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The GDP Illusion. Value Added versus Value Capture

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Introduction

The "GDP Illusion" is a fault in perception caused by defects in the construction and interpretation of standard economic data. Its main symptom is a systematic underestimation of the real contribution of low-wage workers in the global South to global wealth, and a corresponding exaggerated measure of the domestic product of the United States and other imperialist countries. These defects and distorted perceptions spring from the neoclassical concepts of price, value, and value added which inform how GDP, trade, and productivity statistics are devised and comprehended. The result is that supposedly objective and untarnished raw data on GDP, productivity, and trade are anything but; and standard interpretations conceal at least as much as they reveal about the sources of value and profit in the global economy.

Three archetypical examples of the "global commodity"—the iPhone, the T-shirt, and the cup of coffee—validate and illustrate this argument; their diversity serves to highlight what is universal to them and to all other products of globalized production processes. All data and experience, *except for economic data*, points to a significant contribution to the profits of Apple Inc. and other western firms by the workers who work long, hard, and for low wages to produce their commodities. Yet economic data show no sign of any such contribution; instead, the bulk of the value realized in the sale of these commodities, and all of the profits reaped by Apple and Starbucks from them, appear to originate in the country where they are consumed. These three global commodities are in turn representative of broader transformations in capitalist production.

Economic statistics and their standard interpretation also obscure the relation of exploitation in the relations between northern firms and southern producers. This relation of exploitation does not disappear entirely but remains partially visible in the paradoxes and anomalies which infest standard accounts of global political economy. These paradoxes and anomalies are like blemishes in a distorting lens that alert observers to its existence, making it necessary to identify and characterize this distortion so that the world can be seen as it is. This distortion is the misrepresentation of *value captured* as *value added*.

Part One: What Contribution Do Foxconn Workers Make to Apple's and Dell's Profits?

What contribution do the 300,000 workers employed by Foxconn International in Shenzhen, China who assemble Dell's laptops and Apple's iPhones—and the tens of millions of other workers in low-wage countries around the world who produce cheap intermediate inputs and consumer goods for western markets—make to the profits of Dell, Apple, and other leading western firms? Or to the income and profits of the service companies that provide their premises and retail their goods? According to GDP, trade and financial flow statistics, and mainstream economic theory, *none whatsoever*. Apple does not own the Chinese, Malaysian, and other production facilities that manufacture and assemble its products. In contrast to the in-house, foreign direct-investment relationship that used to typify transnational corporations, no annual flow of repatriated profits is generated by Apple's "arm's length" suppliers. Standard interpretation of economic statistics, all of which record the results of transactions in the market place, assumes that the slice of the iPhone's final selling price captured by each U.S. or Chinese firm is identical to the value added each supposedly contributed. They reveal no sign of any cross-border profit flows or value transfers affecting the distribution of profits to Apple and its various suppliers. The only part of Apple's profits that appear to originate in China are those resulting from the sale of its products in that

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country. According to the standard interpretation of economic data, as Marx said, the value of commodities "seem not just to be realised only in circulation but actually to arise from it."[1] And so the flow of wealth from Chinese and other low-wage workers sustaining the profits and prosperity of northern firms and nations is rendered invisible in economic data and in the brains of the economists.

Apple's products, and those of Dell, Motorola, and other U.S., European, South Korean, and Japanese companies, are assembled by Foxconn, the major subsidiary of Taiwan-based Hon Hai Precision Industries. Foxconn's one million employees assemble "an estimated 40 percent of the world's consumer electronics," according to the *New York Times*.[2] Its complex of fourteen factories at Shenzhen in southern China has become world famous both for its sheer size and for a spate of suicides amongst its workers in 2010. Foxconn's Shenzhen workforce peaked that year at around 430,000 workers and is currently being scaled back in favor of plants elsewhere in China. In January 2012 Hon Hai chairman Terry Gou provoked a firestorm with his remark, during a visit to the Taipei Zoo, that "as human beings are also animals, to manage one million animals gives me a headache," followed by a request to the zookeeper for advice on how to manage his "animals." *Want China Times* commented, "Gou's words could have been chosen more carefully…working and living conditions [in Foxconn's huge Chinese plants] are such that many of its Chinese employees might well agree that they are treated like animals."[3]

iPods and iPhones

The Apple iPhone and related products are prototypical "global commodities," the result of the choreography of an immense diversity of concrete labors of workers on every continent. Contained within each handheld device are the social relations of contemporary global capitalism. Examination of who makes these products and who profits from them reveals many things. The most striking and significant of these is the huge scale of the shift of production processes to low-wage nations, and, corresponding to this, the greatly increased dependence of firms and governments in North America, Europe, and Japan on super-profits obtained from the living labor of these countries.

