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On the Economic Returns From a Global Program of Social Capital: A Trillion Dollar Agenda for Growth

By Steven H. KIM †

Abstract. For the economy to grow, the actors in the marketplace need to expand the overall output rather than jostle each other for bigger shares of the available output. To this end, the productivity level may be boosted through a comprehensive program of social capital. Based on the experience of the 20th century, the rich countries of the world could afford to commit US\$1 trillion per year for a couple of decades. According to a compelling scenario, the total investment of \$20 trillion in nominal terms will comprise \$13.6 trillion in current dollars since the funds will be disbursed over time rather than spent at once. Based on conservative estimates, the present value of the benefits will exceed \$3.39 quadrillion which represents a payback of 249 times the original investment. In this way, the windfall from a global program of social capital should far surpass the outlay required for its implementation.

Keywords. Economic growth, Social capital, Foreign aid, Emerging markets, Productivity. **JEL.** E20, E60, O10, P00, Z10.

1. Introduction

If the economy is to thrive, the members of the society need to expand the total volume of production rather than fight over bigger shares of the extant output. The extent to which the actors display a benign or malign mindset reflects the tenor of social capital within the community. Unfortunately, the contrived transfer of resources usually results in a cutdown of the overall amount available to the entire group. A well-known sample concerns a quota on the import of products ranging from cars and clothing to food and cruises. For instance, a ban on the shipments of sugar into an industrial nation throttles the supply in the domestic market. Due to the artificial shortage, the entire population of consumers ends up paying higher prices for lesser amounts of the commodity. In this way, the quota does not simply shuffle the wealth around within the population, but actually reduces the total amount of resources available to the entire society.

2. Grind of Corruption

A pervasive brake on economic development lies in the bane of corruption; that is, the abuse of power for private gain. In a survey covering more than 114,000 respondents in 107 countries, 27% of the responders declared that they paid a bribe within the past 12 months in dealing with public institutions and services. Moreover, 54% of the pollees believed that their government was largely or entirely run by groups acting in their own interests rather than the society at large.

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Not surprisingly, the wealthy countries dominated the charts at the low end of the corruption scale. For instance, fewer than 1% of the responders paid a bribe over the previous year in Australia, Denmark, Finland and Japan. Moreover the United Kingdom chalked up 5%, and the United States 7%. Meanwhile the countries abounding in corruption lay in Africa or the Mideast, as in the case of Yemen at 74% or Sierra Leone at 84%. Sadly, a high level of income does not necessarily mean a low degree of corruption. A case in point is France where the respondents viewed the business environment in their country as worse than the global average including those in many straggling nations ranging from Rwanda and Bangladesh to Albania and Cambodia (Transparency, 2013).

3. Lessons of History

A showcase of economic development lay in a massive program of reconstruction in the wake of World War II. At the onset of peace, the U.S. military played the dominant role in rebuilding the battered regions of the world. The restoration was largely completed within a couple of years, after which myriads of military personnel and civilian contractors headed back home. As the American contingent pulled out, however, the local economies fell apart. The breakdown sprang from the takedown of supply as well as demand. For instance, the foreigners had livened the economy through the free labor of military engineers as well as the upkeep of millions of people through handouts including food and medicine from the U.S. Moreover, the Americans wielded enormous purchasing power compared to the mass of locals who had to live hand to mouth. The patronage of local vendors covered shops and restaurants, spas and cinemas. For this reason, the economy imploded as soon as the Yankees decamped en masse.

The calamity prompted strident calls by the locals for their governments to fix the problem posthaste. Like numerous countries in Europe and farther afield, Germany was racked by high unemployment and food shortages, not to mention a dearth of housing due to the destruction of millions of dwellings during the War. Amid the anguish, the lure of central planning attracted a large following amongst the general public and elected officials. Unfortunately, a centralized scheme is unable to cope with the blizzard of changes in a modern economy along with the slew of decisions required (Kim, 1990). Rather, the proper setup is a decentralized system in the form of a free market where the panoply of price levels act as nimble signals for allotting resources.

