent trade imbalances that depend on large differences in savings between Asia and the West have triggered protectionism and exchange rate conflicts. Whereas trade imbalances are partly attributed to currency misalignment, differences in productivity and savings are considered the root causes of the problem (Sheng 2012b).
- Rising inequality demands government interventions, but such interventions do not tackle the sources of such problems and

only delay the consequences. Soft budget constraints, easy monetary policies and low interest rates are adopted to facilitate aggressive financialization, creating asset bubbles, encouraging speculative trading, and leading savers to increasingly prefer financial over real assets (Luik and Wesselbaum 2014).

- Economic growth is consequently driven by credit-based consumption rather than producible capital accumulation, which places pressure on current accounts and leads to financial crisis. Credit consumption based on asset bubbles leads to a high and rising ratio of debt to income, a sharp decline in aggregate savings, and financial fragility (Luik and Wesselbaum 2014).
- Rising current account deficits are increasingly financed through foreign savings by promoting capital mobility. In effect, capital mobility serves as a tool for financing to channel savings for foreign credit consumption. With global underinvestment, savings outflows help further lower interest rates globally and fuel financial bubble speculation (Sheng 2014a, b).

The following analysis of economic structures aims to contribute alternative perspectives on the issue by addressing the implications for global imbalances. First, the service sector cannot completely replace the role of manufacturing in the balance of payments (BoP) because many types of services are simply not tradable internationally. Manufacturing goods are required for consumption, and the share of domestic expenditures on various goods has been comparatively stable over recent decades. Consequently, those countries, such as the U.S. and UK, which have long been successful in exporting tradable services with large surpluses, rely more on imports to satisfy their demand for goods when the proportion of their services grows in their aggregate output. Other developed countries, such as Japan and Germany, have maintained their role as major suppliers of investment goods, largely satisfying other developed service economies' need for manufacturing products. Countries that are no longer industrial economies suffer from prolonged or rising trade deficits with numerous manufacturing nations, including China. This deindustrialization partly accounts for the existence of growth gaps between industrial and service economies and places additional constraints on macroeconomic policies in service economies.

Second, many service firms do not create real value but share in the income from their customers by providing services for manufacturing

activities. For example, when the financial service sector represents a greater proportion of an economy, this implies a reduced ability to produce real value and increased reliance on foreign capital market openness to engage in income sharing with respect to exported financial services. This implication explains why the U.S. and the U.K. are so eager to encourage financial openness and international integration. In the U.S., the financial sector's share of total corporate profits has doubled over the last 20 years, reaching as high as 44% to 48% in some years prior to the present crisis; the U.S. financial sector operates not only within the U.S. but also in many foreign markets (Sheng 2010). This heavy reliance on financial services and foreign markets led to the weak recovery from the present economic slump in the U.S. and makes the country vulnerable to foreign capital controls (Sheng 2011).

Third, the rapid development of financial and advertising services is partly responsible for under-saving or over-consumption and therefore for low investment and slow growth in advanced economies.

A theoretical model can elucidate the implications of excessive consumption and an over-expanded service sector for global imbalances under the assumption of easy credit and cheap borrowing. Consumers are divided into two groups in our model. One group is thrifty, with consumption expenditures (C_N) held below income (Y_N), where the subscript N indicates no borrowing for consumption. The other group is profligate, with consumption (C_B) financed by debt and unconstrained by income (Y_B), where the subscript B indicates borrowing for consumption. The propensity for consumption out of income for group k is denoted by $c_k = C_k/Y$, where $k = \{N, B\}$. Let C and Y be aggregate consumption and income, respectively. Thus, $C = C_N + C_B$ and $Y = Y_N + Y_B$. Two points merit attention, based on facts observed in the U.S. First, $c_N < c_B$, meaning that an individual from group B has a higher consumption propensity than an individual from group N because of their differing inter-temporal preferences. Second, there is an increase in Y_B/Y , which is treated as a proxy for the share of people in the population who borrow for consumption. A higher c_B results from financial and advertising innovation that makes group B individuals choose to consume more. In fact, more effective promotions of those services in the U.S. led more consumers to begin borrowing or increase their borrowing. Simple math yields the following:

$$C/Y = c_N + (c_B - c_N) Y_B/Y. \quad (1)$$

Note that GDP growth directly relates to the consumption rate, C/Y . Consumption contributes more to growth as C/Y in Equation (1) increases. The ratio Y_B/Y rises as the disparity in consumption propensity $c_B - c_N (> 0)$ increases with better developed credit and marketing services. This model is applicable not only to the U.S. but also to other OECD countries. It indicates that their higher consumption ratios reflect the role of financial and marketing services in stimulating consumption.