Research on the Apple iPod, published in 2007 by Greg Linden, Jason Dedrick, and Kenneth Kraemer, is particularly valuable because it reveals two things absent from many more recent iPhone studies: (1) their study quantifies the living labor directly involved in the iPod's design, production, transportation, and sale; and it also reports (2) the vastly different wages received by these diverse groups of workers.[4]

In 2006, the 30Gb Apple iPod retailed at $299, while the total cost of production, performed entirely overseas, was $144.40, giving a gross profit margin of 52 percent. What Linden, Dedrick, and Kraemer call "gross profits," the other $154.60, is divided between Apple, its retailers and distributors, and—through taxes on sales, profits, and wages—the government. All of this, 52 percent of the final sale price, is counted as supposed value added generated within the United States and contributes towards U.S. GDP. They also found that "the iPod and its components accounted for about 41,000 jobs worldwide in 2006, of which about 27,000 were outside the United States and 14,000 in the United States. The offshore jobs are mostly in low-wage manufacturing, while the jobs in the United States are more evenly divided between high wage engineers and managers and lower wage retail and non-professional workers."[5]

Just thirty of the 13,920 U.S. workers were production workers (receiving on average $47,640 per annum); 7,789 were "retail and other non-professional" workers (whose average wages are $25,580 per annum); and 6,101 were "professional" workers, i.e., managers and engineers involved in research and development. This latter category captured more than two-thirds of the total U.S. wage bill, receiving on average $85,000 per annum. Meanwhile, 12,250 Chinese production workers received $1,540 per annum, or $30 per week—just 6 percent of the average wages of U.S. workers in retail, 3.2 percent of the wages of U.S. production workers, and 1.8 percent of the salaries of U.S. professional workers.[6] The number of workers employed in iPod-related activities was similar in the United States and China, yet the total U.S. wage bill was $719 million and the total Chinese wage bill was $19 million.

A study published by the Asian Development Bank (ADB) in 2010 reported on Apple's latest product, revealing an even more spectacular mark up. "iPhones were introduced to the U.S. market in

2007 to large fanfare, selling an estimated 3 million units in the United States in 2007, 5.3 million in 2008, and 11.3 million in 2009." The total manufacturing cost of each iPhone was $178.96 and sold for $500, yielding a gross profit of 64 percent to be shared between entities such as Apple, its distributors, and the U.S. government, all of which appears as "value added" generated within the United States. The main focus of this report was the effect of iPhone production on the United States-China trade deficit, finding that "most of the export value and the deficit due to the iPhone are attributed to imported parts and components from third countries." However, Chinese workers "contribute only us$6.50 to each iPhone, about 3.6% of the total manufacturing cost."**7** Thus more than 96 percent of the export value of the iPhone is composed of re-exported components manufactured in third countries, all counting as Chinese exports to the United States, while none of it towards China's GDP. The authors do not investigate in detail how these gross profits are shared between Apple, suppliers of services, and the U.S. government, but they can hardly avoid commenting on their spectacular size, noting that if "the market were fiercely competitive, the expected profit margin would be much lower…. Surging sales and the high profit margin suggest that…Apple maintains a relative monopoly position…. It is the profit maximization behavior of Apple rather than competition that pushes Apple to have all iPhones assembled in the PRC."**8**

This leads the ADB researchers to imagine a scenario in which Apple moved iPhones assembly to the United States. They assume U.S. wages to be ten times higher than in China and that these hypothetical U.S. assembly workers would work as intensely as the real ones do at Foxconn, calculate that "if iPhones were assembled in the United States the total assembly cost would rise to us$65 [from $6.50 in China, and] would still leave a 50% profit margin for Apple,"**9** and finish by appealing to Apple to show some "corporate social responsibility" by giving up "a small portion of profits and sharing them with low skilled US workers."**10** They might just as well suggest Apple give a much-needed boost to demand in the Chinese economy by sharing its $110 billion cash pile among Foxconn's workers.

Apple's iPhone exhibits general trends and fundamental relationships, but in an exaggerated and extreme form. Hon Hai made $2.4 billion in profits in 2010, or $2,400 per employee, compared to $263,000 in profits reaped by Apple for each of its 63,000 employees (43,000 of whom are in the United States); this figure is expected to rise to $405,000 in 2012. On March 11, 2011, Hon Hai's share price valued the company at $36.9 billion; meanwhile Apple, with not a factory to its name, was valued at $324.3 billion.**11** Apple's share price has soared in the year since, its market capitalization almost doubling to around $600 billion, overtaking Exxon to become the world's most valuable company. Further boosting its share price, it has accumulated a huge $110 billion cash stockpile that it has no productive use for.