As the floundering countries went down the drain, the U.S. rushed to the scene once more. The main therapy took the form of the European Recovery Program, also dubbed the Marshall Plan. The program provided \$13 billion in economic aid – valued at some \$130 billion in terms of the value of the dollar in 2015 – from 1948 to 1951 in order to bolster 18 countries including Britain, West Germany and France. Happily, the mound of money did help to spur growth in Western Europe by beefing up the infrastructure and shoring up public finances. On the other hand, the process of reconstruction had mostly been completed before the Plan appeared thanks in good measure to a prior influx in excess of \$9 billion from the U.S. to Western Europe. Moreover, the U.S. had during the War provided \$47.7 billion in grants plus \$1.0 billion in credits over the course of five years ending in June 1945 to a host of countries including Britain and Greece, China and Philippines. In the early postwar period, from July 1945 till the end of 1948, the donor lavished another heap of \$10.5 billion in grants and \$9.7 billion in credits on the ravaged nations ranging from France and Italy to Germany and Japan (Department, 1949).

The avalanche of money was only part of the picture; the bigger impact of the Marshall Plan took indirect forms. As a condition for accepting the monies, the

recipients had to dismantle large swaths of short-sighted schemes in areas ranging from the apportionment of consumer goods to the erection of trade barriers. In this way, the rescuer rolled back many of the bumbling steps toward socialism in Western Europe. As a result, the socialist streak came to play a secondary role while the free market became the primary means of resource allocation throughout Western Europe. Another mission of the Plan was to take over the massive load of debt that Germany had racked up in order to finance its military campaign before and during the War (Ritschl, 2012).

Yet any official tally of foreign aid by the U.S. in this era was bound to be a huge understatement. As we saw earlier, one reason for the shortfall lay in the contributions of the U.S. Army Corps of Engineers who toiled by the thousands to repair the infrastructure. In addition, the U.S. military saved millions of people from starvation, exposure and disease by handing out vast amounts of food, clothing and medicine. Another factor involved the deluge of care packages donated by American civilians. Within a matter of months, more than 100 million care packages were shipped overseas with the help of money and manpower from 22 distinct organizations throughout the U.S. As the acute threat of starvation faded, the care parcels came to include other items such as blankets and medicine, tools and school supplies (Cooperative, 2015).

The gush of aid, along with the spate of reforms, produced dramatic results. An example involved an index of industrial production for the British and American zones of occupation in Germany. In June 1948 the yardstick reached only 51% of the output in 1936, but jumped to 78% by the end of the year; that is, the volume surged by more than one-half within half a year. By 1958, industrial output grew to more than four times its annualized rate during the first half of 1948 just before the currency reform was effected. After adjusting for the modest increase in population, the industrial outturn per person was more than three times its previous level. In stark contrast, the economy within Eastern Germany was hobbled by communist ideology and thus stagnated over the same timespan (Henderson, 2008). In short, the greatest benefits of the American initiative ensued from its pivotal role in securing a wide-ranging slate of structural adjustment and policy makeover (De Long & Eichengreen, 1991). In addition to the Marshall Plan tailored for Europe, the U.S. pursued similar programs of economic aid in the ruined nations of Asia and other regions of the world.

4. Gifts of an Enlightened Generation

The raw figures presented above provide only a pale picture the sacrifices of the American people. To better grasp the enormity of the contributions, we need to gauge the largesse as a fraction of the total amount of national income. As a point of reference, consider the economic output of the U.S. when the Plan was formally rolled out in July 1948. At that stage, the GDP amounted to \$279.5 billion a year. The allotment of \$13 billion starting in 1948 came on top of prior donations from the U.S. to Europe between the end of the War and the start of the Plan. As saw earlier, the early salvo transferred more than \$9 billion. In that case, the combined transfers between 1945 and 1951 alone added up to \$22 billion; the total bounty amounted to 7.9% of the economic output for the U.S. based on the GDP at the onset of the Plan. By comparison, the national income of the U.S. in late 2015 was \$18.128 trillion in nominal terms (FED, 2016). In that case, an allotment of 7.9% would comprise \$1.43 trillion.