State Intervention and Offshore Outsourcing

A different model can be used to illustrate the importance of public investment (or savings) to output growth. Consider the ratio of total investment (I) to aggregate income (Y). Investment is specified as $I = I_L + I_V + I_e$, where I_L , I_V , and I_e refer to public, private, and external investments, respectively. Income is measured as GDP: $Y = Y_L + Y_V$, where Y_L denotes public revenue and Y_V represents private income. Let $b_k = I_k/Y_k$ denote the investment rate in sector $k = \{L, V\}$. Y_L/Y is a proxy for the state sector's financial ability to intervene in economic growth. By definition $I_e = I_e(Y_L/Y)$. The following algebraic form is derived:

$$I/Y = b_V + (b_L - b_V) Y_L/Y + I_e/Y \quad (2)$$

This relationship indicates that I/Y depends positively on Y_L/Y if $b_L > b_V$. Output growth hinges on the investment rate, I/Y . One form of intervention is characterized by the government's intention to capture a particular share of national income and by its willingness and ability to save and invest in complementary projects to encourage growth. Thus, Equation (2) suggests that growth is positively related to intervention or to the public share in aggregate income when the propensity for investment or savings is higher in the public sector than in the private sector. Otherwise, growth is negatively linked to intervention or to the public income share when I_e is small.

It is widely recognized that U.S. deindustrialization has been largely caused by increases in manufacturing productivity; and that the flight of industries to countries with cheap labor costs is less important quantitatively in job losses. The service sector has grown because of the new forms of industrial organization that foster the breakup of manufacturing by externalizing processes and functions. However, externalization has been increasingly undertaken abroad, which has

moved phases of the production process and jobs offshore. In fact, although the growing weight of China in U.S. foreign trade can at least partially explain U.S. deindustrialization, U.S. internal factors play a larger role in deindustrialization (McKinnon 2013). Offshoring may not be responsible for deindustrialization and unemployment, but obvious links between them remain that are worthy of investigation. Although offshoring provides benefits for the nation as a whole, it also typically creates winners and losers, causing some people to inevitably face dislocation. Economists usually call for policy responses to help affected workers rather than give up gains from trade by resorting to protectionism against offshoring. In fact, President Obama has taken steps to revitalize manufacturing and to use it as a platform for creating better paying jobs: manufacturing innovation institutes will be created, tax rates for manufacturers will be lowered, partnerships between communities and manufacturing companies will be promoted, and new markets will be opened for goods made in the U.S. It is estimated that between 10% and 30% of what the U.S. currently imports from China could be produced domestically pursuant to Obama's program (Kudina and Pitelis, in press).

Offshore outsourcing has experienced spectacular double-digit growth because of large differences between investing and host countries in terms of both the degrees of intervention and wage levels. This economic practice relocates labor-intensive manufacturing or service functions to cheap-labor jurisdictions that are remote from business centers in high-wage countries. This practice was enabled by technological advancements in telecommunications and computerization that were achieved at low cost and with little loss of quality in information transmission. Offshore outsourcing has also been facilitated by both limited government intervention in business offshoring in investing countries and strong state support for offshored businesses in host countries. Manufacturing is often offshored to China, while business services are offshored to India. U.S. firms dominate the global share of offshoring at approximately 70%, while Europe and Japan account for the remainder of the total market (Jensen and Pedersen 2011). The U.S. and the U.K. have liberal employment and labor laws that permit firms to flexibly reassign tasks, eliminate jobs, and move abroad. China and other host countries have offered various forms of favoritism for inbound foreign direct investment (FDI) in terms of low or no taxation and inexpensive or free land leases, in addition to cheap labor with little or no

union protection. All these factors have been essential to the widespread expansion of profitable offshoring and to economic growth on both sides of the offshoring process.

In terms of net balance, the benefits of offshore outsourcing exceed its costs for both sides. Offshoring would not have occurred at all if only one side had reaped a net benefit while the other had incurred a net cost. Consider a benefit-cost analysis for investing countries. These countries capture economic value through several channels, including: 1) reduced costs for investors by employing cheap foreign labor with equivalent skills; 2) new revenue for output growth from increased exports to host countries; 3) cost savings for consumers as a result of low-priced, acceptable-quality imports from host countries; 4) repatriated earnings for national savings from business operations abroad; 5) redeployed labor for other jobs with higher value added after that labor has been freed from offshored tasks; and 6) other benefits, including focusing on core businesses, gaining access to foreign specialized services, increasing market penetration via faster deliveries to customers, maintaining the global competitiveness of companies via low costs, and investing in innovations and new business ventures. By contrast, the cost of offshoring is a massive loss of jobs to foreigners, displacing a vast number of unskilled workers.