Meanwhile, in what one study called a "paradox of assembler misery and brand wealth,"Hon Hai's profits and share price have been caught in the pincers of rising Chinese wages, conceded in the face of mounting worker militancy, and increasingly onerous contractual requirements, as the growing sophistication of Apple's (and other firms') products increase the time required for assembly.**12** While Apple's share price has risen more than tenfold since 2005, between October 2006 and January 2011 Hon Hai's share price slumped by nearly 80 percent. The *Financial Times* reported in August 2011 that "costs per employee [are] up by exactly one-third, year-on-year, to just under us$2,900. The total staff bill was $272m: almost double gross profit…rising wages on the mainland helped to drive the consolidated operating margin of the world's largest contract manufacturer of electronic devices…from 4–5% 10 years ago to a 1–2% range now."**13**

Seeking cheaper labor and to reduce dependence on the increasingly restive Shenzhen workforce, *Financial Times* columnist Robin Kwong reports that Hon Hai "has invested heavily in shifting production from China's coastal areas to further inland and is in the process of increasing automation at its factories. As a result, Hon Hai last year saw its already thin margins shrink even further."**14** The combination of sharply rising wages, heavy capital spending, and relentless cost-cutting by companies like Apple is bad enough, but worst of all is the chronic sickness which Hon Hai's and China's principal export markets have fallen into. Kwong concludes, "it is not hard to see why the last thing Gou needs now, after building all those inland factories, is a slowdown in demand."**15**

The T-Shirt

The iPhone's dazzling sophistication and iconic brand status can too easily blind the observer to the exploitative and imperialist character of the social and economic relations it embodies. Nevertheless, the same fundamental relationships can be seen across the entire range of consumer goods. Take, for example, the humble T-shirt. Tony Norfield, in "What the 'China Price' Really Means," tells the story of a T-shirt made in Bangladesh and sold in Germany for €4.95 by the Swedish retailer Hennes & Mauritz (H&M). H&M pays the Bangladeshi manufacturer €1.35 for each T-shirt, 28 percent of the final sale price, forty euro cents of which covers the cost of 400 grams of cotton raw material imported from the United States; shipping to Hamburg adds another six cents per shirt. The remaining €3.54 counts towards the GDP of Germany, the country where the T-shirt is consumed, and is broken down as follows: €2.05 provides for the costs and profits of German transporters, wholesalers, retailers, and advertisers (some of which will revert to the state through various taxes); H&M makes sixty cents profit per shirt; the German state captures seventy-nine cents of the sale price through VAT at 19 percent; and sixteen cents covers "other items."**16**

Thus, in Norfield's words, "a large chunk of the revenue from the selling price goes to the state in taxes and to a wide range of workers, executives, landlords and businesses in Germany. The cheap T-shirts, and a wide range of other imported goods, are both affordable for consumers and an important source of income for the state and for all the people in the richer countries."

The Bangladeshi factory makes 125,000 shirts per day, of which half are sold to H&M, and the rest to other western retailers. Workers at the factory, 85 percent of whom are women, earn just €1.36 per day for a 10–12 hour shift. The machine each worker runs produces 250 T-shirts per hour, or eighteen T-shirts for each euro cent of the workers' wages. The factory is one of 4,500 garment factories in Bangladesh employing more than 3.5 million people. Their low wages partly explain, according to Norfield:

why the richer countries can have lots of shop assistants, delivery drivers, managers and administrators, accountants, advertising executives, a wide range of welfare payments and much else besides. The wage rates in Bangladesh are particularly low, but even the multiples of these seen in other poor countries point to the same conclusion: oppression of workers in the poorer countries is a direct economic benefit for the mass of people in the richer countries.**17**

The Cup of Coffee

Our picture is completed by the addition of a third iconic global commodity—the cup of coffee. Perhaps you have one clasped in one hand as you read this—don't spill any on your T-shirt or smart phone! Coffee is remarkable in that, alone of major internationally traded agricultural commodities, none of it, apart from small quantities grown in Hawaii, is grown in imperialist countries, and for this reason it has not been subject to trade-distorting agricultural subsidies such as those affecting cotton and sugar. Yet the world's coffee farmers have fared as bad, if not worse, than other primary commodity producers. Most of the world's coffee is grown on small family farms, providing employment worldwide to 25 million coffee-farmers and their families, while two U.S. and two European firms (Sara Lee, Kraft, Nestlé, and Procter & Gamble) dominate the global coffee trade. Those who cultivate and harvest the coffee receive less than 2 percent of its final retail price.**18** In 2009, according to the International Coffee Organization, the roasting, marketing, and sale of coffee added $31 billion to the GDP of the nine most important coffee-importing nations—more than twice the total export earnings that year of all coffee-producing nations.