From a larger stance, the foregoing percentage represents a gross understatement of the flood of foreign aid provided by the U.S. to the world at large since the middle of the 20th century. As we noted earlier, one factor involved

the broad scope in geographic terms. An example lay in the shower of grants to the tune of billions of dollars for Japan and other countries in the Far East. Another dimension concerned the time frame. In 1951, the Marshall Plan was replaced by the Mutual Security Plan which ran for the next ten years. The latter program disbursed roughly \$7.5 billion a year in order to provide military, economic and technical help to friendly countries in Western Europe as the Cold War began to heat up. The follow-up Plan was in turn superseded by the Foreign Assistance Program of 1961 which then gave way to other modes of international aid.

To get some idea of the treasure that Americans gave up in the interim, consider the economic output of the U.S. when the Mutual Security Plan was in full swing. In the middle of 1955, the GDP amounted to an annual rate of \$430.9 billion. In that case, the giveaway of \$7.5 billion comprised 1.7% of national income. And that hefty amount was poured into a moiety of a single small continent; namely, the western portion of Europe. Another way to appreciate the magnanimity of the donor is to note that the U.S. at that stage was still a nation of modest means. In 1948 the gross domestic product amounted to \$279.5 billion. On the demographic front, the U.S. housed a population of 146.6 million (Census, 2000). In that case, the output per person came out to a mere \$1,907. After adjusting for inflation, the latter amount was worth a mite over \$18,746 in 2015 (Labor, 2016). Based on the latter figure, the U.S. of that era was poorer than scores of developing countries at the dawn of the millennium. More precisely, the income level of the States in 1948 would place the nation as the 90th richest country in the world in 2015, sandwiched right between Bulgaria of Eastern Europe and Gabon of Central Africa (Central, 2016a).

To round up, the U.S. in the middle of the 20th century was a nation of modest means by modern standards. Even so, the people saw fit to donate nearly a couple of percent a year in order to help a portion of a single small continent – namely, the western part of Europe. In addition, Americans in their capacity as private citizens and public officials also took pains to share their limited income with a host of countries in Asia and elsewhere. At the dawn of the 21st century, the industrial nations of America, Europe and Asia are far richer than was the U.S. shortly after World War II. If a nation of humble means at the time had the humanity to make the sacrifices it did, then the cadre of affluent nations which are far richer today can surely afford to devote a larger fraction of their income to upraise the entire world including themselves. By the end of the 2020s, the gross domestic product of the U.S. will hover in the ballpark of \$20 trillion. In that case, 2% of the output will amount to \$400 billion per year. In round numbers, the economic situation in Europe is comparable. As a result, the U.S. and Europe by themselves could well afford to invest a trillion dollars a year in order to secure a windfall for the entire planet including themselves.

On the downside, the U.S. has come to downplay active programs in the context of foreign aid. Rather, the benefactor has for the most part assumed a passive stance by throwing money at destitute countries without bothering to reshape the mordant cultures that keep the mass of folks in dire straits. The mindset is similar for other donors such as Canada and Australia as well as the newly rich in Europe and Asia. The standoffish and piecemeal approach to helping the laggards has yielded patchy results despite the trillions of dollars worth of foreign aid lavished on them since the middle of the 20th century. In view of the failures, a chorus of activists have taken to urging the rich countries of the world to tear down their borders and take in unlimited numbers of migrants be they political exiles or economic fugitives. Sadly, though, the raucous cry happens to be unrealistic and petrifying even if the affluent nations were willing to fling open the floodgates to all comers. For one thing, the total headcount of the wealthy states numbers a

billion souls or so. This cohort is nowhere large enough to accommodate an onslaught in excess of 6 billion transplants from the blighted regions of the world. Even a modest fraction of the incoming horde would result in the prompt collapse of the economy in particular and the society in general within the swamped countries (Kim, 2016).