The literature on offshoring as a new form of international trade has generally been positive, similar to more familiar and traditional forms of trade. However, research has lagged behind popular interest in offshoring businesses. A theoretical model can help to identify explanations for offshoring. It represents the rate of return (π) to aggregate investment (I) for a country as determined by the return (π_o) on its offshoring investment (I_o) and the return (π_d) on its domestic investment (I_d), where $\pi = \pi_o + \pi_d$ and $I = I_o + I_d$. The rate of return on each investment component is denoted $r_k = \pi_k / I_k$ for $k = \{o, d\}$, and the extent of offshoring can be measured by the share of outbound capital I_o/I in total investible funds. Thus, the total return for the country engaging in offshoring is derived as follows:

$$\pi/I = r_d + (r_o - r_d) I_o/I \quad (3)$$

This indicates that the total rate of return (π/I) increases with more offshoring (I_o/I) when the rate of return is higher for investments in offshore operations than in domestic production, $r_o > r_d$. The U.S.

experience with outsourcing can be explained by this simple yet illuminating formulation.

A broader political economic assessment requires consideration of both efficiency and equity, although studies with that focus are rare. Recent political controversy in the U.S. has generated substantial heat but shed little light. Although beneficial for private profitability and economic growth, offshoring obviously has an adverse effect on those low-skilled workers who are displaced. Thus, outsourcing benefits capitalists directly but at the expense of labourers who lose their jobs to foreigners; and it contributes to increased income inequality in the U.S.

Many people in developed countries believe that the developing countries consistently gain from offshoring in all respects because they are the destination of the outsourced activities. However, this belief may not be valid upon closer examination of what has occurred in those host economies. Although they certainly receive some benefits from hosting offshored activities, they also incur costs, some of which can be prohibitively high by Western standards. It is estimated that India captures \$0.33 for every \$1.00 of U.S. service business offshored (Mudambi and Venzin 2010). China's processing exports rose rapidly from 35% of manufacturing exports in 1988 to 67% in 2003, but this economic achievement has been accompanied by substantial (social and ecological) costs that are frequently overlooked. The most prominent of these costs include resource depletion, environmental degradation, low wages, and rising inequality. The severity of China's pollution is well known, but the extent of its wage-related inequality is not common knowledge. Wages for Chinese factory workers are only 5.9% of those in the U.S., while in India wages for software developers and data entry agents are only 10% of those in the U.S. (Mudambi and Venzin 2010).

It may be inferred that manufacturing industries, with high productivity and low wages, have underpriced products, whereas services, with low productivity and high wages, are over-priced. There large wage differentials between investing and host countries do not reflect differences in productivity levels. China's workers capture only \$2 out of each \$120 pair of sports shoes that are exported to the U.S. and \$4 from making the iPhones which sells for \$260 in the U.S., whereas the lion's share of offshoring income goes to the U.S. (Yang, Chen and Monarch 2010). Moreover, only the Chinese elite have benefited from manufacturing exports by holding real wages for labor fixed for a long

period as a result of the essentially unlimited labor supply. Low wages have led to a rise in inequality, higher savings by the wealthy and therefore a surge in the current-account surplus. This cheap labor advantage has been reinforced by state industrial policies, which are an important component of China's growth strategies. Moreover, U.S. firms attempt to remain at the high end of the value chain by focusing on business services, which has resulted in the contraction of industry and a reliance on imports for basic consumption goods. Stringent government restrictions on exports of high-tech commodities worsen the U.S. current-account deficit. Furthermore, U.S. restrictions on foreign purchases of certain real assets damage its image as a free economy that relies on openness for its continued growth.

Conclusions: Policies and Prospects

Economic growth has a strong bearing on trade balance, which, in turn, relates to aggregate savings. Recent trade imbalances have been rooted in savings disparities between some OECD and East Asian countries and, particularly, between China and the U.S. These savings disparities are, in turn, attributable to inequalities between the two country groups. Inequality differences may hinge on different wage levels or differing labor income shares of GDP. Financial losses from capital outflows in international markets are the price paid for global imbalances when relatively poor countries with surplus savings lend to relatively rich countries with savings deficiencies. However, large benefits would arise if the savings and inequality problems could be solved in surplus countries.