In common with other global commodities, the portion of the price of a cup of coffee that is counted as value added within the coffee-drinking countries has steadily risen over time—in the United Kingdom, to take the most spectacular example, between 1975 and 1989 coffee's import price averaged 43 percent of the retail price; between 2000 and 2009 the average was just 14 percent.**19**

Just as, according to the economists and accountants, not one cent of Apple's profits come from Chinese workers, and just as H&M's bottom line owes nothing to superexploited Bangladeshi workers, so do all of Starbuck's and Caffè Nero's profits appear to arise from their own marketing, branding, and retailing genius, and not a penny can be traced to the impoverished coffee farmers who handpick the "fresh cherries." In all of our three archetypical global commodities, gross profits, i.e., the difference between their cost of production and their retail price, are far in excess of 50 percent, flattering not only northern firms' profits but also their nations' GDPs.[20]

Not Just China

We complete this section by briefly looking at the wider transformations which smartphones, T-shirts, and cups of coffee epitomize. China's astonishing rise as a major manufacturing exporter is renowned, but manufactured exports provided 50 percent or more of export growth between 1990 and 2004 for another forty "emerging nations" that have a combined population twice the size of China's. Of these nations, twenty-three of them—home to 76 percent of the entire population of the global South, and including eight of the ten most populous southern nations—received more than half of their export earnings from manufactured goods in 2004.[21] In addition, many other smaller nations have made a brave effort to reorient their economies to the export of manufactures, playing host to manufacturing enclaves that exert a powerful and distorting influence on their national economies. While industrial development in the global South may be very unevenly distributed, it is nevertheless very widespread, as is indicated by the proliferation of export processing zones (EPZs). In 2006, the latest year for which there are statistics, more than 63 million workers, most of them women—almost triple the EPZ workforce of a decade earlier—were employed in 2,700 EPZs in more than 130 countries,[22] producing goods mainly for final consumption in Triad markets.[23]

By "liberating" hundreds of millions of workers and farmers from their ties to the land or their jobs in protected national industries, neoliberal globalization has stimulated the expansion in southern nations of a vast pool of superexploitable labor. U.S., European, and Japanese firms have vigorously responded by shifting production on a massive scale to low-wage countries, either through foreign direct investment (FDI) or through arm's length contractual relations with independent suppliers. The resulting outsourcing phenomenon has transformed the imperialist economies, accelerating the declining weight of industrial production in their GDPs. Most significantly it has transformed the global working class: in just three decades, the South's industrial workforce has moved from numerical parity with the "industrialized countries" to now constituting 80 percent of the global total. According to Gary Gereffi, a "striking feature of contemporary globalization is that a very large and growing proportion of the workforce in many global value chains is now located in developing economies. In a phrase, the centre of gravity of much of the world's industrial production has shifted from the North to the South of the global economy."[24]

As the editors of *Monthly Review* stated in 2004, "Multinational capital is thus able to take advantage of global asymmetries to create more vicious forms of competition between pools of labor that are geographically immobile and thus unable to coalesce."[25] Central to these "global asymmetries" is the suppression of the free movement of labor across borders, something that is accomplished by the permanent mobilization of a massive political and military force which is in turn part of a wider infrastructure of racism and national oppression. These impede labor's coalescence as an international movement and they interact with a hugely increased supply of labor in southern nations to produce a dramatic widening of international wage differentials, vastly exceeding price differences in all other global markets.

The resulting steep wage gradient between northern and southern economies provides two different ways for northern capitalists to increase profits: (1) by expanding exploitation of low-paid labor throughout the relocation of production processes to low-wage countries; or (2) by the superexploitation of low-wage migrant workers "at home." The IMF's *World Economic Outlook 2007* makes this connection quite precisely, noting that the "global pool of labor can be accessed by advanced economies through imports and immigration," and observing that trade "is the more important and faster-expanding channel, in large part because immigration remains very restricted in many countries."[26] Stephen Roach, a senior economist at Morgan Stanley, brought this driving force of neoliberal globalization into unusually sharp focus: "in an era of excess supply, companies lack pricing leverage as never before. As such, businesses must be unrelenting in their search for new efficiencies…offshore outsourcing that extracts product from relatively low-wage workers in the developing world has become an increasingly urgent survival tactic for companies in the developed economies."**27**

Not Just Wages

Despite decades of wage stagnation in the United States and of wage increases in China, the ratio between the two, adjusted for purchasing power parity, remain extremely large. One study, based on data from China's National Bureau of Statistics, estimated the difference in 2009 to be around 16-to-1, rising to 37-to-1 if prevailing exchange rates are used to make the comparison—and it is these that matter to U.S., European, and Japanese firms weighing whether to outsource their production.**28** Wages vary widely between different parts of China, between migrant and domiciled workers, and between state-owned and private firms. These and other distortions make comparison difficult, and the ratios given here are indicative.