To recap, the funding behind the Marshall Plan provided the U.S. with the clout it needed to pull Europe back from its slide into the abyss. On the downside, though, the bootless policy of ignoring economic issues stiffened during the 1980s and has held sway since then (Blackwill & Harris, 2016). As a result, the U.S. and other donors have lavished the bulk of foreign aid on destitute countries without paying much heed to the consequences. On the upside, though, a robust program of funding for a civil society would provide the benefactors with a golden opportunity to transform the straggling countries into showcases of economic growth.

5. Methods

If the barriers against the free flow of products and across national borders were to be scrapped completely, the benefits to the global economy are apt to be a few percent or less of the gross world product (GWP). By contrast, the estimated gains in output from razing the barriers to migration tend to range between 50 to 150 percent of global output (Clemens, 2011). In gauging the payoff from a worldwide program of social capital, a convenient starting point lies in prior studies on migration. In an extreme scenario to the upside, the removal of all roadblocks would enable billions of people to rush into the rich countries and thereby raise their income. Based on a rundown of prior studies, a representative set of results is as follows. By one estimate, 73.6% of the world's population would move to a foreign country; the ensuing jump in productivity would expand global output by 96.5%. Meanwhile, a second analysis reckons that 53% of the people in poor countries would emigrate, and thereby increase global income by 67%. Moreover, a third probe estimates that more than 99% of the denizens in the lagging regions would migrate and raise the gross world product by 122% (Clemens, 2011).

In general, such studies make the reasonable assumption that the immigrants would on average display only a fraction of the productivity of the incumbents in the host countries. More precisely, the estimates may range from less than one-quarter to more than one-half of the output per person for the natal population. If we combine the three studies, the average forecast of migration rates comes out to just over 75% of the population in the developing countries. Moreover, the mean estimate of the payoff is an increase of a mite over 95% of global output.

To set a baseline, we note that the nominal value of the gross world product in 2015 was around US\$73.7 trillion based on official exchange rates. From a practical stance, however, the GWP reckoned in terms of purchasing power came out to \$114.2 trillion in 2015 (Central, 2016b). In that case, a hike in global income by 95% would produce a surfeit of some \$108 trillion per year based on the purchasing power of the output in 2015. In short, the sanguine view suggests that a cutdown of all barriers to migration could result in a surge of global income by a factor of two or so. Sadly, though, the simplistic picture happens to be flight of fancy which has scant bearing on the real world. To wit, a tidal wave of migration comprising billions of souls will not yield an increase in production but rather a breakdown of the economy and society in the besieged countries. The upshot promises to be a glut of poverty and misery for the newcomers and incumbents alike.

6. Serious Approach to Boosting Output

At this juncture, we should note to a couple of caveats. For starters, the daydream of a jump in productivity due to mass migration is wholly unrealistic as we noted above. In fact, an onrush of migrants at an annual rate amounting to a mere handful of percent of the existing population results in the widespread degradation of an advanced society rather than the uplift of the incoming masses, along with disastrous results for the transplants as well as the natives (Kim, 2016).

On the upside, though, the estimates of the likely benefits presented in the previous section happen to be modest compared to the rewards in store from a completely different approach; namely, expanding the trove of social capital throughout the globe. The pragmatic strategy yields two kinds of weighty payoffs. As we noted earlier, one type of boon involves the fact that 100% of the population in the stunted regions will enjoy an upsurge in income rather than the average figure of 75% who happen to emigrate according to the slapdash scenario. The second factor concerns the fact that a groundswell of productivity will in fact ensue from the bulk-up of social capital.