Growth that is based on trade and investment by emerging economies, such as China, cannot be sustained indefinitely for two reasons. First, foreign demand is not unlimited and will decline in advanced countries that are constrained by debt burdens. Second, trade frictions and currency wars will intensify as a result of the prolonged existence of large imbalances. As severe inequality leads to high levels of savings that force China to rely on investment and exportation for growth, its inequality must be addressed to reduce savings and to embark on consumption-led growth. Nor can consumption that is financed by foreign borrowing continue indefinitely in deficit countries, such as the U.S. America's growth will have to change by reviving certain

industries that have higher productivity than is currently found in its many types of service industries. Rebuilding manufacturing in the U.S. could effectively reduce the country's demand for imported goods while mitigating inequality by retaining jobs inside the country for its vast number of low-skilled laborers. Service industries, on the other hand, have limited potential to generate export receipts to reduce the trade deficit. Although an advanced financial sector can channel foreign savings for domestic use, the services provided by such an advanced financial sector need to be regulated to boost domestic savings and to play a positive role in the future growth of the economy.

The U.S. and China are essentially mixed economies, as are all modern economies. The recent spectacular growth in their trade is spurred by massive offshoring activities, which are in turn attributable to China's strong state support for FDI and the U.S.'s liberal labor policy allowing for outsourcing. There are both benefits and costs for each side in the offshoring process. Whereas job losses generate significant controversy over offshoring on one side, low wages have serious consequences on the other side. Low wages in China lead to low levels of consumption, limited demand for imports, and a large trade surplus. Strict U.S. regulations on exports of high-tech commodities and on the foreign acquisition of real investible assets prolong its trade deficit and discourage foreign investment, both of which are harmful to growth. The trade deficit problem is also related to financial deregulation and thus to over-developed credit services that are partly responsible for high consumption and/or low savings. Although the current debt crises in advanced countries occurred largely as a result of worsening global imbalances, China has announced its intention to import \$8 trillion from various countries over the next five years. One can hardly treat such government intervention as inefficient or harmful to the world economy.

To prevent global imbalances from deteriorating, several policy reforms might be considered. First, in surplus countries, including China, state-owned enterprises have captured too much of the national income and have been reluctant to provide adequate social security for the general public. Such distortion in income distribution needs to be reduced by allocating more wealth to the vast number of poor people for consumption use. Raising wages for the working class will substantially decrease income inequality and social unrest, and the resulting higher rates of consumption will directly increase the public's living standards while boosting imports. Furthermore, providing adequate social security

for ordinary people will greatly alleviate the pressures faced in terms of involuntary savings for precautionary purposes, and lowered savings will effectively reduce trade surpluses and mitigate financial losses as a result of less lending to foreign economies. Economic growth could then continue in a sustainable way. Second, in deficit countries, such as the U.S., an *ex ante* redistribution policy to reduce inequality, indebtedness, and crisis-risk can be more desirable than *ex post* policies involving direct bailouts or debt restructurings. Third, it is unwise for China to abruptly transition to a market-based financial system with a poor legal infrastructure or to open its immature capital markets when seeking exchange rate stability. Fourth, financial regulation should be tightened in the U.S. to discourage the financial sector from engaging in behaviors that lead to asset bubbles.

These policies for greater stability, equality and growth would be markedly different from the unfortunate policies that distorted national savings and consumption patterns, causing severe imbalances and financial crisis, as described by Pettis (2013). Policies to lower the minimum wage or to offer cheap loans to businesses to boost manufacturing essentially shift resources from households to producers, thereby decreasing consumption, inflating domestic savings, and boosting capital outflows.

In an interconnected global system, one country's trade surplus must show up somewhere else as a deficit; the same is true for capital flows. Lin, Dinh and Im (2010) find reserve accumulation of China and other large surplus countries contributed to an unsustainable level of liquidity in the U.S. economy which fueled the housing boom, whose collapse in 2007 triggered the global financial crisis. The coordinated efforts of the G20 countries helped avoid the worst possible scenario, but more coordinated global governance of markets, focusing on monitoring and regulating global capital flows, is recommended to combat global imbalances. Far from doing the U.S. a favor by being its creditor, China depends on this policy to maintain its export businesses and therefore its high rate of employment. In fact, this relationship is a necessary outcome of China's tight controls on the flow of capital in and out of the country.

The U.S. consumption binge, surging debt in Europe, China's investment orgy, Japan's long stagnation, and the commodity boom in Latin America are all events that are inextricably bound to one another (Pettis 2013). It is thus impossible to resolve any issue without forcing a

resolution for all because independent national policies vanish in the face of globalization. Reducing global imbalances can only be achieved when concerted actions can be taken as the result of effective international coordination. This requires deleveraging in the US, China to relinquish its three main economic policies (keeping its currency undervalued, preventing wages from growing, and maintaining financial repression), and Germany, Japan and other East Asian nations to reverse their strategy of wage suppression and export promotion.

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