But ultra-low wages are not the only factor attracting profit-hungry western firms. They are also attracted by the flexibility of the workers and the intensity with which they can be worked. Charles Duhigg and Keith Bradsher, in a widely quoted *New York Times* study, provide a vivid illustration:

One former executive described how [Apple Inc.] relied upon a Chinese factory to revamp iPhone manufacturing just weeks before the device was due on shelves. Apple had redesigned the iPhone's screen at the last minute, forcing an assembly line overhaul. New screens began arriving at the plant near midnight. A foreman immediately roused 8,000 workers inside the company's dormitories, according to the executive. Each employee was given a biscuit and a cup of tea, guided to a workstation and within half an hour started a 12-hour shift fitting glass screens into beveled frames. Within 96 hours, the plant was producing over 10,000 iPhones a day.**29**

High rates of flexibility and intensity of labor in the global South cast serious doubt on the notion that low southern wages reflect low southern productivity. When we consider wage differentials along with factors such as the conditions, duration, and intensity of labor, as well as the paucity of the "social wage," it is irrefutable that higher rates of exploitation pertain in countries such as China, Bangladesh, and Mexico than in the United States, Spain, or Germany. To put this another way, Chinese, Bangladeshi, and Mexican workers receive in their wages a smaller portion of the wealth they have generated than do workers in the imperialist countries.

Part Two: The GDP Illusion

In each of the three global commodities examined above, the gadget-maker (Apple), the giant retailer (H&M), and the café chain (Starbuck's) have outsourced all or most of the production to independent suppliers, with whom they maintain an "arm's length," contractual relationship. Their connection with the workers and farmers who produce their goods is therefore indirect, in contrast to the case of FDI. In this form of the globalized capital/labor relationship, the profit flows—from transnational corporations' subsidiaries to parent firms—are at least partially visible, showing up in the data as repatriated profits. By contrast, there are no visible flows of profits from arm's-length suppliers to their northern customers. Therefore, according to economic data and mainstream economic theory, the workers employed by Foxconn and the myriad of other "arm's length" firms in other low-wage countries, producing cheap intermediate inputs and consumer goods for western markets, make no contribution whatsoever to the profits of Dell and Apple, nor of the related service industries that provide their premises and retail their goods.

It is well known that the standard Mercator projection of the three-dimensional surface of planet Earth into the two-dimensional frame of a map stretches the northern hemisphere and shrinks the tropics. Standard data on GDP and trade flows produce a similar effect, diminishing the global South's contribution to global wealth and exaggerating that of the imperialist countries. To see how this is done it must be remembered that, despite its claim to be a measure of "product," GDP and trade data measure the results of transactions in the marketplace. Yet nothing is produced in markets, the world of the exchange of money and titles of ownership; production takes place elsewhere, behind high walls, on private property, in production processes. Values are created in production processes and captured in markets and have a prior and separate existence from the prices finally realized when they are sold. Yet these values "seem not just to be realised only in circulation but actually to arise from it," an illusion that gives rise to the central fallacy underlying standard interpretations of economic data: *the conflation of value with price*.**30** This matter will be returned to shortly; here it is only necessary to note that it is impossible to analyse the global economy without using data on GDP and trade, yet every time we uncritically cite this data we open the door to the core fallacies of neoclassical economics which these data project. To analyse the global economy we must decontaminate this data, or rather the concepts we use to interpret them.

GDP—Some Paradoxes and Peculiarities

Before we lay out the theoretical basis for overturning standard interpretations of GDP and trade data, we must first consider some of the paradoxes and anomalies that make this radical break necessary. As we have seen from our three global commodities, when a consumer buys a gadget, an item of clothing, or imported foodstuffs only a small fraction of its final selling price will appear in the GDP of the country where it was produced, while the greater part of it appears in the GDP of the country where it is *consumed*. Only an economist could think there is nothing wrong with this! Another even more startling example of the paradoxes produced by GDP statistics is that in 2007 the nation with the highest per capita GDP—that is, whose citizens are supposedly the most productive on earth—was Bermuda. This island tax haven leapt above Luxembourg to become the world's number one when hedge funds needed a new home following the destruction of the World Trade Center in September 2001. Bermuda was given a further boost by Hurricane Katrina, which sparked a global rise in insurance premiums and a flight of hot money into the world's reinsurance industry—of which Bermuda is one of the most important centres. Despite ranking as, size-for-size, the world's most productive nation, virtually the only productive activity taking place in Bermuda is the production of cocktails in beach bars and the provision of other high-end tourist services.**31** Meanwhile, 1,600 kilometers south-by-southwest of Bermuda lies another island nation, the Dominican Republic, where 154,000 workers toil for a pittance in fifty-seven export processing zones, producing shoes and clothing mainly for the North American market.**32** Its GDP, on a per capita basis, is just 8 percent of Bermuda's when measured in PPP (purchasing power parity) dollars, or 3 percent at market exchange rates; in 2007 it languished ninety-seven places below Bermuda in the CIA *World Factbook*'s global league table of per capita GDP. Yet which country, Bermuda or the Dominican Republic, makes a greater contribution to global wealth?