7. Bonanza of Productivity

To get some idea of the cornucopia on offer, we first note that the economic output of the U.S. in 2015 was \$17.95 trillion. After adjusting for the number of residents, the output per person came out to \$55,800. Based on the growth rate over the previous couple of years, the economy was growing at some 2.4% a year after adjusting for the official run of inflation. Meanwhile the population was slated to increase by 0.81% in 2016 (Central, 2016b). In that case, the GDP per person was set to rise by some 1.6% over the course of the year. As a result, the output per head would amount to a sliver under \$56,700. Meanwhile the productive capacity of the European Union during the same year was \$19.18 trillion in terms of the purchasing power of the U.S. dollar. Due to the cluster of poorer nations on the eastern and southern reaches of the continent, the average output per person in the EU amounted to \$37,800. In terms of growth rates, the recent past witnessed an average rise of 1.2% per annum. Looking at the big picture, the economic output for the world as a whole in 2015 was \$114.2 trillion in terms of purchasing power. Moreover the mean output per capita in the same year was \$15,700. Based on the experience of the previous three years, the global economy was growing at some 3.2% a year.

Suppose that the entire population of the planet could enjoy the same level of productivity as the U.S. in the early decades of the millennium. If we multiply the foregoing level of productivity by the global headcount of 7.32 billion in 2016, the result is roughly \$415.0 trillion. We recall that the actual value of the gross world output for 2016 is slated to be around 3.0% higher than the previous year's level of \$114.2 trillion; the result is \$117.6 trillion. Based on the prospective and computed values of output for the year, the quotient comes out to a mite over 3.63. In simple terms, the planet as a whole could be more than thrice as rich as it is.

From a different slant, the gap between \$415.0 trillion and \$117.6 trillion comes out to \$297.4 trillion. The latter amount represents the likely windfall from a comprehensive program of social capital studies based on the conditions in 2016. On one hand, the latest figure should be viewed as an overestimate of the potential for the near future since the culture of an entire nation will take a long time to change for the better, while the makeover of the world as a whole will progress

¹ The growth factor for the economic output amounted to 1.024 in decimal form while the corresponding figure for the population growth was 1.0081. The quotient of the two values yields a mite under 1.0158.

even slower. On the other hand, the nominal target of \$415 trillion in absolute figures has to be a hefty underestimate of the bounty from a global campaign of civic studies. Despite its dynamism, the U.S. labors under numerous millstones that thwart economic activity along with the growth rate. A plain example concerns the raft of shackles deployed in the aftermath of the financial crisis of 2008. The government went out of its way to rescue some of the biggest and most unproductive firms in the economy even as it opted to prop up the housing sector. The artificial struts intended to preserve the status quo prevented the economy from unwinding the mounds of distortions in the marketplace that had cropped up during the riot of speculation in real estate and mortgage-based products at the dawn of the millennium. In these and other ways, the politicians of the West took baneful steps whose unwitting impact was to cripple the economy. Given the foul-up, the good news is that the stymied countries including the U.S. have have plenty of room for improvement through a healthy dose of social capital. If the pacesetter were to improve its performance, then the turnout for the world as a whole will be even better than the projections we sketched out earlier.

8. Current Value of Future Gains

An upgrade of social capital will continue to deliver the goods year after year. In other words, the windfall represent an endless stream of benefits rather than a one-time jackpot. As we saw above, a global economy boasting the same productivity as the U.S. would enjoy an *increase* in output of \$297.4 trillion per annum. If we multiply the latter figure by an apt scaling factor of 25, we end up with some \$7.435 *quadrillion*. The latter is the present value of the infinite stream of future gains in productivity. Granted, the entire bounty will not show up in full as soon as the campaign of social capital gets under way. For this reason, we should take into account the fact that the bulk of the benefits will emerge later on rather than at once.

For the sake of concreteness, we will once again make a couple of assumptions. First, we assume that worldwide productivity will rise at an average level of 6.66% a year in real terms. The latter value seems wholly plausible in view of the historical record during the second half of the 20th century. The overhaul of the culture turbocharged the economy for several decades at a stretch in motley countries ranging from Japan and Korea to China and India. In fact, the pace of economic growth has at times surpassed 10% a year during the early stages of modernization. At a growth rate of 6.66% compounded each year for two decades, the gross world product will be a mite over 3.63 times the amount reckoned for 2016. To keep things simple, we will for the moment ignore the boost to the global economy while the program of empowerment is underway and instead consider only the benefits that accrue once the campaign has wrapped up after 20 years. In that case, the manna of \$7.38 quadrillion that we obtained earlier has to be whittled down due to the increase in the cost of living in the interim. We will assume as before that inflation will progress at an average rate of 4% compounded each year.

Based on these figures, the present value of the future payoff comes out to \$3.39 quadrillion.² In other words, the latter amount is the value today of the present value to be secured a couple of decades downstream by deploying a global program of civic studies. We should note at this stage that the official rate of inflation in the West usually comes out to a mere 2% at most. Suppose we were to

² Since the inflation rate is 4%, we need to divide the nominal payoff by a factor of 1.04 for each year over two decades. The apt value of the *discount factor* is the inverse of 1.04^20; namely, 0.4564.

use the latter value as the discount rate.³ In that case, the windfall of \$7.435 quadrillion a couple of decades from now is worth \$5.00 quadrillion today. To be conservative, however, we will use the smaller figure of \$3.39 quadrillion which we obtained earlier.

We recall that a frenzy of speculation in real estate along with mortgage-based assets gave rise to the financial crisis and the Great Recession. In response to the fiasco, the politicians of the West took willful action to rescue the rabid banks which had gone bankrupt. A related move was to prop up the housing market through public guarantees for private mortgages. These schemes preserved the status quo including the hulking distortions in real and financial markets that had cropped up during the housing craze. As a result, the bulk of Western markets were doomed to gnash and grind well into the 2020s (Kim, 2012). Due to the hobbling of the mature nations, the poor countries are hard-pressed to expand their exports and grow their economies. Moreover, the shackles emplaced by the pols were compounded by other forms of bungling. An example of the latter lay in the intake of refugees by the millions at a stroke along with the economic burden of paying for their upkeep in addition to other costs (Kim, 2016). In this wrackful environment, the prospects for the global economy over the decades to come are subdued at best. On the other hand, the dreary outlook does not mean that the fate of the world has to be dreadful.

9. Results

On the upside, the advanced nations can take concrete steps to help the entire world by pursuing a bold campaign to expand the trove of social capital. Suppose that the U.S. along with Europe were to commit \$1 trillion per year for a couple of decades for this purpose. In that case, the total investment over the course of 20 years will come out to \$20 trillion in nominal terms. Since the bulk of the funds will be disbursed in the future rather than spent today, the present value of the allotments will be lower than the nominal amount. To get some idea of the effective cost, suppose that the compound rate of interest were to be 4% a year on average. In that case, the outlay comes out to a mite less than \$13.6 trillion in current dollars. As we saw in the previous section, a global program of social capital should yield a bounty downstream whose present value equals \$3.39 quadrillion. The ratio of the last two figures comes out to a mite over 249. Simply put, the present value of future benefits is hundreds of times greater than the corresponding cost.

Huge as they are, the foregoing figures happen to be conservative from a number of standpoints. The reasons for the understatement include the scope of global reach and the baseline used for comparative analysis. For starters, the U.S. population in 2015 was reckoned to be a little over 321 million while the global headcount stood at some 7.23 billion. In that case the U.S. accounted for just 4.4% of the world's population (Central, 2016b). In the same year, the GDP per person for the U.S. came out to roughly \$56,100 while the average level of productivity round the world amounted to \$15,800 reckoned in terms of purchasing power. In that case, U.S. residents enjoyed an income stream that was more than three times

³ The inflation rate corresponds to a *discount rate* of 2% a year over 20 years. Thus the discount factor is the reciprocal of 1.02^20, which amounts to 0.6730.