The comparison between Bermuda and the Dominican Republic is a special case, challenging us to recognize that the "financial services" that Bermuda "exports" are nonproduction activities that consist of teeming and lading wealth produced in countries like the Dominican Republic. If "GDP per capita" was a true measure of the actual contribution of hedge fund traders and workers in Caribbean shoe factories to social wealth, then their relative position would surely be reversed. We can get closer still to seeing through the GDP Illusion by considering an interesting paradox: What happens when intensifying competition with China and other footwear and hosiery producers for access to the shelves of stores like Wal-Mart and Top Shop forces the Dominican Republic's employers to reduce wages? Assuming that this increased competition results from China's lower wages rather than from more advanced production techniques (in other words, assuming that the socially necessary labor time required to produce these commodities is unaltered), lower real wages signify an increased rate of exploitation and a higher rate of surplus value. The fall in the price of shoes signifies that only a portion of the surplus value resulting from the increased exploitation of shoe workers appears in the profits of their employers. The remainder is a contribution to total surplus value (shared between capitals and supporting profit of all kinds), and to consumers, supporting their consumption levels.

A reduction in the real wage in the Dominican Republic therefore means that its living labor becomes *more* important as a source of surplus value and profits. GDP and trade data, however, lead us to the very opposite conclusion: falling real wages in the Dominican Republic allow the prices of its export products to also fall, and with them the apparent contribution of the Dominican Republic to global wealth and profits. And the same goes for measures of the Dominican T-shirt makers' productivity, too. Falling prices received for outputs directly translate into what is counted as falling value added per worker, the standard measure of productivity. These workers make the same amount of shoes before and for less money, making them more "productive of capital" than before, yet value-added data report a decline in their productivity. Statistics on "labor productivity" are, therefore, as contaminated as those on GDP and trade.

Indeed, the key to understanding global capitalism lies in what we mean by "the productivity of labor" and how we measure it. Economists and statisticians achieve their numerical measurements by computing value added per worker, but Marxist political economy has a very different starting point: while the mainstream concept of productivity rests on the conflation of price and value, thereby abolishing the complex relation between the two, for Marxist political economy "productivity" is a contradictory unity, embodying what Marx counted among the greatest of his discoveries, "the two-fold character of labour, according to whether it is expressed in use value or exchange value."**33**

"Valued Added"—or Value Captured?

The paradoxes discussed here, and the global commodities dissected earlier, suggest that uncritical acceptance of trade and GDP data leads to a distorted picture of the relative contributions of the imperialist countries and the global South to global wealth. To see why this is so we must look more closely at GDP; it is, essentially, the sum of the "value added" generated by each firm within a nation. The key concept within GDP is therefore value added. Value added is defined as the difference between the prices paid for all inputs and the prices received for all outputs.**34** According to this core neoclassical concept, the amount by which the price of outputs exceeds the price of inputs is automatically and exactly equal to the value that *it* has generated in its *own* production process, and cannot leak to other firms or be captured from them. Seen through the neoclassical lens, production is not only a black box, where all we know is the price paid for the inputs and the price received for the outputs; it is also hermetically sealed from all other black boxes, in that no value can be transferred or redistributed between them as a result of the competition for profits. Marxist political economy rejects this absurdity and advances a radically different conception: *value added* is really *value captured*. It measures the share of total economy-wide value added that is captured by a firm, and does not in any way correspond to the value created by the living labor employed within that individual firm. Indeed, Marxist value theory maintains that many firms supposedly generating value added are engaged in nonproduction activities like finance and administration that produce no value at all.

GDP is frequently criticized for what it leaves out of its calculation of "domestic product"—so-called "externalities," e.g., pollution, the depletion of non-renewable resources, and the destruction of traditional societies; as well as for where it draws the "production boundary," excluding all those productive activities that take place outside of the commodity economy, especially household labor. Yet GDP as a concept has never been systematically criticized for what it claims to measure, not even by Marxist and other heterodox critics of the mainstream. Part of the answer lies in the fact that marginalist and Marxist value theory coincides at one point: while Marxist value theory reveals that the individual prices received for the sale of commodities systematically diverge from the values created in their production, at the aggregate level all these individual divergences cancel out. In the aggregate, total value *is* equal to total price.**35**

If, within a national economy, value produced by one firm (i.e., one production process) can condense in the prices paid for commodities produced in other firms, then it is irrefutable that, especially in the era of globalized production, this also occurs between firms in different countries and continents. In other words, as David Harvey once surmised, "the geographical production of surplus value [may] diverge from its geographical distribution."**36** To the extent that it does, GDP departs ever further from being an objective, more-or-less accurate approximation of a nation's product (indeed, it never was), and is instead a veil that conceals the increasingly parasitic and exploitative relation between northern capitals and southern living labor—in other words the *imperialist* character of the global capitalist economy.

Conclusion

Commenting on the ADB report cited earlier, *Financial Times* columnist Gillian Tett said the "challenge for economists is…profound. In the old days, they typically measured the output of an economy by watching where goods were 'made'; but which country should claim the 'value' for an iPhone (or an Italian suit or an American Girl doll)? Where does the real 'output' come, in a world where companies can shift profits around?"**37** The real question, however, is not just where the "real output" comes from but also where it goes to, who generates this wealth, and who appropriates it.