The *present value* of the *annuity* is given by: $P \{ [1-1/(1+r)^n]/r \}$, where P denotes the periodic payout, r the interest rate, and n the number of periods. Since r = 0.04 and n = 20, the multiplier within braces equals 13.59. For an infinite series, the multiplier becomes 1/r; hence the scaling factor of 25 we used earlier.

as high as the average figure for the entire planet. As a result, the world as a whole has plenty of scope for improvement.

To bring up a second issue, we noted earlier that the cost of living in a destitute country is apt to be modest. Thus, even a moderate increase in output will yield a hefty rise in income levels and living standards. A third aspect involves the fact that the global population will likely rise to 9.7 billion or so by 2050 (United, 2015). Moreover the bulk of the increase will occur within the developing countries. As a result, any hike in productivity in the U.S. – which houses only a small fraction of the global population – should induce a much bigger payoff in terms of absolute numbers as well as relative figures for the world as a whole. A fourth feature concerns the fact that we ignored the upsurge in output while the global program is in operation. The boons during the two decades at the outset will be worth more than any comparable gains in nominal figures further downrange. For this reason, the present value of future gains amounting to \$3.39 quadrillion happens to be a significant underestimate of the jackpot in store. The story is similar for the ratio of benefit to cost which we reckoned to be around 249.

To bring up a fifth item, the productivity of Americans has slumped since the outbreak of the financial flap along with the Great Recession. Due to the artificial fetters in place, the economy has been limping along at a stunted pace which lags behind the long-term trendline by around 10% (Wen, 2014). The morass is similar in Europe where the continent as a whole has been stumbling and will continue to do so unless the politicians mend their ways wholesale. As a sign of the times, the 17 countries within the eurozone fell into recession in the last quarter of 2011 then crumpled for a record span of 18 months before reversing the slide in the second quarter of 2013. Moreover the ensuing recovery over the years to follow has been abnormally weak compared to historical patterns (Centre, 2015). On the bright side, though, the needless crippling of the markets means that the economy has plenty of potential for improvement. If the bilkers in the public and private sectors were to clean up their acts, then the Western nations will blossom as never before.

For a variety of reasons, then, the estimates of the benefits are conservative in terms of the absolute value of future gains as well as relative to the cost entailed. More importantly, no reasonable amount of tweaks to the foregoing assay will alter the main conclusion: the benefits in store from a comprehensive campaign of civics will far surpass the costs entailed.

10. Conclusion

In the modern era, money and knowledge can zip around the world at the speed of light in search of the best prospects for deployment. Amid the ferment, there is no good reason for any country to wallow in the trenches of poverty. In the absence of other options, a nation devoid of natural resources or exceptional skills may turn to tourism as the ticket to prosperity: from tourist hotels in the Arctic to ecological havens on the equator, from lively resorts by the seashore to tranquil retreats in the mountains. In the age of globalization, it is not the lack of opportunities but the barriers to progress that hold back the indigent nations. More precisely, a morbid culture is the main culprit behind the poor performance. In this light, the trove of social capital refers to the sum of values and customs that foster the trust and harmony required to create synergism. For this reason, the buildup of social capital is the coherent approach to boosting productivity in rich and poor nations alike.

The primal role of cultural enhancement as the key to economic growth, societal weal, and national security can be seen in the historical record. The showcase lay in the role of the United States in nursing ravaged nations back to health in the aftermath of World War II. Thanks to the funding and guidance furnished by

programs such as the Marshall Plan, the pummeled economies regained their strength and pushed forth anew. Despite its hulking scope, however, the inrush of money formed only a small part of the whole picture. As a condition for accepting the funds, the recipients had to embrace a host of healthful policies including the teardown of barriers to cross-border trade and the cutout of large swaths of centralized planning and social welfare. The sweeping makeover yielded far more results than the mere transfer of wealth to the target countries. From a different slant, the record of foreign aid since the middle of the 20th century has underscored the same lesson from a negative stance. A host of examples lay in the straggling nations of Africa, Asia and elsewhere: no amount of capital pumped into a blighted country has enabled an economy to flourish when the incoming funds are frittered away through corruption and embezzlement, delusion and incompetence.

Given this backdrop, the global community ought to pursue a comprehensive program to expand the treasury of social capital. Based on the experience of the 20th century, the rich countries of the world could easily afford to commit US\$1 trillion per year for a couple of decades. In that case, the total outlay over the course of 20 years will amount to \$20 trillion in nominal terms, or less than \$13.6 trillion in present value. On the upside, the far-reaching campaign of civic studies should yield a bounty whose current worth exceeds \$3.39 quadrillion. The last two figures indicate that the present value of future benefits is a mite under 249 times the corresponding cost. The foregoing numbers are conservative estimates based on the productivity of the U.S. during the 2010s. Moreover, a global program of civic studies should fortify the economy in the developed countries as well as the emerging regions, thus yielding bigger payoffs than the foregoing estimates. In addition, the bonanza of income earned and wealth accrued in the future represents only part of the picture. The buildup of social capital should yield additional boons for the entire planet in multiplex ways. The rewards in store include an upturn in self-esteem and fulfillment at the level of the individual as well as an upgrowth of harmony and security for the society at large.

References

Blackwill, R.D., & Harris, J.M. (2016). The Lost Art of Economic Statecraft. March/April. [Retrieved from].

Census Bureau, United States. (2000). Historical National Population Estimates. June 28. [Retrieved from].

Central Intelligence Agency. (2016a). Country Comparison: GDP Per Capita (PPP). *The World Factbook*. [Retrieved from].

Central Intelligence Agency. (2016b). The World Factbook. [Retrieved from].

Centre for Economic Policy Research. (2015). Euro Area Out of Recession, in Unusually Weak Expansion. Oct. [Retrieved from].

Clemens, M.A. (2011). Economics and Emigration: Trillion-Dollar Bills on the Sidewalk? Aug. 19. [Retrieved from].

Cooperative for Assistance and Relief Everywhere. (2015). For 70 Years, Delivering Lasting Change. Aug. 31. [Retrieved from].

De Long, J.B., & Eichengreen, B. (1991). The Marshall Plan. NBER Working Paper, No. 3899. doi. 10.3386/w3899

Department of Commerce, U.S. (1949). *Statistical Abstract of the United States: 1949*. Sep., pp. 846-848. [Retrieved from].

Federal Reserve Bank of St. Louis. (2016). Gross Domestic Product (GDP). Feb. 15. [Retrieved from].

Henderson, D.R. (2008). German Economic Miracle. 2008. [Retrieved from].

Kim, S.H. (1990). *Designing Intelligence*. New York: Oxford Univ. Press, Ch. 6. [Retrieved from]. or [Retrieved from].

Kim, S.H. (2012). Charade of the Debt Crisis. MintKit Press. [Retrieved from].

Kim, S.H. (2016). Complex Factors Behind Misguided Policies in Socioeconomics: From Mass Migration and Persistent Alienation to Rampant Crime and Economic Malaise. *Journal of Economics and Social Thought*, 3(3), 376-399.

Labor Statistics, U.S. Bureau of. (2016). CPI Inflation Calculator. [Retrieved from].

Ritschl, A. (2012). Germany, Greece and the Marshall Plan. June 15. [Retrieved from].

Transparency International. (2013). Global Corruption Barometer 2013, pp. 3-4; 33-38. [Retrieved from].

United Nations. (2015). World Population Projected to Reach 9.7 Billion by 2050. July 29. [Retrieved from].

Wen, Y. (2014). Evaluating Unconventional Monetary Policies — Why Aren't They More Effective? Federal Reserve Bank of St. Louis, Workpaper 2013-028B, Oct., rev. Jan. 2014. [Retrieved from].



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