The GDP Illusion at least partly explains why dominant paradigms see the global South as peripheral and its contribution to global wealth of minor importance, despite the ubiquity of the products issuing from its mines, plantations, and sweat shops; and despite the fact that southern living labor are the creators of much or most of our clothes and electronic gadgets, of the flowers on our table, of the food in our fridge, and even of the fridge itself.

Labor's share of GDP within a country is not directly and simply related to the prevailing rate of exploitation in that country, since a large component of "GDP" in the imperialist nations represents the proceeds of exploited southern labor.

As our three global commodities reveal in microcosm, the globalization of production is at the same time the globalization of the capital/labor relation. The main driver of this great transformation is capital's insatiable quest for low wages and high rates of exploitation. Its main result is the heightened dependence of capitalists and capitalism in the imperialist countries on the proceeds of exploitation of nature and living labor in the global South. The imperialist division of the world that was a precondition for capitalism is now internal to it.**38** Neoliberal globalization therefore signifies the emergence of the fully evolved imperialist form of capitalism.

Finally, the critique of concepts and statistics outlined here has major implications for our understanding of the global crisis. This global crisis is "financial" only in form and appearance. It marks the reappearance of a systemic crisis which the outsourcing phenomenon itself was a response to: replacing higher-paid domestic labor with low-paid southern workers helped support profits, consumption levels, and reduced inflation in the United States, Europe, and Japan. Along with the expansion of debt, outsourcing was crucial to the imperialist economies' escape from the crises of the 1970s. Furthermore, outsourcing is deeply implicated in many ways in the return of systemic crisis. Giving a central place to the sphere of production in the analysis of the global crisis, a task preoccupying many Marxist economists, requires accounting for the enormous transformations that have occurred within this sphere in the past three decades of neoliberal globalization. And this requires that we dispel the GDP Illusion.

Notes

1. Karl Marx, *Capital*, vol. 3 (London: Penguin, 1991), 966.

2. Charles Duhigg and Keith Bradsher, "How U.S. Lost Out on iPhone Work," *New York Times*, January 21, 2012, http://nytimes.com.

3. "Foxconn Chairman Likens His Workforce to Animals," *Want China Times*, January 21, 2012, http://wantchinatimes.com.

4. Greg Linden, Kenneth L. Kraemer, and Jason Dedrick, *Who Captures Value in a Global Innovation System? The Case of Apple's iPod*, Personal Computing Industry Center, UC Irvine, June 2007, http://signallake.com, 7.

5. Greg Linden, Jason Dedrick, and Kenneth L. Kraemer, *Innovation and Job Creation in a Global Economy: The Case of Apple's iPod*, Personal Computing Industry Center, UC Irvine, January 2009, http://pcic.merage.uci.edu, 2.

6. The distribution of the resulting profits brings to mind words written by Lenin in 1907: "The British bourgeoisie, for example, derives more profit from the many millions of the population of India and other colonies than from the British workers. In certain countries this provides the material and economic basis for infecting the proletariat with colonial chauvinism." V.I. Lenin, "The International Socialist Congress in Stuttgart," http://marxists.org .

7. Yuqing Xing and Neal Detert, *How the iPhone Widens the United States Trade Deficit with the People's Republic of China*, ADBI Working Paper Series No. 257, December 2010 (revised May 2011), http://adbi.org, 4–5.

8. Ibid, 8.

9. Ibid.

10. Ibid, 9.

11. Source for Hon Hai and Apple's profits is "The World's Biggest Public Companies," *Forbes*, April 2012, http://forbes.com.

12. Julie Froud, et. al., *Apple Business Model—Financialization Across the Pacific*, CRESC Working Paper No. 111, April 2012, http://cresc.ac.uk , 20.

13. Lex, "Hon Hai / Foxconn: wage slaves," *Financial Times*, August 30, 2011, http://ft.com.

14. Robin Kwong, "Hon Hai Bracing for Recession," *Beyond Brics* (*Financial Times* blog), January 10, 2012, http://blogs.ft.com.

15. Ibid.

16. Tony Norfield, "What the 'China Price' Really Means," June 4, 2011, http://economicsofimperialism.blogspot.com. His source for this data is "Das Welthemd" ["The World Shirt"], December 17, 2010, http://zeit.de.

17. Ibid.

18. Karen St Jean-Kufuor, *Coffee Value Chain*, 2002, http://maketradefair.com.

19. Denis Seudieu, *Coffee Value Chain in Selected Importing Countries*, International Coffee Council, March 2011, http://dev.ico.org . The nine coffee-importing countries are France, Germany, Italy, Japan, Netherlands, Spain, Sweden, United Kingdom, and the United States.

20. Galina Hale and Bart Hobijn calculate that "on average, of every dollar spent on an item labelled 'Made in China', 55 cents go for services produced in the United States." See their "The U.S. Content of 'Made in China'," FRBSF Economic Letter, Federal Reserve Bank of San Francisco, August 8, 2011, http://frbsf.org.

21. The twenty-three nations are Argentina, Bangladesh, Brazil, China (including Hong Kong), Egypt, India, Indonesia, Malaysia, Malta, Mauritius, Mexico, Morocco, Pakistan, Philippines, Singapore, South Africa, South Korea, Sri Lanka, Taiwan, Thailand, Tunisia, Turkey, and Vietnam. See Table 4.4 "Structure of Merchandise Exports" in World Bank, *World Development Indicators 2006* (Washington, DC: Development Data Center, World Bank, 2006), http://books.google.co.uk.

22. The ILO reports that "Women make up the majority of workers in the vast majority of zones, reaching up to 90% in some of them." *Employment and Social Policy in Respect of Export Processing Zones (EPZs)* (ILO: Geneva, March 2003), http://ilo.org, 6.

23. To put this in perspective, 150 million industrial workers were employed in the Triad countries. See "EPZ Employment Statistics" in Jean-Pierre Singa Boyenge, *ILO Database on Export Processing Zones (Revised)*, Sectoral Activities Programme Working Paper WP.251, April 2007, http://ilo.org, 1.

24. Gary Gereffi, *The New Offshoring of Jobs and Global Development*, ILO Social Policy Lectures (Geneva: ILO Publications, 2006), 5.

25. John Bellamy Foster, Harry Magdoff, and Robert W. McChesney, "The Stagnation of Employment," *Monthly Review* 55, no. 11 (April 2004): 11.

26. IMF, *World Economic Outlook 2007—Spillovers and Cycles in the Global Economy*, International Monetary Fund, Washington, D.C, 2007, http://imf.org,180.

27. Stephen Roach, *Outsourcing, Protectionism, and the Global Labor Arbitrage*, Morgan Stanley Special Economic Study, November 11, 2003, http://neogroup.com, 5–6.

28. Álvaro J. de Regil, "A Comparative Approximation into China's Living-Wage Gap," June 2010, http://jussemper.org. There is good reason to believe that official Chinese data on real wages considerably exaggerate real wages and real wage growth in China. The ILO notes that official Chinese data largely reflects the situation in state-owned enterprises, and that wage growth (and, by implication, wage levels) is substantially lower in the private sector, the main employer of migrant workers. See International Labour Office, *Global Wage Report 2010/11: Wage Policies in Times of Crisis* (Geneva: ILO, 2010) http://ilo.org, 3–4. Furthermore, in China as elsewhere, data on average wages and average wage growth obscures very sharp increases in wage inequality, exaggerating medium- and lower-paid workers' wages by including rapid rises in the wages of the highest-paid workers (including the salaries paid to managers, etc.). Finally, the prices of food, fuel, and other basic necessities, which consume a far larger part of workers' income than they do of the middle class, have been rising faster than overall inflation; failure to properly account for this can also make real wages seem larger than they are.

29. Duhigg and Bradsher, Ibid.

30. Marx, Ibid.

31. Around 90 percent of Bermuda's GDP is contributed by financial services. Bermuda is almost alone among southern nations in having no export processing zones; ILO data indicates that just 1,500 Bermudans are employed in agriculture and fishing.

32. In 2001, "95% of these were exported to the United States." Robert C. Shelburne, "Trade and Inequality: The Role of Vertical Specialization and Outsourcing," *Global Economy Journal* 4, no. 2 (2004): 23. For data on the DR's EPZ workforce, see Boyenge, Ibid.

33. "The best points in my book are…the two-fold character of labour, according to whether it is expressed in use value or exchange value [and] the treatment of surplus value, independently of its particular forms as profit, interest, ground rent, etc." Letter from Marx to Engels, August 24, 1867, http://marxists.org.

34. How do GDP accounts treat government activity? While the cost of governments' inputs are precisely known, its outputs—from provision of healthcare to providing "security" in Afghanistan—are not sold on markets and cannot be measured by their prices of sale. National accounts deal with this problem by assuming that the total value of services provided by governments is equal to the costs of providing them. Thus the public sector, by definition, produces no value added.

35. Marx wrote that "the distinction between value and price of production…disappears whenever we are concerned with the value of labour's total annual product, i.e. the value of the product of the total social capital." *Capital*, vol. 3, 971.

36. David Harvey, *The Limits to Capital* (London: Verso, 2006), 441–42.

37. Gillian Tett, "Manufacturing is All Over the Place," *Financial Times*, March 18, 2011, http://ft.com.

38. This has been most clearly articulated by Andy Higginbottom, who has argued that holding "(southern) wages…below the value of (northern) labour power is a structurally central characteristic of globalised, imperialist capitalism…. Imperialism is a system for the production of surplus value that structurally combines national oppression with class exploitation." Andy Higginbottom, *The Third Form of Surplus Value Increase*, conference paper, Historical Materialism Conference, London, 2009.